The Impact of Brand Personality on Brand Extendibility

D I S S E R T A T I O N
of the University of St.Gallen,
School of Management,
Economics, Law, Social Sciences
and International Affairs
to obtain the title of
Doctor of Philosophy in Management

submitted by

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Dissertation no. 4948

Difo-Druck GmbH, Untersiemau 2020

The University of St.Gallen, School of Management, Economics, Law, Social Sciences and International Affairs hereby consents to the printing of the present dissertation, without hereby expressing any opinion on the views herein expressed.

St.Gallen, October 25, 2019

The President:

Prof. Dr. Thomas Bieger

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ABSTRACT

Numerous studies have investigated how brand characteristics influence brand extendibility (i.e., the extent to which a brand can be used to introduce brand extensions that yield positive brand outcomes). However, despite the high relevance of brand personality for brand image, no insights are available so far on the impact of brand personality on brand extendibility. Based on existing insights on processing fluency, this dissertation proposes that brand personality affects the fluency with which brand extensions are processed and, as a result, influences extension outcomes. Related hypotheses are empirically tested in an observational study and five experimental studies that compare extension outcomes for active and responsible brands as understood according to the brand personality conceptualization by Geuens, Weijters, and De Wulf (2009).

No support was found for the suggested impact of brand personality on extension outcomes through processing fluency. While results show that processing fluency is positively related to extension evaluations, they do not indicate that the fluency with which brand extensions are processed depends on brand personality. However, observed differences in extension evaluations and in the influence of brand extension on the parent brand hint to the general relevance of brand personality for brand extendibility. Particularly, evaluations of extensions of active and responsible brands were found to differ positively and marginally significantly in Study 4, and negatively and marginally significantly in Study 6. Furthermore, a positive and marginally significant difference in the differential impact of brand extension on parent brand attitude between active and responsible brands was observed as part of Study 3. The conducted studies also add to the understanding of brand perception. Specifically, results of Studies 1 and 2 show that consumers do not only infer brand personality traits from brand behavior but also infer possible brand behavior from brand personality traits. Finally, this dissertation identifies potentially insightful avenues for future studies on brand personality, brand extension, and processing fluency.

ZUSAMMENFASSUNG

Zahlreiche Studien haben den Einfluss von Markeneigenschaften auf die Markenerweiterbarkeit (d.h., das Ausmass, zu dem eine Marke für Markenerweiterungen genutzt werden kann, die in positiven Ergebnissen für die Marke resultieren) untersucht. Jedoch sind trotz der hohen Relevanz der Markenpersönlichkeit für das Markenimage bisher keine Erkenntnisse bezüglich des Einflusses der Markenpersönlichkeit auf die Markenerweiterbarkeit verfügbar. Aufbauend auf bestehendem Wissen zur Verarbeitungsflüssigkeit (processing fluency) schlägt diese Dissertation vor, dass die Persönlichkeit von Marken die Flüssigkeit, mit der Markenerweiterungen verarbeitet werden, beeinflusst und sich demnach auf die Ergebnisse von Markenerweiterungen auswirkt. Entsprechende Hypothesen werden in einer korrelativen Studie und fünf experimentellen Studien empirisch getestet, welche die Ergebnisse von Markenerweiterungen von aktiven und verantwortungsvollen Marken nach dem Markenpersönlichkeitsverständnis von Geuens, Weijters und De Wulf (2009) vergleichen.

Der vermutete Einfluss der Markenpersönlichkeit auf die Ergebnisse von Markenerweiterungen über die Verarbeitungsflüssigkeit konnte nicht nachgewiesen werden. Während die Ergebnisse zeigen, dass die Verarbeitungsflüssigkeit positiv mit der Evaluation von Markenerweiterungen zusammenhängt, weisen sie nicht darauf hin, dass die Flüssigkeit, mit der Markenerweiterungen verarbeitet werden, von der Markenpersönlichkeit abhängt. Jedoch deuten beobachtete Unterschiede in Evaluationen von Markenerweiterungen und im Einfluss von Markenerweiterungen auf die Muttermarke auf die allgemeine Relevanz der Markenpersönlichkeit für die Markenerweiterbarkeit hin. So unterschieden sich die Evaluationen von Markenerweiterungen von aktiven und verantwortungsvollen Marken in Studie 4 positiv und marginal signifikant und in Studie 6 negativ und marginal signifikant. Weiterhin wurde in Studie 3 ein positiver und marginal signifikanter Unterschied zwischen dem differentiellen Einfluss von Markenerweiterungen von aktiven und verantwortungsvollen Marken auf die Einstellung zur Muttermarke beobachtet. Die durchgeführten Studien tragen zudem zum Verständnis der Markenwahrnehmung bei. Die Ergebnisse von Studie 1 und 2 zeigen, dass Konsumenten nicht nur von Markenverhalten auf Persönlichkeitsmerkmale einer Marke schliessen, sondern basierend auf Persönlichkeitsmerkmalen von Marken mögliches Markenverhalten ableiten. Zusätzlich identifiziert die Dissertation potenziell erkenntnisreiche Themen für zukünftige Studien zur Markenpersönlichkeit, Markenerweiterung und Verarbeitungsflüssigkeit.

1 Introduction

1.1 Problem Orientation

Companies regularly face changes in their business environment that challenge their business models. It has been commonly observed that such changes have become more frequent and businesses are exposed to increasing degrees of uncertainty in the marketplace (Day, 2011; Schoemaker, Heaton, & Teece, 2018; Teece, Peteraf, & Leih, 2016). An illustrative example for this development is the German car industry. German car manufacturers, who have historically benefitted from a highly stable business model, are currently confronted with an emerging trend towards electric mobility, novel offerings of innovative mobility services, such as online car sharing and ride-hailing services, and technological innovations, such as autonomous driving.

As a result of the more dynamic business environment, companies' survival in the marketplace has been considered to increasingly depend on their dynamic capabilities (e.g., Helfat et al., 2007; Teece, Pisano, & Shuen, 1997), which have been defined as a "firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (Teece et al., 1997, p. 516).

Building on dynamic capabilities theory, marketing research has proposed that companies' ability to compete in a quickly changing business environment is related to their adaptive marketing capabilities (Day, 2011). These marketing capabilities include, for example, the capacity to learn from markets to enable market orientation and the ability to engage in market experimentation (Day, 2011).

Further underlining the relevance of marketing-related assets for companies' dynamic capabilities, branding research has highlighted that companies' brands influence which strategies are viable to a company in future (Keller & Lehmann, 2009). In particular, brands can be an important enabler of company ventures into new product categories (Smith & Park, 1992; Sullivan, 1992). The associations consumers hold for existing brands have, for example, been shown to benefit evaluations of products (Bottomley & Holden, 2001; Boush & Loken, 1991; C. W. Park, Milberg, & Lawson, 1991) and services (Völckner, Sattler, Hennig-Thurau, & Ringle, 2010) that are introduced outside of the product categories a brand has been previously linked with.

Thus, it is not surprising that brand extension, which is defined as "the use of established brand names to enter new product categories or classes" (Keller & Aaker, 1992, p. 35), is a commonly used growth strategy (Keller, 2013; Völckner & Sattler, 2006). Brand extensions

of well-known brands include, for instance, the introduction of the iPod and the iPhone by Apple and the founding of Virgin Atlantic Airlines based on the Virgin brand, which had been formerly associated with Virgin Records.

However, not all brands are equally beneficial for venturing into new product categories. In some cases, such differences in brand extendibility (i.e., the extent to which a brand can be used to introduce brand extensions that yield positive brand outcomes) may be intuitively apparent. For example, while it seems plausible that the fashion brand Louis Vuitton could be successfully used to market products outside the fashion category, such as electronic gadgets or cars, it seems less likely that a baby care brand like Pampers could be leveraged in a similar way.

Marketing research has provided a systematic understanding of how brands influence the ability of companies to enter new product categories by identifying several brand characteristics that influence brand extendibility. These characteristics include, for example, consumers' quality perceptions of a brand (Bottomley & Holden, 2001; Völckner & Sattler, 2006), the breadth of products a brand offers (Boush & Loken, 1991; Dacin & Smith, 1994), and whether the brand is considered a luxury brand (Hagtvedt & Patrick, 2009). However, marketing research seems not to have investigated how brand extendibility is affected by brand personality.

This is surprising, since brand personality, which has been defined as "the set of human characteristics associated with a brand" (J. L. Aaker, 1997, p. 347), is considered an important aspect of brand image (see, e.g., J. L. Aaker, 1997; Geuens et al., 2009; Plummer, 1985). Furthermore, findings of extant marketing research hint to the potential relevance of brand personality for brand extendibility. In particular, studies have suggested that consumers tend to derive behavioral expectations towards brands based on their personality and that brand behavior which is consistent (vs. inconsistent) with these expectations affects brand outcomes more positively (J. Aaker, Fournier, & Brasel, 2004). Furthermore, it has been shown that higher consistency between brand personality and brand behavior can increase the ease with which consumers process this behavior, which in turn impacts brand outcomes positively (Sirianni, Bitner, Brown, & Mandel, 2013). Higher consistency between brand personality and brand stimuli, such as brand logos and brand slogans, has been shown to have similar effects (Brasel & Hagtvedt, 2016). These findings hint to the possibility that consumers might perceive ventures into new product categories to be more consistent with certain types of brand personalities and, as a result, might process and evaluate brand extensions differently depending on the brand personality of the extending brand.

Motivated by this idea, the apparent lack of marketing research on the relevance of brand personality for brand extendibility, and the increasing need of companies to be able to adapt to changes in their business environment, this dissertation investigates the impact of brand personality on brand extendibility.

1.2 Research Questions

This dissertation aims to understand the impact of brand personality on brand extendibility. To this end, it investigates how extension outcomes related to consumers' brand perception and evaluation differ depending on the personality of the extending brand. As part of this investigation, the dissertation examines consumers' cognitive processes on which such differences are possibly based and the dependence of such processes on the characteristics of consumers and of brand extensions. Thus, the following two research questions are addressed:

RQ1: How does brand personality influence the extendibility of brands? Does brand personality influence how consumers perceive and evaluate brand extensions? Does brand personality influence how brand extension impacts consumers' perception and evaluation of the extending parent brand?

RQ2: How do characteristics of consumers and brand extensions moderate the impact of brand personality on the extendibility of brands?

To answer these research questions, the remainder of the dissertation is structured as follows: Chapter 2 reviews existing research on brand personality and brand extension. Furthermore, it introduces processing fluency as the theoretical foundation for the possible influence of brand personality on brand extendibility and integrates the presented literature on brand personality, brand extension, and processing fluency to develop the theoretical conceptualization of the dissertation. Based on this conceptualization, Chapter 3 derives the research hypotheses that were tested in the six empirical studies conducted as part of this dissertation. Chapter 4 describes the design of these studies and discusses their results. Finally, Chapter 5 summarizes the findings of the dissertation with respect to the research questions, discusses the theoretical and practical implications as well as the limitations of these findings, and points out avenues for future research.

2 Theoretical Conceptualization

This chapter establishes the theoretical conceptualization on which the hypotheses of this dissertation are based. To this end, extant research is reviewed and integrated along four sections. Section 2.1 discusses the concept of brand personality and its relevance for brand outcomes. In Section 2.2, research on brand extension is presented. Section 2.3 introduces theory on processing fluency. Specifically, it discusses the conceptualization of processing fluency and highlights the relevance of fluency for judgments in general and brand-related judgments in particular. Finally, Section 2.4 integrates the first three sections along additional theory on social perception to establish the theoretical link between brand personality and brand extendibility.

2.1 Research on Brand Personality

2.1.1 Brand Personality Conceptualization and Measurement

Brand personality can be understood as "the set of human characteristics associated with a brand" (J. L. Aaker, 1997, p. 347). Hence, the concept of brand personality implies that consumers perceive brands to possess human characteristics that differentiate them from each other (J. L. Aaker, 1997; Plummer, 1985). For example, while a typical brand for baby food might be considered "cheerful", "gentle", and "honest", a typical brand for beer might be considered "adventurous", "masculine", and "tough".

Consumers' perception of brands to possess human characteristics is related to their more general tendency to think of objects as if they were living entities (Gilmore, 1919; McGill, 1998) and their inclination to interact with brands as if they were human (Aggarwal, 2004; Fournier, 1998). For instance, besides assigning brands human characteristics, consumers have been shown to perceive themselves to hold relationships with brands (Fournier, 1998), to consider these relationships to be guided by social norms (Aggarwal, 2004), and to feel strong emotions, such as love (Batra, Ahuvia, & Bagozzi, 2012) or hate (Grégoire, Tripp, & Legoux, 2009), towards brands.

To measure brand personality, the scale introduced by J. L. Aaker (1997) is commonly applied. This scale consists of the five personality dimensions sincerity, excitement, competence, sophistication, and ruggedness. The dimensions are further structured by different facets, which comprise the items of the scale. For example, the dimension sophistication is structured by the facets outdoorsy and tough, which comprise the items outdoorsy, masculine, and Western, and the items tough and rugged, respectively.

The scale's structure is a result of the author's application of factor analysis to brand ratings of U.S. consumers. Following the previously highlighted broad understanding of brand personality, the brand ratings were based on a pool of 114 items. These items referred to personality traits included in established human personality scales (see, e.g., Digman, 1990; McCrae & John, 1992) and to additional brand personality associations by consumers that were collected by the author.

Other studies have investigated the structure of brand personality based on brand rating data obtained from consumers outside the U.S. The results of these studies reveal that brand personality, as defined by J. L. Aaker, appears to vary in its structure across cultures, which is thought to reflect cultural differences in brands' symbolism and corresponding differences in cultural values (J. L. Aaker, Benet-Martínez, & Garolera, 2001; Sung & Tinkham, 2005). For example, compared to the brand personality structure evident in the U.S., brand personality structure in Japan includes a peacefulness dimension instead of a ruggedness dimension, and brand personality structure in Spain includes a passion and a peacefulness dimension but does not include a competence or a ruggedness dimension (J. L. Aaker et al., 2001). Deviating brand personality structures have also been found for Korea and the U.S. (Sung & Tinkham, 2005) and France and the U.S. (Koebel & Ladwein, 1999).

Apart from differences across countries, brand personality structure has also been shown to depend on the type of company a brand belongs to. Thus, brand personality structure has been found to vary for non-profit organizations and for-profit organizations (Venable, Rose, Bush, & Gilbert, 2005).

The variability of brand personality structure between different contexts contrasts the structural properties of human personality. In fact, research on human personality has found personality traits to be consistently structured along five factors across cultures (Digman, 1990; McCrae & Costa, 1997; McCrae & John, 1992).

The discrepancy in structural properties of brand personality and human personality constructs relates to a deviating underlying understanding of the personality concept. At a first glance, the term brand personality might suggest that the conceptualization of personality as applied to brands is analogous to the conceptualization of human personality. However, the personality concept applied in the work of J. L. Aaker (1997) markedly differs from the concept of human personality. This difference is rooted in the understanding that consumers' impressions of brand personality and of human personality are not derived in the same way (J. L. Aaker, 1997). In particular, impressions of human personality are based on information on a single person, for example, a person's behavior, attitudes, physical characteristics, and

affiliative membership (B. Park, 1986). Accordingly, personality traits are understood as semantic structures referring to the categorization of chronic tendencies of humans that are distinguished conceptually from other semantic structures, such as stereotypes related to social groups (Fiske, 1993; Macrae & Bodenhausen, 2000). Contrarily, impressions of brand personality are based on information referring to heterogeneous entities, including people and objects (J. L. Aaker, 1997). As a result, researchers have considered not only human personality traits associated with a brand as being part of brand personality but also demographic characteristics (J. L. Aaker, 1997; Levy, 1959). Such demographic characteristics include perceptions of a brand as being male or female, old or young, and belonging to a higher or lower social class (J. L. Aaker, 1997; Levy, 1959). Thus, the human characteristics considered to describe brand personality do not necessarily correspond to the psychological meaning of personality traits.

Due to its reliance on the outlined, broad definition of brand personality, the brand personality conceptualization of J. L. Aaker (1997) has not been without criticism. In their overview of brand personality and human personality research, Azoulay and Kapferer (2003) point out that by deviating from the psychological understanding of personality and by including any human characteristic associated with a brand into the definition of brand personality, the validity of the brand personality concept as proposed by J. L. Aaker (1997) can be questioned. In particular, the authors suggest that the introduced brand personality concept might be insufficiently delineated from other existing constructs referring to non-product related brand associations. They further highlight that this lack of delineation potentially limits the ability of the concept to add to the understanding of brands and their management. As a result of their analysis, the authors propose to define brand personality as "the set of *human personality traits* that are both *applicable to* and *relevant for* brands" (p. 151).

Using this definition of brand personality, Geuens et al. (2009) suggest an alternative measure of brand personality. To derive this measure, the authors applied factor analysis on brand ratings of consumers. These ratings were based on a set of 40 items, which exclusively referred to human personality traits. In contrast to the analysis by J. L. Aaker (1997), the factor analysis of Geuens et al. was conducted at the consumer level instead of the brand level. According to the authors, this deviation enabled the derivation of a brand personality structure appropriate for capturing variations in brand personality perceptions between consumers and between brands within a product category.

The resulting structure entails five brand personality dimensions: responsibility, activity, aggressiveness, simplicity, and emotionality. Based on this factor structure, the authors propose a 12-item scale (see Table 2-1). They demonstrate that this scale is highly reliable

Table 2-1: Brand personality scale by Geuens et al. (2009)

Responsibility	Activity	Aggressiveness	Simplicity	Emotionality
• Down-to-earth • Stable • Responsible	• Active • Dynamic • Innovative	• Aggressive • Bold	• Ordinary • Simple	• Romantic • Sentimental

and that its personality dimensions have high discriminant validity. Furthermore, they present initial evidence of the scale's nomological and cross-cultural validity.

Highlighting the relevance of the brand personality concept, extant research has demonstrated that brand personality impacts various outcomes in the marketing context. For example, research on the influence of brand personality on consumers' self- and other-perception has outlined that brand personality can influence consumers' perception of their own personality (J. K. Park & John, 2010) as well as of the personality of other consumers and brand endorsers (Arsena, Silvera, & Pandelaere, 2014; Fennis & Pruyn, 2007). Apart from these consumer outcomes, marketing research has also investigated how brand personality impacts brand outcomes. Findings of this research are presented next.

2.1.2 The Impact of Brand Personality on Brand Outcomes

The impact of brand personality on brand outcomes has been studied by focusing mainly on two areas of interest: the influence of the congruence between brand personality and consumer personality on brand outcomes, and the influence of brand personality on the perception and evaluation of brand stimuli, brand behavior,[1] and brand experiences.

The influence of the congruence between brand personality and consumer personality on brand outcomes

Brand personality has been conceptually closely linked to the self-expressive function of brands (J. L. Aaker, 1997; Plummer, 1985). As such, brand personality allows consumers to

[1] Brand behavior is understood in this dissertation as any behavior observed by consumers that is perceived to be linked to the intentions of a brand as an agent (for a discussion on brands as intentional agents, see Kervyn, Fiske, & Malone, 2012).

express their selves by associating with and owning brands (Belk, 1988; Keller, 1993). For example, owning a brand that is linked to the characteristics creativity and excitement allows consumers to express themselves as being creative and exciting. As highlighted in the previous section, such self-expression through brands can effectively alter consumers' self- and other-perception (Arsena et al., 2014; Fennis & Pruyn, 2007; J. K. Park & John, 2010).

Related to this link of brand personality to self-expression, consumers' evaluation of a brand and their relation to a brand have been shown to depend on whether the personality of the brand is congruent with their self. In particular, it has been demonstrated that congruence between brand personality and personality traits of consumers that are chronically accessible or are made salient by situational cues positively influences brand attitude (J. L. Aaker, 1999). Furthermore, consumers' emotional attachment to a brand has been found to be positively affected by the congruence of brand personality with consumers' actual self-views and to a lesser extent by the congruence of brand personality with consumers' ideal self-views (Malär, Krohmer, Hoyer, & Nyffenegger, 2011). This higher brand attachment related to brand-self congruence has been shown to lead to more brand loyalty (Huber, Eisele, & Meyer, 2018). In addition, consumer-brand identification, as an indicator of the quality of the relationship between a consumer and a brand, has been found to benefit from congruence between brand personality and consumers' perception of their own personality (Lam, Ahearne, Mullins, Hayati, & Schillewaert, 2013). While these findings generally suggest that the congruence of brand personality and consumers' selves influences brand outcomes, contingencies reported in the related studies, such as consumers' tendency to self-monitor (J. L. Aaker, 1999), self-esteem (Malär et al., 2011), and self-discrepancies (Huber et al., 2018), highlight the complexity of this relationship.

The influence of brand personality on the perception and evaluation of brand stimuli, brand behavior, and brand experiences

Apart from effects related to the congruence between brand personality and consumers' selves, brand personality impacts brand outcomes by influencing consumers' perception and evaluation of brand stimuli, brand behavior, and brand experiences. For example, in their investigation of consumer-brand relationships, J. Aaker et al. (2004) show that brand behavior is judged differently depending on brand personality, which in turn leads to diverging brand outcomes. Specifically, the authors demonstrate that certain relationship violations (i.e., brand behavior breaking relationship rules) have a negative impact on the strength of consumer-brand relationships if these violations are committed by a sincere brand, whereas such violations have a positive impact on the strength of consumer-brand relationships if they are committed by an exciting brand. The authors argue that this result can be explained by the

consistency of relationship violations with the distinct brand relationship protocols associated with exciting and sincere brand personalities.

Similarly, Sirianni et al. (2013) demonstrate that brand employee behavior affects brand evaluation positively if it is consistent with existing brand personality associations. The authors provide evidence that this effect is due to consumers' more fluent processing of brand-consistent employee behavior, which has been shown to trigger positive responses towards brands (see Section 2.3.3 for a review). Based on the same explanation of fluency, Brasel and Hagtvedt (2016) reveal that consistency between the brand personality implied by animated logos and other brand stimuli, such as brand slogans and logo graphics, positively influences brand attitude.

Furthermore, focusing on sensory brand experiences, Sundar and Noseworthy (2016) show that cross-modal inconsistency between sensory brand experiences of a brand affect purchase intentions differently depending on brand personality. Particularly, the authors investigate how inconsistencies between the initial visual experience of a product and the subsequent experience of touching it affect purchase intensions for exciting and sincere brands. Their findings establish that purchase intentions for sincere brands tend to be higher if sensory experiences are consistent, whereas purchase intentions for exciting brands tend to be higher if sensory experiences are inconsistent.

The theoretical explanations provided as part of these studies highlight two aspects that are particularly interesting for the context of this dissertation. First, the studies by J. Aaker et al. (2004) and Sundar and Noseworthy (2016) suggest that the influence of brand personality on the perception and evaluation of brand behavior and brand experiences reported in the respective studies results from consumers' behavioral expectations towards brands that are derived based on their personality. In the context of the studies by J. Aaker et al. and Sundar and Noseworthy, these expectations refer to the relationship protocols hypothesized to be associated with the brand and the sensory experience of the brand's products, respectively. J. Aaker et al. and Sundar and Noseworthy respectively argue that if actual brand behavior/an actual brand experience is consistent (vs. inconsistent) with consumers' behavioral expectations towards the brand, more favorable brand outcomes result. Thus, the theoretical explanations of the studies explicitly assume that the investigated consumer judgments are based on behavioral expectations derived from brand personality. Second, the findings by Sirianni et al. (2013) and Brasel and Hagtvedt (2016) suggest that differences in the impact of brand experiences and brand stimuli on brand outcomes that result from the degree of consistency between these experiences/stimuli and a brand's personality can at least partially be explained by variations in processing fluency. The possible theoretical link between this

fluency explanation and the notion that consumers incorporate behavioral expectations derived from brand personality into their judgments is highlighted as part of Section 2.4, which also outlines the relevance of this link for the influence of brand personality on brand extension outcomes.

2.2 Research on Brand Extension

2.2.1 Brand Extension as a Marketing Strategy

Brand extension is generally defined as "the use of established brand names to enter new product categories or classes" (Keller & Aaker, 1992, p. 35). As such, brand extension has been considered an important marketing strategy to leverage brands for purposes of growth (D. A. Aaker & Keller, 1990; Chun, Park, Eisingerich, & MacInnis, 2015; Völckner & Sattler, 2006). By using an existing brand for a product introduction, brand associations can be transferred to the new product, which potentially decreases the risk of the introduction (D. A. Aaker & Keller, 1990; Keller & Lehmann, 2009). However, since brand extension leads to the parent brand (i.e., the extending brand) being associated with the new product, brand extension strategies might also alter parent brand image (Chun et al., 2015; Keller & Aaker, 1992; Loken & John, 1993).

Based on this reciprocal relationship between parent brand and extension product, brand extension can result in both positive and negative brand outcomes. Thus, while associations of a parent brand might benefit the extension by, for example, positively influencing extension evaluation (Bottomley & Holden, 2001; Völckner & Sattler, 2006), the association of the parent brand with the extension might at the same time weaken the parent brand by, for instance, diluting parent brand beliefs or parent brand attitude (John, Loken, & Joiner, 1998; Loken & John, 1993; Martínez & Pina, 2003; Milberg, Park, & McCarthy, 1997). Such two-sided effects of brand extension can be illustrated by considering, for example, the German car brand BMW, which is commonly perceived to be of high quality, and to be luxurious and dynamic. If this brand would decide to introduce washing machines as a new product, this product might potentially be perceived to be of higher quality than a hypothetical, non-branded product with identical product attributes. Hence, evaluations of the new product might benefit from the BMW brand. However, the product category of washing machines is likely to be less strongly associated with the concepts of luxury and dynamics than the product category of luxury cars. As a consequence, establishing a link between the BMW brand and washing machines could weaken consumers' existing associations with BMW and might therefore affect consumers' attitude towards the brand negatively.

Whether brand extension results in an overall desirable outcome for a brand depends on numerous interrelated factors and has been subject to extensive research. This research has mainly focused on two areas of interest: the parent brand-extension relationship, and parent brand characteristics. To provide an overview of the factors influencing brand extension outcomes, findings of research on the impact of the parent brand-extension relationship and of parent brand characteristics on brand extension outcomes are discussed next.

2.2.2 The Impact of the Parent Brand-Extension Relationship on Extension Outcomes

The impact of the parent brand-extension relationship on extension outcomes is theorized to be based on the influence of this relationship on the transfer process of parent brand associations to the extension product (D. A. Aaker & Keller, 1990; Martin & Stewart, 2001).

This transfer process builds on the conceptualization of brands as cognitive categories that refer to networks of associations in memory (Sood & Keller, 2012; Spiggle, Nguyen, & Caravella, 2012). As such, brands are considered to be represented by semantic network structures analogous to those theorized to represent social knowledge (Keller, 1993). Examples of associations that are thought to be contained in such semantic networks related to brands include product attributes, brand beliefs, and user imagery (Keller, 1993; Spiggle et al., 2012).

In the context of brand extension, the network of associations related to the parent brand is considered to provide the basis for processing the extension. In particular, extension research predicts that consumers engage in category-based processing when evaluating extensions (D. A. Aaker & Keller, 1990; Martin & Stewart, 2001; Sood & Keller, 2012). Hence, according to this research, consumers are thought to inherently judge whether the parent brand as a category in memory is applicable to the extension product or, phrased differently, to what extent the extension product is considered to be part of the cognitive category described by parent brand associations. If the parent brand is deemed applicable to the extension product, parent brand associations are understood to be transferred to the extension product (D. A. Aaker & Keller, 1990; Martin & Stewart, 2001). Assuming that parent brand attitude is positive and parent brand associations have positive relevance in the context of the extension product, this transfer of parent brand associations potentially benefits extension product perception and evaluation (D. A. Aaker & Keller, 1990; Boush & Loken, 1991).

The relationship between the parent brand and the extension product influences this transfer process by driving judgments of the applicability of the parent brand as a cognitive category to the extension product. In particular, perceptions of fit between the extension and the parent brand have been theorized to provide the main basis for these judgments (Martin & Stewart,

2001; Sood & Keller, 2012). In fact, research has shown that extensions which are perceived to fit the parent brand benefit from parent brand associations and are evaluated more positively compared to extensions that are not perceived to fit the parent brand (D. A. Aaker & Keller, 1990; Boush & Loken, 1991; Mao & Krishnan, 2006; C. W. Park et al., 1991; Völckner & Sattler, 2006). In line with the notion that perceptions of fit refer to the cognitive link between parent brand and extension, fit perceptions have also been shown to influence the impact of brand extension on the parent brand (Loken & John, 1993; Milberg et al., 1997; Sood & Keller, 2012; Swaminathan, Fox, & Reddy, 2001).

As such, perceptions of fit are understood to reflect the similarity between the parent brand and the extension product (D. A. Aaker & Keller, 1990; C. W. Park et al., 1991; Völckner & Sattler, 2006). Extant extension literature has considered this similarity to refer to various aspects of the parent brand and the extension product, resulting in different conceptualizations and measures of similarity (Martin & Stewart, 2001; Spiggle et al., 2012). Integrating these different views, Martin and Stewart (2001) differentiate four types of similarity relevant to brand extensions: feature-based similarity, usage-based similarity, brand-concept similarity, and goal-based similarity. High feature-based similarity indicates that parent brand products and the extension product have similar attributes and are perceived to be produced based on a similar manufacturing process. In contrast, usage-based similarity refers to similarity in the intended use of parent brand products and the extension product without considering physical product features. Thus, while products might not share physical features, they might still be perceived as a good fit due to complementary product use. The third type of similarity identified by Martin and Stewart, brand-concept similarity, is based on theory that suggests that consumers link object classes or categories by their conceptual coherence (Murphy & Medin, 1985). According to this theory, consumers perceive a concept as coherent if it is in line with consumers' existing knowledge and their theories of how the world functions (Murphy & Medin, 1985). Thus, brand-concept similarity suggests that consumers can consider a parent brand and its extension product to be a good fit based on many concepts, which might even be specific to the brand evaluated. As Martin and Stewart highlight, such concepts include physical product features and product use but also more abstract concepts associated with a brand, such as a brand being perceived as prestigious or functional. Apart from the first three types of similarity, Martin and Stewart propose goal-based similarity as a fourth type of similarity, which suggests that objects are perceived as similar if their respective associations are linked by common goals.

While the transfer of brand associations based on perceptions of fit has been identified as a basic cognitive process that influences consumers' perception and judgment of brand

extensions, the relevance of this process for extension outcomes is contingent on numerous moderating variables. For example, the importance of perceptions of fit for extension outcomes has been shown to depend on consumer characteristics, such as consumers' cultural background (Bottomley & Holden, 2001; Han & Schmitt, 1997), interdependent vs. independent self-views (Ahluwalia, 2008), innovativeness (Klink & Smith, 2001), construal level (Kim & John, 2008), thinking style (Monga & John, 2010), mood (Barone & Miniard, 2002; Barone, Miniard, & Romeo, 2000), and implicit theories (Yorkston, Nunes, & Matta, 2010). Furthermore, fit perceptions have been demonstrated to be of less importance for extension outcomes in competitive vs. noncompetitive settings (Kapoor & Heslop, 2009; Meyvis, Goldsmith, & Dhar, 2012; Milberg, Sinn, & Goodstein, 2010), for subbranded vs. family-branded extensions (Milberg et al., 1997; Sood & Keller, 2012), when information on product features is provided (Klink & Smith, 2001), and when visual information on extensions is available (Meyvis et al., 2012).

Apart from perceptions of fit and related concepts of similarity, brand extension authenticity has been proposed as a concept that refers to the relationship between parent brand and extension product and that is relevant to extension outcomes (Spiggle et al., 2012). In particular, Spiggle et al. (2012) suggest that consumers evaluate brand extensions by judging their authenticity in relation to the parent brand. They find their rigorously tested measure of brand extension authenticity to be distinct from existing measures of similarity that refer to aspects of feature-based, usage-based, and brand-concept similarity. Despite this partial distinction from existing similarity measures and the novel derivation of the construct based on theory on authenticity, the items of the construct appear to be conceptually related to brand-concept similarity and goal-based similarity by referring to concepts of consistency between the parent brand and the extension. For example, the constructs' dimensions "maintaining brand standards and style", "honoring brand heritage", and "preserving brand essence" can be understood to refer to conceptual coherence of the brand image of the parent brand and the extension, and thus seem to pertain to brand-concept similarity. Therefore, in line with the interpretations provided by Spiggle et al., brand extension authenticity can be seen to complement existing similarity measures rather than to represent a construct independent of perceptions of fit and related cognitive processes.

2.2.3 The Impact of Parent Brand Characteristics on Extension Outcomes

In contrast to the presented research on the impact of the parent brand-extension relationship on extension outcomes, which predominantly adds to the understanding of what drives the success of possible extension products of a given brand, research on the impact of parent brand characteristics on extension outcomes has mainly been concerned with explaining

differences in brand extendibility. Brand extendibility (i.e., the extent to which a brand can be used to introduce brand extensions that yield positive brand outcomes) is considered an important part of brand potential (Keller & Lehmann, 2009), which can be conceptualized as "the value that possibly could be extracted from a brand via optimally designed marketing strategies, programmes and activities" (Keller & Lehmann, 2009, p. 9). Due to this link of brand extendibility to brand value, identifying parent brand characteristics that influence extension outcomes is highly relevant for brand management.

The general relevance of parent brand characteristics for extension outcomes has been underlined by studies that show that brand-specific associations can influence brand extension evaluations if they are deemed relevant to the extension product by consumers (Broniarczyk & Alba, 1994). Particularly, extensions of parent brands which are associated with benefits relevant to extension product performance have been demonstrated to be evaluated more positively than extensions of other parent brands which do not provide the same relevant benefits, even if these other parent brands belong to the same product category and are evaluated more favorably (Broniarczyk & Alba, 1994). Apart from this finding on the influence of parent brand associations on brand extension outcomes in the context of single extension product categories, existing research has identified parent brand characteristics that affect brand extension outcomes across product categories. Findings on these brand characteristics are discussed in detail in the following subsections.

Brand attitude

Numerous studies have provided evidence on the link between brand extendibility and constructs referring to parent brand attitude. For example, extensions tend to be evaluated more positively for parent brands with higher quality (Bottomley & Holden, 2001; Keller & Aaker, 1992; Völckner & Sattler, 2006; Völckner et al., 2010). While the effect of parent brand quality on extension evaluations increases with consumers' fit perceptions, it persists even when there is little perceived fit between the parent brand and the extension (Keller & Aaker, 1992; Völckner & Sattler, 2006). This persistence across extensions with different degrees of fit has been explained by the higher credibility of extensions of high-quality brands (Keller & Aaker, 1992).

Similarly, Chun et al. (2015) show that brand reputation positively influences consumers' extension evaluations. Furthermore, the authors demonstrate that brand reputation moderates the effects of extensions on the parent brand that result when extensions with innovative product benefits are introduced. Accordingly, for strong reputation brands, the effects of innovative extensions on the parent brand are more positive if fit is perceived to be low (vs.

high). Contrarily, for weak reputation brands, the effects of innovative extensions on the parent brand are more positive if fit is perceived to be high (vs. low).

Product portfolio characteristics

Brand extendibility has also been linked to the characteristics of the product portfolio of a brand. For example, extensions of broader brands (i.e., brands that are associated with a greater variety of products) tend to be evaluated more positively (Boush & Loken, 1991; Dacin & Smith, 1994; Meyvis & Janiszewski, 2004). This effect has been explained by higher fit perceptions related to product-feature similarity for broader brands (Boush & Loken, 1991) and higher accessibility of brand benefits of broad (vs. narrow) brands due to less inference of product category associations during the retrieval of brand information (Meyvis & Janiszewski, 2004).

Related to brand breadth, the extendibility of a brand has also been found to be influenced by its history of past extensions. In particular, it has been demonstrated that evaluations of extensions are more positive for average-quality brands if they are (vs. are not) preceded by a successful extension and more negative for high-quality brands if they are (vs. are not) preceded by an unsuccessful extension (Keller & Aaker, 1992).

Furthermore, investigations of the influence of product portfolio characteristics on perceived brand extension quality demonstrate that consumers' extension quality judgments and their confidence in these judgments are positively related to the consistency of product quality in the parent brand product portfolio (Dacin & Smith, 1994).

Brand concepts

Various concepts that can be part of a brand's associative network have been shown to influence brand extendibility. An example for such a concept linked to brand extendibility is the prestige orientation of a brand (C. W. Park et al., 1991). In particular, extension products for which brand-concept similarity is high are evaluated more positively if the extending brand is considered to be prestigious rather than functional (C. W. Park et al., 1991). This effect has been speculated to be due to consumers' association of prestigious brands with higher-level concepts, such as luxury and status, which may enable consumers to link diverse products of prestigious brands more easily (C. W. Park et al., 1991). Additional investigations of the difference between evaluations of extensions of prestigious and functional parent brands have found support for this explanation by showing that the difference in evaluations is insignificant for consumers who have a comparably high tendency to search for relationships between objects (Monga & John, 2010). Furthermore, research on luxury brands

has demonstrated that extension products of luxury (vs. value) brands are evaluated more positively (Hagtvedt & Patrick, 2009). Related to the idea that high-level concepts may facilitate the connection of diverse products of a brand (C. W. Park et al., 1991), this result has been theorized to be due to luxury brands being associated with hedonic benefits, which are desired by consumers across product categories (Hagtvedt & Patrick, 2009).

Brand affect

In addition, brand extendibility depends on consumers' affective relation to brands. In particular, consumers' perceptions of fit tend to be higher for extensions of parent brands to which consumers have high (vs. low) attachment (Fedorikhin, Park, & Thomson, 2008). This effect has been theorized to be based on consumers' better access to associations of parent brands they are highly attached to and their increased motivation to find links between such parent brands and extensions (Fedorikhin et al., 2008). As a result of the effect of parent brand attachment on perceptions of fit, consumers' purchase intent, willingness to pay, and willingness to spread positive word-of-mouth for brand extensions increases with parent brand attachment (Fedorikhin et al., 2008). Furthermore, extensions of brands that induce positive affective reactions benefit from a favorable parent brand image even if extension products are perceived to have little fit with the parent brand (Yeung & Wyer, 2005). This effect has been argued to be related to consumers' general tendency to incorporate spontaneous affective reactions in product evaluations (Yeung & Wyer, 2004, 2005).

Two insights from the presented findings on the impact of parent brand characteristics on extension outcomes are particularly relevant to the theoretical conceptualization of this dissertation. First, parent brand characteristics, including the specific concepts that are part of a brand's associative network, can influence extension outcomes across product categories and therefore brand extendibility. This insight provides the general motivation to study the relationship between brand personality and brand extendibility. Second, while some brand characteristics, such as the breadth of brands, have been argued to exert their influence on extension outcomes by increasing perceptions of fit (Boush & Loken, 1991; Dacin & Smith, 1994; Meyvis & Janiszewski, 2004), other brand characteristics, such as what kind of affective relation consumers have to a brand, have been found to influence extension outcomes through processes independent of fit perceptions (Fedorikhin et al., 2008; Yeung & Wyer, 2005). This second insight is particularly relevant for the theoretical link between brand personality and brand extendibility through processing fluency that is proposed as part of Section 2.4. To provide the basis for establishing this link, theory on processing fluency is introduced next.

2.3 Introduction to Theory on Processing Fluency

2.3.1 Conceptualization of Processing Fluency

Processing fluency can be defined as "the ease or difficulty with which new, external information can be processed" (Schwarz, 2004, p. 338) and thus refers to experiences of cognitive processing. As such, processing fluency is considered to be part of the category of metacognitive experiences (Schwarz, 2004, 2012), which also includes feelings of ease or difficulty related to information retrieval (Schwarz, 1998, 2012; Schwarz et al., 1991).

As a result of the broad understanding of processing fluency, numerous measures have been used to observe different aspects of fluency experiences. Conceptualizations of processing fluency have structured these different aspects of processing fluency by distinguishing objective and subjective fluency (Reber, Wurtz, & Zimmermann, 2004; Winkielman, Schwarz, Fazendeiro, & Reber, 2003). According to this distinction, objective fluency refers to the operational ease or efficiency of cognitive processes and therefore to measures such as how quickly and accurately a process can be completed (Schwarz, 2004; Winkielman et al., 2003). As such, objective fluency can occur without people being aware of it (Winkielman et al., 2003). In contrast, subjective fluency describes conscious experiences of processing ease or difficulty, such as perceptions of effort and perceptions of individual task performance (Schwarz, 2004; Winkielman et al., 2003).

Further adding to the conceptual understanding of the fluency construct, types of processing fluency have been distinguished by the cognitive process the experience of fluency is linked to. Such types of fluency include, for example, perceptual fluency and conceptual fluency, which are delineated based on the level at which processing occurs (Janiszewski & Meyvis, 2001; Schwarz, 2004). Thus, whereas perceptual fluency refers to low-level processing of objects' features, conceptual fluency refers to high-level processing of objects' meaning (Janiszewski & Meyvis, 2001; Schwarz, 2004; Shapiro, 1999). For example, fluency experiences that result from processing a stimulus whose physical features are familiar due to previous exposure or whose visual presentation allows processing with little effort are considered to represent perceptual fluency (Whittlesea, Jacoby, & Girard, 1990; Witherspoon & Allan, 1985). Contrarily, fluency experiences that result, for instance, from processing a stimulus that relates semantically to a previously exposed to stimulus or whose content is consistently focused on gains or losses are considered to represent conceptual fluency (Lee & Aaker, 2004; Lee & Labroo, 2004; Shapiro, 1999; Whittlesea, 1993). In addition to perceptual and conceptual fluency, goal and linguistic fluency have been identified as types of fluency (Alter & Oppenheimer, 2008b; Labroo & Lee, 2006; Shah & Oppenheimer, 2007). While

these types of fluency overlap conceptually with perceptual and conceptual fluency, they more specifically refer to the stimuli processed. In particular, goal fluency refers to fluency experiences resulting from processing stimuli that have the same regulatory goal orientation as previously exposed to stimuli (Labroo & Lee, 2006) and linguistic fluency refers to the ease or difficulty associated with pronouncing a word (Alter & Oppenheimer, 2008b; Shah & Oppenheimer, 2007).

Based on these considerations regarding the conceptualization of processing fluency, the relevance of processing fluency for people's judgment is discussed next.

2.3.2 Processing Fluency and Judgment

The link between processing fluency and judgment

People's evaluative judgments have often been assumed to be predominantly based on declarative information relevant to the judgment (Schwarz, 2004; Winkielman et al., 2003). For example, information integration theory states that to evaluate a stimulus, people access features of the stimulus, evaluate these features, and integrate them into a concluding judgment (Anderson, 1981). Similarly, in the marketing context, consumers' product evaluations have been regularly understood to be a function of the attributes consumers associate with a product (Schwarz, 2004).

However, research findings which demonstrate that subjective experiences influence judgment have challenged this view (for a review, see Schwarz, 2012; Winkielman et al., 2003). In fact, these findings led to the formulation of feelings-as-information theory, which states that people's judgments are not only informed by declarative information but also by their subjective experiences (Schwarz, 2012; Schwarz & Clore, 1983; Wyer & Carlston, 1979). Such experiences include the metacognitive experience of processing fluency (Schwarz, 2004, 2012).

Processing fluency is particularly relevant to judgments since fluency can result from cognitive processes related to virtually any stimulus (Oppenheimer, 2008; Winkielman et al., 2003). Examples of sources of processing fluency include previous exposure to a stimulus (Witherspoon & Allan, 1985; Zajonc, 1968), whether sentences presented by a stimulus rhyme (McGlone & Tofighbakhsh, 2000), as well as visual properties of a stimulus, such as figure-ground contrast (Checkosky & Whitlock, 1973; Reber, Winkielman, & Schwarz, 1998), clarity (Whittlesea et al., 1990), and the font used for printed text (Oppenheimer, 2006).

Despite this heterogeneity in sources triggering processing fluency, fluency experiences themselves have been assumed to be phenomenologically homogeneous (Schwarz, 2004, 2012). As a result, fluency experiences are likely to be ambiguous regarding their source. Due to this ambiguity and people's tendency to link subjective experiences incidental to a judgment task to the judged target (Higgins, 1998), processing fluency experienced during a judgment tends to be attributed to the target of the judgment (Schwarz, 2012; Winkielman et al., 2003).

This attribution process is not merely coincidental but guided by naïve theories that people hold and consider relevant to the judgment task (Schwarz, 2004). Naïve theories relate processing fluency to, among others, stimulus characteristics, aspects of presentation, and people's knowledge state (Schwarz, 2004). For example, people tend to believe that the familiarity of information increases the ease with which the information is processed (Jacoby & Dallas, 1981; Johnston, Dark, & Jacoby, 1985; Schwarz, 2012). It has been shown that such naïve theories can be learned and are therefore likely to be based on experience (Briñol, Petty, & Tormala, 2006; Unkelbach, 2006). Which theory is applied when experiencing fluency during a judgment task depends on the possible sources of processing fluency apparent to people, which potentially leads to misattribution of processing fluency to incidental sources. For instance, people perceive a presented word to be more familiar when the word is masked by a light (vs. heavy) visual noise mask, and perceive the presentation of a word to be noisier if the word is less familiar to them (Whittlesea et al., 1990). Other examples include the misattribution of processing fluency to the level of noise in voice recordings (Goldinger, Kleider, & Shelley, 1999), the duration of stimulus presentation (Masson & Caldwell, 1998; Witherspoon & Allan, 1985), and the amount of contrast in visual stimuli (Masson & Caldwell, 1998).

The relevance of processing fluency for everyday judgments

Research has shown that processing fluency and related attribution processes affect important everyday judgments. For example, processing fluency experienced when evaluating factual statements has been linked to their perceived truthfulness (Hawkins & Hoch, 1992; McGlone & Tofighbakhsh, 2000). Particularly, statements are more likely considered true after repeated exposure (Hawkins & Hoch, 1992; Skurnik, Yoon, Park, & Schwarz, 2005) or when they are presented in other ways that elicit processing fluency (McGlone & Tofighbakhsh, 2000; Reber & Schwarz, 1999). Other everyday judgments that have been shown to be affected by fluency experiences are judgments of value of currency and goods (Alter & Oppenheimer, 2008a), judgments of risk (Song & Schwarz, 2009), and judgments of popularity (Weaver, Garcia, Schwarz, & Miller, 2007).

Processing fluency has also been demonstrated to influence people's liking of an object. For example, the mere exposure effect, which describes the finding that repeated exposure to a stimulus increases its liking (Bornstein, 1989; Seamon et al., 1995; Zajonc, 1968), has been explained by the positive influence of repeated exposure to a stimulus on the fluency with which it is processed and the subsequent positive effect of this fluency on liking (Bornstein & D'Agostino, 1994). Related to this explanation, it has been argued that processing fluency affects object liking since experiencing fluency generally leads to positive affective reactions, which are likely to be attributed to the evaluated object (Bornstein & D'Agostino, 1994; Reber et al., 1998). The notion of a general link between processing fluency and positive affective reactions is supported by the finding that increased perceptual fluency of a stimulus due to higher figure-ground contrast or due to longer exposure to the stimulus leads to more positive affective judgments, such as liking or how pretty an object is (Reber et al., 1998). Furthermore, processing fluency has been shown to trigger psychophysiological responses (Harmon-Jones & Allen, 2001; Winkielman & Cacioppo, 2001) and to impact people's mood (Monahan, Murphy, & Zajonc, 2000).

Besides its impact on judgments through attribution to the judged target, processing fluency also influences judgments indirectly through its impact on how information related to a judgment task is processed (for a review, see Oppenheimer, 2008). For example, people assign more weight to fluently processed cues in a decision (Shah & Oppenheimer, 2007), tend to process information on a concrete (vs. abstract) level when experiencing processing fluency (Alter & Oppenheimer, 2008b), and engage in more systematic processing when being exposed to stimuli that cannot be processed fluently (Song & Schwarz, 2008).

Boundary conditions of the influence of processing fluency on judgment

While insights on the influence of processing fluency on judgments highlight the general relevance of processing fluency for people's judgment, research has also shown that the extent to which processing fluency influences judgments depends on judgment context and people's characteristics. Findings of this research that are relevant to the context of this thesis are introduced next (for a more detailed review, see Schwarz, 2012; Winkielman et al., 2003).

As outlined, judgments are affected by processing fluency due to people's attribution of fluency experiences to the judged target. This attribution is considered to occur automatically and unconsciously (Bornstein & D'Agostino, 1992; Bornstein, Leone, & Galley, 1987). However, processing fluency only influences judgments through these attribution processes if people do not consider the source of the fluency experience to be irrelevant for the target

of the attribution (Kelley & Rhodes, 2002; Schwarz, 2004). Aspects of the judgment context that might lead to such considerations of irrelevance have been the subject of past research.

For example, Jacoby and Whitehouse (1989) demonstrate that people discount the informational value of processing fluency once they are consciously aware that the fluency experience results from a source unrelated to the judgment task. As part of their studies, the authors asked study participants to judge whether they recognized a word from a previously seen list. Their results show that this judgment can be influenced by manipulating processing fluency through exposing participants to the word to be judged shortly before the recognition task. Specifically, the authors find that if participants were exposed to the word to be judged (vs. a word different from the one to be judged), they were more likely to state that they recognize the word. However, the authors also find this effect to be conditional on the exposure being subliminal. Hence, if exposure was long enough for participants to be aware of it, they were less likely to state that they recognize the word.

Qualifying these results, Bernstein and Welch (1991) highlight that processing fluency can influence people's judgment even when they are aware that the source of processing fluency is unrelated to the judgment as long as the source and its influence on fluency are sufficiently subtle. In particular, the authors find that the difference in the results for the short exposure and long exposure condition in the studies by Jacoby and Whitehouse (1989) are not due to the short exposure being subliminal and the long exposure being supraliminal but due to differing degrees of subtlety of these exposures.

Another aspect of the judgment context determining the extent to which processing fluency influences judgments is the availability of alternative information (Schwarz, 2012; Winkielman et al., 2003). For example, the influence of processing fluency appears to be particularly high for judgments for which little external information is available (Oppenheimer, 2004; Zajonc, 1968). Furthermore, research that shows that people's involvement with regard to the judged target moderates the influence of processing fluency on judgments has theoretically linked this moderating role of involvement to the availability of internal information (Batra & Ray, 1986; Hawkins & Hoch, 1992). In particular, the positive influence of involvement on the mere exposure effect (Batra & Ray, 1986) and on the effect of repeated exposure to statements on their perceived truthfulness (Hawkins & Hoch, 1992) has been argued to be the result of lower involvement leading to less thought generation relevant to a judgment (Batra & Ray, 1986; Hawkins & Hoch, 1992).

In addition to the judgment context, the influence of processing fluency on judgment also depends on people's characteristics. One such characteristic is people's disposition to think

about and reflect on their selves as measured by the construct of private self-consciousness (Fenigstein, Scheier, & Buss, 1975). Specifically, it has been shown that consumers with higher private self-consciousness have a greater tendency to incorporate fluency experiences in their judgments due to their inclination to attend to their subjective experiences (Petrova & Cialdini, 2005). Another characteristic relevant for the influence of processing fluency on judgment is people's need for affect, which is understood as "the general motivation of people to approach or avoid situations and activities that are emotion inducing for themselves and others" (Maio & Esses, 2001, p. 585). In particular, people's need for affect has been demonstrated to moderate the previously highlighted effect of repeated exposure to statements on judgments of their truthfulness (Sundar, Kardes, & Wright, 2015). Specifically, repeated exposure to a statement has been found to increase its perceived truthfulness for people who have a high need for affect but not for people who have a low need for affect (Sundar et al., 2015).

Furthermore, research pertaining to the broader context of feelings-as-information theory suggests that people's expertise moderates the impact of processing fluency on judgments. In particular, people with low expertise in the area of a judgment have been shown to be more inclined to incorporate their feelings into their judgment (Ottati & Isbell, 1996; Sedikides, 1995). This effect has been theorized to be due to more elaborative processing being used for judgments in areas in which people have low expertise, which is assumed to lower people's ability to correct for the influence of feelings on their judgment (Ottati & Isbell, 1996; Sedikides, 1995). In the context of processing fluency, the moderating role of expertise hints to the possibility that the impact of fluency experiences on a given judgment might be greater for consumers whose expertise is low in the domain of the judgment. This notion is supported by research which highlights that people seem to be more likely to incorporate fluency experiences in their judgments when fluency experiences are unexpected (Whittlesea & Williams, 1998, 2000). Specifically, it is reasonable to assume that people have low expectations of fluency for judgments for which they have little expertise based on the more general assumption that people's expectation of experiencing processing fluency during a judgment task depends on their expertise in that task (Kelley & Rhodes, 2002). Therefore, experiences of processing fluency during judgments for which people have little expertise are likely to be unexpected and are thus likely to be incorporated in such judgments.

In sum, the outlined boundary conditions of the influence of processing fluency on judgment highlight five main moderating processes. First, if a source of processing fluency is unrelated to a judgment task, the subtlety of such a source and of its influence on fluency contributes to people's consideration whether the source is irrelevant for the judgment or not. If people deem

the source irrelevant, they are likely to discount the informational value of the fluency experience. Second, the influence of processing fluency on judgment increases with lower availability of alternative information. Third and fourth, people with high private self-consciousness and need for affect are more prone to incorporate fluency experiences in their judgments. Fifth, people who have low expertise in the domain of a judgment are more likely to rely on their fluency experiences for this judgment.

The theory presented in this section underlines the general relevance of processing fluency for people's judgment. Due to this relevance, processing fluency has been studied extensively in the marketing context. In particular, a large body of research has investigated how positive affective reactions to processing fluency add to the understanding of brand-related judgments, such as evaluations of advertisements, products, and brands. Findings of this research are presented next.

2.3.3 The Relevance of Affective Reactions to Processing Fluency for Brand-Related Judgments

To provide a concise overview of research on the relevance of affective reactions to processing fluency for brand related-judgments, the following review is structured along the three main types of sources of processing fluency investigated in this research: repeated exposure to identical brand stimuli, previous exposure to stimuli semantically related to a brand, and single exposure to brand stimuli.

Repeated exposure to identical brand stimuli

Highlighting the importance of the mere exposure effect in the branding context, repeated exposure to identical brand stimuli has been found to impact liking of these cues. For example, consumers like product reviews (Anand, Holbrook, & Stephens, 1988), advertisements (Janiszewski, 1988), and brand names (Janiszewski, 1993) more if they were previously exposed to these cues. Furthermore, consumers tend to evaluate brands more positively after repeated exposure to brand stimuli, such as advertisements (Anand & Sternthal, 1990; Batra & Ray, 1986).

However, while these findings on the impact of repeated exposure to brand stimuli might suggest that brand-related judgments of liking generally increase with exposure, the relationship between these judgments and repeated exposure to brand stimuli is more complex. Specifically, this relationship has been demonstrated to depend on the characteristics of brand stimuli and of brand stimulus presentation. For example, evaluations of complex advertisement messages continue to benefit from additional exposure even after

multiple previous exposures, whereas evaluations of advertisement messages with low and moderate complexity appear to be linked to exposure through a u-shaped and inverted u-shaped function, respectively (Anand & Sternthal, 1990). Furthermore, the relationship between repeated exposure to brand logos and the preference for these logos has been shown to depend on brand logo meaning, consumers' previous familiarity with the logo, and the length of time intervals between exposures (Janiszewski & Meyvis, 2001).

Previous exposure to stimuli semantically related to a brand

The influence of affective reactions to processing fluency on brand-related judgments has also been investigated in contexts where processing fluency results from previous exposure to stimuli that are semantically related to a brand. For example, Shapiro (1999) demonstrates that consumers are more likely to consider a product for a purchase after incidental advertisement exposure (vs. no such exposure) but only if the product image included in the advertisement contains contextual information, such as information on the product's surroundings or information on usage situations of the product. The author links this finding to processing fluency by theorizing that the contextual information provided leads consumers to engage in semantic processing, which activates knowledge structures in memory related to the product. Shapiro argues that this activation facilitates subsequent processing of product stimuli during purchase considerations, which results in consumers to experience fluency and to attribute related affective reactions to the product.

Furthermore, Lee and Labroo (2004) show that consumers evaluate products more positively after they have been exposed to advertisement storyboards that are semantically strongly (vs. weakly) related to the product evaluated but do not contain information on the product or the brand of the product. Based on a similar explanation as Shapiro (1999), the authors relate this effect to consumers' affective reactions to processing fluency. Hence, they argue that exposure to the storyboards that are semantically strongly linked to the product activates product-related knowledge networks in memory, which results in more fluent processing of the product and corresponding affective reactions that influence product evaluation.

Adding to these findings, Labroo and Lee (2006) provide more direct evidence on the relationship between brand-related judgments and fluency experiences resulting from previous exposure to stimuli semantically related to the brand judged. In particular, the authors demonstrate that if the regulatory goal of an advertisement of a focal brand is consistent (vs. inconsistent) with the regulatory goal of a preceding advertisement of a different brand, the focal brand is evaluated more positively. Their results also reveal that this effect is mediated by consumers' fluency experience related to the processing of the focal

brand. In line with the explanations by Shapiro (1999) and Lee and Labroo (2004), the authors argue that processing of the focal brand is facilitated by the exposure to a goal-consistent advertisement of a different brand since this exposure activates associations in the knowledge structure of the focal brand which are linked to the goal common to the two brands.

The three studies presented so far suggest that previous exposure to stimuli semantically related to a brand influences brand-related judgments through processing fluency since this exposure increases accessibility of brand associations. In addition, exposure to stimuli semantically related to a brand has been shown to impact brand-related judgments by enabling easier perception of brand stimuli. In particular, consumers evaluate products more positively after being exposed to words semantically related (vs. unrelated) to visual aspects of a product that are not typically associated with the respective product category (Labroo, Dhar, & Schwarz, 2008). This effect of prior exposure to stimuli semantically related to visual aspects of products is partially explained by consumers' fluency experiences linked to the visual perception of the product evaluated (Labroo et al., 2008).

Single exposure to brand stimuli

Finally, the relationship between affective reactions to processing fluency and brand-related judgments has also been studied in situations where processing fluency results from single exposure to brand stimuli. For example, in their investigation of the influence of imagery appeals on brand outcomes, Petrova and Cialdini (2005) show that the impact of imagery appeals on product preferences depends on the ease with which product experiences can be imagined. More specifically, they find that appeals that motivate consumers to imagine experiencing a product only impact brand-related judgments positively if product presentation facilitates imagining product experiences and therefore allows for fluent processing.

Furthermore, Lee and Aaker (2004) demonstrate that product messages lead to a more positive brand attitude when the regulatory focus of message content matches brand appeals related to the message. In particular, they show that if a message with a promotion focus is combined with a brand appeal focusing on gains (vs. losses) or if a message with a prevention focus is combined with a brand appeal focusing on losses (vs. gains), a more positive brand attitude results. Lee and Aaker demonstrate that this effect is explained by processing fluency.

Adding to these findings, Lee, Keller, and Sternthal (2010) show that brand attitude benefits from a fit between the construal level of product messages and consumers' regulatory focus. In line with Lee and Aaker (2004), the authors demonstrate that this effect on brand attitude is mediated by processing fluency.

Similarly, Thompson and Hamilton (2006) show that advertisements result in more positive brand attitude and higher purchase intent when advertisement content matches the processing mode of consumers due to the positive effect of this match on processing fluency. This result is further supported by Hong and Sternthal (2010), who find that higher fit between the presentation of product information and consumers' expertise-related way of processing information leads to more positive brand evaluations. In particular, the authors show that consumers with comprehensive knowledge of a product category evaluate brands more positively if product information motivates processing that focuses on goal progression (vs. a detailed assessment) and if product information is presented at a high (vs. low) construal level. Similarly, they show that consumers with little knowledge of a product category evaluate brands more positively if product information motivates processing that focuses on a detailed assessment (vs. goal progression) and if product information is presented at a low (vs. high) construal level. These effects are found to be mediated by processing fluency.

In line with feelings-as-information theory, the presented findings underline that consumers do not exclusively base brand-related judgments on the declarative information available to them during judgment, such as product descriptions. Particularly, they show that brand-related judgments, such as brand and product evaluations, are also informed by consumers' affective reactions to subjective experiences of processing fluency. The findings highlight that these experiences of processing fluency can be linked to different cognitive processes and therefore refer to different types of fluency. For example, experiences of fluency that have been shown to result from repeated exposure to identical brand stimuli refer to low-level perceptual processes and therefore to what is conceptualized as perceptual fluency. Contrarily, experiences of fluency that have been demonstrated to result from previous exposure to stimuli semantically linked to a brand and from single exposure to brand stimuli almost exclusively refer to cognitive processes related to objects' meaning and thus to what is understood as conceptual fluency. An exception to this pattern of investigated fluency experiences in the latter context is the discussed study by Labroo et al. (2008).

The insight that conceptual fluency can influence brand-related judgments is of particular interest to this dissertation since the presented findings underline that this type of fluency can result from activation of concepts semantically related to a brand. Accordingly, any information on a brand should be processed more fluently if semantic concepts linked to that information are more accessible due to their activation previous to processing the information. Thus, conceptual fluency might explain differences between brands in how brand stimuli, brand behavior, and brand experiences affect brand-related judgments. In particular, the previously highlighted conceptualization of brands as networks of associations in memory

suggests that brand name activation leads to higher accessibility of semantic concepts associated with a brand (Keller, 1993). Thus, information on brands might be processed more or less fluently after brand name activation depending on the extent to which a brand is associated with semantic concepts relevant to this information. This idea is further developed as part of the next chapter.

2.4 The Relationship between Brand Personality and Brand Extendibility

In the following sections, the previously introduced literature streams are integrated to enable the development of the research hypotheses of this dissertation regarding the impact of brand personality on brand extendibility. As indicated in the introduction, marketing research appears not to have investigated this impact so far. Particularly, while previous studies have examined the influence of the consistency between brand personality and extension characteristics on extension outcomes (Yorkston et al., 2010) and the influence of extensions on brand personality (Diamantopoulos, Smith, & Grime, 2005), the influence of brand personality on extension outcomes across product categories seems not to have been addressed. Moreover, no insights appear to exist on the explanatory potential of processing fluency and consumers' affective reactions to these experiences for the evaluation of brand extensions despite the empirically supported relevance of consumers' affect for such evaluations (Fedorikhin et al., 2008; Yeung & Wyer, 2005; see Section 2.2.3).

The following discussion addresses these research gaps by establishing a theoretical link between brand personality and brand extendibility based on the interpretation of brand extension as an instance of brand behavior. To this end, the discussion is structured along three sections. The first section conceptualizes processes of brand personality perception based on existing insights on the perception of human personality. Building on this conceptualization, the second section outlines the possible link between brand personality, processing fluency, and judgments of brand behavior. Finally, the third section highlights the applicability of the broader perspective of the second section to the context of brand extension by discussing the relevance of processing fluency for brand extension outcomes.

2.4.1 Processes of Brand Personality Perception

This section discusses the basic conceptualization of processes underlying brand personality perception based on existing theory on social perception related to human personality. The discussion proceeds in two steps. First, existing insights from research on social perception on the link between personality and behavior are presented. Second, possible implications of these insights for brand personality perception are discussed.

The link between personality and behavior in research on social perception

As previously highlighted in Section 2.1.1, personality traits can be understood as categorizations of chronic tendencies of humans (Fiske, 1993). As such, personality traits refer to people's way of thinking, feeling, and acting (McCrae & Costa, 1997). Since personality traits cannot be directly observed and therefore ultimately derive from observed behavior (McCrae & Costa, 1997), personality traits and behavior are closely interlinked. In fact, personality traits and behavior have been theorized to reflect social knowledge on an abstract and concrete level, respectively (Hastie & Kumar, 1979; Semin & Fiedler, 1988).

The link between personality traits and behavior is evident in processes of social perception. For example, people tend to infer personality traits from observed behavior even without conscious intention to do so (Carlston & Skowronski, 1994; Maass, Colombo, Colombo, & Sherman, 2001; Winter & Uleman, 1984). This inference of traits from behavior is considered to contribute to people's ability to understand others and to gain control over social interactions by enabling them to predict behavior (Uleman, Newman, & Moskowitz, 1996; Van Overwalle, Drenth, & Marsman, 1999). The idea that inferring personality traits from behavior serves a social function by providing the basis for behavioral predictions is supported by people's general belief that personality traits allow the prediction of others' behavior (Fiske, 1993). Relatedly, research findings show that people do not only infer personality traits from behavior but also infer behavior from trait information (Maass et al., 2001). However, contrarily to inference of traits from behavior, behavioral predictions based on traits occur in a more willful fashion (Maass, Cadinu, Taroni, & Masserini, 2006; Maass et al., 2001).

People's inference of traits from behavior and vice versa as well as the differences in the characteristics of these inference processes have been theorized to be linked to the semantic organization of traits and behavior in memory (Maass et al., 2001; Srull & Wyer, 1989). According to semantic network models of social knowledge (Carlston & Skowronski, 1986; Maass et al., 2006, 2001; Srull & Wyer, 1989; Wyer & Carlston, 1979), personality traits are thought to represent central nodes in semantic networks that are connected to a large number of nodes representing behavior, which possess comparably fewer connections. It is understood that if a node is activated in such a network, for example, when people process external information related to the node, activation spreads from the node to other nodes connected to it (Collins & Loftus, 1975; Raaijmakers & Shiffrin, 1981). Thus, activation of trait nodes is considered to lead to subsequent activation of behavior nodes and vice versa.

These considerations imply that if people are exposed to behavioral information related to a trait, the trait tends to be cognitively more accessible. The same holds true for the accessibility of behavior when being exposed to trait information.

The relevance of social perception for the perception of brand personality

The conceptual relationship between brand personality and human personality motivates the question how processes of social perception might be relevant to brand personality perception. While the tendency of consumers to assign brands human characteristics (J. L. Aaker, 1997) and corresponding conceptualizations of brand personality (J. L. Aaker, 1997; Geuens et al., 2009) suggest that processes related to the perception of human personality apply to the perception of brand personality, the discussed differences in the understanding of human and brand personality in Section 2.1.1 propose that perception of brand personality and human personality can be expected to differ to some extent. To gain a more detailed theoretical understanding of the relevance of social perception for the perception of brand personality, the following paragraphs discuss the conceptualization of brand personality in the context of semantic network models as relevant to the organization of human personality traits in memory.

As outlined in Section 2.1.1, the brand personality scales by J. L. Aaker (1997) and Geuens et al. (2009) are based on traits that have been found to be evident in human personality descriptions. Therefore, brand personality as conceptualized by these authors can be thought of as being represented by semantic networks similar to those underlying human personality traits. Thus, activation patterns in semantic networks of brand personality might resemble those shown to be relevant in the context of human personality. However, the brand personality conceptualizations by J. L. Aaker and Geuens et al. also suggest that semantic networks underlying brand personality differ in their content from semantic networks underlying human personality. Apart from referring to deviating sets of traits, an important difference in the content of these networks is likely to lie in the lower-level nodes that are linked to the respective traits, as suggested by the distinct information used to infer brand personality and human personality (J. L. Aaker, 1997). As such, lower-level nodes in semantic networks of brand personality can be considered to represent information on brands stemming from both social contexts (e.g., behavior of brand users) and non-social contexts (e.g., product advertisements). How the likely similarities and differences between the cognitive organization of brand personality and human personality might translate into differences in social and brand perception is indicated by research that has conceptualized semantic networks not as being fixed representations but to be context-specific.

In particular, research on stereotypes has shown that automatic associations of social categories with other concepts, such as behavior, vary with context (Mitchell, Nosek, & Banaji, 2003; Wittenbrink, Judd, & Park, 2001). These findings indicate that the activation of a central node in a semantic network might result in the activation of different subsequent nodes depending on context (Maass et al., 2006). Accordingly, brand information relevant to brand personality traits and human behavior might be thought of as being part of a single semantic network in which different connections between trait nodes and lower-level nodes are activated depending on whether consumers are exposed to or recall information related to people or brands.

Such context-dependent differences in the connections between nodes have been predicted to alter the nature of processes of inference based on these nodes (Maass et al., 2006). In line with this prediction, inference processes from traits to behavior and from behavior to traits have been shown to differ in social and nonsocial contexts (Maass et al., 2006). In particular, people seem to be comparably more likely (less likely) to infer behavior from traits (traits from behavior) in nonsocial contexts than in social contexts (Maass et al., 2006). Thus, while inferences from behavior to traits are more frequent and seem to be based on a more spontaneous process than inference from traits to behavior in social contexts (Maass et al., 2006, 2001), the two types of inferences seem to be similarly frequent and both seem to afford a willful process in nonsocial contexts (Maass et al., 2006).

These findings suggest that inference processes of brand personality and human personality are likely to differ in how frequently people engage in these processes and whether such inferences occur spontaneously or are triggered intentionally. However, these findings also indicate that people can generally not only be expected to infer brand personality traits from brand information relevant to these traits but also to form expectations based on brand personality traits regarding, for example, brand behavior or characteristics of products. In the context of the semantic networks proposed to underlie brand personality, these inference processes can be understood to refer to activation patterns of brand personality trait nodes and lower-level nodes similar to the activation patterns of human personality trait nodes and behavior nodes. Thus, activation of lower-level nodes referring to, for example, brand behavior or product characteristics of a brand, likely leads to activation of trait nodes linked to these lower-level nodes and, thus, to higher accessibility of these traits. Similarly, activation of brand personality trait nodes likely leads to activation of lower-level nodes that are linked to the trait nodes and, thus, to higher accessibility of brand information described by these lower-level nodes.

This theoretical understanding of the organization of brand personality in memory and the inference processes guiding the perception of brand personality is in line with previously discussed insights of research on brand personality. As outlined, inference processes of brand personality traits from information on brands are evident in the finding that consumers assign brands personality traits (J. L. Aaker, 1997; Geuens et al., 2009). Furthermore, the previously reviewed findings on the impact of brand personality on brand outcomes are consistent with the notion that consumers infer instances of brand information, such as brand behavior, from brand personality traits. Particularly, consumers seem to form expectations regarding possible consumer-brand relationship violations (J. Aaker et al., 2004) and sensory product experiences (Sundar & Noseworthy, 2016) based on the dimensions of brand personality that structure brand personality traits (see Section 2.1.2 for a more detailed review).

The conceptualized inference processes of lower-level brand information from brand personality traits and related activation patterns in semantic networks of brand personality are potentially relevant in the context of brand extension. In particular, based on the highlighted expected heterogeneity of brand information linked to brand personality traits, it can be expected that brand personality traits are semantically linked to brand behavior related to a brand's marketing mix, such as past product introductions. For example, brand personality traits, such as the traits "dynamic", "innovative", and "active" (Geuens et al., 2009), could be associated with brand behavior such as introducing products with innovative features or venturing into new markets or product categories. Considering the theoretical insights from Section 2.3 on processing fluency, it appears likely that if a brand's personality is semantically linked to product introduction behavior consistent with brand extension and if this behavior is made more accessible through the activation of related personality traits, observed brand extension behavior can be processed more fluently. This fluency might in turn affect judgments related to the observed extension behavior. This idea is further developed in the following sections.

2.4.2 The Link Between Brand Personality, Processing Fluency, and Judgments of Brand Behavior

As discussed in Section 2.3.3, experiences of processing fluency are generally relevant for brand-related judgments. The presented findings pertaining to conceptual fluency particularly underline that if concepts semantically linked to brand stimuli are activated and thus more accessible, brand stimuli are processed more fluently, which in turn affects brand-related judgments positively (see, e.g., Lee & Labroo, 2004; Shapiro, 1999). Activation of concepts related to brand stimuli can result, as demonstrated by the reviewed studies, from exposure to external information referring to these concepts. Thus, if a brand stimulus relates to a brand

known to consumers, activation of concepts relevant to the brand stimulus might result from exposure to the brand name itself.

The notion that activating a brand name increases the accessibility of concepts semantically related to a brand stimulus relates to the basic understanding of brands as networks of associations in memory (Keller, 1993). As previously highlighted, brands are considered to be represented by semantic network structures analogous to those theorized to represent social knowledge (Keller, 1993). Hence, brands can be conceptualized as cognitive categories that are linked to a variety of concepts, which are made more accessible when being exposed to the brand name (Keller, 1993; Sood & Keller, 2012; Spiggle et al., 2012). Such concepts include the introduced dimensions of brand personality and their related traits. Thus, activating a brand name can be understood to activate brand personality traits with the degree of trait activation depending on the strength of the association between the brand and the trait (Collins & Loftus, 1975; Keller, 1993). As highlighted in the previous section, such activation of brand personality traits is in turn likely to lead to activation and, thus, to higher accessibility of brand behavior related to these traits. Moreover, since brands possess distinct personalities and therefore vary in their trait associations, activating different brand names can be expected to result in the activation of deviating sets of brand behavior.

The higher accessibility of brand behavior due to brand name activation is potentially relevant to the processing of observed brand behavior. In particular, brand behavior as defined in this dissertation can be understood to be attributed to a brand based on explicit references to the brand that are observed along brand behavior, as in an advertisement, or based on information on the context in which the behavior is observed, as in an interaction with a brand employee. As a consequence of this attribution, the observation of brand behavior is likely to inherently activate the brand name linked to the behavior in memory. Therefore, observed brand behavior might be processed more fluently when the related brand possesses a brand personality that is linked to behavior similar to the one observed. This idea is supported by previously presented studies that show that employee behavior (Sirianni et al., 2013) and animated brand logos (Brasel & Hagtvedt, 2016) are processed more fluently when they are consistent with the personality of the brand they are referring to (see Section 2.1.2 for details).

These same studies show that the fluency experiences related to processing brand behavior impact brand-related judgments, such as overall brand evaluations (Brasel & Hagtvedt, 2016; Sirianni et al., 2013). Similar to other findings on the relationship between fluency and brand-related judgments (see Section 2.3.3), this effect of processing fluency has been theorized to be due to the affective reactions of consumers to fluency experiences (Brasel & Hagtvedt, 2016; Sirianni et al., 2013). Considering the ambiguity of affective reactions to fluency

experiences (Winkielman et al., 2003), it is likely that fluency experiences related to processing brand behavior also impact judgments of brand behavior, such as behavior evaluations.

Since brand extension can be understood as an instance of brand behavior that reflects a brand's product strategy, the outlined link between brand personality, processing fluency, and judgments of brand behavior is relevant to the context of brand extension. In fact, if the fluency of processing brand extensions indeed varies with the personality of the respective brand and this fluency impacts brand extension judgments, brand personality might add to the explanation of extension outcomes and, thus, brand extendibility. To further substantiate the possible relationship between brand personality and brand extension outcomes, the relevance of processing fluency for brand extension outcomes is discussed next.

2.4.3 The Relevance of Processing Fluency for Brand Extension Outcomes

Extant brand extension research has focused on parent brand knowledge as a source of information for consumers' brand extension judgments (for a review, see Section 2.2). For example, extension research has primarily studied the transfer of parent brand associations to extension products as the process underlying consumers' extension evaluations. However, as indicated by feelings-as-information theory (Schwarz, 2012; Winkielman et al., 2003), consumers' extension evaluations might also be informed by their subjective experiences during these evaluations. While this possibility has largely been neglected in brand extension literature, some initial attempts have been made to investigate the impact of feelings on brand extension judgments. Specifically, the previously highlighted work by Yeung and Wyer (2005) demonstrates that affective experiences can influence brand extension evaluations even if these experiences are unrelated to the brand. In particular, Yeung and Wyer show that brand extension evaluations are not only influenced by affective reactions to the brand itself but also by consumers' coincidental mood during the judgment. The authors argue that the influence of affect on brand extension evaluations results from consumers' attribution of their affective experiences to the extending brand and demonstrate that this influence is independent of perceptions of fit. These findings suggest that judgments related to brand extension are indeed informed by consumers' feelings. Accordingly, positive affective reactions to processing fluency experienced during judgments related to brand extension might influence these judgments and therefore extension outcomes.

Consequently, the considerations of Section 2.4.2 regarding the impact of processing fluency on judgments related to brand behavior are likely to apply in the context of brand extension. Accordingly, processing related to brand extension judgments is possibly more fluent if brand

extension is consistent with the personality of a brand. Positive affective reactions to such fluency experiences might be attributed to the extension, which potentially influences extension judgments positively (Bornstein & D'Agostino, 1994; Labroo et al., 2008; Reber et al., 1998). Thus, variations in the fluency of processing brand extensions related to differences in brand personality are likely to add to the explanation of brand extension judgments, such as extension evaluation, and therefore brand extension outcomes.

Furthermore, processing fluency might not only be relevant for explaining extension outcomes between brands but also for explaining outcomes of different extensions of a single brand. In particular, it is likely that processing fluency is related to perceptions of fit. As outlined in Section 2.2.2, perceptions of fit are understood to result from semantic links between the parent brand and the extension (see, e.g., Martin & Stewart, 2001). Existing findings on conceptual fluency (e.g., Lee & Labroo, 2004; Shapiro, 1999) suggest that these semantic links potentially lead to more fluent processing of the extension when the parent brand is activated during brand extension evaluation. As highlighted in the previous section, this activation might inherently occur when being exposed to an extension. Thus, the fluency with which consumers process extensions of a brand might increase with fit perceptions.

In conclusion, the above discussion underlines the potential relevance of processing fluency for brand extension outcomes. In particular, the discussion shows that processing fluency provides a theoretical link between brand personality and brand extendibility. Furthermore, albeit less relevant to this dissertation, the possible relationship between perceptions of fit and processing fluency highlights that processing fluency might add to the explanation of outcomes of different extensions of a single brand.

3 Hypothesis Development

The following chapter develops the hypotheses of this dissertation based on the previous theoretical conceptualization. As part of this development, two key assumptions are made. First, brand personality is assumed to be structured as suggested by the brand personality scale by Geuens et al. (2009). This scale takes into account previous criticism of the brand personality concept, has been shown to be highly reliable, and appears to be valid across cultures (Geuens et al., 2009; see Section 2.1.1 for a detailed discussion). Second, to allow for an efficient operationalization of empirical studies testing the hypotheses, brand extension products are assumed to be family branded and, thus, to simply adopt the name of the parent brand. This choice is considered appropriate since marketing literature does not suggest a particular moderating effect of brand architecture on the potential impact of brand personality on brand extension outcomes.

3.1 The Impact of Brand Personality on Brand Extension Outcomes

The main idea of this dissertation that brand personality influences brand extendibility builds on the notion that brand personality traits are semantically linked to brand behavior. As highlighted in Section 2.4, brands can be expected to differ in their semantic links to brand behavior, such as brand extension, depending on their personality. In particular, considering the five brand personality dimensions proposed by Geuens et al. (2009), brands with a relatively pronounced activity dimension (active brands) can be expected to be strongly linked to brand extension. Contrarily, brands with a relatively pronounced responsibility dimension (responsible brands) can be expected to be weakly linked to brand extension. Thus, the activation of an active (vs. responsible) brand in memory will lead to a higher subsequent activation of behavior related to brand extension (Collins & Loftus, 1975; Keller, 1993). This difference in activation will be evident in the general accessibility of brand behavior and, thus, in consumers' recall of brand behavior associated with the respective type of brand (Keller, 1993). Based on this reasoning, the following hypothesis can be formulated:

> H1: Active (vs. responsible) brands are more strongly associated with brand behavior related to brand extension.

The discussion of Section 2.4.2 suggests that differences in the accessibility of brand behavior related to brand extension affect the fluency of processing brand extensions. According to H1, such differences in the accessibility of brand behavior are expected to result when activating active brands as opposed to activating responsible brands. As previously outlined (see Section 2.4.2), exposure to brand extensions is likely to activate the parent brand name

in memory. This activation of the parent brand name is anticipated to result in the previously described activation patterns of brand personality traits and brand behavior. Thus, brand behavior related to brand extension will be more accessible when consumers are exposed to brand extension products of active (vs. responsible) brands. As a result of this higher accessibility, brand extension products of active (vs. responsible) brands will be processed more fluently. The positive affective reactions by consumers to this experience of fluency (Reber et al., 1998; Winkielman & Cacioppo, 2001; Winkielman et al., 2003) will in turn impact brand extension judgments (see Section 2.4.3). In particular, extension evaluations will be positively influenced by these affective reactions. Based on this reasoning, the following hypotheses can be derived:

H2: Extensions of active (vs. responsible) brands are evaluated more positively.

H3a: Extensions of active (vs. responsible) brands are processed more fluently.

H3b: Extension evaluations are positively related to the fluency with which extensions are processed.

H3c: Brand personality (active vs. responsible) influences extension evaluations indirectly and positively through processing fluency.

The process described by H3a-c can be further scrutinized based on the delineation of this process from the previously highlighted transfer process of parent brand associations to the brand extension (see Section 2.2.2). In particular, the discussion of Section 2.4.3 suggests that fluency experiences related to processing brand extensions and parent brand associations transferred to the extension can be seen as distinct sources of information for extension evaluations. As highlighted in Section 2.3.2, the relative importance of fluency experiences as a source of information for judgments tends to be lower when alternative internal or external information is available (see, e.g., Batra & Ray, 1986; Zajonc, 1968). Thus, the impact of processing fluency on extension evaluations is likely to be higher if fewer associations of the parent brand are transferred to the extension. Accordingly, the influence of processing fluency on extension evaluations will decrease with increasing perceptions of fit. In addition, following from the expected positive relationship between processing fluency and perceived fit (see Section 2.4.3), the extent to which consumers experience fluency during extension evaluations will increase with the perceived fit of extensions with the parent brand. As a consequence, the differential impact of brand personality on the processing fluency of brand extensions will be smaller when perceptions of fit are high. Considering these arguments, the following hypotheses can be derived:

H4a: The difference in processing fluency between extensions of active and responsible brands decreases with increasing perceptions of fit.

H4b: The impact of the processing fluency of brand extensions on extension evaluations is negatively moderated by perceptions of fit.

H4c: The difference in evaluations between extensions of active and responsible brands related to processing fluency decreases with increasing perceptions of fit.

For a more complete investigation of the impact of brand personality on brand extendibility, effects of brand extension on the parent brand have to be considered. As outlined, the proposed relationship between brand personality and extension evaluations is based on the expectation that fluency experiences related to processing brand extensions differ depending on brand personality and that judgments that require processing brand extensions, such as extension evaluations, are influenced by these differences. Since judgments of the parent brand, such as evaluations of parent brand quality, are not expected to involve processing of brand extensions, the link between brand personality and processing fluency described in Section 2.4.2 is unlikely to be relevant for parent brand judgements. While judgments of the parent brand might not involve processing of brand extensions, they could still be influenced by affective reactions to fluency experiences related to this processing. However, such affective reactions are unlikely to be attributed to the parent brand since affective reactions to processing fluency are most probably attributed to objects present to consumers when experiencing these reactions (Clore et al., 2001; Higgins, 1998; Schwarz, 2012). Thus, parent brand judgements are not expected to be affected by fluency experiences related to processing brand extensions.

However, apart from a more direct effect of extension processing on the parent brand, the effect of brand personality on brand extension evaluations hypothesized in H2 implies that active (vs. responsible) brands will be associated with more positive extension evaluations. Thus, changes in parent brand attitude due to brand extension are likely to be more positive for active than for responsible brands. Phrased differently, the differential impact of brand extension on parent brand attitude is likely to be more positive for active than for responsible brands. Based on this line of reasoning, the indirect effect of brand personality (active vs. responsible) on extension evaluations through processing fluency (see H3c) can be expected to affect the differential impact of brand extension on parent brand attitude correspondingly. Hence, the following hypotheses are proposed:

H5: The differential impact of brand extension on parent brand attitude is more positive for active brands than for responsible brands.

H6a: The differential impact of brand extension on parent brand attitude becomes more positive with extension evaluations.

H6b: Brand personality (active vs. responsible) influences the differential impact of brand extension on parent brand attitude indirectly and positively through extension evaluations.

H6c: Brand personality (active vs. responsible) influences the differential impact of brand extension on parent brand attitude indirectly and positively through the relationship between processing fluency and extension evaluation.

The hypothesized link between brand personality, extension evaluation, processing fluency, and brand attitude implies that the hypothesized moderating effect of perceived fit on the indirect effect of brand personality on brand extension evaluations through processing fluency (see H4a-c) is also relevant to the relationship between brand personality and the differential impact of brand extension on parent brand attitude. In particular, the indirect effect of brand personality on the differential impact of brand extension on parent brand attitude suggested by H6c will be less positive for extensions that are perceived to be a better fit with the parent brand. Thus, the following hypothesis can be formulated:

H7: The difference in the differential impact of brand extension on parent brand attitude between active and responsible brands related to the link between processing fluency and extension evaluation becomes less positive with increasing perceptions of fit.

3.2 The Moderating Influence of Consumer Characteristics on the Impact of Brand Personality on Brand Extension Outcomes

Consumer characteristics are likely to influence the hypothesized impact of brand personality on brand extension outcomes. In particular, the hypothesized influence of affective reactions to fluency experiences related to processing brand extensions on brand extension evaluations is contingent on consumers' general tendency to incorporate these reactions into their judgments. Since this tendency varies with consumer characteristics (see review of Section 2.3.2), affective reactions to fluency experiences related to processing extensions will be more relevant for extension evaluations of certain consumers. As highlighted in Section 2.3.2, consumer characteristics that influence consumers' tendency to incorporate affective reactions into their judgment include their need for affect (Sundar et al., 2015), private self-consciousness (Petrova & Cialdini, 2005), and expertise (Ottati & Isbell, 1996; Sedikides,

1995). Of these three, need for affect and consumer expertise are considered for hypothesis development. This selection is based on the particularly high theoretical relevance of need for affect for the hypothesized affective link between processing fluency and extension evaluations, and the potential of consumer expertise to explain differences in the impact of brand personality on extension evaluations between product categories.

The moderating influence of need for affect on the impact of processing fluency on consumers' judgment (Sundar et al., 2015) suggests that consumers with a higher need for affect are more likely to be influenced by their affective reactions to fluency experiences related to processing brand extensions during evaluations of such extensions. Consequently, the influence of brand personality on extension evaluation through processing fluency will be more pronounced for consumers with a higher need for affect. Accordingly, the following hypotheses can be formulated:

H8a: The impact of the processing fluency of brand extensions on extension evaluations is positively moderated by consumers' need for affect.

H8b: The difference in evaluations between extensions of active and responsible brands related to processing fluency becomes more positive with consumers' need for affect.

Similar moderating effects are expected for consumer expertise. Particularly, the discussion of Section 2.3.2 suggests that experiences of processing fluency and related affective reactions are more likely to influence consumers' judgments if consumers' expertise in the domain of the judgment is low. In the context of extension evaluations, this expertise in the domain of the judgment can be understood to correspond to consumers' expertise in the product category of the extension (for a conceptualization of consumer expertise, see Alba & Hutchinson, 1987). Thus, extension evaluations can be expected to be more strongly influenced by fluency experiences related to extension processing if consumers have little expertise in the extension category. Consequently, the impact of brand personality on extension evaluations through processing fluency will become less pronounced with increasing expertise of consumers in the extension category. Based on this reasoning, the following hypotheses can be derived:

H9a: The impact of the processing fluency of brand extensions on extension evaluations is negatively moderated by consumers' expertise in the extension category.

H9b: The difference in evaluations between extensions of active and responsible brands related to processing fluency becomes less positive with increasing consumer expertise in the extension category.

So far, the hypothesized influence of consumer characteristics on the impact of brand personality on brand extension outcomes refers to the moderating effects of these characteristics on the influence of brand personality on brand extension evaluations. More specifically, the consumer characteristics are expected to moderate the hypothesized indirect effect of brand personality on brand extension evaluations through processing fluency by affecting the influence of fluency experiences related to processing brand extensions on extension evaluations. As highlighted previously, such fluency experiences are unlikely to influence parent brand judgments. However, parent brand attitude is expected to be affected by the influence of brand personality on consumers' extension evaluations since extension evaluations are likely to be associated with the parent brand. Thus, the consumer characteristics hypothesized to alter the indirect influence of brand personality on extension evaluations through processing fluency are also relevant for the suggested influence of brand personality on the differential impact of brand extension on parent brand attitude. This reasoning is summarized in the following hypotheses:

H10a: The difference in the differential impact of brand extension on parent brand attitude between active and responsible brands related to the link between processing fluency and extension evaluation increases with consumers' need for affect.

H10b: The difference in the differential impact of brand extension on parent brand attitude between active and responsible brands related to the link between processing fluency and extension evaluation decreases with increasing consumer expertise in the extension category.

4 Empirical Studies

This chapter presents the empirical studies that were conducted to test the hypotheses derived in Chapter 3. To this end, a short overview of the research design of the studies is provided before discussing the design and the results of each study in detail.

4.1 Overview Research Design

Studies 2-6 of this dissertation are based on experimental research designs. These designs were chosen since they generally enable targeted manipulation of independent variables and a high degree of control over other variables influencing the examined outcomes (Albers, Klapper, Konradt, Walter, & Wolf, 2007; Creswell, 2009). Thus, experimental research designs allowed for rigorously testing the hypothesized causal relationships between brand personality and brand extension outcomes. In addition, the designs permitted examining the cognitive processes hypothesized to explain these relationships based on controlled measurement of constructs referring to consumers' cognition. In contrast, Study 1 employed a cross-sectional observational design, which facilitated the initial exploration of the dependence of brand behavior associations on brand personality.

Studies 1-5 were conducted with participants recruited from the crowdsourcing platform Amazon Mechanical Turk[2] (MTurk), whereas Study 6 was based on a traditional student sample. Despite the lower control associated with online studies and experiments (Reips, 2000; Zhou & Fishbach, 2016), research has demonstrated that data quality of MTurk studies is high (for a review, see Goodman & Paolacci, 2017) and that attention of participants is at least at the same level as attention in traditional student samples when the incentive structure of MTurk is used in line with common academic recommendations (Hauser & Schwarz, 2016; Paolacci & Chandler, 2014; Peer, Vosgerau, & Acquisti, 2014).

These recommendations include limiting participant samples to MTurk workers that have an approval rate above a certain threshold and that completed a minimum number of tasks (Hauser & Schwarz, 2016; Peer et al., 2014). In addition, research has proposed the use of attention checks as a means of motivating participants to read instructions attentively (Paolacci & Chandler, 2014) and as a screening measure (Berinsky, Margolis, & Sances, 2014; Maniaci & Rogge, 2014; Oppenheimer, Meyvis, & Davidenko, 2009). Furthermore, to address the potentially high degree of self-selection (Goodman & Paolacci, 2017; Hulland & Miller, 2018; Reips, 2000) and the potentially high dropout rates on MTurk (Zhou &

[2] The MTurk platform enables so called requesters to recruit workers for a wide range of online tasks by publishing work on MTurk's webpage (https://www.mturk.com/). MTurk has been commonly used in consumer research recently (Goodman & Paolacci, 2017; Hulland & Miller, 2018; Zhou & Fishbach, 2016).

Fishbach, 2016), existing work recommends to keep study descriptions that are accessible to MTurk workers before starting a survey generic (Goodman & Paolacci, 2017) and to check for differences in dropout rates between cells in experimental studies (Zhou & Fishbach, 2016). Additionally, since MTurk workers are potentially experienced in participating in academic studies, commonly used research paradigms and questions, such as certain attention checks, might be known to workers (Chandler, Mueller, & Paolacci, 2014). However, the likelihood of workers being familiar with study content can be reduced by ensuring that workers do not complete multiple related studies and by creating variations of questions that might be known to workers from unrelated studies (Chandler et al., 2014).

To address the potential shortfalls of MTurk studies and online studies in general, the outlined recommendations were taken into account for the operationalization of the studies of this dissertation as considered appropriate.

An overview of the studies conducted as part of this dissertation is provided in Table 4-1.

Table 4-1: Overview of the empirical studies conducted

Study	Title	Experimental design	Population	Sample size (raw/cleaned)	Hypotheses tested
1	The Association of Brand Personality with Brand Behavior Related to Brand Extension (I)	-	Amazon Mechanical Turk	80/78	H1
2	The Association of Brand Personality with Brand Behavior Related to Brand Extension (II)	Between-subjects: Brand personality (active vs. responsible)	Amazon Mechanical Turk	108/100	H1
3	The Impact of Brand Personality on Brand Extension Outcomes (I)	Between-subjects: Brand personality (active vs. responsible)	Amazon Mechanical Turk	161/158	H2, H5, H6a, H6b
4	The Impact of Brand Personality on Brand Extension Outcomes (II)	Between-subjects: Brand personality (active vs. responsible)	Amazon Mechanical Turk	110/107	H2
5	The Impact of Brand Personality on Brand Extension Outcomes and Its Potential Boundary Conditions (I)	Between-subjects: 2 (brand personality: active vs. responsible) x 3 (perceived fit: low vs. moderate vs. high)	Amazon Mechanical Turk	310/293	H2, H3a-c, H4a-c, H5, H6a, H6c, H7, H8a, H8b, H9a, H9b, H10a, H10b
6	The Impact of Brand Personality on Brand Extension Outcomes and Its Potential Boundary Conditions (II)	Between-subjects: 2 (brand personality: active vs. responsible) x 2 (perceived fit: low vs. moderate)	Students (University of St.Gallen)	154/147	H2, H3a-c, H5, H6a, H6c, H8a, H8b, H9a, H9b, H10a, H10b

4.2 Study 1: The Association of Brand Personality with Brand Behavior Related to Brand Extension (I)

4.2.1 Method

Study 1 tested the prediction of H1 that consumers associate active brands more strongly with brand behavior related to brand extension than responsible brands. To allow for such testing, Study 1 collected data on consumers' brand behavior associations with active and responsible brands.

Participants

Participants were recruited from Amazon MTurk. Workers were offered USD 0.35 for participating in the study, which had an estimated completion time of 3-4 minutes. To be able to access the study, participants were required to have an approval rate of 98% and higher, and to have completed at least 500 tasks. These thresholds were chosen stricter compared to thresholds provided by extant academic literature (Hauser & Schwarz, 2016; Peer et al., 2014) due to recent changes in the MTurk population (Dennis, Goodson, & Pearson, 2019; Moss & Litman, 2018). Furthermore, only U.S. residents were allowed to participate in the study.

A total of 80 participants took part in the study. Two participants were removed from the initial sample due to being incompliant with instructions or due to copying random text into answer fields. Thus, the final sample included 78 participants, of which 33 (42.31%) were female and 45 (57.69%) were male. Average age of participants was 35.21.

Procedure

Participants were introduced to the survey by telling them that they would be asked several questions related to brands and by reminding them that data would be treated confidentially. After reading the introduction, participants completed two free association tasks, one for active and one for responsible brands, in random order. Free association tasks have been commonly used in branding literature to provide insights into the associations consumers have with brands and product categories (see, e.g., D. A. Aaker & Keller, 1990; Broniarczyk & Alba, 1994; Koll, von Wallpach, & Kreuzer, 2010; Spears, Brown, & Dacin, 2006). Accordingly, participants were asked to think about the respective brand type and to list actions they associate with the brand type. Specifically, participants were shown the following instruction:

> Please take a moment and think about brands that are *active, dynamic, and innovative / down-to-earth, stable, and responsible*. What kind of actions do you associate with such

brands and their related companies? Freely name any action that comes to mind. These actions might, for example, relate to a brand's products, communication, employees, advertisement, stores, etc.

Instructions deliberately referred to actions in general to gain a more conservative insight into the strength of association between the brand personality types and brand behavior related to brand extension. Participants were required to list a total of five associations for each brand type. Associations were entered on separate pages and instructions were repeated to reduce response chaining (for a similar approach, see Krishnan, 1996).

After completing the free association tasks, participants answered several demographic questions and were debriefed.

4.2.2 Results

To test the prediction of H1 that active brands are more strongly associated with behavior related to brand extension than responsible brands, the number of participants describing brand behavior related to brand extension was compared for active and responsible brands. For this purpose, associations were coded to either refer to brand behavior related to brand extension or not to refer to such behavior. Behavior related to brand extension was understood as brand behavior indicating considerable changes to a brand's product portfolio composition or expressing a general willingness to incorporate atypical marketing strategies. Associations were coded by two independent judges who were blind to the purpose of the study. Interrater agreement was 85%. The remaining cases could be classified based on personal discussions.

Overall, 20 participants associated active brands with behavior related to brand extension, while no participants associated responsible brands with such behavior ($\chi^2(1) = 18.05$, $p < .001$). Thus, in line with the prediction of H1, it appears that consumers more frequently associate active brands with brand behavior related to brand extension than responsible brands. Interestingly, a qualitative screening of participants' responses also revealed that some participants associated responsible brands with brand behavior describing continuity in the brand's product offerings (for example, "stay in their field, i.e. just focus on what they do best", "stays true to the product that they created"). Despite being anecdotal in nature, this insight further hints to differences in consumers' associations of brand behavior related to brand extension for active and responsible brands.

4.2.3 Discussion

Study 1 provides some initial evidence for H1 that active brands are more strongly associated with brand behavior related to brand extension than responsible brands. However, results of

Study 1 are limited by the observational design of the study. Hence, it is not clear whether the observed differences in brand associations might be explained by other factors than brand personality. To address this limitation, H1 was tested again based on an experimental study design.

4.3 Study 2: The Association of Brand Personality with Brand Behavior Related to Brand Extension (II)

4.3.1 Method

Study 2 incorporated an experimental design with brand personality (active vs. responsible) as a single between-subjects factor. The objective of the study was to test H1 and its prediction that active brands are more strongly associated with brand behavior related to brand extension than responsible brands.

Participants

Participants were again recruited from Amazon MTurk. Worker restrictions were set to the same parameters as in Study 1. Accordingly, participants were required to be located in the U.S., to have an approval rate of 98% and higher, and to have completed at least 500 tasks. Workers were paid USD 1.35 for their participation in the study, which had an estimated completion time of 13-14 minutes.

In total, 108 MTurk workers participated in the study. Of these 108 participants, two were excluded due to copying random text into answer fields. Furthermore, six participants were dropped due to being inattentive. Following the recommendation by Berinsky et al. (2014), attentiveness was determined based on multiple screening criteria. Accordingly, a participant was considered inattentive when he/she both failed the instructional manipulation check included in the survey (Oppenheimer et al., 2009) and completed the survey in less than half the average completion time, as calculated based on the 5% trimmed mean (Maniaci & Rogge, 2014). As a result of data cleaning, the final sample included 100 participants, of which 44 (44.00%) were female and 56 (56.00%) were male. Average age of participants was 36.31.

Procedure

At the beginning of the survey, participants were presented with a short description of the survey stating that they would be asked to answer questions on brands and that data would be kept confidential. Following this introduction, participants were randomly assigned to complete a free association task referring to either active or responsible brands. As part of this task, participants were asked to list corporate actions and behavior that they associated with

the respective brand type and related companies. The instructions shown to participants were the following:

> Please take a moment and think about brands that are *active, dynamic, and innovative / down-to-earth, stable, and responsible*. What kind of corporate actions and corporate behavior do you associate with such brands and their related companies? Freely name any corporate action and corporate behavior that comes to mind. Such actions and behavior might, for example, relate to a brand's products, communication, employees, advertisement, stores, etc.

Participants were required to list a total of five associations. As in Study 1, associations were entered on separate pages.

After completing the free association tasks, participants were introduced to the second task of the survey. In this task, participants indicated how strongly they associated different instances of brand behavior with active or responsible brands. Specifically, participants were told to take a moment and think about either active or responsible brands, depending on the random condition they were assigned to. They were then shown ten instances of brand behavior in random order and were instructed to rate how strongly they associated each behavior with the respective brand type on a seven-point scale (1: not at all, 7: very strongly; for a similar approach, see Kressel & Uleman, 2010). Three of the ten behaviors shown described brand extension ("introducing new products outside the brand's existing product categories") or brand behavior very closely related to brand extension ("introducing products that are different from the brand's existing products", "venturing into markets previously unknown to the brand"). The other seven behaviors were intended as filler questions and broadly referred to change related to brands (e.g., "changing the image of the brand", "changing the brand's targeted customers").

After finishing the behavior rating task, participants completed an instructional manipulation check and answered several demographic questions. Participants were then debriefed.

4.3.2 Results

Before analyzing data, dropout rates were determined and compared for the two participant groups to provide an indication for potential confounds related to attrition (Zhou & Fishbach, 2016). Dropout rates before data cleaning did not differ significantly for active (55/107 = 51.40%) and responsible brands (52/108 = 48.15%; $\chi^2(1) = 0.23$, $p > .6$).

Free association task

Following the same coding procedure as in Study 1, participants' brand associations were coded to either refer to brand behavior related to brand extension or not to refer to such behavior. As before, associations were coded by two independent judges blind to the objective of the study. The judges agreed in 93% of the cases. The remaining cases could be resolved in personal discussions. Based on the coded data, the proportion of participants who provided descriptions of brand behavior related to brand extension was determined for each of the experimental groups.

A comparison of the calculated proportions revealed that the proportion of participants who associated active brands with brand behavior related to brand extension (9/47 = 19.15%) was significantly higher than the proportion of participants who associated responsible brands with such behavior (1/53 = 1.89%; $p < .01$). Consistent with H1 and the results of Study 1, this finding indicates that consumers appear to more frequently associate active brands with brand behavior related to brand extension than responsible brands.

Strength of association rating task

Data from the second task of the experiment was analyzed by comparing participants' association strength ratings of the three focal behaviors for active and responsible brands. The

Table 4-2: Strength of association of active and responsible brands with the three focal brand behaviors of Study 2

	(i) Active brands (n = 47)[a]	**(ii) Responsible brands (n = 53)[a]**	**(i)-(ii)**
Introducing new products outside the brand's existing product categories	5.47 (1.21)	4.26 (1.71)	$t(93.64) = 4.09$ $p < .001$
Introducing products that are different from the brand's existing products	5.21 (1.37)	4.08 (1.67)	$t(98) = 3.69$ $p < .001$
Venturing into markets previously unknown to the brand	5.34 (1.20)	4.11 (1.67)	$t(94.16) = 4.25$ $p < .001$

[a] Values outside brackets are means, values inside brackets are standard deviations; strength of association was rated on a seven-point scale for all behaviors with low ratings indicating weak association and high ratings indicating strong association

analysis revealed that all three focal behaviors were more strongly associated with active than with responsible brands (*p*s < .001). Details are shown in Table 4-2. This result is congruent with the findings of the free association task and gives additional weight to H1.[3]

4.3.3 Discussion

Adding to the initial evidence of Study 1, Study 2 provides further support for H1. Thus, active (vs. responsible) brands appear to be more strongly associated with brand behavior related to brand extension.

Based on the understanding of brand personality perception discussed in Section 2.4.1, these differences in consumers' strength of association of brand behavior related to brand extension indicate that activation of active (vs. responsible) brands in memory leads to higher subsequent activation of behavior related to brand extension and, thus, higher accessibility of such behavior. As was outlined in Section 3.1, due to the relevance of this higher accessibility for processing fluency, it can be expected that brand extension outcomes differ for active and responsible brands.

To test the hypotheses related to this expectation, a third study was designed and carried out.

4.4 Study 3: The Impact of Brand Personality on Brand Extension Outcomes (I)

4.4.1 Method

4.4.1.1 Experimental Design

Study 3 employed an experimental design with brand personality (active vs. responsible) as a single between-subjects factor. The study aimed to test whether consumers evaluate brand extensions of active (vs. responsible) brands more positively (see H2) and whether the differential impact of brand extension on parent brand attitude is more positive for active brands than for responsible brands (see H5). Furthermore, the mediating role of extension evaluation for the relationship between brand personality and the differential impact of brand extension on parent brand attitude was examined (see H6a and H6b).

[3] Based on the recommendation by Berinsky et al. (2014), analyses for the free association task and the brand behavior rating task were repeated using the full dataset including inattentive participants. The results of these additional analyses were in line with the findings presented here.

4.4.1.2 Stimuli

Main brand

To manipulate brand personality, stimuli of a fictitious audio equipment brand ("PDC Audio") were created. The stimuli contained a brand logo, brand slogan, and a brand description. Brand descriptions were adapted from Sundar and Noseworthy (2016), who applied such descriptions as a manipulation of brand personality in their second study. However, instead of referring to the brand personality scale by J. L. Aaker (1997), the brand descriptions included in the stimuli of the current study were based on the brand personality scale by Geuens et al. (2009). In particular, brand descriptions included items of either the activity dimension of brand personality (active condition) or of the responsibility dimension of brand personality (responsible condition). The stimuli including brand logo, brand slogan, and brand description for the two experimental conditions are shown in Appendix I. The two stimuli were pretested to ensure that they manipulated brand personality as intended and did not differ in their influence on the perception of other brand characteristics known to affect brand extension outcomes (for a review, see Section 2.2.3).

In an initial pretest, 64 participants recruited from Amazon MTurk indicated their familiarity with the brand name "PDC Audio" on a seven-point scale (1: not at all familiar, 7: extremely familiar). This pretest aimed to confirm that consumers were unfamiliar with the brand name and, thus, were unlikely to have strong prior associations with the brand. Results showed that the brand name seemed to be unfamiliar to consumers ($M = 1.43$).

To gather data on consumers' perception of the main brand based on the two developed brand stimuli, a second pretest with 90 participants from Amazon MTurk was conducted. This pretest followed a more extensive procedure than the initial pretest. Specifically, after being introduced to the pretest, participants were randomly assigned to study either the stimulus describing the active brand or the stimulus describing the responsible brand. They were then asked to reflect on the brand presented by the stimulus and to describe and characterize it in a short essay-writing task. This task aimed to strengthen the manipulation and to provide a means of qualitatively examining participants' attentiveness to the shown stimulus. After completing the writing task, participants completed different scaled measures in random order. These measures included the activity dimension ($\alpha = .91$) and the responsibility dimension ($\alpha = .88$) of the brand personality scale by Geuens et al. (2009) and a single-item Likert scale of brand breadth[4] ("PDC Audio sells many different products"). Furthermore,

[4] The use of a single-item scale for brand breadth was deemed appropriate since the scale referred to a specific attribute of a single object (Bergkvist & Rossiter, 2007). Other single-item scales used as part of this dissertation were considered appropriate based on the same criterion.

participants answered a semantic differential scale on overall brand attitude, which consisted of three items (extremely bad/extremely good, extremely negative/extremely positive, dislike it very much/like it very much; $\alpha = .95$) adapted from previous research (Chun et al., 2015; Lee & Aaker, 2004), and a semantic differential scale on brand quality with one item (very low quality/very high quality). All scales applied were seven-point scales.

Analysis showed that stimuli manipulated brand personality as expected. Participants rated the personality of the main brand higher on the activity dimension after being exposed to the stimulus describing the active brand ($M = 5.33$) than after being exposed to the stimulus describing the responsible brand ($M = 4.10$; $t(88) = 3.98$, $p < .001$). Similarly, participants rated the personality of the main brand higher on the responsibility dimension after being exposed to the stimulus describing the responsible brand ($M = 5.81$) than after being exposed to the stimulus describing the active brand ($M = 4.90$; $t(88) = 3.57$, $p < .001$). Tests for possible confounds related to the manipulation provided no evidence that stimuli differed with respect to brand attitude ($M_{active} = 5.20$, $M_{responsible} = 5.43$; $t(88) = -.85$, $p > .3$), brand quality ($M_{active} = 5.74$, $M_{responsible} = 5.35$; $t(88) = 1.55$, $p > .1$), or brand breadth ($M_{active} = 4.50$, $M_{responsible} = 4.27$; $t(88) = .75$, $p > .4$).

Brand extensions

To provide a means of measuring possible differences in extension evaluations depending on brand personality, stimuli presenting brand extensions of the main brand were created (for a similar approach, see Boush & Loken, 1991; Chun et al., 2015; Keller & Aaker, 1992). The stimuli included the extension name (e.g., "PDC Kitchen Appliances") and a short description of the extension (e.g., "PDC Kitchen Appliances are small household appliances, such as electric blenders, toasters, and microwave ovens"). The product categories of the brand extension stimuli were selected based on a pretest that included 72 participants from Amazon MTurk.

The first part of this pretest was based on the main brand manipulation that was used in the second pretest of the main brand stimuli. Hence, after being introduced to the survey, participants were asked to study one of two main brand stimuli, which was selected based on a random assignment. They were then asked to reflect on the main brand and to describe and characterize the main brand as part of a short essay-writing task.

Next, participants were presented with short descriptions of 15 pre-selected product categories, whose fit with the main brand was expected to range from very low (e.g., furniture) to very high (e.g., microphones). Participants assessed the fit of the product categories with the main brand based on an existing brand-extension similarity scale with four Likert items,

which referred to the overall similarity between the product category and the main brand ("[CATEGORY] [is/are] a good fit with the products/consistent with the products/similar to the products/representative of the products of the brand PDC."; αs $\geq$ .9). Additionally, they judged how relevant they considered the individual associations of the main brand to be for the different product categories based on three Likert items ("The benefits/characteristics I associate with PDC are relevant to [CATEGORY].", "The associations that I have for PDC are important to [CATEGORY]."; αs $\geq$ .93). Both the scale measuring brand-extension similarity and the scale measuring brand relevance were adapted from Spiggle et al. (2012).

Fit perceptions for the different product categories and the relevance of main brand associations for these categories were compared for the two main brand stimuli based on a series of MANOVAs with the two measures as dependent variables. Product categories were eliminated if MANOVA results indicated significant differences in the dependent variables between the two main brand stimuli. Overall, seven of the initial 15 product categories were retained. The extension descriptions created based on these categories are shown in Appendix II.

4.4.1.3 Participants and Procedure

Participants

Participants were recruited from Amazon MTurk based on the same requirements as in the previous studies. Accordingly, participants were required to be located in the U.S., to have an approval rate of 98% and higher, and to have completed at least 500 tasks. Workers were paid USD 1.20 for participating in the study, which had an expected completion time of 12 minutes.

In total, 161 MTurk workers completed the study. Based on a qualitative review of written answers, three participants were excluded since they copied random text into answer fields or did not comply with instructions. Additionally, data was screened for inattentive participants by identifying participants who both completed the survey in less than half of the 5% trimmed mean of completion time (Maniaci & Rogge, 2014) and failed an attention check included in the survey. No participant satisfied this criterion. Hence, the final sample included 158 participants with an average age of 38.48. The sample included an equal number of men and women.

Procedure

Participants were introduced to the survey by telling them that they would evaluate a brand based on presented brand descriptions. After this introduction, participants provided answers

on questions related to their personality, which intended to measure relevant covariates. They were then presented with the main brand name and shown one of the two pretested main brand stimuli based on their random assignment to the experimental conditions.

Following the same procedure as in the pretest, participants were asked to reflect on the main brand and to describe and characterize the brand in a short essay-writing task. After finishing the writing task, participants indicated their attitude towards the brand and assessed the personality of the brand.

In the following part, participants were introduced to a brand extension scenario. Particularly, they were shown a press release of the main brand, which announced that the main brand decided to expand into new product categories (see Appendix III). Participants were told that they would review several products that were considered by the main brand as potential brand extensions. They were then presented with the seven extension stimuli selected in the pretest and asked to evaluate each of the extension products described in the stimuli. Extensions were presented in random order. After evaluating the extension products, participants indicated their attitude towards the brand again.

In the final section of the survey, participants completed several demographic questions, an attention check that contained questions on the content of the survey, and a question requiring them to guess the purpose of the study. Participants were then debriefed.

4.4.1.4 Applied Measures

Dependent variables

Participants' mean extension evaluation across the seven brand extensions and participants' brand attitude were chosen as dependent variables. Extension evaluations were measured using a seven-point semantic differential scale including three items (not at all favorable/extremely favorable, extremely negative/extremely positive, very low quality/very high quality), which were taken from existing extension evaluation scales (Milberg et al., 2010; Sood & Keller, 2012). The scale showed high reliability across the different extension products (αs $\geq$ .94).

To measure brand attitude, the three-item brand attitude scale of the pretest of the main brand stimuli was applied. The scale was used twice, once to measure brand attitude before brand extension evaluations and once to measure brand attitude after these evaluations. Reliability of the scale was high at both points in time (αs $\geq$ .95).

Variables used for manipulation checks

To be able to check whether the personality manipulation was successful, participants' perception of the personality of the main brand was measured based on the activity and responsibility dimension of the brand personality scale of Geuens et al. (2009). The corresponding Likert items (activity dimension: active, dynamic, innovative; responsibility dimension: down-to-earth, stable, responsible) were measured on a seven-point scale. Reliability was sufficiently high for both dimensions ($\alpha_{activity} = .90$, $\alpha_{responsibility} = .84$).

Variables used for confound checks

Parent brand attitude before brand extension was used to identify potential confounds related to the main brand stimuli (for a review of existing findings on the influence of brand attitude on brand extension evaluation, see Section 2.2.3). Brand attitude was measured as outlined in the previous description of the dependent variables.

Covariates

Participants' construal level was defined as a potential covariate. Consumers' construal level has been shown to be relevant for extension evaluations by moderating the impact of perceptions of fit on such evaluations (Kim & John, 2008; Meyvis et al., 2012). In particular, while consumers with a high construal level generally tend to evaluate extensions with high and moderate fit differently, this is not the case for consumers with low levels of construal (Kim & John, 2008). This indicates that evaluations of extensions are likely to vary with consumers' construal level. To be able to account for this variation, construal level was measured using the behavior identification form by Vallacher and Wegner (1989), which includes 25 items that refer to different behaviors. Following the procedure of Vallacher and Wegner, participants were presented with two descriptions of each behavior, one based on the low-level actions related to the behavior and one based on the high-level meaning of the behavior. Participants were asked to choose the option that they considered to describe the behavior best. Reliability of the behavior identification form was high ($\alpha = .92$).

Details on the scales used in Study 3 are summarized in Table 4-3.

Table 4-3: Scales applied in the main study of Study 3

Scale	Source(s)	Items[a]	Reliability[b]
Activity (brand personality)	Geuens et al. (2009)	Likert items: active, dynamic, innovative	$\alpha = .90$
Brand attitude (adapted)	Chun et al. (2015), Lee and Aaker (2004)	Semantic differentials: extremely bad/extremely good, extremely negative/extremely positive, dislike it very much/like it very much	$\alpha s \geq .95$
Construal level (behavior identification form)	Vallacher and Wegner (1989)	Dichotomous choice for 25 behaviors (see original scale)	$\alpha = .92$
Extension evaluation (adapted)	Milberg et al. (2010), Sood and Keller (2012)	Semantic differentials: not at all favorable/extremely favorable, extremely negative/extremely positive, very low quality/very high quality	$\alpha s \geq .94$
Responsibility (brand personality)	Geuens et al. (2009)	Likert items: down-to-earth, stable, responsible	$\alpha = .84$

[a] All items were measured on seven-point scales.
[b] Multiple statistics indicate that the scale was used more than once in the study.

4.4.2 Results

4.4.2.1 Manipulation and Confound Checks

Manipulation checks

Analysis of brand personality ratings of the main brand showed that brand personality was manipulated as intended. Participants in the active condition rated the main brand significantly higher on the activity dimension of brand personality (M = 5.44) than participants in the responsible condition (M = 4.78; $t(156) = 3.03$, $p < .01$). Similarly, ratings of the main brand on the responsibility dimension of brand personality were significantly higher for participants in the responsible condition (M = 6.10) than for participants in the active condition (M = 5.27; $t(134.07) = 5.21$, $p < .001$).

Confound checks

To test whether stimuli had unintended effects on variables relevant to brand extension evaluations, differences in brand attitude before brand extension evaluations were compared

for the two experimental conditions. While no difference in brand attitude between participants exposed to the stimuli referring to the active and the responsible brand was evident in the pretest sample, brand attitude significantly differed between participants in the two experimental conditions in the main study. Accordingly, participants exposed to the responsible brand stimulus evaluated the main brand more positively (M = 5.83) than those exposed to the active brand stimulus (M = 5.50; $t(144.28) = 1.99$, $p < .05$). This effect of the manipulation on brand attitude could potentially disguise effects predicted by H2 and is therefore further addressed as part of the subsequent analysis.

Furthermore, to indicate whether confounds might result from differences in attrition between the two participant groups, dropout rates of the two experimental conditions were compared. Analysis results showed that dropout rates before data cleaning did not differ significantly between the active (25/103 = 24.27%) and the responsible brand condition (20/103 = 19.42%; $\chi^2(1) = 0.71$, $p > .3$).

Additionally, participants of the two experimental groups did not significantly differ with respect to their age and gender (ps > .3).

4.4.2.2 Hypothesis Testing

Extension evaluation

To examine the effect of brand personality on brand extension evaluations predicted by H2, participants' mean extension evaluations across the seven extensions were compared for the two experimental conditions based on an ANCOVA, which included participants' construal level and brand attitude before brand extension evaluations as covariates. Brand attitude was defined as a covariate of extension evaluations to account for potential deviations in extension evaluations related to the previously outlined differences in brand attitude towards the active and responsible brand. Since the influence of participants' construal level on extension evaluations was not significant, the variable was dropped from the model ($p > .3$).

The analysis revealed that extension evaluations of the active brand (M = 5.09)[5] did not significantly differ from extension evaluations of the responsible brand (M = 4.96; $F(1, 155) = 1.18$, $p > .2$; see Figure 4-1). Hence, the sample of the current study does not support H2 and its prediction that brand extensions of active brands are evaluated more positively than extensions of responsible brands.[6]

[5] Marginal means of extension evaluations at the sample mean of brand attitude before brand extension evaluations are reported.

[6] An additional ANOVA that did not include brand attitude before extension evaluation as a covariate yielded similar results (M_{active} = 5.01, $M_{responsible}$ = 5.05; $t(156) = -.28$, $p > .7$).

Parent brand attitude

To test the prediction of H5 that the differential impact of brand extension on parent brand attitude is more positive for active than for responsible brands, a repeated-measures ANOVA was conducted with brand attitude as dependent variable, brand personality as a between-subjects factor, and time (after vs. before extension) as a within-subjects factor.

A marginally significant main effect of time indicated that brand attitude before and after extension differed across the two types of brand personality ($F(1, 156) = 3.81$, $p < .1$; see Figure 4-1). Furthermore, the interaction between brand personality and time reached marginal significance ($F(1, 156) = 2.80$, $p < .1$), which indicates that changes in brand attitude differed for active and responsible brands. Post hoc analysis revealed that brand attitude after brand extension evaluations did not differ for active and responsible brands ($M_{active} = 5.48$, $M_{responsible} = 5.55$; $t(156) = -.37$, $p > .7$). However, as indicated by the previous confound check, brand attitude differed before brand extension evaluations. Separate comparisons for active and responsible brands of brand attitude before extension and after extension showed that brand attitude decreased significantly for responsible brands ($M_{before} = 5.83$, $M_{after} = 5.55$; $t(79) = 2.54$, $p < .05$), whereas the change in brand attitude was not significant for active brands ($M_{before} = 5.50$, $M_{after} = 5.48$; $t(77) = .20$, $p > .8$). These findings are in line with H5.

To investigate whether the findings could be explained by extension evaluations (see H6a, H6b), mediation analysis was conducted following the regression-based approach described by Hayes (2018a). The statistical model of the analysis was specified and estimated using version 3.3 of the PROCESS macro for SPSS.[7] The model included brand personality as independent variable (dummy coding: 1 - active, 0 - responsible), participants' mean extension evaluations across the seven extensions as mediator, and the difference between participants' brand attitude after brand extension and before brand extension (ΔPBA) as dependent variable (PROCESS Model 4). The corresponding conceptual model and related hypotheses are shown in Figure 4-2.

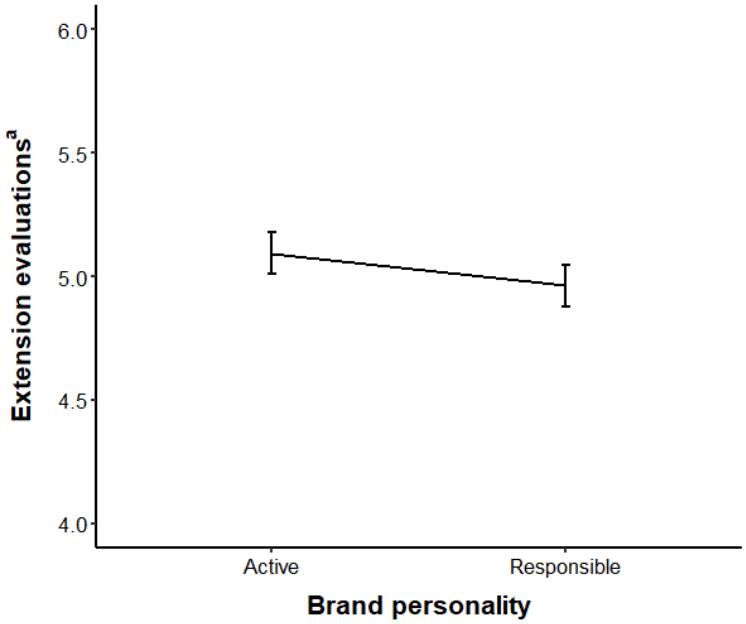
In line with H6a, the analysis revealed that ΔPBA increased significantly with extension evaluations ($B = .22$, $SE = .07$, $p < .01$; see Appendix IV for detailed regression results)[8]. However, consistent with the previous ANOVA on participants' mean extension evaluations,

[7] Detailed information on the PROCESS macro for SPSS is given in Hayes (2018a). A version history of the software can be found on http://processmacro.org/.

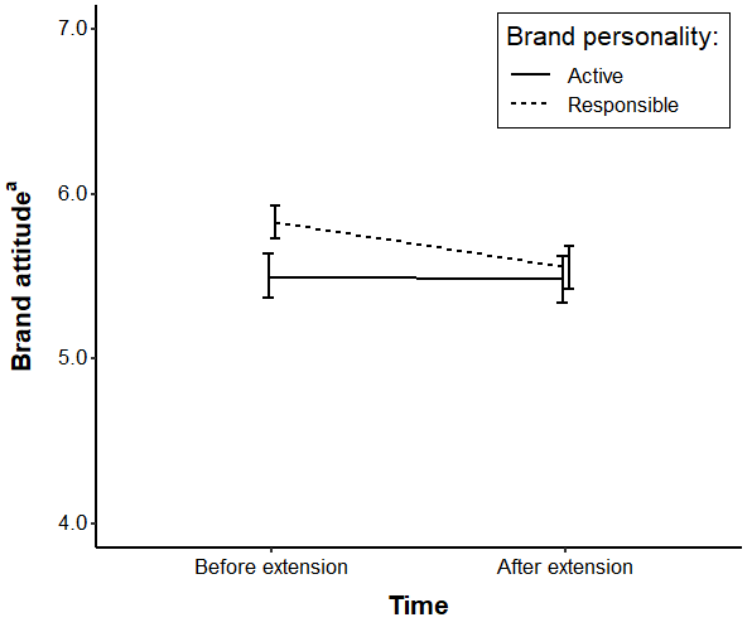
[8] Unstandardized effects are reported for all mediation analyses of this dissertation since dichotomous independent variables are included in the models analyzed (Hayes, 2018a). Furthermore, robust standards errors based on the HC3 estimator (Davidson & MacKinnon, 1993) were used in all models (for a discussion of standard error estimation in the context of regression analysis, see Hayes & Cai, 2007).

Figure 4-1: Mean extension evaluations and brand attitude (before and after extension) for the two experimental conditions of Study 3 (brand personality: active vs. responsible)

A. Extension evaluations

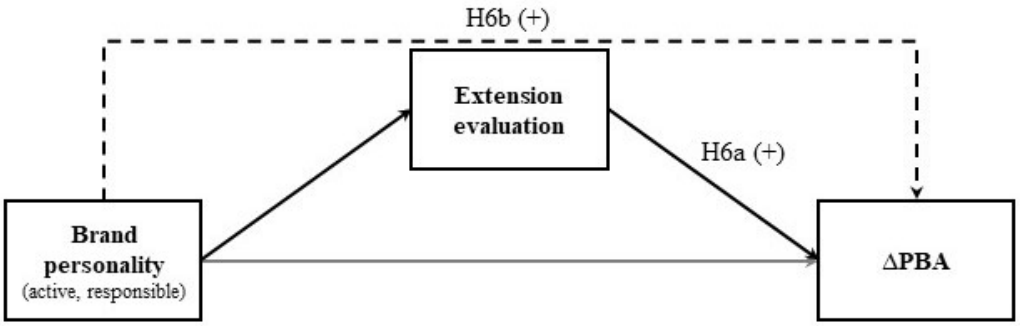


B. Brand attitude



[a] Error bars represent standard errors.

Figure 4-2: Conceptual model used for the mediation analysis of Study 3



participants in the active condition and the responsible condition did not differ significantly in how they evaluated the seven extensions (B = -.04, SE = .15, p > .7). As a result, the indirect effect of brand personality on ΔPBA was not significant (B = -.01, bootstrap SE = .03, 95% bootstrap CI: -.07, .06)[9]. Thus, H6b and its prediction that brand personality (active vs. responsible) influences the differential impact of brand extension on parent brand attitude indirectly and positively through extension evaluations are not supported by the data of Study 3.

Additional analysis of the direct effect of brand personality on ΔPBA yielded results that were in line with the repeated-measures ANOVA on brand attitude. Accordingly, the direct effect of brand personality on ΔPBA was positive and marginally significant (B = .27, SE = .15, p < .1).

4.4.3 Discussion

The prediction of H2 that consumers evaluate brand extensions of active brands more positively than extensions of responsible brands was not supported in the context of Study 3.

Despite this lack of an effect of brand personality on extension evaluations, results showed that the differential effect of brand extension on parent brand attitude differed for active and responsible brands at a marginal level of significance. Analysis of simple effects revealed that brand attitude was significantly negatively affected by brand extension for responsible brands while no such difference was evident for active brands. These results are consistent with the

[9] All bootstrap estimates provided as part of this dissertation were based on 10,000 bootstrap samples and were derived using the bootstrap procedures implemented in PROCESS.

prediction of H5. However, contrasting H6b, mediation analysis showed that the observed effect of brand personality on the differential impact of brand extension on parent brand attitude could not be explained by extension evaluations. In particular, despite extension evaluations being positively related to ΔPBA in line with H6a, the indirect effect of brand personality on ΔPBA was not significant due to the lack of an effect of brand personality on extension evaluations. Thus, while the observed effect of brand personality on the differential effect of brand extension on parent brand attitude is consistent with H5, the theoretical account based on which H5 was derived is not supported.

The results of Study 3 are subject to two main limitations. First, while brand breadth and brand quality perceptions were compared for the two main brand stimuli as part of the pretests, no data was collected on brand breadth and brand quality perceptions in the main study. Thus, no confound checks related to these constructs could be carried out. As a consequence, possible effects of brand breadth and brand quality on the results on brand extension evaluations cannot be ruled out. Second, results are possibly limited by the use of a fictitious brand to manipulate brand personality. Manipulation checks of the main study demonstrated that brand personality perceptions differed significantly and as intended between participants of the two experimental groups. However, it is uncertain whether the strength of brand personality associations of the fictitious brand was comparable to the strength of typical brand personality associations of real brands. As a result, it is not clear whether exposure to the fictitious brand name led to an activation of brand personality traits and related brand behavior that is representative of such an activation following from exposure to real brands. This uncertainty is further corroborated by the fact that the brand personality ratings used for the manipulation checks of the study were provided by participants shortly after manipulation. Thus, differences in brand personality perception between the two experimental groups during extension evaluations might have been less pronounced than suggested by manipulation checks. This concern is particularly relevant when considering that participants were recruited from MTurk since it has been demonstrated that learning rates in studies conducted on MTurk are lower than in laboratory studies (Crump, McDonnell, & Gureckis, 2013).

To address the outlined limitations, an additional experimental study was conducted, which used real brands as a means of manipulating brand personality and that included controls not only for parent brand attitude but also for parent brand breadth and quality.

4.5 Study 4: The Impact of Brand Personality on Brand Extension Outcomes (II)

4.5.1 Method

4.5.1.1 Experimental Design

Study 4 was based on an experimental design with a single between-subjects factor (brand personality: active vs. responsible). The goal of the study was to test H2 and its prediction that brand extensions of active (vs. responsible) brands are evaluated more positively.

4.5.1.2 Stimuli

To be able to measure the effect of brand personality on extension evaluations, stimuli containing descriptions of brand extensions were created. The descriptions stated the product category of the extension and provided examples of products in that category (e.g., "Non-alcoholic beverages, such as juice, soft drinks, and tea."). Categories for the stimuli were chosen from an initial set of 25 broad product categories that referred to common consumer goods. Choices were made based on the goal to cover a wide variety of products while at the same time avoiding to include categories to which brand extension was considered to be highly unlikely (e.g., tobacco or petroleum products). A total of 12 categories were selected from the initial set. The corresponding extension descriptions can be found in Appendix V.

4.5.1.3 Participants and Procedure

Participants

Participants were recruited from Amazon MTurk using the same worker restrictions as in the previous studies. Hence, only U.S. workers with an approval rate of 98% and higher, and with at least 500 completed tasks could access the study. Workers' compensation was set at USD 1.35 for an expected survey completion time of 13-14 minutes.

A total of 110 MTurk workers participated in the study. From this initial sample, three participants were excluded due to language issues or since they did not follow instructions. The remaining participants were screened for inattentiveness, which was determined based on participants' survey completion time and an attention check included in the survey. More specifically, participants were considered inattentive when they completed the survey in less than half of the 5% trimmed mean of completion time (Maniaci & Rogge, 2014) and at the same time failed the attention check. The analysis showed that all participants appeared to have been sufficiently attentive. Of the final 107 participants, 45 (42.06%) were female and 62 (57.94%) were male. Average age of participants was 36.98.

Procedure

At the beginning of the survey, participants were informed that they would be asked to evaluate brands as the main task of the survey. Following this introduction, participants proceeded to the brand personality manipulation. The manipulation required participants to think about either an active or a responsible brand, which they were free to choose. Specifically, participants were shown the following instructions:

> Please take a moment to think about a brand that you consider *dynamic, innovative, and adventurous / stable, responsible, and down-to-earth*. Feel free to choose this brand from any product category. Both brands of which you own products and brands of which you do not own products are acceptable. However, remember to choose a brand that you consider *dynamic, innovative, and adventurous / stable, responsible, and down-to-earth*.

These instructions were based on the brand concept manipulation by McFerran, Aquino, and Tracy (2014), who employed their manipulation as part of an episodic recall task.

The instructions were followed by questions that asked participants to provide the name of the brand chosen and to indicate whether they currently own the respective brand. Furthermore, participants shortly elaborated on why they considered the chosen brand to possess the characteristics described in the instructions of the manipulation. This task aimed to further activate the chosen brand in participants' memory and to provide a means of qualitatively examining participants' attentiveness to the instructions. Subsequent to elaborating on their chosen brand, participants were shown the brand name again and prompted to correct any mistakes in spelling to ensure that later reference to the brand was based on the correct brand name.

Participants were then asked to evaluate the brand by indicating their brand attitude and by assessing the breadth, quality, and personality of the brand. Corresponding measures were ordered randomly.

After completing the brand evaluation, participants were introduced to the following brand extension scenario:

> Imagine the brand [NAME OF THE CHOSEN BRAND] decided to expand and plans to introduce new products under its existing brand name. To gain insights into consumers' perception of possible new products, market research is conducted. As part of this research, you are asked to evaluate new products inside and outside the product categories the brand is currently active in.

Following this description, participants were shown the 12 brand extension stimuli. For each stimulus, they were asked to provide an overall evaluation of the presented extension, to indicate how well the extension fit the parent brand, and to state how relevant they considered associations of the parent brand to be for the extension. Each of these tasks was based on a separate measure.

The final part of the survey included several demographic questions, an attention check that contained questions on the contents of the survey, and a question asking participants to guess the purpose of the study. The survey concluded by debriefing participants.

4.5.1.4 Applied Measures

Dependent variables

Participants' mean extension evaluation across the 12 extensions was defined as the single dependent variable of the study. Extension evaluations were measured based on a seven-point semantic differential scale with two items (bad/good, unfavorable/favorable), which were taken from extension evaluation scales of previous research (Milberg et al., 2010; Sood & Keller, 2012). Reliability of the scale was high for all evaluated extensions (ρs $\geq$ .98).[10]

Variables used for manipulation checks

To be able to test whether the brand personality manipulation had the expected influence on participants' brand perception, brand personality of the brands chosen by participants was measured based on the brand activity and brand responsibility dimension of the brand personality scale by Geuens et al. (2009). Reliability of both subscales was sufficiently high ($\alpha_{activity}$ = .84, $\alpha_{responsibility}$ = .75).

Variables used for confound checks

Participants' attitude towards the main brand, the mean of the perceived fit of the main brand with the presented extensions, the mean relevance of main brand associations for the presented extensions, as well as the perceived quality and breadth of the main brand were used to identify potential confounds related to the main brand stimuli (for a review of factors that have been found to influence brand extension evaluations, see Sections 2.2.2 and 2.2.3).

To measure brand attitude, the three-item scale of Study 3 was used, which showed high reliability in the current sample (α = .94). Participants' perceptions of fit between the main brand and the extensions, and of the relevance of parent brand associations for the extension

[10] Reliability was estimated based on the Spearman-Brown statistic (Eisinga, te Grotenhuis, & Pelzer, 2013). This statistic was used as a measure for reliability for all two-item scales included in the studies of this dissertation.

product were measured based on the brand-extension similarity and brand relevance scale previously applied in the pretest of the extension stimuli of Study 3. For both scales, reliability was high across extensions ($\alpha s_{similarity} \geq .98$; $\alpha s_{relevance} \geq .96$). Brand breadth and brand quality were assessed using the corresponding one-item scales from the pretest of the main brand stimuli of Study 3.

Table 4-4: Scales applied in the main study of Study 4

Scale	Source(s)	Items[a]	Reliability[b,c]
Activity (brand personality)	Geuens et al. (2009)	Likert items: active, dynamic, innovative	$\alpha = .84$
Brand attitude (adapted)	Chun et al. (2015), Lee and Aaker (2004)	Semantic differentials: extremely bad/extremely good, extremely negative/extremely positive, dislike it very much/like it very much	$\alpha s = .94$
Brand breadth	-	Likert item: "This brand sells many different products."	-
Brand-extension similarity (global similarity; adapted)	Spiggle et al. (2012)	Likert items: "[EXTENSION] [is/are] a good fit with the products/consistent with the products/similar to the products/representative of the products of the brand [MAIN BRAND]."	$\alpha s = .98$
Brand quality	-	Semantic differential: very low quality/very high quality	-
Brand relevance (adapted)	Spiggle et al. (2012)	Likert items: "The benefits/characteristics I associate with [MAIN BRAND] are relevant to [EXTENSION].", "The associations that I have for [MAIN BRAND] are important to [EXTENSION]."	$\alpha s = .96$
Extension evaluation (adapted)	Milberg et al. (2010), Sood and Keller (2012)	Semantic differentials: bad/good, unfavorable/favorable	$\rho s \geq .98$
Responsibility (brand personality)	Geuens et al. (2009)	Likert items: down-to-earth, stable, responsible	$\alpha = .75$

[a] All items were measured on seven-point scales.
[b] Multiple statistics indicate that the scale was used more than once in the study.
[c] The Spearman-Brown statistic is reported for two-item scales.

Covariates

Brand ownership was selected as a potential covariate related to brand extension evaluations. Previous research has shown that brand ownership (i.e., whether a consumer owns a brand or not) can influence evaluations of new products of a brand (Kirmani, Sood, & Bridges, 1999). In particular, evaluations of upward and downward line extensions have been demonstrated to depend on brand ownership (Kirmani et al., 1999).

Brand ownership was measured using the binary response of participants to the question whether they currently own the brand they named as part of the experimental procedure (see Section 4.5.1.3).

Details on the scales used in Study 4 are again outlined in Table 4-4.

4.5.2 Results

4.5.2.1 Manipulation and Confound Checks

Manipulation checks

The brands chosen by participants in the two experimental conditions are listed in Appendix VI. Analysis showed that brand personality perception differed as intended between the two experimental groups. Accordingly, participants who were asked to think about and name an active brand rated their chosen brand significantly more positive on the activity dimension of brand personality (M = 6.39) than participants who were asked to think about and name a responsible brand (M = 5.30; $t(57.49) = 5.16$, $p < .001$). The opposite result was evident for participants' rating of the responsibility dimension of brand personality. Thus, participants who were asked to think about and name a responsible brand rated their chosen brand significantly more positive on the responsibility dimension of brand personality (M = 6.22) than participants who were asked to think about and name an active brand (M = 5.70; $t(103.85) = 2.96$, $p < .01$).

Confound checks

Tests on confounds related to the main brand stimuli revealed that brand attitude did not differ significantly between the participants who chose active brands (M = 6.47) and participants who chose responsible brands (M = 6.49; $t(105) = -.12$, $p > .9$). Similarly, no significant differences were evident between the two groups in perceptions of brand quality (M_{active} = 6.48, $M_{responsible}$ = 6.29; $t(65.83) = 1.06$, $p > .2$) and brand breadth (M_{active} = 5.71, $M_{responsible}$ = 5.60; $t(105) = .39$, $p > .6$). Furthermore, a MANOVA based on participants' mean ratings of

the similarity between the main brand and the 12 presented extensions, and their mean ratings of the relevance of main brand associations for the extensions showed that perceptions referring to these measures did not significantly differ for the two experimental conditions ($F(2, 104) = 2.15$, $p > .1$).

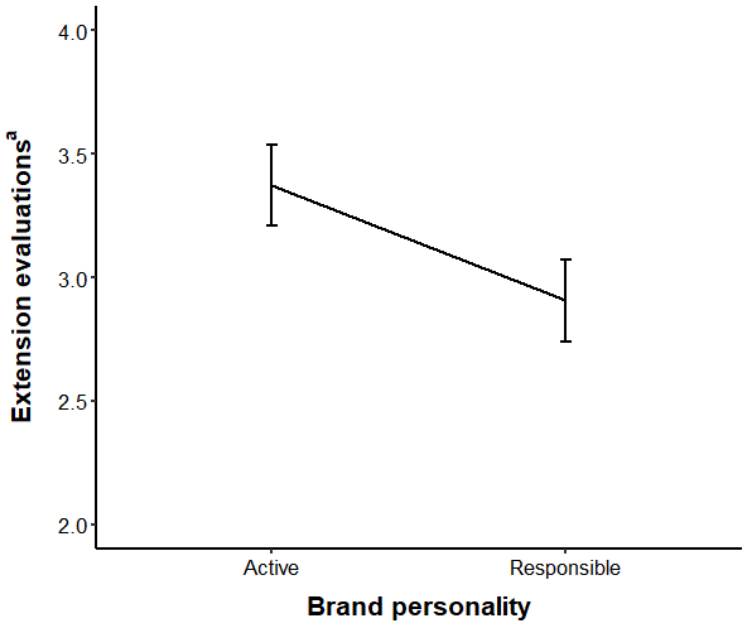
In addition, dropout rates were compared for the two treatment conditions to indicate possible confounds related to deviating attrition in the two experimental groups. Dropout rates before data cleaning did not differ significantly between the active (22/87 = 25.29%) and the responsible brand condition (23/68 = 33.82%; $\chi^2(1) = 1.35$, $p > .2$).

As a final confound check, age and gender of participants in the two experimental groups were compared. Neither age nor gender differed significantly between the groups (*p*s > .1).

4.5.2.2 Hypothesis Testing

To test H2 and its prediction that consumers evaluate brand extensions of active brands more positively than brand extensions of responsible brands, an ANOVA with participants' mean

Figure 4-3: Mean extension evaluations for the two experimental conditions of Study 4 (brand personality: active vs. responsible)



[a] Error bars represent standard errors.

evaluation of the 12 extension products as dependent variable was conducted. The initial model included brand ownership as a factor in order to control for possible variation in extension evaluations related to brand ownership. However, since the relationship between the outcome and brand ownership was not significant ($p > .6$), the variable was dropped from the model.

The analysis showed that participants in the active condition evaluated extension products more positively than participants in the responsible condition at a marginal level of significance ($M_{active} = 3.37$, $M_{responsible} = 2.91$; $F(1, 105) = 3.76$, $p < .1$; see Figure 4-3). Thus, participants seemed to be more accepting of the same extensions when they assumed that an active brand (vs. a responsible) brand introduced these extensions. This finding is in line with the prediction of H2.

4.5.3 Discussion

The findings of Study 4 provide some initial support for H2 and the prediction that extensions of active brands are evaluated more positively than extensions of responsible brands. Based on the controls implemented in the study, the reported results indicate that this difference in extension evaluations is unrelated to parent brand attitude, quality and breadth, and the perceived relevance of parent brand associations for extensions. Furthermore, the finding of the confound check that perceived fit of the main brand and extensions did not differ between the two experimental groups suggests that the observed difference in extension evaluations might be linked to a process unrelated to perceptions of fit.

However, these interpretations have to be considered with caution since the observed effect of brand personality on extension evaluations reached only marginal significance. Furthermore, while the findings of Study 4 seem to support H2, no such support was found in Study 3. As the discussion of Section 4.4.3 indicates, this inconsistency in results might be related to the deviating manipulations of the studies or to differences in brand quality and brand breadth perceptions of the parent brand in Study 3. However, another possible explanation for the discrepancy in effects of Studies 3 and 4, which might also explain the low significance level of the effect evident in Study 4, is the hypothesized dependence of the relationship between brand personality and extension evaluations on perceptions of fit (see H4a-c) and on consumers' need for affect (see H8a and H8b) and expertise in the extension category (see H9a and H9b). As outlined in Section 3.1, this dependence is expected to be the result of the moderating impact of the highlighted variables on the indirect effect of brand personality on extension evaluations through processing fluency (see H3a-c).

The link between brand personality, processing fluency, and extension evaluations, and the potential boundary conditions of this link were examined in Studies 5 and 6. The studies also investigated the impact of brand personality on effects of brand extension on the parent brand.

4.6 Study 5: The Impact of Brand Personality on Brand Extension Outcomes and Its Potential Boundary Conditions (I)

4.6.1 Method

Study 5 was based on a 2 (brand personality: active vs. responsible) x 3 (perceived fit: low vs. moderate vs. high) between-subjects experimental design. The objective of the study was to investigate whether brand extensions of active (vs. responsible) brands are evaluated more positively (see H2) and whether the differential impact of brand extension on parent brand attitude is more positive for active than for responsible parent brands (see H5).

Furthermore, the process hypothesized to link brand personality and brand extension evaluations was scrutinized. Accordingly, the study tested whether brand personality (active vs. responsible) affects the fluency with which consumers process brand extensions positively (see H3a), whether fluency is positively related to extension evaluations (see H3b), and, as a result, whether brand personality influences extension evaluations indirectly through processing fluency (see H3c). In addition, the moderating influence of perceptions of fit (see H4a-c), consumers' need for affect (see H8a and H8b), and consumers' expertise in the extension category (see H9a and H9b) on the relationship between brand personality and extension evaluations was examined.

Study 5 also investigated the process hypothesized to underlie the potential influence of brand personality on the differential impact of brand extension on parent brand attitude. In particular, it was tested whether this differential impact is influenced by the proposed effect of brand personality on extension evaluations through processing fluency (see H6c). Furthermore, the study examined whether the potential indirect effect of brand personality on the differential impact of brand extension on parent brand attitude through processing fluency and extension evaluation is moderated by the perceived fit of extensions (see H7), consumers' need for affect (see H10a), and their expertise in the product category (see H10b).

4.6.1.1 Stimuli

Main brand

Brand personality was manipulated using the same fictitious audio equipment brand as in Study 3. Thus, the stimuli developed as part of Study 3 provided the basis for the main brand

stimuli of the current study. However, since brand attitude differed for these stimuli in the main study of Study 3, brand descriptions and brand logos included in the stimuli were slightly adapted (see Appendix VII).

To examine whether the main brand stimuli manipulated brand personality as expected and did not unintentionally manipulate other parent brand characteristics relevant to brand extension outcomes, a pretest with 122 participants from Amazon MTurk was conducted (for a review of parent brand characteristics that affect brand extension outcomes, see Section 2.2.3).

The pretest was divided in two parts. In the first part, participants were shown either the stimulus describing the active brand or the stimulus describing the responsible brand based on a random assignment. Following the same manipulation procedure as in Study 3, participants were then required to reflect on the presented brand and to describe and characterize it in a short essay-writing task. Subsequent to this writing task, participants completed different scaled measures on the brand. These measures consisted of a three-item, semantic differential scale on overall brand attitude (negative/positive, unfavorable/favorable, dislike/like; $\alpha = .94$) that was derived from existing scales (Chun et al., 2015; Lee & Aaker, 2004) and the same single-item brand quality scale and brand breadth scale that were used in Studies 3 and 4. Furthermore, participants rated the main brand on the activity dimension ($\alpha = .88$) and the responsibility dimension ($\alpha = .87$) of the brand personality scale of Geuens et al. (2009). All scales applied were seven-point scales.

In the second part of the pretest, participants compared different product categories to the main brand. This second part is discussed in the following section on the brand extension stimuli.

Analysis of the measured brand personality dimensions showed that perceptions of brand personality differed as intended between the two main brand stimuli. Specifically, participants exposed to the stimulus describing the active brand considered the main brand more active ($M = 5.71$) than participants exposed to the stimulus describing the responsible brand ($M = 4.85$; $t(120) = 4.05$, $p < .001$). Similarly, participants exposed to the stimulus describing the responsible brand considered the main brand more responsible ($M = 6.17$) than participants exposed to the stimulus describing the active brand ($M = 5.28$; $t(97.42) = 4.64$, $p < .001$). Furthermore, no significant differences were evident in participants' perception of the two main brand stimuli with respect to brand attitude ($M_{active} = 5.56$, $M_{responsible} = 5.89$; $t(110.62) = -1.64$, $p > .1$), brand quality ($M_{active} = 5.87$, $M_{responsible} = 5.86$; $t(120) = 0.05$, $p > .9$), and brand breadth ($M_{active} = 4.32$, $M_{responsible} = 3.95$; $t(120) = 1.46$, $p > .1$).

Brand extensions

Three brand extension stimuli were developed to enable measurement of possible differences in evaluations of extensions of the main brand. These stimuli were based on brief descriptions of three different product categories, which varied in their perceived fit with the main brand. Accordingly, product categories had either a high, moderate, or low fit with the main brand (for a similar approach, see Barone et al., 2000; Keller & Aaker, 1992). The product categories were chosen based on two separate pretests.

In particular, in the second part of the previously described pretest on the main brand stimuli, participants compared six different product categories to the main brand. As part of this comparison, participants provided answers on a two-item seven-point semantic differential scale on the overall fit of the main brand and the respective product category (doesn't fit with the brand/fits with the brand, inconsistent with the brand/consistent with the brand; ρs $\geq$ .96), which was adapted from previous brand extension research (Monga & Gürhan-Canli, 2012; Monga & John, 2010). Furthermore, participants indicated how relevant they considered the associations of the main brand to be for extension category based on the three-item brand relevance scale applied in the brand extension pretest of Study 3 and in Study 4 (αs $\geq$ .95). To assess the discriminant validity of the perceived fit scale and the brand relevance scale, the scales were submitted to confirmatory factor analysis. A comparison of the estimates of average variance extracted for the two scales with the squared correlation between the scales indicated that the scales were sufficiently distinct (*AVE*s $\geq$ .93, r^2 = .81).

A MANOVA was conducted for each of the product categories to determine whether fit perceptions or brand relevance judgments differed for the two main brand stimuli. Product categories were eliminated if the analysis revealed significant differences. From the remaining product categories, a moderate-fit category (musical instruments) and a low-fit category (furniture) could be identified. The MANOVA conducted for the moderate-fit extension showed that perceived fit and brand relevance did not differ significantly between participants who were exposed to the active brand (M_{fit} = 3.87, $M_{\text{relevance}}$ = 4.15) and participants who were exposed to the responsible brand (M_{fit} = 4.10, $M_{\text{relevance}}$ = 4.14; $F(2, 119) = .66$, $p > .5$). Similar results were obtained for the MANOVA related to the low-fit extension. Specifically, perceived fit and brand relevance did not differ significantly for the low-fit extension between participants who saw the active brand (M_{fit} = 1.62, $M_{\text{relevance}}$ = 1.79) and participants who saw the responsible brand (M_{fit} = 1.88, $M_{\text{relevance}}$ = 2.24; $F(2, 119) = 1.41$, $p > .2$).

Since no high-fit product category could be retained after the initial elimination procedure of the first pretest, a second pretest was conducted. For this second pretest, 84 participants were recruited from Amazon MTurk. After being introduced to the study, participants were exposed to one of the main brand stimuli based on a random assignment and completed the same short essay-writing task as in the first pretest. Subsequently, they compared the main brand to four product categories based on the same fit measure (ρs $\geq$ .93) and brand relevance measure (αs $\geq$ .94) as in the first pretest. Confirmatory factor analysis suggested sufficient discriminant validity between the two measures (*AVE*s $\geq$ .92, r^2 = .80).

As for the first pretest, a series of MANOVAs was conducted to eliminate product categories for which fit perceptions or brand relevance judgments differed between the two main brand stimuli. Based on this procedure, digital music players were selected as a high-fit product category. MANOVA results indicated no significant difference in perceived fit and brand relevance ratings between participants who were exposed to the active brand (M_{fit} = 5.64, $M_{\text{relevance}}$ = 5.65) and participants who were exposed to the responsible brand (M_{fit} = 5.56, $M_{\text{relevance}}$ = 5.54; $F(2, 81) = .07$, $p > .9$).

To ensure that the three selected product categories influenced fit perceptions as intended, mean fit ratings across the two main brand stimuli were compared for these categories. These comparisons showed that fit perceptions of the high-fit product category (M = 5.60) were significantly more positive than those of the moderate-fit product category (M = 3.98; $t(198.9) = 6.53$, $p < .001$), and fit perceptions of the moderate-fit product category were significantly more positive than those of the low-fit product category (M = 1.75; $t(121) = 12.40$, $p < .001$).

To create the final stimuli, descriptions of the three product categories were embedded in a mock-up of a news page on the main brand's website. This news page contained an announcement of the introduction of a new product that referred to one of the three product categories. The final brand extension stimuli are shown in Appendix VIII.

4.6.1.2 Participants and Procedure

Participants

Amazon MTurk workers were recruited as participants for the study. As for the previous studies, only workers located in the U.S. who had an approval rate of 98% and higher and who had completed at least 500 tasks were permitted to participate. Compensation was set at USD 1.00 based on an expected study completion time of 10 minutes.

Overall, 310 MTurk workers participated in the study. Of the initial participants, 16 were excluded since they copied random text into answer fields or did not comply with instructions. Additionally, one participant was dropped from the initial sample due to inattentiveness since the participant completed the survey in less than half of the 5% trimmed mean of completion time (Maniaci & Rogge, 2014) and at the same time failed an instructional manipulation check included in the survey (Oppenheimer et al., 2009). As a result of data cleaning, the final sample included 293 participants with an average age of 37.95. Of these participants, 143 (48.81%) were female and 150 (51.19%) were male.

Procedure

After accessing the study, participants were shown a generic study description, which stated that they would be required to evaluate a brand based on information provided to them. Following this introductory description, participants were asked to complete questions on their personality, which measured their need for affect (Maio & Esses, 2001). They were then introduced to the main brand name and exposed to one of the two main brand stimuli developed as part of the pretest. Which stimulus participants saw was determined based on their random assignment to the brand personality conditions. As in the pretest, participants were asked to reflect on the main brand and to describe and characterize the brand in a short essay-writing task. They then assessed the personality of the brand, indicated their attitude towards the brand, and evaluated the brand's breadth and quality.

To introduce the brand extension of the main brand, participants were provided with the following scenario:

> You are visiting PDC's website. On the main page of the website, you see a link to a company announcement. You click on the link and the announcement is shown.

Subsequent to this scenario, one of the three pretested brand extension stimuli was displayed, which was chosen based on participants' random assignment to the perceived fit conditions. Participants then evaluated the brand extension, completed a measure on processing fluency, and indicated their attitude towards the main brand again. Next, they assessed how relevant they considered their main brand associations to be for the extension, rated the perceived fit of the main brand and the extension, and completed an instructional manipulation check. Subsequently, they indicated their knowledge of the extension category, and their self-connection to the brand (Escalas & Bettman, 2003).

To conclude with the survey, participants were asked to answer several demographic questions and a hypothesis guessing question. Finally, participants were debriefed.

4.6.1.3 Applied Measures

Dependent variables

Participants' brand extension evaluation, their attitude towards the main brand before and after brand extension, and the difference between participants' attitude towards the main brand before and after brand extension were selected as dependent variables.

Extension evaluations and brand attitude were measured based on the same three semantic differentials (negative/positive, unfavorable/favorable, dislike/like), which were identical to the items of the brand attitude scale used in the pretest of the main brand stimuli. The scales differed only in that the extension evaluation scale referred to the brand extension and the brand attitude scale referred to the main brand (for a similar approach, see Chun et al., 2015; Sood & Keller, 2012). To obtain data on parent brand attitude before and after brand extension, the brand attitude scale was applied twice. Reliability was high for both the brand attitude (αs $\geq$ .96) and the brand evaluation scale (α = .98).

Mediating variables

To be able to gain insights into the process underlying the possible influence of brand personality on brand extension evaluations, processing fluency was defined as a mediating variable. Fluency was measured by asking participants how easy or difficult they found it to process that the main brand introduces a new product. Participants provided their answer based on a seven-point semantic differential scale with a single item (difficult to process/easy to process). Similar one-item scales have been used in previous research (Labroo et al., 2008; Lee & Aaker, 2004).

Moderating variables

Need for affect and consumers' expertise in the extension category were specified as moderating variables to investigate the boundary conditions of possible effects of brand personality on extension evaluations and parent brand attitude. Need for affect was measured using the 10-item version of the need for affect questionnaire (Appel, Gnambs, & Maio, 2012). As proposed by Appel et al. (2012), items were based on a seven-point scale. Reliability of the scale was sufficiently high (α = .84).

To measure consumer expertise in the extension category, the five-item subjective knowledge scale developed by Flynn and Goldsmith (1999) was applied. Corresponding Likert items were measured on a seven-point scale. The scale exhibited high reliability (α = .92).

Variables used for manipulation checks

Variables used for the manipulation checks of Study 5 included the activity and responsibility dimension of brand personality (Geuens et al., 2009) and the perceived fit of the presented brand extension with the parent brand. The activity and responsibility dimension of brand personality were measured based on the respective seven-point subscales of the brand personality scale of Geuens et al. (2009). Both scales showed sufficient reliability ($\alpha_{activity}$ = .90, $\alpha_{responsibility}$ = .87). Brand-extension fit was assessed by using the overall fit scale applied in the pretest of the brand extension stimuli. Reliability of the scale was high (ρ = .97).

Variables used for confound checks

Four variables were used to identify potential confounds related to main brand stimuli: brand breadth, brand quality, brand relevance, and brand attitude before brand extension evaluations (for a review of factors influencing brand extension evaluations, see Sections 2.2.2 and 2.2.3). In addition, dependencies between the brand personality and perceived fit manipulations were examined based on the variables used for the manipulation checks.

Brand breadth and brand quality were measured using the same single-item scales as in the pretest of the main brand stimuli. Brand relevance was assessed by participants based on the same scale as in the two pretests of the extension stimuli. The scale showed high reliability in the current sample (α = .96). Furthermore, brand attitude before brand extension evaluations was measured as described in the previous subsection on the dependent variables.

Covariates

The relation between participants' self and the main brand was defined as a covariate of extension evaluations and parent brand attitude. As outlined in Section 2.1.2, the congruence between a brand's personality and consumers' self is positively related to brand attitude (J. L. Aaker, 1999). Furthermore, this congruence affects consumers' attachment to the brand (Malär et al., 2011), which has been shown to positively influence brand extension outcomes by increasing fit perceptions (Fedorikhin et al., 2008; see Section 2.2.3 for details).

To measure the relation between participants' self and the main brand, the three-item version of the self-brand connection scale by Escalas and Bettman (2003) was used. However, contrary to the original scale by Escalas and Bettman, items were measured on a seven-point Likert scale. Reliability of the scale was high (α = .93).

An overview of the discussed scales is shown in Table 4-5.

Table 4-5: Scales applied in the main study of Study 5

Scale	Source(s)	Items[a]	Reliability[b,c]
Activity (brand personality)	Geuens et al. (2009)	Likert items: active, dynamic, innovative	$\alpha = .90$
Brand attitude (adapted)	Chun et al. (2015), Lee and Aaker (2004)	Semantic differentials: negative/positive, unfavorable/favorable, dislike/like	αs $\geq .96$
Brand breadth	-	Likert item: "This brand sells many different products."	-
Brand-extension fit	Monga and Gürhan-Canli (2012), Monga and John (2010)	Semantic differentials: doesn't fit with the brand/fits with the brand, inconsistent with the brand/consistent with the brand	$\rho = .97$
Brand quality	-	Semantic differential: very low quality/very high quality	-
Brand relevance (adapted)	Spiggle et al. (2012)	Likert items: "The benefits/characteristics I associate with PDC are relevant to [EXTENSION].", "The associations that I have for PDC are important to [EXTENSION]."	$\alpha = .96$
Consumers' expertise in the extension category (subjective knowledge)	Flynn and Goldsmith (1999)	Likert items: "I know pretty much about [EXTENSION CATEGORY].", I do not feel very knowledgeable about [EXTENSION CATEGORY]." (reverse coded), "Among my circle of friends, I'm one of the 'experts' on [EXTENSION CATEGORY].", "Compared to most other people, I know less about [EXTENSION CATEGORY]." (reverse coded), "When it comes to [EXTENSION CATEGORY], I really don't know a lot." (reverse coded)	$\alpha = .92$
Extension evaluation (adapted)	Chun et al. (2015), Lee and Aaker (2004)	Semantic differentials: negative/positive, unfavorable/favorable, dislike/like	$\alpha = .98$
Need for affect	Appel et al. (2012)	10 Likert items (see original scale)	$\alpha = .84$
Processing fluency (adapted)	Labroo et al. (2008), Lee and Aaker (2004)	Semantic differential: difficult to process/easy to process	-
Responsibility (brand personality)	Geuens et al. (2009)	Likert items: down-to-earth, stable, responsible	$\alpha = .87$
Self-brand connection (adapted)	Escalas and Bettman (2003)	Likert items: "I feel a personal connection to the PDC brand.", "I can identify with the PDC brand.", "PDC reflects who I am."	$\alpha = .93$

[a] All items were measured on seven-point scales.
[b] Multiple statistics indicate that the scale was used more than once in the study.
[c] The Spearman-Brown statistic is reported for two-item scales.

4.6.2 Results

4.6.2.1 Manipulation and Confound Checks

Manipulation checks

Main brand stimuli manipulated brand personality as intended. Participants who were shown the active brand stimulus rated the main brand significantly higher on the activity dimension of brand personality (M = 5.82) than participants who were shown the responsible brand stimulus (M = 4.65; $t(279.72) = 7.89$, $p < .001$). Analogously, participants who were shown the responsible brand stimulus rated the main brand significantly higher on the responsibility dimension of brand personality (M = 6.21) than participants who were shown the active brand stimulus (M = 5.23; $t(273.44) = 8.19$, $p < .001$).

Furthermore, perceived fit of the three extension stimuli differed as expected. Specifically, fit perceptions of the high-fit extension (M = 5.98) were significantly higher than those of the moderate-fit extension (M = 4.82; $t(182.66) = 4.82$, $p < .001$), and fit perceptions of the moderate-fit extension were significantly higher than those of the low-fit extension (M = 3.07; $t(195) = 6.52$, $p < .001$).

Confound checks

Further analysis of the manipulated variables showed that fit perceptions did not differ for the two main brand stimuli. In particular, an ANOVA on participants' fit ratings with the brand personality factor and the perceived fit factor as independent variables provided no evidence for a main effect of brand personality or for an interaction effect of perceived fit and brand personality (ps > .1). Similarly, a MANOVA analysis with activity and responsibility ratings as dependent variables and the brand personality factor and the perceived fit factor as independent variables indicated that brand personality perceptions did not differ for the three perceived fit conditions. More specifically, neither the main effect of perceived fit nor the interaction effect of perceived fit and brand personality were significant (ps > .4).

Additional confound checks showed that perceptions of the main brand were similar across the two brand personality conditions with respect to brand attitude before extension (M_{active} = 5.76, $M_{responsible}$ = 5.78; $t(291) = -.15$, $p > .8$) and brand quality (M_{active} = 6.03 , $M_{responsible}$ = 5.84; $t(291) = 1.61$, $p > .1$). Moreover, no significant variation in the perceived relevance of main brand associations for the high-fit and the moderate-fit brand extension was evident between the active condition and the responsible condition (ps > .2). However, perceived relevance of main brand associations for the low-fit extension differed significantly between the active and the responsible condition (M_{active} = 3.39, $M_{responsible}$ = 4.16; $t(97) = -2.30$, $p <$

.05). In addition, perceptions of brand breadth of the main brand differed between the two brand personality conditions at a marginal level of significance (M_{active} = 4.32, $M_{responsible}$ = 3.99; $t(291) = 1.90$, $p < .1$). These differences in brand relevance for the low-fit extension and in brand breadth are further addressed in the following section.

To detect possible confounds related to deviations in attrition in participant groups, dropout rates were compared between the two brand personality conditions and the three perceived fit conditions. No significant differences were evident in dropout rates before data cleaning between the active (58/209 = 27.75%) and the responsible brand condition (50/209 = 23.92%; $\chi^2(1) = .80$, $p > .3$) as well as the high-fit (39/139 = 28.06%), the moderate-fit (36/139 = 25.90%), and the low-fit (33/140 = 23.57%; $\chi^2(2) = .73$, $p > .6$) condition.

Furthermore, participants of the two experimental groups did not significantly differ with respect to their age and gender (ps > .9).

4.6.2.2 Hypothesis Testing[11]

Extension evaluation: ANCOVA

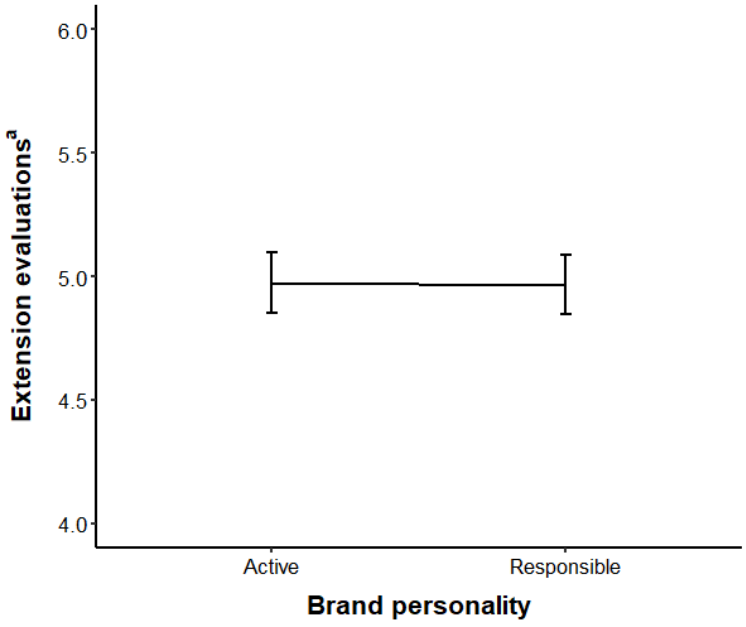
An ANCOVA with brand extension evaluation as dependent variable and brand personality as a single factor was carried out in order to test the prediction by H2 that brand extensions of active brands are evaluated more positively than brand extensions of responsible brands. Self-brand connection was defined as the covariate in the model.

The analysis revealed that extension evaluations of participants who were exposed to the active brand (M = 4.98)[12] did not significantly differ from extension evaluations of participants who were exposed to the responsible brand (M = 4.97; $F(1, 290) = .002$, $p > .9$; see Figure 4-4). To address the potential influence of brand breadth on this result, an additional ANCOVA was conducted that included brand breadth as a second factor based on a median split. The analysis showed that neither the main effect of brand personality on extension evaluation nor the interaction effect between brand personality and brand breadth were significant (ps > .3).

These findings suggest that, in contrast to the prediction of H2, extensions of active and responsible brands seem to have been evaluated similarly in the context of Study 5.[13]

[11] Following the recommendation of Berinsky et al. (2014), the reported analyses of Study 5 were repeated using the full dataset including inattentive participants. The results of these analyses were in line with the presented findings.
[12] Marginal means of extension evaluations at the sample mean of self-brand connection are reported.
[13] Despite the previously highlighted difference in brand relevance for the low-fit extension between the active and the responsible condition of the brand personality factor, brand relevance was not included in the reported data models since mean brand relevance ratings across the three perceived fit conditions did not significantly differ between the active and

Figure 4-4: Mean extension evaluations for the two brand personality conditions of Study 5 (active vs. responsible)



[a] Error bars represent standard errors.

To examine the link between brand personality, processing fluency, and extension evaluations (see H3a-c) and to gain insights into whether this link is subject to boundary conditions as formulated in H4a-c, H8a, H8b, H9a, and H9b, mediation analysis was conducted. The conceptual models used for this analysis and related hypotheses are shown in Figure 4-5.

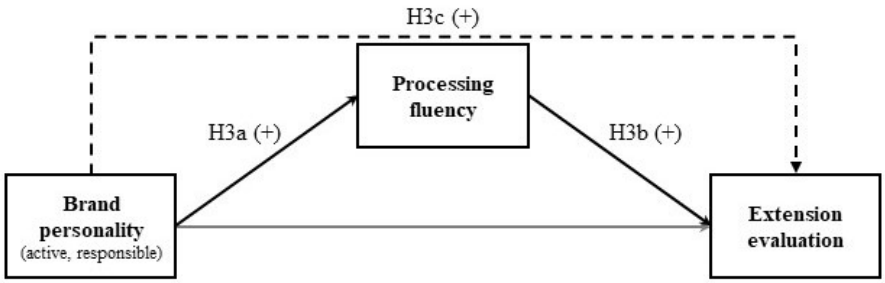
Extension evaluation: Mediation analysis (Model 1)

As a first step, the predictions by H3a-c regarding the influence of brand personality on extension evaluation through processing fluency were tested (see Model 1 in Figure 4-5). Hence, mediation analysis with brand personality as independent variable (dummy coding: 1 - active, 0 - responsible), processing fluency as mediator, and extension evaluation as dependent variable was carried out (PROCESS Model 4). To account for variations in extension evaluations due to differences in consumers' self-brand connection and to address possible confounds related to brand breadth, self-brand connection and brand breadth were

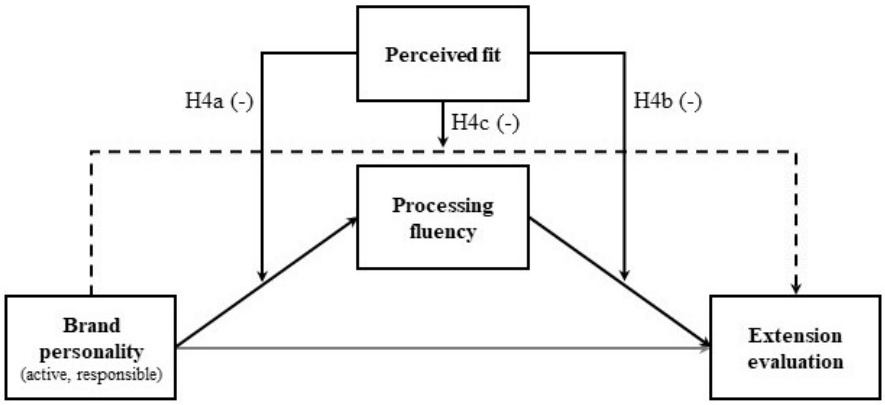
the responsible brand (M_{active} = 4.62, $M_{responsible}$ = 4.92, $t(291)$ = -1.63, $p > .1$). Results from a separate ANCOVA that included brand relevance as an additional covariate were in line with the presented findings.

Figure 4-5: Conceptual models used for the mediation analysis of Study 5 (dependent variable: extension evaluation)

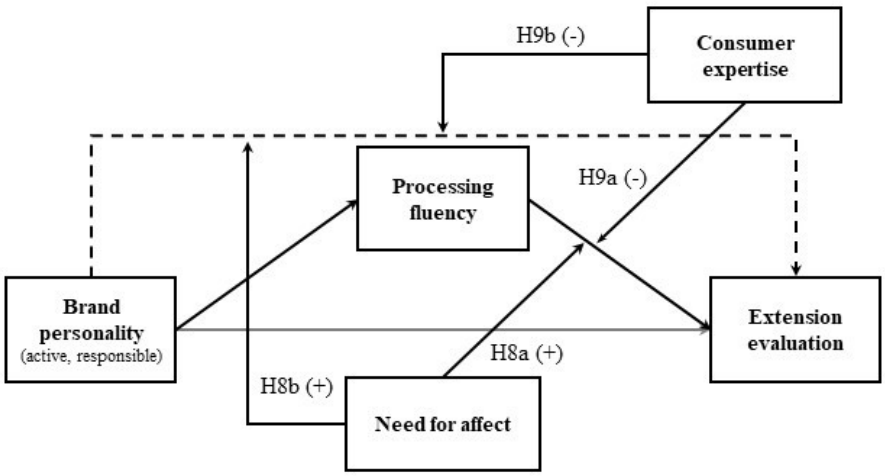
A. Model 1



B. Model 2



C. Model 3



defined as covariates of the dependent variable. However, since brand breadth did not significantly affect extension evaluations ($p > .2$), the variable was dropped from the model.

In support of H3b, results showed that extension evaluations increased significantly with the fluency with which participants processed the extension ($B = .45$, $SE = .05$, $p < .001$; see Appendix IX for detailed regression results). Contrarily, results did not support H3a and its prediction that extensions of active (vs. responsible) brands are processed more fluently. Specifically, participants in the active condition and the responsible condition did not differ significantly in how fluently they processed the brand extension ($B = .05$, $SE = .21$, $p > .8$). Furthermore, the indirect effect of brand personality on extension evaluation through processing fluency predicted by H3c was not significant ($B = .02$, bootstrap $SE = .10$, 95% bootstrap *CI*: -.17, .21). Considering that the direct effect of brand personality on extension evaluation was not significant either ($B = -.03$, $SE = .15$, $p > .8$), this finding on H3c is consistent with the previous tests of H2 in the current sample.[14]

Extension evaluation: Mediation analysis (Model 2)

To test whether the indirect effect of brand personality on extension evaluation through processing fluency hypothesized by H3a-c depends on perceived fit (see H4a-c), a second mediation analysis was carried out (see Model 2 in Figure 4-5). The corresponding statistical model (PROCESS Model 58) included brand personality as independent variable, processing fluency as mediator, extension evaluation as dependent variable, and perceived fit as moderator. Furthermore, self-brand connection was added as a covariate of extension evaluation. Both brand personality and perceived fit were dummy-coded with the responsible condition and the low-fit condition as reference category, respectively.

Model estimates revealed that processing fluency of the low-fit brand extension did not differ between the active and responsible brand condition ($B = -.18$, $SE = .41$, $p > .6$; see Appendix X for detailed regression results). Furthermore, neither the interaction term between the brand personality factor and the moderate-fit indicator ($B = .15$, $SE = .52$) nor the interaction term between the brand personality factor and the high-fit indicator ($B = .36$, $SE = .49$) were significant (ps > .4). Thus, the influence of brand personality on processing fluency appears not to have differed between the three extensions. This finding contrasts the prediction of H4a that the difference in processing fluency between extensions of active brands and extensions of responsible brands is negatively moderated by perceptions of fit.

[14] A separate mediation analysis based on Model 1 that included brand relevance as a covariate of processing fluency and of extension evaluation gave results in line with the reported findings.

In accordance with the estimates of the first mediation analysis, results referring to the relationship between processing fluency and extension evaluation showed that processing fluency was significantly positively related to extension evaluation for the low-fit extension (B = .46, SE = .07, p < .001). However, the interaction term between processing fluency and the moderate-fit indicator (B = -.05, SE = .12) and the interaction term between processing fluency and the high-fit indicator (B = -.14, SE = .15) were not significant (ps > .3). Accordingly, the relationship between processing fluency and extension evaluation seems not to have been moderated by perceptions of fit. Based on this finding, the prediction of H4b that the impact of processing fluency on extension evaluations becomes less positive with increasing perceptions of fit is not supported by the data of the current sample.

To complete the investigation of the moderating influence of perceptions of fit on the indirect effect of brand personality on extension evaluations through processing fluency, H4c was formally tested. The conditional indirect effects of brand personality on extension evaluations for the low-fit (B = -.08, bootstrap SE = .19, 95% bootstrap CI: -.45, .28), moderate-fit (B = -.01, bootstrap SE = .14, 95% bootstrap CI: -.29, .26), and high-fit (B = .06, bootstrap SE = .10, 95% bootstrap CI: -.10, .30) extension were compared based on the index of moderated mediation (Hayes, 2015, 2018a). Neither the difference between the conditional indirect effect for the moderate-fit and the conditional indirect effect for the low-fit extension (IMM = .07,[15] bootstrap SE = .23, 95% bootstrap CI: .-39, .52) nor the difference between the corresponding effects for the high-fit and the low-fit extension were significant (IMM = -.14, bootstrap SE = .21, 95% bootstrap CI: .-25, .58). Accordingly, the current sample does not support H4c and its prediction that the indirect effect of brand personality on extension evaluations is negatively moderated by fit perceptions.[16]

Results on H4c are summarized in Table 4-6.

Extension evaluation: Mediation analysis (Model 3)

To further investigate the indirect effect of brand personality on extension evaluations through processing fluency, the moderating impact of need for affect and consumers' expertise in the extension category on this effect (see H8a, H8b, H9a, and H9b) was tested based on a third mediation analysis (see Model 3 in Figure 4-5). The related statistical model (PROCESS

[15] IMM: Index of moderated mediation

[16] To account for possible confounds related to brand relevance, a separate mediation analysis was conducted based on Model 2. This analysis included brand relevance and the interaction terms of brand relevance and the perceived fit indicators as covariates of processing fluency and extension evaluation. Results of this analysis were consistent with the reported findings.

Table 4-6: Indirect effect of brand personality (active vs. responsible) on brand extension evaluation through processing fluency (Model 2, Study 5)

A. Indirect effect at different levels of perceived fit			
Perceived fit	***B*[a]**	**Bootstrap *SE***	**95% Bootstrap *CI***
Low	-.08	.19	-.45, .28
Moderate	-.01	.14	-.29, .26
High	.06	.10	-.10, .30

[a] Unstandardized estimates

B. Index of moderated mediation			
Compared conditions	***IMM*[a]**	**Bootstrap *SE***	**95% Bootstrap *CI***
Moderate - low	.07	.23	-.39, .52
High - low	-.14	.21	-.25, .58

[a] IMM: Index of moderated mediation (for details on the estimation of the index, see Hayes, 2018a)

Model 16) specified brand personality as independent variable, processing fluency as mediator, extension evaluation as dependent variable, and need for affect as well as consumer expertise as moderator. Brand personality was dummy-coded with the responsible condition as reference category. As for the previous models, self-brand connection was added as a covariate of extension evaluation.

In line with the findings of the mediation analyses based on Models 1 and 2, results showed that the relationship between processing fluency and extension evaluation was positive and significant at the mean value of need for affect and consumer expertise (B = .43, SE = .05, $p < .001$; see Appendix XI for detailed regression results). However, neither the interaction between processing fluency and need for affect (B = .001, SE = .04) nor the interaction between processing fluency and consumer expertise (B = -.05, SE = .04) was significant (ps > .1). These findings contrast the respective predictions by H8a and H9a that the influence of processing fluency on extension evaluations is positively moderated by need for affect and negatively moderated by consumers' expertise in the extension category.

Considering the previous finding that processing fluency of brand extensions did not differ

Table 4-7: Indirect effect of brand personality (active vs. responsible) on brand extension evaluation through processing fluency (Model 3, Study 5)

A. Indirect effect at different levels of need for affect and of consumers' expertise in the extension category				
Need for affect[a]	**CEEC[b,a]**	***B*[c]**	**Bootstrap *SE***	**95% Bootstrap *CI***
3.89	2.40	.02	.11	-.19, .23
3.89	3.93	.02	.09	-.16, .20
3.89	5.45	.02	.08	-.14, .17
4.89	2.40	.02	.11	-.19, .24
4.89	3.93	.02	.09	-.16, .20
4.89	5.45	.02	.08	-.14, .17
5.90	2.40	.02	.11	-.19, .24
5.90	3.93	.02	.09	-.16, .20
5.90	5.45	.02	.08	-.14, .18

[a] Values were chosen at one standard deviation below the mean, at the mean, and at one standard deviation above the mean of the variable.
[b] CEEC: Consumers' expertise in the extension category
[c] Unstandardized estimates

B. Index of partial moderated mediation			
Moderating variable	***IMM*[a]**	**Bootstrap *SE***	**95% Bootstrap *CI***
Need for affect	.0001	.008	-.02, .02
Consumers' expertise in the extension category	-.002	.01	-.03, .02

[a] IMM: Index of partial moderated mediation (for details on the estimation of the index, see Hayes, 2018a, 2018b)

between active and responsible brands independently of the perceived fit of extensions, this result indicates that the indirect effect of brand personality on extension evaluation through processing fluency is neither moderated by need for affect nor by consumers' expertise in the extension category, as suggested by H8b and H9b, respectively. Indeed, the index of partial moderated mediation (Hayes, 2018b) for need for affect and for consumers' expertise in the extension category did not reach significance (95% bootstrap CI_{affect}: -.02, .02; 95% bootstrap $CI_{expertise}$: -.03, .02). Further analysis showed that the conditional indirect effects of brand

personality on extension evaluation at the mean of the two variables, and at one standard deviation above and below the mean of the two variables were nonsignificant (95% bootstrap *CI*s included zero).

Details on the conditional indirect effects and the related indices of partial moderated mediation are shown in Table 4-7.

Parent brand attitude: ANCOVA

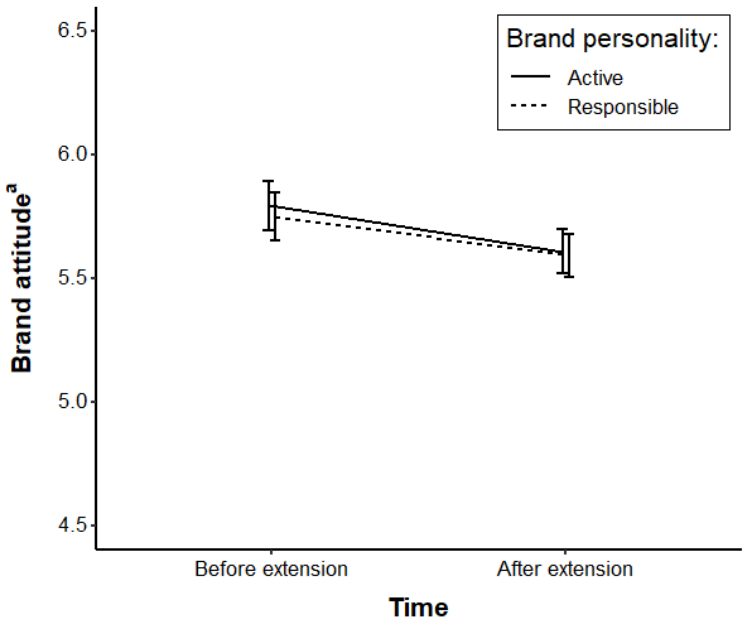
Apart from examining the impact of brand personality on brand extension evaluation, Study 5 aimed to investigate the influence of brand personality on the effect of brand extension on the parent brand. As part of this investigation, the study tested the prediction of H5 that the differential impact of brand extension on parent brand attitude is more positive for active than for responsible brands. To this end, a repeated-measures ANCOVA was carried out with brand attitude towards the main brand as dependent variable, brand personality as a between-subjects factor, time (after vs. before extension) as a within-subjects factor, and self-brand connection as a covariate.

Analysis of the main effect of time showed that the difference between participants' parent brand attitude after brand extension ($M = 5.60$)[17] and before brand extension ($M = 5.77$) was negative and significant ($F(1, 290) = 6.43$, $p < .05$; see Figure 4-6). Hence, brand extension had a negative effect on participants' parent brand attitude, which indicates that brand extension diluted the parent brand across the three extensions of the study. This finding is consistent with previous findings on the effects of brand extension on the parent brand (see, e.g., Loken & John, 1993; Milberg et al., 1997). However, the interaction between brand personality and time did not reach significance ($F(1, 290) = .038$, $p > .8$). Thus, in contrast to the prediction of H5, the impact of brand extension on parent brand attitude appears not to have differed between active and responsible brands in the sample of Study 5.

To gain a more refined understanding of the influence of brand personality on the differential impact of brand extension on parent brand attitude and to test H6a, H6c, H7, H10a, and H10b, the relationship between brand personality, processing fluency, extension evaluation, and parent brand attitude was scrutinized. For this purpose, mediation analysis was conducted based on the same regression-based approach that was used for the previous mediation analyses. Corresponding conceptual models and hypotheses are shown in Figure 4-7.

[17] Marginal means of brand attitude at the sample mean of self-brand connection are reported.

Figure 4-6: Mean brand attitude (before and after extension) for the two brand personality conditions of Study 5 (active vs. responsible)



[a] Error bars represent standard errors.

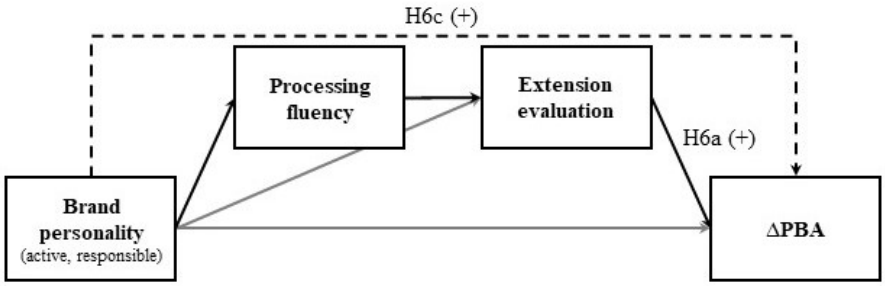
Parent brand attitude: Mediation analysis (Model 4)

The first mediation analysis (see Model 4 in Figure 4-7) aimed to investigate whether extension evaluations are positively linked to changes in parent brand attitude related to brand extension (see H6a) and, based on such a link, whether brand personality has a positive indirect impact on the differential effect of brand extension on parent brand attitude through processing fluency and extension evaluation (see H6c). Accordingly, mediation analysis with brand personality as independent variable (dummy coding: 1 - active, 0 - responsible), processing fluency and extension evaluation as serial mediators, the difference between participants' brand attitude after brand extension and before brand extension (ΔPBA) as dependent variable, and self-brand connection as a covariate of extension evaluation and of ΔPBA was carried out (PROCESS Model 6).

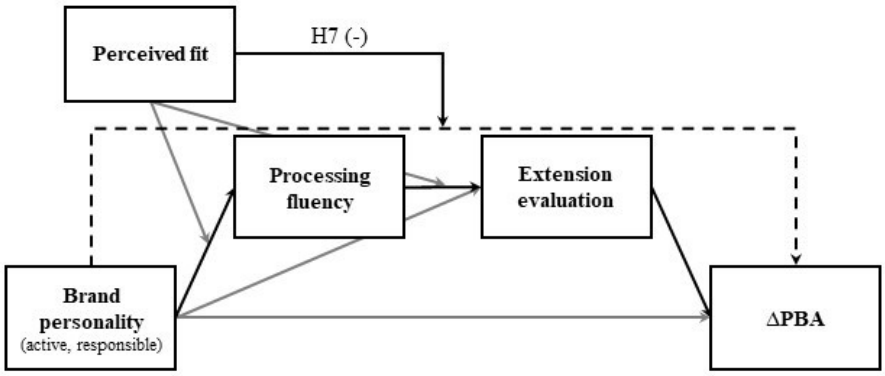
The analysis showed that ΔPBA increased positively and significantly with extension evaluations (B = .25, SE = .07, p < .001; see Appendix XII for detailed regression results). However, as could be expected from the results for H3a-c, the indirect effect of brand personality on ΔPBA through processing fluency and extension evaluation was not significant (B = .01, bootstrap SE = .02, 95% bootstrap CI: -.04, .06). Hence, while H6a was supported

Figure 4-7: Conceptual models used for the mediation analysis of Study 5 (dependent variable: ΔPBA – difference in brand attitude after and before brand extension)

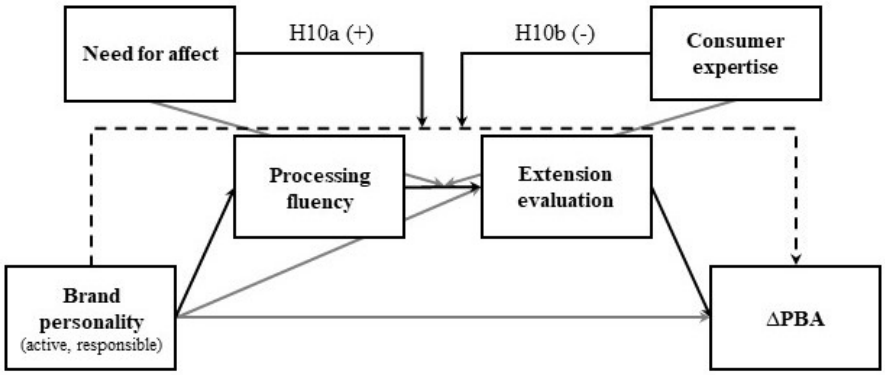
A. Model 4



B. Model 5



C. Model 6



by the data of Study 5, no such support was evident for H6c. Thus, the current sample does not provide evidence that brand personality affects the differential impact of brand extension on parent brand attitude through the proposed process based on processing fluency and

extension evaluation. Furthermore, in line with the findings on H5, both the total indirect effect of brand personality on ΔPBA (B = .003, bootstrap SE = .06) and the direct effect of brand personality on ΔPBA (B = -.04, SE = .13) were nonsignificant (95% bootstrap CI_{indirect}: -.12, .12; $p_{\text{direct}} > .7$).

Unexpectedly, the results also showed that the path from processing fluency to ΔPBA was positive and significant (B = .12, SE = .04, $p < .05$).

Parent brand attitude: Mediation analysis (Model 5 and 6)

Hypotheses H7, H10a, and H10b suggest that the indirect effect of brand personality on the differential impact of brand extension on parent brand attitude through processing fluency and extension evaluation depends on the perceived fit of the extension and on consumers' need for affect and expertise in the extension category. This potential moderating impact is linked to the suggested influence of the moderating variables on the indirect effect of brand personality on extension evaluation through processing fluency (see H4a-c, H8a, H8b, H9a, and H9b). Hence, the outlined findings that H4a-c, H8a, H8b, H9a, and H9b are not supported in the current sample and that brand personality appears to have no influence on the differential impact of brand extension through processing fluency and extension evaluation (see H6c) suggest that hypotheses H7, H10a, and H10b are not supported by the data of Study 5. Results from the formal tests of H7, H10a, and H10b are therefore only shortly summarized in the following with additional details being provided in the appendices to this dissertation.

To test H7, mediation analysis was carried out based on Model 5 from Figure 4-7. The analysis included brand personality as independent variable, processing fluency and extension evaluation as serial mediators, perceived fit as moderator, and ΔPBA as dependent variable (PROCESS Model 83)[18]. Dummy-coding was used for the brand personality and perceived fit variables with the responsible condition and the low-fit condition as reference category, respectively. As for the previous analysis, self-brand connection was defined as a covariate of extension evaluation and of ΔPBA.

As anticipated from the previous findings, the indirect effect of brand personality on ΔPBA through processing fluency and extension evaluation did not depend on perceived fit. Particularly, the difference between the conditional indirect effect for the moderate-fit and for the low-fit extension (IMM = .02, bootstrap SE = .06) and the difference between the conditional indirect effect for the high-fit and for the low-fit extension (IMM = .04, bootstrap SE = .05) were not significant (95% bootstrap $CI_{\text{moderate-low}}$: -.10, .14; 95% bootstrap $CI_{\text{high-low}}$:

[18] PROCESS Model 83 was modified by adding a moderator to the path from processing fluency to extension evaluation.

-.06, .16; for detailed regression results and detailed results on the conditional indirect effects, see Appendix XIII). Hence, H7 is not supported by the data of the current sample.

A final mediation analysis tested H10a and H10b (see Model 6 in Figure 4-7). The analysis included brand personality as independent variable (dummy coding: 1 - active, 0 - responsible), processing fluency and extension evaluation as serial mediators, need for affect and consumers' expertise in the extension category as moderators, and ΔPBA as dependent variable (PROCESS Model 91)[19]. In addition, self-brand connection was defined as a covariate of extension evaluation and of ΔPBA.

The analysis revealed that the indirect effect of brand personality on ΔPBA through processing fluency and extension evaluation depended neither on participants' need for affect (*IMM* = .0001, bootstrap *SE* = .002, 95% bootstrap *CI*: -.004, .004) nor on participants' expertise in the product category (*IMM* = -.0005, bootstrap *SE* = .003, 95% bootstrap *CI*: -.01, .01; for detailed regression results and detailed results on the conditional indirect effects, see Appendix XIV). Thus, H10a and H10b are not supported by the data of Study 5.

4.6.3 Discussion

The results of Study 5 do not support the hypothesis that extensions of active brands are evaluated more positively than those of responsible brands (H2). Mediation analysis further added to this finding by demonstrating that the link between brand personality, processing fluency, and extension evaluation hypothesized to underlie the effect of brand personality on extension evaluation (see H3a-c) was not evident in the sample. In particular, while processing fluency and extension evaluations were found to be positively related, no difference in the fluency with which extensions are processed could be found between active and responsible brands. Tests of the hypothesized boundary conditions of the link between brand personality, processing fluency, and extension evaluation (see H4a-c, H8a, H8b, H9a, and H9b) showed that this finding was consistent across consumers with different levels of need for affect and with different levels of expertise in the extension category, as well as across extensions with varying levels of fit with the parent brand.

Furthermore, no support was found for the hypothesis that the differential impact of brand extension on parent brand attitude is more positive for active than for responsible brands (H5). This influence of brand personality on the differential impact of brand extension on parent brand attitude was hypothesized to be based on the positive indirect effect of brand personality on extension evaluation through the relationship between processing fluency and extension

[19] PROCESS Model 91 was modified by adding a second moderator to the path from processing fluency to extension evaluation.

evaluations (see H6a, H6c). While results of Study 5 provide evidence for a positive link between extension evaluation and the differential effect of brand extension on parent brand attitude, the highlighted lack of support for an indirect effect of brand personality on extension evaluation through processing fluency was linked to a corresponding lack of support for the proposed indirect effect of brand personality on the differential effect of brand extension on parent brand attitude. An examination of the hypothesized boundary conditions of the indirect effect (see H7, H10a, and H10b) showed that this finding held true irrespectively of consumers' need for affect, consumers' expertise in the extension category, and the perceived fit of extensions with the parent brand. Unrelated to the tested hypotheses on the influence of brand personality on the differential impact of brand personality on parent brand attitude, Study 5 revealed an unexpected positive relationship between processing fluency and the difference in parent brand attitude after and before extension evaluation. This finding is further discussed in Section 5.1.

Overall, Study 5 provides no evidence for a possible impact of brand personality on brand extendibility. However, similar to the results of Study 3, results of Study 5 are subject to possible limitations related to using a fictitious brand to manipulate brand personality. As was highlighted in Section 4.4.3, this use of fictitious brands might be particularly problematic in the context of MTurk studies since it has been shown that learning rates in studies conducted on MTurk are lower than learning rates in laboratory studies (Crump et al., 2013). This concern was addressed by Study 6, which was conducted in a laboratory setting.

4.7 Study 6: The Impact of Brand Personality on Brand Extension Outcomes and Its Potential Boundary Conditions (II)

4.7.1 Method

Study 6 employed a 2 (brand personality: active vs. responsible) x 2 (perceived fit: low vs. moderate) between-subjects experimental design. As the previous study, Study 6 aimed to test whether brand extensions of active (vs. responsible) brands are evaluated more positively (see H2) and whether the differential impact of brand extension on parent brand attitude is more positive for active than for responsible brands (see H5). Furthermore, processes potentially underlying these effects were probed. Particularly, the effect of brand personality on extension evaluation through processing fluency (see H3a-c) and the effect of brand personality on the differential impact of brand extension on parent brand attitude through processing fluency and extension evaluation (see H6a and H6c) were tested. The study also intended to scrutinize the boundary conditions of these effects by examining the moderating impact of consumers' need for affect, consumers' expertise in the extension category, and the

perceived fit of brand extensions on the relationship between brand personality, processing fluency, and extension evaluation (see H4a-c, H8a, H8b, H9a, and H9b) and the relationship between brand personality, processing fluency, extension evaluation, and the differential impact of brand extension on parent brand attitude (see H7, H10a, and H10b).

4.7.1.1 Stimuli

Main brand

To manipulate brand personality, stimuli of a fictitious car brand ("L&O Cars") were created. The stimuli incorporated the same basic design as those of Studies 3 and 5 by including a brand logo, brand slogan, and a brand description. As before, brand descriptions were based on the descriptions used by Sundar and Noseworthy (2016). Referring to the two conditions of the brand personality factor, stimuli described either an active or a responsible brand as understood based on the brand personality scale by Geuens et al. (2009). The final stimuli are shown in Appendix XV.

A pretest was conducted to determine whether stimuli manipulated brand personality as intended and to demonstrate that stimuli were not perceived to differ with respect to other brand characteristics relevant to brand extension outcomes (for a review of parent brand characteristics affecting brand extension outcomes, see Section 2.2.3). 68 students from the University of St.Gallen, who were recruited on campus, completed the pretest, which followed a similar procedure as the one for the main brand stimuli of Study 5.

Specifically, after reading the introduction, participants were exposed to one of the two main brand stimuli based on a random assignment. They were then asked to reflect on the presented brand and to describe and characterize it in a short essay-writing task. Subsequently, participants evaluated the brand on the activity dimension (α = .89) and the responsibility dimension (α = .78) of the brand personality scale by Geuens et al. (2009). Furthermore, they rated the brand on the same three-item semantic differential scale on brand attitude that was applied in Study 5 (α = .91) and the same single-item brand quality scale and brand breadth scale that were used in Studies 3, 4, and 5. All items included in the survey were measured on seven-point scales.

In a second part of the pretest, participants were required to compare the main brand to different product categories. This second part is detailed in the following subsection on the brand extension stimuli used in the current study.

Results of the pretest showed that brand personality perception differed as intended between the two main brand stimuli. Participants who saw the brand stimulus describing the active

brand perceived the brand to be more active (M = 5.02) than participants who saw the brand stimulus describing the responsible brand (M = 3.78; $t(66) = 3.33$, $p < .01$). Similarly, participants who saw the brand stimulus describing the responsible brand perceived the brand to be more responsible (M = 5.15) than participants who saw the brand stimulus describing the active brand (M = 3.60; $t(66) = 5.34$, $p < .001$). Furthermore, brand perception did not differ between the two participant groups with respect to brand attitude (M_{active} = 4.62, $M_{responsible}$ = 4.47; $t(66) = .48$, $p > .6$), brand quality (M_{active} = 5.00, $M_{responsible}$ = 5.29; $t(66) = -.77$, $p > .4$), and brand breadth (M_{active} = 4.65, $M_{responsible}$ = 4.77; $t(66) = -.29$, $p > .7$).

Brand extensions

To be able to gather data on participants' evaluation of brand extensions of the main brand at different levels of perceived fit, two brand extension stimuli were created. Similar to Study 5, the stimuli consisted of descriptions of product categories that were presented as part of a mock-up of a news page on the website of the main brand. The two product categories for the mock-ups were chosen so that the fit of the categories with the parent brand was moderate and low, respectively. The product categories were selected based on the second part of the pretest described in the previous section.

In this second part of the pretest, participants were shown descriptions of six different product categories. For each product category, participants completed the two-item overall fit scale that was previously applied as part of Study 5 (ρs $\geq .90$). Additionally, participants were asked to assess the relevance of the associations they had with the main brand for each of the product categories based on the three-item seven-point brand relevance scale applied in the pretest of Study 3 as well as in Studies 4 and 5 (αs $\geq .94$). Confirmatory factor analysis indicated sufficient discriminant validity between the overall fit and the brand relevance scale (AVEs $\geq .91$, $r^2 = .69$).

For each of the product categories, a MANOVA with brand personality (active vs. responsible) as independent variable and perceived fit and brand relevance as dependent variables was conducted. Product categories were eliminated if perceived fit or brand relevance differed between the active and the responsible brand. Based on this elimination process, a moderate-fit category (recreational vehicles) and a low-fit category (power tools) were selected. Analysis results showed that fit and brand relevance ratings did not differ significantly for the selected categories between participants who were exposed to the active brand (moderate-fit category: M_{fit} = 3.99, $M_{relevance}$ = 4.17; low-fit category: M_{fit} = 2.46, $M_{relevance}$ = 2.83) and participants who were exposed to the responsible brand (moderate-fit category: M_{fit} = 4.11, $M_{relevance}$ = 4.27, $F(2, 65) = .04$, $p > .9$; low-fit category: M_{fit} = 2.47,

$M_{relevance}$ = 3.09; $F(2, 65) = .39$, $p > .6$). A comparison of mean fit ratings of the two product categories across both main brand stimuli demonstrated that the moderate-fit category was perceived to be a significantly better fit with the main brand (M = 4.04) than the low-fit category (M = 2.46; $t(67) = 6.19$, $p < .001$).

The final brand extension stimuli are shown in Appendix XVI.

4.7.1.2 Participants and Procedure

Participants

154 students from the University of St.Gallen participated in the laboratory study in return for a cash payment of CHF 6.00. Of the initial participants, seven were dropped from the sample due to incompliance with instructions or due to language issues. As a result, the final sample included 147 participants, of which 64 (43.54%) were female and 83 (56.46%) were male. The average age of participants was 22.22.

Procedure

The procedure of Study 6 was identical to the procedure described for Study 5 with the exception that different stimuli for the main brand and the brand extension were used. Thus, participants were exposed to either the active or the responsible car brand instead of the respective audio brands of Study 5 and subsequently assessed either the moderate-fit or the low-fit extension of this car brand. As for Study 5, participants' random assignment to the conditions of the brand personality and of the perceived fit factor determined which main brand stimulus and which extension stimulus was shown to them as part of the procedure.

4.7.1.3 Applied Measures

The variables chosen for Study 6 were identical to those of Study 5. Hence, participants' evaluation of the extension of the main brand, their attitude towards the main brand before and after brand extension, and the difference in these attitudes were selected as dependent variables. Furthermore, processing fluency was defined as a mediating variable of the relationship between brand personality and extension evaluation, and consumers' need for affect and their expertise in the extension category were chosen as moderating variables of this relationship. Variables used for manipulation and confound checks included the activity and responsibility dimension of the brand personality construct by Geuens et al. (2009), the perceived fit of the extension with the main brand, the relevance of main brand associations for the extension, brand attitude towards the main brand before brand extension, as well as

Table 4-8: Scales applied in the main study of Study 6

Scale	Source(s)	Items[a]	Reliability[b,c]
Activity (brand personality)	Geuens et al. (2009)	Likert items: active, dynamic, innovative	$\alpha = .86$
Brand attitude (adapted)	Chun et al. (2015), Lee and Aaker (2004)	Semantic differentials: negative/positive, unfavorable/favorable, dislike/like	$\alpha s \geq .89$
Brand breadth	-	Likert item: "This brand sells many different products."	-
Brand-extension fit	Monga and Gürhan-Canli (2012), Monga and John (2010)	Semantic differentials: doesn't fit with the brand/fits with the brand, inconsistent with the brand/consistent with the brand	$\rho = .94$
Brand quality	-	Semantic differential: very low quality/very high quality	-
Brand relevance (adapted)	Spiggle et al. (2012)	Likert items: "The benefits/characteristics I associate with L&O are relevant to [EXTENSION].", "The associations that I have for L&O are important to [EXTENSION]."	$\alpha = .91$
Consumers' expertise in the extension category (subjective knowledge)	Flynn and Goldsmith (1999)	Likert items: "I know pretty much about [EXTENSION CATEGORY].", I do not feel very knowledgeable about [EXTENSION CATEGORY]." (reverse coded), "Among my circle of friends, I'm one of the 'experts' on [EXTENSION CATEGORY].", "Compared to most other people, I know less about [EXTENSION CATEGORY]." (reverse coded), "When it comes to [EXTENSION CATEGORY], I really don't know a lot." (reverse coded)	$\alpha = .89$
Extension evaluation (adapted)	Chun et al. (2015), Lee and Aaker (2004)	Semantic differentials: negative/positive, unfavorable/favorable, dislike/like	$\alpha = .93$
Need for affect	Appel et al. (2012)	10 Likert items (see original scale)	$\alpha = .79$
Processing fluency (adapted)	Labroo et al. (2008), Lee and Aaker (2004)	Semantic differential: difficult to process/easy to process	-
Responsibility (brand personality)	Geuens et al. (2009)	Likert items: down-to-earth, stable, responsible	$\alpha = .85$
Self-brand connection (adapted)	Escalas and Bettman (2003)	Likert items: "I feel a personal connection to the L&O brand.", "I can identify with the L&O brand.", "L&O reflects who I am."	$\alpha = .89$

[a] All items were measured on seven-point scales.
[b] Multiple statistics indicate that the scale was used more than once in the study.
[c] The Spearman-Brown statistic is reported for two-item scales.

the quality and breadth of the main brand. Finally, participants' self-brand connection was defined as a covariate of the dependent variables.

The same scales as in Study 5 (see Section 4.6.1.3) were applied to measure these variables. An overview of the scales and details on their reliability are provided in Table 4-8.

4.7.2 Results

4.7.2.1 Manipulation and Confound Checks

Manipulation checks

Brand personality perceptions of the active and the responsible brand differed as expected. Participants in the active condition rated the main brand significantly higher on the activity dimension of brand personality (M = 5.28) than participants in the responsible condition (M = 3.75; $t(140.97) = 7.60$, $p < .001$). Analogously, participants in the responsible condition rated the main brand significantly higher on the responsibility dimension of brand personality (M = 5.74) than participants in the active condition (M = 4.00; $t(145) = 9.31$, $p < .001$).

Additionally, the perceived fit of the two brand extensions with the main brand differed as intended. Specifically, fit perceptions of the moderate-fit extension (M = 3.95) were significantly higher than those of the low-fit extension (M = 3.15; $t(145) = 3.07$, $p < .01$).

Confound checks

Contrasting the pretest results, interdependencies between the brand personality and the perceived fit manipulation were evident in the sample of the main study. In particular, an ANOVA on participants' fit ratings with the perceived fit factor and the brand personality factor as independent variables revealed a significant main effect for the brand personality factor ($F(1, 143) = 4.42$, $p < .05$), whereas the interaction effect of the perceived fit and the brand personality factor was nonsignificant ($F(1, 143) = .21$, $p > .6$). Estimates of marginal means of fit ratings showed that extensions were considered to be a better fit with the responsible brand (M = 3.83) than with the active brand (M = 3.28). As a consequence of the interdependence of the two factors of the experimental design, the perceived fit factor was not included in data models of Study 6 and hypotheses H4a-c and H7 were not tested.

An analysis of mean fit ratings across the two extensions yielded similar results as the ANOVA. Hence, fit ratings of participants in the responsible condition (M = 3.78) were more positive than fit ratings of participants in the active condition (M = 3.31) at a marginal level of significance ($t(145) = 1.78$, $p < .1$). The potential influence of these differences in fit ratings between the two brand personality conditions on extension evaluations and brand attitude is addressed as part of the hypothesis tests described in the subsequent section.

Further investigation of possible confounds related to the brand personality manipulation demonstrated that participants in the active condition and the responsible condition did not differ significantly regarding their attitude towards the main brand before extension (M_{active} = 4.84, $M_{responsible}$ = 4.96; $t(145) = -.62$, $p > .5$), their assessment of main brand quality (M_{active} = 4.97 , $M_{responsible}$ = 5.25; $t(145) = -1.47$, $p > .1$), or their evaluation of the breadth of the main brand (M_{active} = 4.67, $M_{responsible}$ = 5.01; $t(145) = -1.41$, $p > .1$). However, participants in the active condition considered main brand associations to be less relevant for the extension evaluated ($M = 3.91$) than participants in the responsible condition ($M = 4.63$; $t(145) = -3.08$, $p < .01$). The possible influence of this difference on the dependent variables of the study is considered in the corresponding analyses.

As an additional confound check, age and gender of participants in the two brand personality conditions were compared. Results showed that participants of the two experimental groups did not significantly differ with respect to their age and gender (ps > .2).

4.7.2.2 Hypothesis Testing

Extension evaluation: ANCOVA

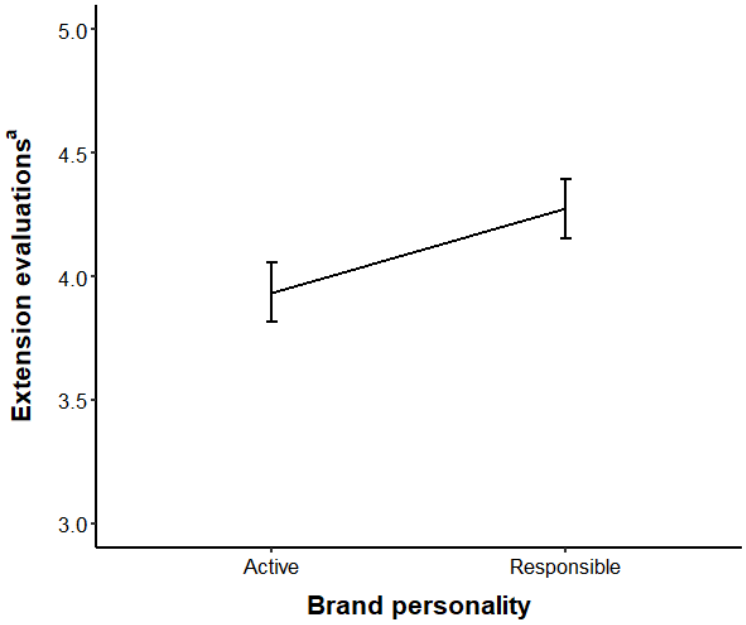
To test whether brand personality affected extension evaluations as predicted by H2, an ANCOVA on extension evaluations with brand personality as a between-subjects factor was conducted. The model included perceived fit, brand relevance, and participants' self-brand connection as covariates. Perceived fit and brand relevance were included in the model to address potential confounds related to the brand personality manipulation.

Results showed that extension evaluations of participants in the active condition ($M = 3.94$)[20] were lower than extension evaluations of participants in the responsible condition ($M = 4.28$) at a marginal level of significance ($F(1, 142) = 3.88$, $p < .1$, see Figure 4-8). This finding contrasts the prediction of H2 by suggesting that brand extensions of active brands are evaluated less positively than extensions of responsible brands.

To understand how this finding relates to the link between brand personality, processing fluency, and extension evaluations (see H3a-c) and the hypothesized boundary conditions of this link (see H8a, H8b, H9a, and H9b), mediation analysis was conducted. As for Study 5, the regression-based approach to mediation analysis described by Hayes (2018a) was applied for this purpose. The conceptual models used for the analysis are highlighted in Figure 4-9.

[20] Marginal means of extension evaluations at the sample mean of perceived fit, brand relevance, and self-brand connection are reported.

Figure 4-8: Mean extension evaluations for the two brand personality conditions of Study 6 (active vs. responsible)



[a] Error bars represent standard errors.

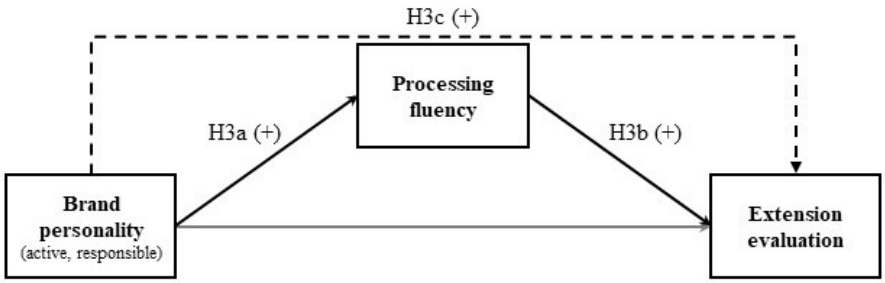
Extension evaluation: Mediation analysis (Model 1)

The first mediation analysis addressed the prediction by H3a-c that brand personality (active vs. responsible) influences extension evaluations through processing fluency (see Model 1 in Figure 4-9). The related statistical model included brand personality as independent variable (dummy coding: 1 - active, 0 - responsible), processing fluency as mediator, and extension evaluation as dependent variable (PROCESS Model 4). Furthermore, perceived fit, brand relevance, and participants' assessment of their self-brand connection were specified as covariates of the dependent variable. Similar to the previous ANCOVA, perceived fit and brand relevance were included in the model to address potential confounds related to the brand personality manipulation.

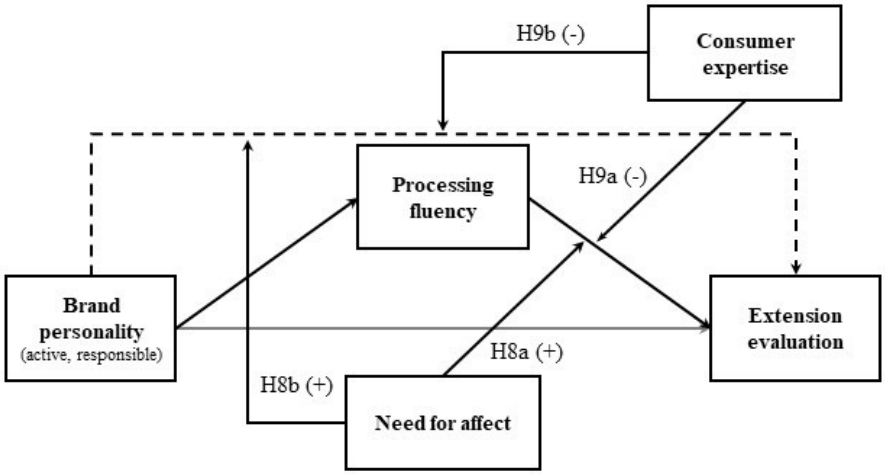
Results of the analysis revealed that extension evaluations increased significantly with the fluency with which participants processed the extension (B = .14, SE = .07, p < .05; see Appendix XVII for detailed regression results). However, the analysis also showed that the fluency with which participants processed the extension did not differ between the active and the responsible condition (B = -.19, SE = .27, p > .4). Thus, while data supported the prediction of H3b that processing fluency of extensions is positively linked to extension evaluations, no

Figure 4-9: Conceptual models used for the mediation analysis of Study 6 (dependent variable: extension evaluation)

A. Model 1



B. Model 2



evidence was found for the positive difference in processing fluency between extensions of active and responsible brands suggested by H3a. As a result, the indirect effect of brand personality on extension evaluation through processing fluency predicted by H3c was not evident in the current sample (B = -.03, bootstrap SE = .04, 95% bootstrap CI: -.13, .05). Contrarily, the direct effect of brand personality on extension evaluation was significant and negative (B = -.35, SE = .18, $p < .05$). This result is in line with the findings of the previous ANCOVA on H2 and shows that the negative difference in extension evaluations for the active brand and the responsible brand observed in the current study cannot be explained by processing fluency.

Extension evaluation: Mediation analysis (Model 2)

To gain a more detailed understanding of the explanatory relevance of processing fluency for the impact of brand personality on extension evaluations, the moderating influence of need for affect and consumers' expertise in the extension category on the link between brand personality, processing fluency, and extension evaluation (see H8a, H8b, H9a, and H9b) was investigated in a second mediation analysis (see Model 2 in Figure 4-9). The statistical model of the analysis (PROCESS Model 16) included brand personality as independent variable (dummy coding: 1 - active, 0 - responsible), processing fluency as mediator, extension evaluation as dependent variable, and need for affect as well as consumers' expertise in the extension category as moderators. As for the first analysis, perceived fit, brand relevance, and participants' self-brand connection were defined as covariates of extension evaluation.

Consistent with the results of the first mediation analysis, the relationship between processing fluency and extension evaluation was positive and significant at the mean value of need for affect and consumers' expertise in the extension category (B = .14, SE = .07, $p < .05$; see Appendix XVIII for detailed regression results). However, both the interaction between processing fluency and need for affect (B = .01, SE = .08) and the interaction between processing fluency and consumers' expertise in the extension category (B = .03, SE = .05) were nonsignificant ($ps > .5$). Accordingly, the prediction of H8a that the relationship between processing fluency and extension evaluations is moderated positively by need for affect and the prediction of H9a that this relationship is moderated negatively by consumers' expertise in the extension category were not supported by the current data.

As suggested by this finding and the previously described lack of evidence for an effect of brand personality (active vs. responsible) on processing fluency, no evidence for the proposed moderating impact of need for affect and consumers' expertise in the extension category on the indirect effect of brand personality on extension evaluation (see H8b and H9b) was found. Specifically, the conditional indirect effects of brand personality on extension evaluation at the mean and at one standard deviation above and below the mean of the two variables did not reach significance (95% bootstrap CIs included zero). As a result, the index of partial moderated mediation (Hayes, 2018b) was nonsignificant for both variables (95% bootstrap CI_{affect}: -.06, .04; 95% bootstrap $CI_{expertise}$: -.05, .02). Detailed results on the influence of the two variables on the indirect effect of brand personality on extension evaluation are provided in Table 4-9.

Table 4-9: Indirect effect of brand personality (active vs. responsible) on brand extension evaluation through processing fluency (Model 2, Study 6)

A. Indirect effect at different levels of need for affect and of consumers' expertise in the extension category				
Need for affect[a]	**CEEC[b,a]**	***B*[c]**	**Bootstrap *SE***	**95% Bootstrap *CI***
4.37	1.55	-.02	.04	-.12, .06
4.37	2.74	-.03	.05	-.13, .06
4.37	3.92	-.03	.06	-.17, .06
5.15	1.55	-.02	.04	-.12, .05
5.15	2.74	-.03	.04	-.13, .05
5.15	3.92	-.03	.06	-.17, .06
5.94	1.55	-.02	.04	-.13, .05
5.94	2.74	-.03	.05	-.15, .05
5.94	3.92	-.03	.06	-.20, .06

[a] Values were chosen at one standard deviation below the mean, at the mean, and at one standard deviation above the mean of the variable.
[b] CEEC: Consumers' expertise in the extension category
[c] Unstandardized estimates

B. Index of partial moderated mediation			
Moderating variable	***IMM*[a]**	**Bootstrap *SE***	**95% Bootstrap *CI***
Need for affect	-.002	.03	-.06, .04
Consumers' expertise in the extension category	-.01	.02	-.05, .02

[a] IMM: Index of partial moderated mediation (for details on the estimation of the index, see Hayes, 2018a, 2018b)

Parent brand attitude: ANCOVA

To further investigate the effects of brand personality on brand extension outcomes, the influence of brand personality on the differential effect of brand extension on parent brand attitude was examined. In particular, H5 and its prediction that the differential effect of brand extension on parent brand attitude is more positive for active brands than for responsible brands was tested. To this end, a repeated-measures ANCOVA with brand attitude as

dependent variable, brand personality as a between-subjects factor, and time (after vs. before extension) as a within-subjects factor was carried out. Perceived fit, brand relevance, and participants' self-brand connection were specified as covariates. Perceived fit and brand relevance were included in the analysis to account for the outlined differences in these measures between the two main brand stimuli, which potentially influenced extension evaluations. The effect of extension evaluation on parent brand attitude observed in Studies 3 and 5 indicates that these differences might also be relevant for parent brand attitude.

Results on the main effect of time revealed that participants' parent brand attitude after brand extension (M = 4.52)[21] was significantly less positive than their parent brand attitude before brand extension (M = 4.90, $F(1, 142) = 28.20$, $p < .001$; see Figure 4-10). However, no significant interaction effect of brand personality and time was evident ($F(1, 142) = .17$, $p > .6$). These findings suggest that brand extension diluted the parent brand in the current sample (for similar findings, see, e.g., Loken & John, 1993; Milberg et al., 1997) and that this diluting effect did not depend on the personality of the parent brand. Hence, the data of Study 6 does not support H5.

Figure 4-10: Mean brand attitude (before and after extension) for the two brand personality conditions of Study 6 (active vs. responsible)

[a] Error bars represent standard errors.

[21] Marginal means of extension evaluations at the sample mean of perceived fit, brand relevance, and self-brand connection are reported.

Following the initial test of H5, the link between brand personality, processing fluency, extension evaluation, and parent brand attitude (see H6a and H6c), and the moderating impact of need for affect and consumers' expertise in the extension category on this link (see H10a and H10b) were examined. To this end, mediation analysis with the difference between participants' brand attitude after and before brand extension (ΔPBA) as dependent variable was conducted. As for the previous mediation analyses, the regression-based approach by Hayes (2018a) was followed. The conceptual models used for the mediation analysis are shown in Figure 4-11.

Parent brand attitude: Mediation analysis (Model 3)

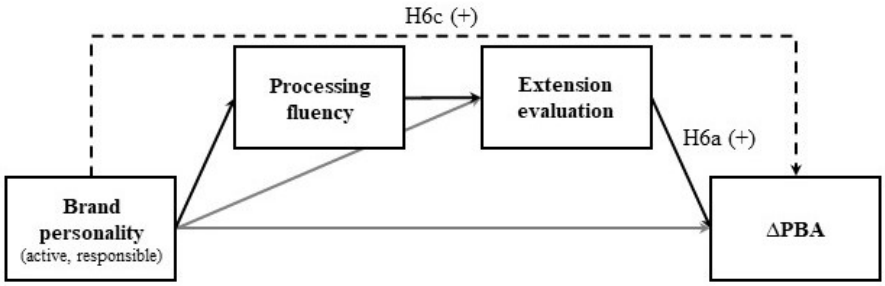
The first mediation analysis (see Model 3 in Figure 4-11) tested the hypothesized positive relationship between extension evaluation and the differential impact of brand extension on parent brand attitude (see H6a) and the hypothesized positive indirect influence of brand personality (active vs. responsible) on the differential impact of brand extension on parent brand attitude through processing fluency and extension evaluation (see H6c). The corresponding statistical model included brand personality as independent variable (dummy coding: 1 - active, 0 - responsible), processing fluency and extension evaluation as serial mediators, and ΔPBA as dependent variable (PROCESS Model 6). Furthermore, perceived fit and brand relevance were defined as covariates of extension evaluation, and participants' self-brand connection was defined as a covariate of both extension evaluation and ΔPBA. Perceived fit and brand relevance were included as covariates of extension evaluation to account for possible confounds related to the brand personality manipulation.

In support of H6a, analysis results demonstrated that extension evaluations were positively and significantly related to ΔPBA (B = .36, SE = .06, p < .001; see Appendix XIX for detailed regression results). However, the indirect effect of brand personality on ΔPBA through processing fluency and extension evaluation was not significant (B = -.01, bootstrap SE = .02, 95% bootstrap CI: -.05, .02). Thus, as previously indicated by the findings on H3a-c, H6c and its prediction that brand personality affects the differential impact of brand extension on parent brand attitude indirectly through processing fluency and extension evaluation was not supported by the current data.

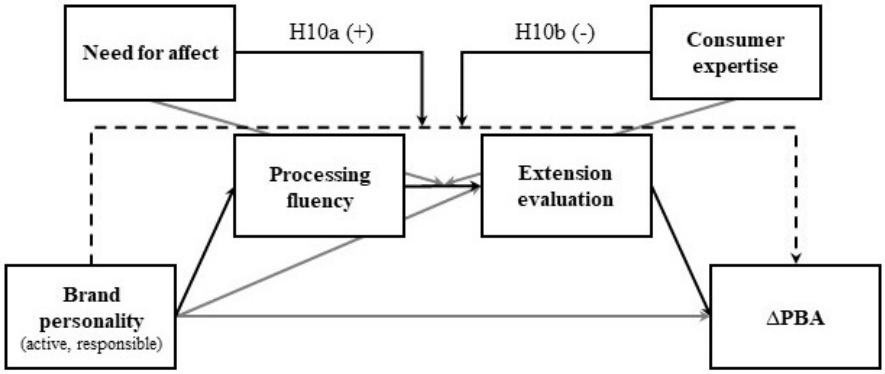
However, as suggested by the results on H6a and H2, the analysis revealed a negative and significant indirect effect of brand personality on ΔPBA through extension evaluation (B = -.13, bootstrap SE = .06, 95% bootstrap CI: -.26, -.01). At the same time, the direct effect of brand personality on ΔPBA (B = .09, SE = .13) and the indirect effect of brand personality on ΔPBA through processing fluency (B = -.01, bootstrap SE = .02) were both nonsignificant

Figure 4-11: Conceptual models used for the mediation analysis of Study 6 (dependent variable: ΔPBA – difference in brand attitude after and before brand extension)

A. Model 3



B. Model 4



(p_{direct} > .5; 95% bootstrap $CI_{indirect}$: -.05, .03). Analysis of the total effect confirmed the previous results on H5 by showing that brand personality did not have an overall significant effect on ΔPBA (B = -.06, SE = .16, p > .7).[22] Thus, while brand attitude towards the responsible brand appears to have benefitted from more positive extension evaluations compared to the active brand, this positive influence through extension evaluations did not result in a significant difference in the differential impact of brand extension on parent brand attitude between the responsible and the active brand.

[22] The total effect was calculated by defining perceived fit, brand relevance, and self-brand connection as covariates for all paths of the mediation model. An additional model excluding all covariates confirmed the reported results on the direct, indirect, and total effects.

Parent brand attitude: Mediation analysis (Model 4)

While the findings presented so far do not provide evidence for the indirect effect of brand personality on ΔPBA through processing fluency and extension evaluation (see H6c), H10a and H10b propose that the relevance of this effect might depend on consumers' need for affect and their expertise in the extension category. However, since the data of the current study did not support H8a, H8b, H9a, H9b, and H6c, it can be concluded that the moderating influence of need for affect and consumers' expertise in the extension category suggested by H10a and H10b is not evident in the current sample. Results of formal tests of H10a and H10b are therefore only briefly summarized in the following.

H10a and H10b were tested based on an additional mediation analysis (see Model 4 in Figure 4-11) that included brand personality as independent variable (dummy coding: 1 - active, 0 - responsible), processing fluency and extension evaluation as serial mediators, need for affect and consumers' expertise in the extension category as moderators, and ΔPBA as dependent variable (PROCESS Model 91)[23]. As for the previous analysis, perceived fit and brand relevance were defined as covariates of extension evaluation, and participants' self-brand connection was defined as a covariate of both extension evaluation and ΔPBA.

Results did not support H10a and H10b. Particularly, the indirect effect of brand personality on ΔPBA through processing fluency and extension evaluation was neither influenced by participants' need for affect (*IMM* = -.001, bootstrap *SE* = .01, 95% bootstrap *CI*: -.02, .01) nor by participants' expertise in the product category (*IMM* = -.002, bootstrap *SE* = .01, 95% bootstrap *CI*: -.02, .01). Detailed results of the mediation analysis are provided in Appendix XX.

4.7.3 Discussion

The results of Study 6 did not provide evidence for H2 and its prediction that extensions of active brands are evaluated more positively than those of responsible brands. In fact, extension evaluations of active brands were found to be less positive than those of responsible brands at a marginal level of significance. Furthermore, results on the mediating role of processing fluency for the relationship between brand personality and extension evaluation demonstrate that processing fluency and extension evaluation were positively related (see H3b), which indicates that processing fluency seems to generally influence extension evaluations. However, brand personality did not affect processing fluency (see H3a). Correspondingly, no support was found for an indirect effect of brand personality on

[23] PROCESS Model 91 was modified by adding a second moderator to the path from processing fluency to extension evaluation.

extension evaluation through processing fluency in the sample of Study 6 (see H3c). This result held irrespectively of consumers' need for affect (see H8a and H8b) and expertise in the extension category (see H9a and H9b). Consequently, the unexpected negative difference in extension evaluations between active and responsible brands was not explained by processing fluency.

In addition, Study 6 found no evidence in support of the hypothesized positive difference in the differential impact of brand extension on parent brand attitude between active and responsible brands (see H5). Relatedly, no support was found for the positive indirect effect of brand personality (active vs. responsible) on the difference in brand attitude before and after brand extension through processing fluency and extension evaluation (see H6c). This finding was consistent across consumers with varying need for affect (see H10a) and expertise in the extension category (see H10b). However, results highlighted that extension evaluations seem to be positively linked to the difference in parent brand attitude after and before extension (see H6a). As a result of this positive link and the observed negative difference in extension evaluations for the active and the responsible brand, brand personality affected the difference in parent brand attitude after and before extension indirectly and negatively through extension evaluation. It is noteworthy that this indirect effect was evident despite the lack of a total effect of brand personality on the differential impact of brand extension on parent brand attitude, which might suggest that the evident indirect effect was compensated to some extent by additional unknown processes (Zhao, Lynch, & Chen, 2010). However, no inference could be drawn on such additional processes based on the current data.

5 General Discussion

This chapter aims to provide an integrated discussion of the research design and the findings of the studies of this dissertation. To this end, a summary of the results of Studies 1-6 is provided. Based on this summary, the theoretical contribution, managerial implications, and limitations of the dissertation are outlined. The chapter concludes by pointing out directions for future research.

5.1 Summary of Results

As outlined by the two research questions presented in the introduction, the overall objective of this dissertation was to examine how brand personality impacts brand extendibility and how characteristics of consumers and brand extensions moderate this impact. The theoretical conceptualization of Chapter 2 proposed that brand personality influences brand extension outcomes by affecting the fluency with which consumers process brand extensions. Based on this theoretical link, detailed research hypotheses on the influence of brand personality on brand extension outcomes and potential moderators of this influence were derived in Chapter 3. These hypotheses were tested as part of the six empirical studies of this dissertation. To provide a concise overview of the findings of these tests, the following subsections summarize the results of the empirical studies along the research hypotheses.

H1

H1 predicted that active brands are more strongly associated with brand behavior related to brand extension than responsible brands. Results of Studies 1 and 2 support this prediction. In particular, participants of both studies associated active brands more frequently with brand behavior related to brand extension than responsible brands. Furthermore, participants of Study 2 rated active brands to be more strongly linked to brand behavior related to brand extension than responsible brands.

This evidence on the strength of association of active and responsible brands with brand behavior related to brand extension suggests that such behavior is more accessible to consumers when being exposed to active (vs. responsible) brands (for a detailed discussion, see Sections 2.4 and 3.1).

H2 and H3a-c

Related to these differences in accessibility, H2 suggested that extensions of active brands are evaluated more positively than extensions of responsible brands. Furthermore, H3c proposed that this positive influence of brand personality is linked to the indirect effect of brand

personality (active vs. responsible) on brand extension evaluation through processing fluency. This prediction was based on the hypotheses that the higher activation of brand behavior related to brand extension for active brands leads to more fluent processing of brand extensions of active brands (see H3a) and that consumers' affective reactions to such fluent processing influence extension evaluations positively (see H3b).

Studies investigating H2 yielded mixed results. In particular, Study 4 found extension evaluations to be more positive for active parent brands than for responsible parent brands at a marginal level of significance. In contrast, Studies 3 and 5 discovered no significant difference between evaluations of extensions of active brands and evaluations of extensions of responsible brands. Furthermore, Study 6 revealed a marginally significant effect opposite to that predicted by H2.

Tests of H3a-c conducted as part of Studies 5 and 6 indicated that processing fluency is positively related to extension evaluations. At the same time, no evidence was found for the impact of brand personality on processing fluency in either of the studies. As a result, the indirect effect of brand personality on extension evaluations through processing fluency was nonsignificant in both studies and the effect of brand personality on extension evaluations observed in Study 6 remained unexplained.

H4a-c

H4a-c suggested that the perceived fit of brand extensions with the parent brand is a possible boundary condition of the indirect effect of brand personality (active vs. responsible) on extension evaluation through processing fluency. In particular, it was theorized (see Section 3.1) that consumers rely more heavily on their fluency experiences and affective reactions related to these experiences if perceptions of fit are low. Furthermore, it was predicted that the relative difference in processing fluency between brand extensions of active and responsible brands is more pronounced for low-fit extensions. Thus, the impact of brand personality (active vs. responsible) on processing fluency and the influence of processing fluency on extension evaluation were expected to decrease with increasing perceived fit (see H4a and H4b, respectively). As a result, perceived fit was anticipated to negatively moderate the impact of brand personality on extension evaluation through processing fluency (see H4c).

H4a-c were tested in Study 5. No evidence was found for the moderating impact of perceived fit on the effect of brand personality (active vs. responsible) on processing fluency, the effect of processing fluency on extension evaluation, or the indirect effect of brand personality (active vs. responsible) on extension evaluation through processing fluency.

H8a, H8b, H9a, and H9b

Apart from characteristics of brand extensions, characteristics of consumers were considered as boundary conditions of the indirect effect of brand personality on extension evaluation. In particular, it was expected that the relationship between processing fluency and extension evaluation varies in magnitude with consumers' tendency to incorporate their affective reactions into judgments (see Section 3.2). Thus, H8a predicted that the relationship between processing fluency and extension evaluation would be moderated positively by consumers' need for affect. Similarly, H9a suggested that this relationship would be moderated negatively by consumers' expertise in the extension category. Consequently, consumers' need for affect and their expertise in the extension category were expected to moderate the indirect effect of brand personality (active vs. responsible) on extension evaluation through processing fluency (see H8b and H9b).

Tests of H8a, H8b, H9a, and H9b in Studies 5 and 6 found no evidence for the suggested moderating impact of need for affect and consumers' expertise in the extension category. This finding suggests that the observed positive relationship between processing fluency and extension evaluation (see results on H3b) might not be a consequence of consumers' affective reaction to fluency experiences, as initially theorized in the derivation of H3b. A possible alternative explanation for this relationship that is more consistent with the presented findings is that fluency experiences inform extension evaluations through specific naïve theories consumers consider relevant to the extension evaluation task (Schwarz, 2004, 2012; Winkielman et al., 2003; see discussion of Section 2.3.2). This idea is further developed in Section 5.2.

H5 and H6a-c

Apart from the influence of brand personality on extension evaluation, the studies of this dissertation also examined the impact of brand personality on the effects of brand extension on the parent brand. H5 predicted that the differential impact of brand extension on parent brand attitude is more positive for active than for responsible brands. This prediction was based on the expectation that the hypothesized positive effect of brand personality (active vs. responsible) on extension evaluation would result in the parent brand to be associated with more positive brand extension evaluations (see Section 3.1). To test this expectation in more detail, it was hypothesized that the differential effect of brand extension on parent brand attitude increases with extension evaluations (see H6a) and brand personality consequently affects the differential impact of brand extension on parent brand attitude indirectly and positively through extension evaluations (see H6b). Related to H3a-c, it was further proposed that brand personality (active vs. responsible) influences the differential impact of brand

extension on parent brand attitude indirectly and positively through the relationship between processing fluency and extension evaluation (see H6c).

H5 was tested in Studies 3, 5, and 6. Results of Studies 5 and 6 showed that the differential impact of brand extension on parent brand attitude did not differ between active and responsible brands. In contrast, Study 3 revealed a positive and marginally significant effect of brand personality (active vs. responsible) on the differential impact of brand extension on parent brand attitude. However, this effect was not explained by participants' extension evaluations as predicted by H6b.

Consistent with H6a, results of Study 3 also revealed a positive relationship between extension evaluation and the differential impact of brand extension on parent brand attitude. The results of Studies 5 and 6 corroborated this finding. However, related to the lack of evidence in support of H3a-c, Studies 5 and 6 provided no support for the hypothesized positive indirect effect of brand personality (active vs. responsible) on the differential impact of brand extension on parent brand attitude through the relationship between processing fluency and extension evaluation (see H6c).

In addition, the results of Study 6 yielded a significant and negative effect of brand personality (active vs. responsible) on the differential impact of brand extension on parent brand attitude through extension evaluation. This effect resulted from the positive link between extension evaluation and the differential impact of brand extension on parent brand attitude, and the negative difference in extension evaluations between the active and the responsible brand evident in the data. Despite this indirect effect, no total effect of brand personality on the differential impact of brand extension on parent brand attitude was evident in Study 6. As highlighted in Section 4.7.3, this finding hints to the possibility that the discovered negative indirect effect might have been compensated to some extent by additional unknown processes (Zhao et al., 2010).

Another noteworthy finding is the significant and positive relationship between processing fluency and the difference in parent brand attitude after and before brand extension discovered in Study 5. While this relationship is merely correlative, it indicates that the fluency related to processing brand extensions might not only affect parent brand attitude indirectly through brand extension evaluations but might also be directly attributed to the parent brand. As pointed out in Section 3.1, existing research suggests that affective reactions to processing fluency are likely to be attributed to objects present to consumers when experiencing these reactions (Clore et al., 2001; Higgins, 1998; Schwarz, 2012). Based on this insight, Section 3.1 suggested that consumers' affective reactions to fluency experiences related to processing

brand extensions are unlikely to be attributed to the parent brand. Thus, the observed positive relationship between processing fluency and the difference in parent brand attitude after and before brand extension might hint to the possibility that processing fluency is linked to brand extension judgments based on consumers' naïve theories rather than their affective reactions to processing fluency. This speculative suggestion is in line with the previously outlined interpretation of the lack of support for the hypothesized moderating influence of consumers' need for affect and expertise in the extension category on the relationship between processing fluency and extension evaluation (see H8a, H8b, H9a, and H9b).

H7, H10a, and H10b

To further scrutinize the relevance of brand personality for effects of brand extension on the parent brand, possible moderators of the influence of brand personality on the differential impact of brand extension on parent brand attitude were investigated. As previously outlined, the influence of brand personality on the differential impact of brand extension on parent brand attitude was hypothesized to depend on the indirect effect of brand personality on extension evaluation through processing fluency. Consequently, the boundary conditions of this indirect effect (see H4a-c, H8a, H8b, H9a, and H9b) were expected to be relevant for the influence of brand personality on the differential impact of brand extension on parent brand attitude. In particular, H7 predicted that the indirect effect of brand personality (active vs. responsible) on the differential impact of brand extension on parent brand attitude through the relationship between processing fluency and extension evaluation becomes less positive with increasing fit perceptions. Furthermore, H10a and H10b predicted that this indirect effect becomes more positive with consumers' need for affect and less positive with consumers' expertise in the extension category, respectively.

H7 was tested as part of Study 5. Related to the lack of support for the moderating impact of perceived fit on the influence of brand personality on extension evaluation in Study 5, no evidence in support of H7 was found. Similarly, hypothesis tests of Studies 5 and 6 did not support H10a and H10b, as indicated by the previously described results of Studies 5 and 6 on H8a, H8b, H9a, and H9b.

Additional insights unrelated to the research hypotheses

Ad-hoc analyses based on the data of Study 5 were conducted to gain insights into the expected positive interdependence of perceived fit and processing fluency (see Sections 2.4.3 and 3.1). While results of these analyses do not add to answering the research questions of this dissertation, they are briefly presented as part of this summary due to their relevance for brand extension research.

In particular, an ANOVA on processing fluency with perceived fit as a single between-subjects factor showed that the fluency with which participants processed the low-fit, moderate-fit, and high-fit extension of Study 5 differed significantly ($F(2, 290) = 26.08$, $p < .001$). Planned mean comparisons revealed that both the high-fit ($M = 6.13$) and the moderate-fit extension ($M = 5.67$) were processed significantly more fluently than the low-fit extension ($M = 4.47$; ps $< .001$), whereas the high-fit extension was processed more fluently than the moderate-fit extension at a marginal level of significance ($p < .1$). Furthermore, a mediation analysis with extension evaluation as dependent variable, processing fluency as mediator, and the perceived fit factor (dummy-coded: low [reference category] vs. moderate vs. high) as independent variable (PROCESS Model 4)[24] revealed an indirect relationship between perceived fit and extension evaluation through processing fluency. Results showed that the indirect effects of the moderate-fit and the high-fit indicator through processing fluency were positive and significant (95% bootstrap *CI*s did not include 0; see Appendix XXI for detailed results). Estimated total effects demonstrated that the difference in extension evaluations between the low-fit extension and the moderate-fit extension ($B = .99$, $SE = .23$) and the difference in extension evaluations between the low-fit extension and the high-fit extension ($B = 1.01$, $SE = .23$) were positive and significant (ps $< .001$). Tests of direct effects revealed that while the direct effect of the moderate-fit indicator was positive and significant ($B = .42$, $SE = .20$, $p < .05$), the direct effect of the high-fit indicator was nonsignificant ($B = .23$, $SE = .21$, $p > .2$). Hence, processing fluency partially explained the difference in extension evaluations between the low-fit and the moderate-fit extension and fully explained the difference in extension evaluations between the low-fit and the high-fit extension.

The possible theoretical implications of these results are discussed as part of the following section.

5.2 Theoretical Contribution

5.2.1 Contribution to Research on Brand Extension

This dissertation contributes to literature on the success factors of brand extension. In particular, it adds to existing findings on the impact of parent brand characteristics on brand extendibility. Past research has identified several brand characteristics that affect extension outcomes across product categories. These characteristics include, for example, brand attitude (Bottomley & Holden, 2001; Völckner & Sattler, 2006), brand breadth (Boush & Loken, 1991; Dacin & Smith, 1994), and brand affect (Fedorikhin et al., 2008; Yeung & Wyer, 2005).

[24] Mediation analysis was conducted based on the regression-based approach described by Hayes (2018a) and version 3.3 of the PROCESS macro for SPSS.

However, despite the importance of brand personality for brand image and its relevance for brand outcomes (see Section 2.1 for a review), brand extension research appears not to have investigated brand personality as a parent brand characteristic relevant to brand extendibility. This gap in extension literature is addressed by the current work.

The results of the empirical studies of this dissertation provide a first indication of the relevance of brand personality for the extendibility of brands. While no clear relationship could be established between the dimensions of brand personality according to Geuens et al. (2009) and brand extension outcomes, findings indicate that brand personality can influence extension evaluations and the impact of brand extension on parent brand attitude. The observed effects were evident after controlling for consumers' perceived fit of extensions with the parent brand, their attitude towards the parent brand, brand quality, brand breadth, and the relevance of parent brand associations for extension products. However, the hypothesized indirect influence of brand personality on extension evaluations through processing fluency was not supported by results and thus did not contribute to the explanation of the observed effects. Therefore, it seems that the observed effects of brand personality on extension outcomes are linked to processes that were not accounted for by the theoretical conceptualization of this dissertation and that have possibly not been investigated by brand extension research so far.

Apart from adding to existing research on the impact of parent brand characteristics on brand extension outcomes, this dissertation provides insights relevant to the theoretical understanding of the impact of the perceived fit between the parent brand and the extension product on extension outcomes. As outlined in Section 5.1, results on the interdependence of perceived fit and processing fluency highlight that perceived fit appears to be positively related to the fluency with which consumers process extensions. Extant research has theorized that the impact of perceived fit on extension evaluations is based on consumers' inclination to engage in category-based processing during extension evaluation (D. A. Aaker & Keller, 1990; Martin & Stewart, 2001; Sood & Keller, 2012). According to this theoretical account, parent brand associations are likely to be transferred to the extension product if the parent brand is considered applicable to the extension based on perceptions of fit (D. A. Aaker & Keller, 1990; Martin & Stewart, 2001). Assuming that parent brand attitude is positive and parent brand associations are considered beneficial in the context of the extension, such a transfer is theorized to affect extension evaluations positively (D. A. Aaker & Keller, 1990; Boush & Loken, 1991). As outlined in Section 2.2.2, perceptions of fit are understood to be linked to the similarity between the parent brand and the extension product (D. A. Aaker & Keller, 1990; C. W. Park et al., 1991; Völckner & Sattler, 2006). Adding to this

understanding, the revealed positive interdependence of perceived fit and processing fluency highlights that perceptions of fit might also be linked to consumers' subjective experiences. In particular, since fluency experiences are considered to result at an early point during information processing (Winkielman et al., 2003), consumers' fit judgments could be informed by their fluency experiences related to processing extensions. However, further investigations of the relationship between perceived fit and processing fluency are required to substantiate these interpretations.

5.2.2 Contribution to Research on Brand Personality

This dissertation also contributes to research on brand personality. In particular, it adds to the understanding of brand personality perception. Research on social perception highlights that people infer personality traits of others from observed behavior (Carlston & Skowronski, 1994; Maass et al., 2001; Winter & Uleman, 1984) and vice versa (Maass et al., 2001). This inference has been theorized to be linked to the semantic organization of human personality traits and behavior in memory (Maass et al., 2001; Srull & Wyer, 1989). The theoretical conceptualization of this dissertation (see Section 2.4.1) proposed that brand personality is organized based on similar semantic structures as human personality. Inference of brand personality traits from lower-level information on brands, such as brand behavior, and vice versa was therefore suggested to be based on similar patterns of activation in memory as inference processes related to human personality. Probing the semantic link between brand personality traits and brand behavior, the current work demonstrates that the strength of association of brands with brand behavior related to brand extension differs depending on brand personality. Thus, consumers appear not only to infer brand personality traits from brand behavior but also to infer brand behavior from brand personality traits. This conclusion is consistent with the notion put forward by extant research that consumers are inclined to derive behavioral expectations towards brands from their personality (J. Aaker et al., 2004; Sundar & Noseworthy, 2016).

Moreover, this dissertation adds to investigations of the impact of brand personality on brand outcomes. Previous research has demonstrated that consumers' perception and evaluation of brand behavior (J. Aaker et al., 2004; Sirianni et al., 2013), sensory brand experiences (Sundar & Noseworthy, 2016), and brand stimuli (Brasel & Hagtvedt, 2016) differ depending on brand personality, which can affect brand outcomes, such as brand attitude (Brasel & Hagtvedt, 2016; Sirianni et al., 2013). The current work enriches this line of research by examining the impact of brand personality on consumers' perception and evaluation of brand extensions and the effect of this impact on parent brand attitude.

As outlined in Section 5.2.1, results of the conducted studies did not reveal specific relationships between the dimensions of brand personality and brand extension outcomes but indicated the general relevance of brand personality for brand extendibility. Apart from findings on brand extendibility, the conducted pretests and main studies showed that brand personality is relevant to brand extension outcomes by influencing consumers' fit perceptions and how relevant they perceive the parent brand to be for the extension. This observation is in line with previous research that demonstrates that consistency between brand personality and extension characteristics is relevant to fit perceptions of consumers and thus brand extension outcomes (Batra, Lenk, & Wedel, 2010; Yorkston et al., 2010).

5.2.3 Contribution to Research on Processing Fluency

Finally, this dissertation enhances the understanding of the impact of processing fluency on brand-related judgments. Past research has highlighted various sources of processing fluency linked to brands that impact brand-related judgments and therefore brand outcomes (for a review, see Section 2.3.3). This research has studied the impact of processing fluency on brand-related judgments and brand outcomes in the context of, for example, brand names (Janiszewski, 1993), product reviews (Anand et al., 1988), product messages (Lee & Aaker, 2004; Lee et al., 2010), and advertisements (Labroo & Lee, 2006; Shapiro, 1999; Thompson & Hamilton, 2006). However, extant research seems not to have examined the relevance of processing fluency in the context of brand extension. This gap is addressed in this dissertation by investigating the explanatory potential of processing fluency for brand extension outcomes.

The presented results demonstrate that evaluations of brand extensions become more positive with the fluency with which they are processed. Results also suggest that this link between processing fluency and extension evaluations might not result from consumers' affective reactions to their fluency experience, as has been commonly shown or theorized for other brand-related judgments (see Section 2.3.3). In fact, results of the tests of the research hypotheses seem to indicate that the link between processing fluency and extension evaluations may be due to consumers' application of naïve theories they hold regarding the interpretative meaning of fluency experiences in the extension context (Schwarz, 2004, 2012; Winkielman et al., 2003). The positive relationship between processing fluency and the difference in parent brand attitude after and before brand extension evident in Study 5, and the positive interdependence between perceptions of fit and processing fluency discussed in Section 5.2.1 further support this idea. However, additional research is required to substantiate this interpretation of the observed relationship between processing fluency and brand extension evaluations.

The findings of this dissertation also provide insights into the more general relevance of conceptual fluency in the branding context. Research on conceptual fluency in the branding context has demonstrated that the activation of concepts semantically related to a brand can increase the fluency with which brand-related stimuli are processed (Lee & Labroo, 2004; Shapiro, 1999; see Section 2.3.3 for a detailed review). Linked to this research, this dissertation suggested that exposure to a brand name leads to the activation of different brand behaviors depending on brand personality. These differences in brand behavior activation were predicted to lead to variations in the accessibility of brand behavior related to brand extension when evaluating brand extensions and, thus, to differences in the fluency of processing extensions.

Results showed that brands with different brand personalities vary in the strength of their semantic relation to behavior related to brand extension. However, exposure to brand names with different brand personalities was not found to lead to differences in the fluency with which extensions are processed. Several explanations for these findings appear plausible. In particular, brand name and related brand personality trait activation might not lead to the expected differences in the activation of lower-level nodes referring to brand behavior (for a discussion of the semantic organization of brand personality in memory, see Section 2.4.1). Thus, accessibility of brand behavior related to brand extension after brand name exposure might not vary substantially between brands with different brand personalities. Furthermore, even if brand name exposure lead to the expected differences in accessibility of brand behavior, these differences might not be relevant to brand extension processing. As a result, these differences might not affect the fluency with which brand extensions are processed. To substantiate these potential explanations, further investigations are required.

5.3 Managerial Implications

5.3.1 Assessment of Potential Brand Extensions

The results of this dissertation are consistent with previous findings that highlight the dependence of extension success on perceived fit (D. A. Aaker & Keller, 1990; C. W. Park et al., 1991; Völckner & Sattler, 2006) and on the relevance of parent brand associations for the extension category (Broniarczyk & Alba, 1994; Spiggle et al., 2012). While brand extension is considered an important growth strategy for brands (D. A. Aaker & Keller, 1990; Chun et al., 2015; Völckner & Sattler, 2006), high failure rates of new products indicate that brand extension can be a risky endeavor (Keller, 2013, p. 436). When planning brand extensions, brand managers should therefore carefully consider how potential brand extensions fit the parent brand and whether parent brand associations are deemed relevant in the extension

category. As was outlined in Section 2.2.2 based on the work by Martin and Stewart (2001), the fit between parent brand and extension product can be conceptualized based on four types of similarity: feature-based similarity, usage-based similarity, brand-concept similarity, and goal-based similarity. Assessments of the fit between potential brand extensions and the parent brand could therefore systematically be conducted along these types of similarity.

This dissertation also underlines that parent brand personality is relevant for fit perceptions (also see Batra et al., 2010; Yorkston et al., 2010) and that brand personality associations vary in their perceived relevance for different extension categories. Brand personality should therefore be specifically addressed as part of the assessment of potential extension categories. Guidance regarding the statistical implementation of such an assessment has been provided by previous research (see Batra et al., 2010).

Furthermore, the results of this dissertation highlight that brand extension can have adverse effects on the parent brand. In particular, results show that brand extension can negatively affect parent brand attitude (see Studies 3, 5, and 6). This finding is consistent with previous evidence on the diluting effect that brand extensions can have on the parent brand (John et al., 1998; Loken & John, 1993; Martínez & Pina, 2003; Milberg et al., 1997). Relevant to the assessment of potential brand extension alternatives, negative effects of brand extension on the parent brand have been shown to be more likely for extensions whose attributes are inconsistent with parent brand beliefs (Loken & John, 1993; Milberg et al., 1997) and which have low perceived fit with the parent brand (Martínez & Pina, 2003; Milberg et al., 1997). In general, brand managers can reduce the risk of negative effects on the parent brand by incorporating subbranding strategies instead of family-branding strategies (Milberg et al., 1997; Sood & Keller, 2012) and by introducing low-fit brand extensions early when planning to introduce several brand extensions (Parker, Lehmann, Keller, & Schleicher, 2018).

5.3.2 Brand Personality and Brand Extendibility

The relevance of brand personality for brand extendibility pointed out as part of this dissertation implies that future brand extension plans should be considered when managing brand identity. At the same time, the results of this dissertation do not suggest specific brand personality dimensions that affect brand extendibility across different contexts. To account for effects of brand personality on brand extendibility, brand managers should therefore investigate the impact of choosing different brand personalities on brand extendibility in the specific context of their brands. Such an investigation could suggest what type of brand personality maximizes brand extendibility and might therefore contribute to increasing brand potential and overall brand value (Keller & Lehmann, 2009). To gain a more complete picture

of the consequences of choosing a specific type of brand personality for brand value, company-specific insights on the influence of brand personality on brand extendibility should be integrated with more general findings on the impact of brand personality on other brand outcomes (see Section 2.1.2 for a review).

5.4 Limitations

Related to the research designs chosen for the studies of this dissertation, the presented results are subject to possible limitations. Chapter 4 outlined several such limitations specific to single studies. In the following, possible limitations related to methods applied across multiple studies are discussed.

5.4.1 Sample Characteristics

The six studies reported in this dissertation were conducted based on convenience samples. In particular, samples of the first five studies were drawn from Amazon MTurk's U.S. worker population while the sample of the sixth study was drawn from the student population of the University of St.Gallen.

Past research has raised concerns that the use of convenience samples might threaten the external validity of experimental marketing research since the effects observed in experiments based on convenience samples do not necessarily generalize to a broader population (Ferber, 1977; James & Sonner, 2001; Pham, 2013).[25] However, it has also been highlighted that the appropriateness of using convenience samples for experimental studies depends on the underlying research goal of the experiment (Calder, Phillips, & Tybout, 1981). Generally, when the research goal is to test a theory that is potentially applicable across practical contexts and not to directly transfer effects observed in the experiment to a specific practical situation, the main focus of the experimental design should be to provide a rigorous test of theory rather than to provide a test setting that is representative of a specific practical situation (Calder et al., 1981). Thus, according to this view, the use of convenience samples for testing theory is deemed appropriate (Calder et al., 1981). However, it has been pointed out that while experiments based on unrepresentative participant samples might provide valid falsification procedures for a theory, conducting experiments across subgroups of consumers can increase the rigor of theory tests (Lynch, 1982). In particular, focusing on specific subgroups of

[25] While MTurk samples restricted to U.S. workers have been shown to be more representative for the general U.S. population than traditional student samples (Berinsky, Huber, & Lenz, 2012; Paolacci, Chandler, & Ipeirotis, 2010), they still substantially differ in their characteristics from this population (Berinsky et al., 2012; Goodman, Cryder, & Cheema, 2013; Goodman & Paolacci, 2017).

consumers might result in observing effects in experimental studies that result from the interaction of treatments with participant characteristics that are specific to the studied subgroup (Lynch, 1982). As a result of such interactions, theories tested based on experimental paradigms focusing on specific consumer subgroups might unintentionally become reliant on the specific characteristics of such subgroups (Klink & Smith, 2001; Lynch, 1982). For the sake of effective theory development, it has therefore been recommended that basic marketing research should address external validity by, for example, testing theories across different subgroups of consumers (Lynch, 1982).

The recommendation to test theories across subgroups of consumers was taken into account by this dissertation by conducting studies based on both student samples and samples of MTurk workers. Beyond this initial effort, external validity of the findings of this dissertation could be further addressed by future research by conducting studies based on additional consumer subgroups that might be deliberately chosen to be more representative of the population of interest.

Another possible limitation related to the samples used in the empirical studies of this dissertation is the potentially low quality of data collected on Amazon MTurk. However, as detailed in Chapter 4, this potential limitation was addressed in the corresponding studies by following established academic guidelines for conducting research on MTurk and on online platforms in general.

5.4.2 Main Brand and Brand Extension Stimuli

Results of this dissertation might further be limited due to the characteristics of the main brand stimuli used to manipulate brand personality and due to the characteristics of the stimuli used to describe brand extensions.

Main brand stimuli

In three of the four studies that tested the relationship between brand personality and brand extension outcomes, descriptions of fictitious brands were used to manipulate brand personality (for a similar approach, see J. Aaker et al., 2004; Sundar & Noseworthy, 2016). As has been previously discussed in Sections 4.4.3 and 4.6.3, the use of fictitious brands to manipulate brand personality might have rendered the brand personality manipulation too conservative in the respective studies. As noted, this issue might be particularly relevant for the studies conducted with participants from Amazon MTurk since learning rates in studies conducted on MTurk have been shown to be lower than learning rates in laboratory studies (Crump et al., 2013). The limitations potentially resulting from using fictitious brands for

brand personality stimuli were addressed by conducting a study that relied on real brands for brand personality manipulation (Study 4) and by conducting a laboratory experiment in addition to the online experiments based on Amazon MTurk (Study 6). However, Studies 4 and 6 only tested subsets of the research hypotheses of this dissertation. Thus, additional research is required to more fully address the potential limitations related to using stimuli based on fictitious brands as a means of brand personality manipulation.

Furthermore, only two different fictitious brands were used for brand personality stimuli. Thus, corresponding investigations of the relationship between brand personality and brand extension outcomes were restricted to the context of two parent brand product categories (audio equipment and cars). This focus on two specific product categories potentially limits the external validity of the related studies and thus the generalizability of the obtained results. In particular, research has pointed out that focusing on a specific experimental setting can lead to observing effects that are specific to the setting if aspects of the setting interact with the influence of treatments on observed variables (Lynch, 1982). In the current context, such an interaction could, for example, emerge for extension evaluations if brand personality influenced parent brand attitude differently across product categories and if the experimental design did not account for such differences.

To address these potential issues, Study 4 examined the effect of brand personality on brand evaluation based on real brands from various product categories. Furthermore, the studies based on fictitious brands addressed potential context-specific effects by controlling for the relationship between the parent brand and the extension products and for parent brand characteristics known to affect brand evaluations (see method sections of Studies 3, 5, and 6). However, to further increase the generalizability of the results of this dissertation, studies based on parent brands from additional product categories should be conducted.

Brand extension stimuli

In addition, the results of Studies 3-6 are subject to possible limitations related to the brand extension stimuli used in the studies. The stimuli contained brief descriptions of extension products and were used to gather participants' evaluation of the respective extensions (for a similar approach, see Boush & Loken, 1991; Chun et al., 2015; Keller & Aaker, 1992). Extant research has raised concerns regarding the external validity of measuring brand extension evaluations based on such stimuli (Klink & Smith, 2001; Meyvis et al., 2012; Milberg et al., 2010). In particular, it has been highlighted that consumers usually have a considerable amount of information available when evaluating extensions in a real-life setting (Klink & Smith, 2001). Such information includes information on product attributes (Klink & Smith,

2001), information on competitor products (Meyvis et al., 2012; Milberg et al., 2010), and visual information on the extensions (Meyvis et al., 2012). The availability of such information has been demonstrated to moderate the relevance of factors influencing brand extension success, such as perceived fit or parent brand quality (Klink & Smith, 2001; Meyvis et al., 2012; Milberg et al., 2010). In addition, it has been highlighted that consumers are usually exposed to extensions repeatedly, which can, for example, influence their perceptions of fit (Klink & Smith, 2001).

To judge whether the availability of the highlighted information and repeated exposure to extensions represent relevant boundary conditions to the examined relationship between brand personality and extension outcomes, additional investigations are required.

5.5 Future Research Directions

5.5.1 Addressing Study Limitations

The discussion of Section 5.4 outlined that some of the potential limitations of the results of this dissertation were attended to through variations in the design of the respective empirical studies. However, the discussion also pointed out several potential limitations that require additional investigations to be more completely addressed. In the following, suggestions for such additional investigations are provided that concern the limitations related to manipulating brand personality based on fictitious brands and the limitations related to using brief descriptions of brand extensions as brand extension stimuli.

Potential limitations related to manipulating brand personality based on fictitious brands

The potential limitations of the results of this dissertation related to manipulating brand personality based on fictitious brands (see Section 5.4.2) should be further addressed by conducting additional studies based on real brands. In particular, future research could, for example, investigate the impact of brand personality on brand extendibility by following a similar experimental paradigm as Study 4. Alternatively, such investigations could be based on pairs of real brands that allow for manipulating brand personality dimensions without affecting other variables relevant to extension outcomes. Parent brand stimuli referring to pairs of real brands have been used in brand extension research to manipulate other parent brand characteristics, such as brand reputation (Chun et al., 2015) and the prestige orientation of brands (Monga & John, 2010).

Another approach to studying the influence of brand personality on brand extendibility in the context of real brands could be to conduct observational studies. Results of such studies would

potentially not allow to infer causal relationships between brand personality and extension outcomes. However, the results might be an important complement to experimental studies by providing insights on the relevance of brand personality for brand extendibility in a practical context. Past research has shown that observational studies can be a valuable approach to gain insights in the context of brand extensions. For example, Smith and Park (1992) conducted surveys with product managers and consumers to investigate the effect of different new product introduction strategies (brand extension vs. introducing a new brand) on the market share of new products and on advertising efficiency. Similarly, Sullivan (1992) used a dataset compiled from various secondary data sources to examine whether products introduced as brand extensions or as new brands performed better in terms of market share and survival probability.

The ability to implement such an approach based on observational data hinges, of course, on the availability of a corresponding dataset. To study the effects of brand personality on brand extension outcomes, a dataset would be needed that allows estimating brand extension performance and relating this performance to validated measures of brand personality. As illustrated by the research by Smith and Park (1992), such a dataset could, for example, be created based on company and consumer surveys.

Limitations related to using brief descriptions of brand extensions as brand extension stimuli

Future studies should also address the potential limitations of the results of this dissertation related to using brief descriptions of brand extensions as brand extension stimuli. As outlined in Section 5.4.2, consumers' brand extension judgments have been shown to be influenced by the availability of different types of information on the extension as well as repeated exposure to the extension (Klink & Smith, 2001; Meyvis et al., 2012; Milberg et al., 2010). A fruitful avenue for future research might therefore be to test whether the relationship between band personality and brand extension outcomes depends on what kind of information is available for extension evaluations. Furthermore, future research might test whether this relationship depends on the degree to which consumers have been previously exposed to the extension.

Motivated by the findings of Klink and Smith (2001) and Meyvis et al. (2012), corresponding studies could, for example, examine the moderating effect of the availability of product attribute information or of the presence of product pictures on the impact of brand personality on extension evaluations. More specifically, such studies might, for example, compare effects of brand personality on extension evaluations for extension stimuli that either include or exclude pictures of products or information on product attributes (see Klink & Smith, 2001; Meyvis et al., 2012). Furthermore, the effect of the availability of information on competitor

products on the impact of brand personality on brand extension outcomes could be investigated (see Meyvis et al., 2012; Milberg et al., 2010). Corresponding studies may, for instance, compare the effects of brand personality on extension evaluations for participants who evaluate brand extensions in isolation and participants who evaluate extensions along competitor products from the same category (for a similar procedure, see Milberg et al., 2010).

5.5.2 Explanation of Observed Effects of Brand Personality on Brand Extension Outcomes

Several effects of brand personality on extension outcomes observed as part of the studies of this dissertation remained unexplained. In the following, potential approaches to providing an explanation for the observed effects are highlighted. To this end, the observed effects are considered separately. Related to the inconsistency of the effects, the outlined approaches do not refer to an integrated theoretical view but merely indicate starting points for exploring different, potentially competing explanations of the effects.

The first unexplained effect of this dissertation is the positive and marginally significant difference in extension evaluations between active and responsible brands observed in Study 4. The low level of significance of the observed effect might suggest that the effect is a particularity of the sample of Study 4 and extension evaluations do not actually differ in the examined context of the study. This suggestion is further supported by the fact that the effect was not replicated by Studies 3, 5, and 6. However, the deviation of results of Study 4 might also be related to differences in the design of the studies. In fact, Study 4 was the only study of this dissertation that examined the relationship between brand personality and brand extension outcomes based on real brands (see Section 5.4.2). Thus, to clarify whether the observed effect in Study 4 corresponds to an actual relationship between brand personality and extension evaluation, additional studies on the difference in evaluations between extensions of active and responsible brands should be conducted based on an experimental paradigm similar to that of Study 4. If the observed effect is replicated, further investigations will be needed to understand the deviation of results of Study 4 from those of Studies 3, 5, and 6.

Furthermore, no explanation could be provided for the marginally significant and negative difference in extension evaluations between the active and the responsible brand of Study 6. As for the effect of Study 4, the low level of significance of the effect indicates that additional investigations are needed to establish whether the observed effect corresponds to an actual influence of brand personality on extension outcomes. Given that the observed effect can be replicated, future research may aim to explain the effect and its deviation from the results of

Studies 3, 4, and 5. The results of a qualitative analysis of comments provided by participants of Study 6 hint to a potential avenue for such research. In particular, participants seemed to be less likely to link the responsible brand (vs. the active brand) to exploitative marketing behavior. While this insight is purely anecdotal, previous research has indicated that consumers consider the intentions of a parent brand when evaluating extensions. In particular, as discussed in Section 2.2.2, consumers' judgment of brand extension authenticity has been shown to add to the explanation of extension evaluations (Spiggle et al., 2012). The corresponding brand extension authenticity scale introduced by Spiggle et al. (2012) includes a dimension described as "avoiding brand exploitation". This dimension refers to exploitative marketing practices that might be suspected by consumers to motivate brand extension. Accordingly, a first approach to explain the effect of brand personality on brand extension evaluations observed in Study 6 might be to investigate the explanatory relevance of brand extension authenticity for this effect.

Finally, the influence of brand personality on the effects of brand extension on the parent brand observed in Study 6 could not be fully explained. The results of Study 6 revealed that brand personality (active vs. responsible) affected the differential impact of brand extension on parent brand attitude significantly and negatively through extension evaluation. At the same time, no overall effect of brand personality (active vs. responsible) on this differential impact was evident. As was outlined in Section 5.1, this pattern of effects might be explained by additional indirect effects of brand personality (active vs. responsible) that could not be identified as part of Study 6. A promising avenue for future research might therefore be to explore additional processes by which brand personality affects the differential impact of brand extension on parent brand attitude.

5.5.3 The Influence of Brand Personality on Brand Extendibility Beyond the Activity and Responsibility Dimension

Motivated by the theoretical conceptualization presented in Chapter 2, this dissertation focused on examining the impact of brand personality on brand extendibility by comparing the outcomes of extensions of active and responsible brands. To gain a more complete understanding of how brand personality influences brand extendibility, future studies might seek to investigate the relevance of other brand personality dimensions for brand extension outcomes.

Existing findings of brand personality and brand extension research suggest that studying the link between brand personality dimensions, consumers' relation to a brand, and brand extension outcomes might be an insightful avenue for such future studies. As was pointed out

in Section 2.1.2, brand personality has been shown to influence consumers' attachment to brands (J. Aaker et al., 2004; Malär et al., 2011). In particular, consumers appear to form stronger relationships with brands which are rated highly on the brand sincerity dimension of the brand personality scale by J. L. Aaker (1997) compared to brands that are rated highly on the brand excitement dimension of this scale (J. Aaker et al., 2004). At the same time, consumers' attachment to brands and the extent to which brands elicit positive affective reactions have been demonstrated to benefit extension outcomes (Fedorikhin et al., 2008; Yeung & Wyer, 2005). Thus, future studies may investigate whether differences in the strength of consumers' relationship with exciting and sincere brands correspond to respective differences in the extendibility of exciting and sincere brands. Similar investigations could be conducted based on the brand personality conceptualization by Geuens et al. (2009). A first step of such an investigation might be to identify brand personality dimensions that are positively linked to consumers' attachment to a brand or that encourage positive affective reactions of consumers to a brand. It could then be examined whether such personality dimensions benefit brand extendibility.

Alternatively, a more explorative approach to investigating the relevance of the different brand personality dimensions for brand extendibility might be chosen. For example, observational data could be used to explore the relationship between different brand personality dimensions and the outcomes of extensions of corresponding brands. Data might be gathered in a similar way as was discussed in Section 5.5.1 or might be obtained based on a simple consumer survey. Such a simple survey could, for example, ask participants to evaluate a set of extensions similar to the ones used in Studies 3 and 4 for a number of parent brands. The parent brands might be randomly selected from a set of real brands that vary on the different brand personality dimensions. To allow for rigorous inference on the influence of brand personality dimensions on brand extendibility, effects discovered based on the collected observational data could be further scrutinized in follow-up experimental studies.

5.5.4 The Relationship Between Perceived Fit and Processing Fluency

Finally, the results of this dissertation hint to the interrelation of processing fluency and perceived fit as a promising area for future studies. As was shown in Section 5.1, the perceived fit of a brand extension with its parent brand appears to be positively linked to the fluency with which consumers process the brand extension. The potential implications of this link for brand extension research (see Section 5.2.1) motivate the question of what the precise relationship between the constructs and the separate role of each of the constructs in explaining extension outcomes is.

As a first step to answering these questions, studies should examine whether subjective fluency (for a distinction between subjective and objective fluency, see Section 2.3.1) and perceived fit refer to distinct constructs in the brand extension context. To this end, future investigations could test the discriminant validity between perceived fit and the subjective fluency of extensions. In addition, the relationship between objective measures of fluency, such as the time needed by consumers to evaluate an extension, and perceived fit might be investigated.

Once a basic understanding of the conceptual relationship between processing fluency and perceived fit is established, experimental studies could analyze the explanatory role of the two constructs for extension outcomes. For example, it might be examined whether consumers have a general tendency to attribute fluency experiences related to processing brand extensions to the fit of brand extensions with the parent brand, as suggested by Section 5.2.1. To this end, it could be tested whether fluency experiences that are unrelated to the similarity between the parent brand and the extension product influence fit perceptions. Furthermore, the partial explanatory role of processing fluency for extension outcomes could be scrutinized. For example, it may be examined whether variations in processing fluency unrelated to perceived fit add to the explanation of brand extension outcomes.

Through studying these outlined topics, future research might further advance the understanding of the role of perceived fit as a success factor of brand extensions and might provide insights into the general relevance of processing fluency in the brand extension context.

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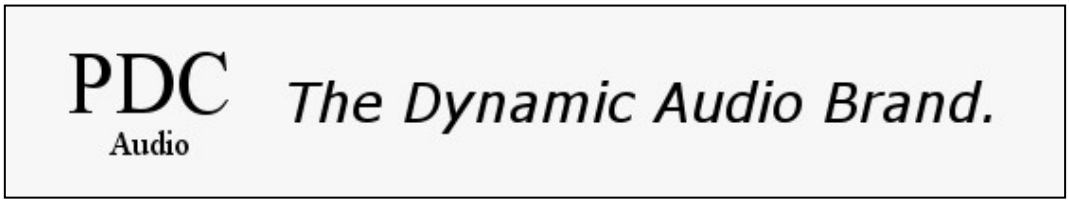
APPENDICES

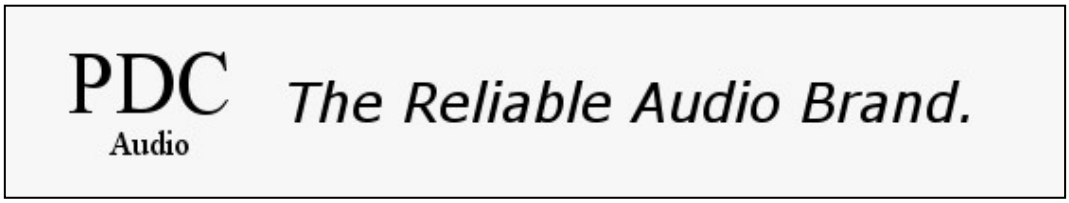
Appendix I: Main brand stimuli of Study 3

i. Active brand:



PDC is made for an active audience. The PDC brand is considered adventurous, innovative, and a creative brand. This dynamic brand offers a breathtaking experience. PDC is a leading maker of home audio systems and headphones in Europe. Since their inception in 1990, PDC has been cooperating with different department store chains to be able to serve customers across Europe.

ii. Responsible brand:



PDC is made for a down-to-earth audience. The PDC brand is considered stable, consistent, and a responsible brand. This reliable brand offers a fulfilling experience. PDC is a leading maker of home audio systems and headphones in Europe. Since their inception in 1990, PDC has been cooperating with different department store chains to be able to serve customers across Europe.

Appendix II: Brand extension stimuli of Study 3

PDC Alarm Clocks: PDC Alarm Clocks include various alarm clocks with functions ranging from simple alarms to advanced music playing capabilities.

PDC Car Audio: PDC Car Audio offers audio systems for cars in cooperation with major car manufacturers.

PDC Kitchen Appliances: PDC Kitchen Appliances are small household appliances, such as electric blenders, toasters, and microwave ovens.

PDC Microphones: PDC Microphones are microphones designed for audio recording purposes for both home and professional use.

PDC Mobile: PDC Mobile offers mobile electronic devices, such as smartphones and tablets.

PDC Musical Instruments: PDC Musical Instruments are musical instruments, including guitars, drums, and pianos.

PDC TV: PDC TV offers LCD television sets ranging from mid-range to high-end models.

Appendix III: Press release used for the brand extension scenario of Study 3

PDC Audio plans launch of new products

The company is ready to expand in 2019

During their quarterly press conference today, PDC Audio announced that the company is planning to expand into new product categories. PDC Audio currently focuses on home audio systems and headphones.

Without revealing specific details of the plan, PDC management stated that the company is evaluating different expansion options. While it has been decided that the new products will be sold under the existing PDC brand name, no final decision on the types of or number of new products has been made.

Details on the new products will be released to the public in the first half of 2019.

Appendix IV: OLS regression results for the mediation analysis of Study 3

A. Mean extension evaluation ($R^2 < .01$, $F(1, 156) = .08$, $p = .78$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	5.05	.10	50.13	< .001
Brand personality[c]	-.04	.15	-.27	.78

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

B. Difference in brand attitude after and before brand extension (ΔPBA) ($R^2 = .06$, $F(2, 155) = 5.00$, $p = .01$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	-1.37	.43	-3.16	.002
Brand personality[c]	.27	.15	1.74	.08
Mean extension evaluation	.22	.07	2.93	.004

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

Appendix V: Brand extension descriptions used in Study 4

(1) Audio equipment, including loudspeakers, headphones, and microphones.

(2) Small household appliances, such as electric blenders, toasters, and microwave ovens.

(3) Mobile electronic devices, such as smartphones and tablets.

(4) Cars, such as sedans, hatchbacks, and SUVs.

(5) Furniture, including chairs, tables, and cupboards.

(6) Fashionable clothing, such as shirts, pants, dresses, and suits.

(7) Watches, including both digital and mechanical watches.

(8) Sports gear, including bats, rackets, gloves, and balls.

(9) Non-alcoholic beverages, such as juice, soft drinks, and tea.

(10) Processed foods, such as dairy products, snack foods, and breakfast cereal.

(11) TVs, such as LCD and OLED televisions.

(12) Personal care products, such as shampoo, toothpaste, and makeup.

Appendix VI: Brands chosen by the participants of Study 4 grouped by experimental condition (brand personality: active vs. responsible)

Active (n = 62)		Responsible (n = 45)	
Brand	**Frequency[1]**	**Brand**	**Frequency[1]**
Apple	9	Ford	5
Nike	8	Nike	4
Tesla	4	Samsung	3
Samsung	3	Coca Cola	2
Adidas	2	Kashi	2
Lush	2	Levi's	2
Patagonia	2	Toms	2
Under Armour	2	Toyota	2
Adobe	1	Amazon	1
Aerie	1	American Eagle	1
Amazon	1	Apple	1
Audi	1	Armitron	1
BMW	1	Clorox	1
Bosch	1	Cotopaxi	1
Coleman	1	Dell	1
Disney	1	Google	1
Dr. Bronner's	1	John Deere	1
ELF	1	Johnson & Johnson	1
Fabletics	1	Kraft	1
Hollister	1	Microsoft	1
J.Crew	1	MVMT	1
Kia	1	Nintendo	1
LuLaRoe	1	Planters	1
Land Rover	1	Pyrex	1
Microsoft	1	REI	1
NcSTAR	1	S'well	1
Netflix	1	Seventh Generation	1
NS Design	1	Simply Organic	1
Panera	1	Sony PlayStation	1
REI	1	Starbucks	1
Roxy	1	Stella McCartney	1
Starbucks	1		
The North Face	1		
Thrive Themes	1		
Tupperware	1		
Victoria's Secret	1		
Vineyard Vines	1		
Volkswagen	1		

[1] Number of participants who chose the brand

Appendix VII: Main brand stimuli of Study 5

i. Active brand:

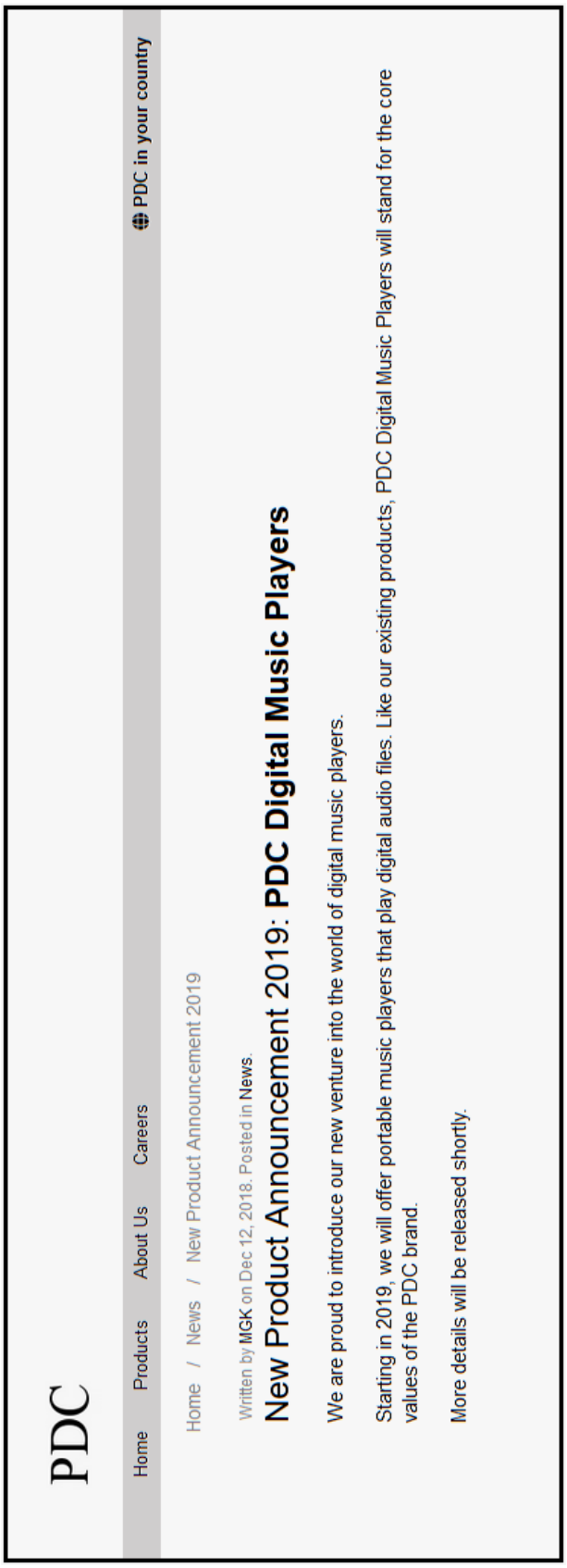
PDC is made for an active audience. The PDC brand is considered adventurous, innovative, and a creative brand. This dynamic brand offers a breathtaking listening experience. PDC is a leading maker of home audio systems and headphones in Europe. Since their inception in 1990, PDC has been cooperating with different specialty stores to be able to serve customers across Europe.

ii. Responsible brand:

PDC is made for a down-to-earth audience. The PDC brand is considered stable, consistent, and a responsible brand. This reliable brand offers a fulfilling listening experience. PDC is a leading maker of home audio systems and headphones in Europe. Since their inception in 1990, PDC has been cooperating with different specialty stores to be able to serve customers across Europe.

Appendix VIII: Brand extension stimuli of Study 5

i. High-fit extension:



ii. Moderate-fit extension:

iii. Low-fit extension:

Appendix IX: OLS regression results for Model 1 of Study 5

A. Processing fluency ($R^2 < .01$, $F(1, 291) = .05$, $p = .83$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	5.39	.15	35.53	< .001
Brand personality[c]	.05	.21	.22	.83

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

B. Extension evaluation ($R^2 = .42$, $F(3, 289) = 80.68$, $p < .001$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	1.09	.29	3.80	< .001
Brand personality[c]	-.03	.15	-.20	.84
Processing fluency	.45	.05	8.82	< .001
Self-brand connection	.39	.05	7.29	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

Appendix X: OLS regression results for Model 2 of Study 5

A. Processing fluency[a] (R^2 = .15, $F(5, 287)$ = 9.56, p < .001)				
Variable	***B*[b]**	***SE*[c]**	***t*-statistic**	***p*-value**
(Intercept)	-.86	.28	-3.04	.003
Brand personality (BP)[d]	-.18	.41	-.45	.65
Perceived fit – moderate (PFm)[e]	1.14	.38	3.04	.003
Perceived fit – high (PFh)[f]	1.49	.35	4.30	< .001
BP x PFm	.15	.52	.29	.77
BP x PFh	.36	.49	.74	.46

[a] Mean-centered
[b] Unstandardized estimates
[c] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[d] Dummy-coded (1 - active, 0 - responsible)
[e] Dummy-coded (1 - moderate, 0 - low, high)
[f] Dummy-coded (1 - high, 0 - low, moderate)

B. Extension evaluation (R^2 = .44, $F(7, 285)$ = 39.81, p < .001)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	3.25	.26	12.29	< .001
Brand personality[c]	-.05	.15	-.36	.72
Processing fluency (FLU)[d]	.46	.07	6.81	< .001
Perceived fit – moderate (PFm)[e]	.51	.18	2.79	.01
Perceived fit – high (PFh)[f]	.20	.21	.95	.34
FLU x PFm	-.05	.12	-.38	.70
FLU x PFh	-.14	.15	-.94	.35
Self-brand connection	.40	.05	7.45	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)
[d] Mean-centered
[e] Dummy-coded (1 - moderate, 0 - low, high)
[f] Dummy-coded (1 - high, 0 - low, moderate)

Appendix XI: OLS regression results for Model 3 of Study 5

A. Processing fluency ($R^2 < .01$, $F(1, 291) = .05$, $p = .83$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	5.39	.15	35.53	< .001
Brand personality[c]	.05	.21	.22	.83

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

B. Extension evaluation ($R^2 = .45$, $F(7, 285) = 37.15$, $p < .001$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	1.13	.32	3.59	< .001
Brand personality[c]	-.05	.15	-.36	.72
Processing fluency (FLU)	.43	.05	8.17	< .001
Need for affect (NFA)[d]	.21	.24	.89	.38
Consumers' expertise in the extension category (CEEC)[d]	.18	.22	.81	.42
FLU x NFA	.001	.04	.04	.97
FLU x CEEC	-.05	.04	-1.29	.198
Self-brand connection	.40	.05	7.53	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)
[d] Mean-centered

Appendix XII: OLS regression results for Model 4 of Study 5

A. Processing fluency
($R^2 < .01$, $F(1, 291) = .05$, $p = .83$)

Variable	*B*[a]	*SE*[b]	*t*-statistic	*p*-value
(Intercept)	5.39	.15	35.53	< .001
Brand personality[c]	.05	.21	.22	.83

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

B. Extension evaluation
($R^2 = .42$, $F(3, 289) = 80.68$, $p < .001$)

Variable	*B*[a]	*SE*[b]	*t*-statistic	*p*-value
(Intercept)	1.09	.29	3.80	< .001
Brand personality[c]	-.03	.15	-.20	.84
Processing fluency	.45	.05	8.82	< .001
Self-brand connection	.39	.05	7.29	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

C. Difference in brand attitude after and before brand extension (ΔPBA)
($R^2 = .20$, $F(4, 288) = 14.20$, $p < .001$)

Variable	*B*[a]	*SE*[b]	*t*-statistic	*p*-value
(Intercept)	-1.65	.30	-5.48	< .001
Brand personality[c]	-.04	.13	-.31	.76
Processing fluency	.12	.04	2.63	.01
Extension evaluation	.25	.07	3.76	< .001
Self-brand connection	-.09	.04	-2.14	.03

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

Appendix XIII: Detailed results of the mediation analysis based on Model 5 of Study 5

i. OLS regression results:

A. Processing fluency[a] (R^2 = .15, F(5, 287) = 9.56, p < .001)				
Variable	***B*[b]**	***SE*[c]**	***t*-statistic**	***p*-value**
(Intercept)	-.86	.28	-3.04	.003
Brand personality (BP)[d]	-.18	.41	-.45	.65
Perceived fit – moderate (PFm)[e]	1.14	.38	3.04	.003
Perceived fit – high (PFh)[f]	1.49	.35	4.30	< .001
BP x PFm	.15	.52	.29	.77
BP x PFh	.36	.49	.74	.46

[a] Mean-centered
[b] Unstandardized estimates
[c] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[d] Dummy-coded (1 - active, 0 - responsible)
[e] Dummy-coded (1 - moderate, 0 - low, high)
[f] Dummy-coded (1 - high, 0 - low, moderate)

B. Extension evaluation (R^2 = .44, F(7, 285) = 39.81, p < .001)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	3.25	.26	12.29	< .001
Brand personality[c]	-.05	.15	-.36	.72
Processing fluency (FLU)[d]	.46	.07	6.81	< .001
Perceived fit – moderate (PFm)[e]	.51	.18	2.79	.01
Perceived fit – high (PFh)[f]	.20	.21	.95	.34
FLU x PFm	-.05	.12	-.38	.70
FLU x PFh	-.14	.15	-.94	.35
Self-brand connection	.40	.05	7.45	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)
[d] Mean-centered
[e] Dummy-coded (1 - moderate, 0 - low, high)
[f] Dummy-coded (1 - high, 0 - low, moderate)

C. Difference in brand attitude after and before brand extension (ΔPBA) (R^2 = .20, F(4, 288) = 14.20, p < .001)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	-1.01	.33	-3.11	.002
Brand personality[c]	-.04	.13	-.31	.76
Processing fluency[d]	.12	.04	2.63	.01
Extension evaluation	.25	.07	3.76	< .001
Self-brand connection	-.09	.04	-2.14	.03

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)
[d] Mean-centered

ii. Indirect effect of brand personality (active vs. responsible) on the difference between brand attitude after and before brand extension (ΔPBA) through processing fluency and extension evaluation:

A. Indirect effect at different levels of perceived fit			
Perceived fit	***B*[a]**	**Bootstrap *SE***	**95% Bootstrap *CI***
Low	-.02	.05	-.12, .07
Moderate	-.003	.03	-.07, .06
High	.01	.03	-.02, .08

[a] Unstandardized estimates

B. Index of moderated mediation			
Compared conditions	***IMM*[a]**	**Bootstrap *SE***	**95% Bootstrap *CI***
Moderate - low	.02	.06	-.10, .14
High - low	.04	.05	-.06, .16

[a] IMM: Index of moderated mediation (for details on the estimation of the index, see Hayes, 2018a)

Appendix XIV: Detailed results of the mediation analysis based on Model 6 of Study 5

i. OLS regression results:

A. Processing fluency ($R^2 < .01$, $F(1, 291) = .05$, $p = .83$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	5.39	.15	35.53	< .001
Brand personality[c]	.05	.21	.22	.83

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

B. Extension evaluation ($R^2 = .45$, $F(7, 285) = 37.15$, $p < .001$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	1.13	.32	3.59	< .001
Brand personality[c]	-.05	.15	-.36	.72
Processing fluency (FLU)	.43	.05	8.17	< .001
Need for affect (NFA)[d]	.21	.24	.89	.38
Consumers' expertise in the extension category (CEEC)[d]	.18	.22	.81	.42
FLU x NFA	.001	.04	.04	.97
FLU x CEEC	-.05	.04	-1.29	.20
Self-brand connection	.40	.05	7.53	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)
[d] Mean-centered

C. Difference in brand attitude after and before brand extension (ΔPBA) (R^2 = .20, F(4, 288) = 14.20, p < .001)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	-1.65	.30	-5.48	< .001
Brand personality[c]	-.04	.13	-.31	.76
Processing fluency	.12	.04	2.63	.01
Extension evaluation	.25	.07	3.76	< .001
Self-brand connection	-.09	.04	-2.14	.03

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

ii. Indirect effect of brand personality (active vs. responsible) on the difference between brand attitude after and before brand extension (ΔPBA) through processing fluency and extension evaluation:

A. Indirect effect at different levels of need for affect and of consumers' expertise in the extension category				
Need for affect[a]	**CEEC[b,a]**	***B*[c]**	**Bootstrap *SE***	**95% Bootstrap *CI***
3.89	2.40	.01	.03	-.05, .06
3.89	3.93	.004	.02	-.04, .05
3.89	5.45	.004	.02	-.04, .04
4.89	2.40	.01	.03	-.05, .06
4.89	3.93	.004	.02	-.04, .05
4.89	5.45	.004	.02	-.03, .04
5.90	2.40	.01	.03	-.05, .06
5.90	3.93	.004	.02	-.04, .05
5.90	5.45	.004	.02	-.04, .04

[a] Values were chosen at one standard deviation below the mean, at the mean, and at one standard deviation above the mean of the variable.
[b] CEEC: Consumers' expertise in the extension category
[c] Unstandardized estimates

B. Index of partial moderated mediation			
Moderating variable	***IMM*[a]**	**Bootstrap *SE***	**95% Bootstrap *CI***
Need for affect	.0001	.002	-.004, .004
Consumers' expertise in the extension category	-.0005	.003	-.01, .01

[a] IMM: Index of partial moderated mediation (for details on the estimation of the index, see Hayes, 2018a, 2018b)

Appendix XV: Main brand stimuli of Study 6

i. Active brand:

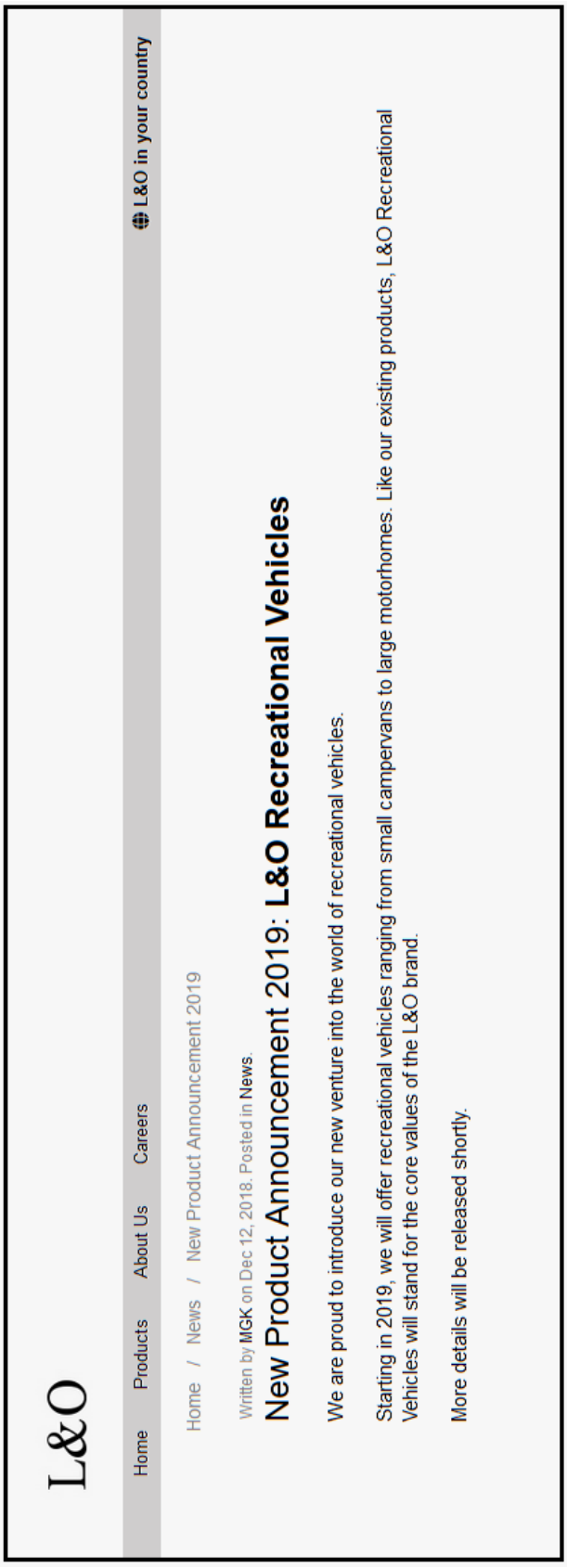
L&O is made for active customers. The L&O brand is considered adventurous, innovative, and a creative brand. This brand offers a dynamic driving experience. L&O car models range from compact city cars to full-size luxury cars. After their inception in 1960, L&O has been able to build an extensive dealership network across Europe and Asia.

ii. Responsible brand:

L&O is made for down-to-earth customers. The L&O brand is considered reliable, stable, and a responsible brand. This brand offers a fulfilling driving experience. L&O car models range from compact city cars to full-size luxury cars. After their inception in 1960, L&O has been able to build an extensive dealership network across Europe and Asia.

Appendix XVI: Brand extension stimuli of Study 6

i. Moderate-fit extension:



ii. Low-fit extension:

Appendix XVII: OLS regression results for Model 1 of Study 6

A. Processing fluency ($R^2 < .01$, $F(1, 145) = .50$, $p = .48$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	4.04	.19	21.58	< .001
Brand personality[c]	-.19	.27	-.71	.48

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

B. Extension evaluation ($R^2 = .47$, $F(5, 141) = 27.81$, $p < .001$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	1.38	.35	3.94	< .001
Brand personality[c]	-.35	.18	-1.98	.049
Processing fluency	.14	.07	2.13	.03
Perceived fit	.28	.07	4.03	< .001
Brand relevance	.12	.08	1.58	.12
Self-brand connection	.26	.06	4.24	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

Appendix XVIII: OLS regression results for Model 2 of Study 6

A. Processing fluency ($R^2 < .01$, $F(1, 145) = .50$, $p = .48$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	4.04	.19	21.58	< .001
Brand personality[c]	-.19	.27	-.71	.48

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

B. Extension evaluation ($R^2 = .47$, $F(9, 137) = 15.56$, $p < .001$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	1.40	.36	3.86	< .001
Brand personality[c]	-.35	.18	-1.91	.06
Processing fluency (FLU)	.14	.07	2.04	.04
Need for affect (NFA)[d]	.05	.35	.14	.89
Consumers' expertise in the extension category (CEEC)[d]	-.10	.22	-.43	.67
FLU x NFA	.01	.08	.11	.91
FLU x CEEC	.03	.05	.55	.58
Perceived fit	.28	.07	4.00	< .001
Brand relevance	.11	.08	1.43	.15
Self-brand connection	.26	.06	4.10	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)
[d] Mean-centered

Appendix XIX: OLS regression results for Model 3 of Study 6

A. Processing fluency ($R^2 < .01$, $F(1, 145) = .50$, $p = .48$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	4.04	.19	21.58	< .001
Brand personality[c]	-.19	.27	-.71	.48

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

B. Extension evaluation ($R^2 = .47$, $F(5, 141) = 27.81$, $p < .001$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	1.38	.35	3.94	< .001
Brand personality[c]	-.35	.18	-1.98	.049
Processing fluency	.14	.07	2.13	.03
Self-brand connection	.28	.07	4.03	< .001
Perceived fit	.12	.08	1.58	.12
Brand relevance	.26	.06	4.24	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

C. Difference in brand attitude after and before brand extension (ΔPBA) (R^2 = .30, F(4, 142) = 12.93, p < .001)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	-1.89	.27	-7.06	< .001
Brand personality[c]	.09	.13	.63	.53
Processing fluency	.06	.04	1.28	.203
Extension evaluation	.36	.06	5.61	< .001
Self-brand connection	-.07	.05	-1.43	.16

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

Appendix XX: Detailed results of the mediation analysis based on Model 4 of Study 6

i. OLS regression results:

A. Processing fluency ($R^2 < .01$, $F(1, 145) = .50$, $p = .48$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	4.04	.19	21.58	< .001
Brand personality[c]	-.19	.27	-.71	.48

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

B. Extension evaluation ($R^2 = .47$, $F(9, 137) = 15.56$, $p < .001$)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	1.40	.36	3.86	< .001
Brand personality[c]	-.35	.18	-1.91	.06
Processing fluency (FLU)	.14	.07	2.04	.04
Need for affect (NFA)[d]	.05	.35	.14	.89
Consumers' expertise in the extension category (CEEC)[d]	-.10	.22	-.43	.67
FLU x NFA	.01	.08	.11	.91
FLU x CEEC	.03	.05	.55	.58
Perceived fit	.28	.07	4.00	< .001
Brand relevance	.11	.08	1.43	.15
Self-brand connection	.26	.06	4.10	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)
[d] Mean-centered

C. Difference in brand attitude after and before brand extension (ΔPBA) (R^2 = .30, F(4, 142) = 12.93, p < .001)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	-1.89	.27	-7.06	< .001
Brand personality[c]	.09	.13	.63	.53
Processing fluency	.06	.04	1.28	.203
Extension evaluation	.36	.06	5.61	< .001
Self-brand connection	-.07	.05	-1.43	.16

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - active, 0 - responsible)

ii. Indirect effect of brand personality (active vs. responsible) on the difference between brand attitude after and before brand extension (ΔPBA) through processing fluency and extension evaluation:

A. Indirect effect at different levels of need for affect and of consumers' expertise in the extension category				
Need for affect[a]	**CEEC[b,a]**	***B*[c]**	**Bootstrap *SE***	**95% Bootstrap *CI***
4.37	1.55	-.01	.02	-.04, .02
4.37	2.74	-.01	.02	-.05, .02
4.37	3.92	-.01	.02	-.06, .02
5.15	1.55	-.01	.01	-.04, .02
5.15	2.74	-.01	.02	-.05, .02
5.15	3.92	-.01	.02	-.06, .02
5.94	1.55	-.01	.02	-.05, .02
5.94	2.74	-.01	.02	-.06, .02
5.94	3.92	-.01	.02	-.08, .02

[a] Values were chosen at one standard deviation below the mean, at the mean, and at one standard deviation above the mean of the variable.
[b] CEEC: Consumers' expertise in the extension category
[c] Unstandardized estimates

B. Index of partial moderated mediation			
Moderating variable	***IMM*[a]**	**Bootstrap *SE***	**95% Bootstrap *CI***
Need for affect	-.001	.01	-.02, .01
Consumers' expertise in the extension category	-.002	.01	-.02, .01

[a] IMM: Index of partial moderated mediation (for details on the estimation of the index, see Hayes, 2018a, 2018b)

Appendix XXI: Detailed results of the mediation analysis on the influence of perceived fit on extension evaluations through processing fluency based on the data of Study 5

i. OLS regression results:

A. Processing fluency (R^2 = .31, F(3, 289) = 35.66, p < .001)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	4.46	.20	22.14	< .001
Perceived fit – moderate[c]	1.21	.26	4.69	< .001
Perceived fit – high[d]	1.66	.24	6.80	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - moderate, 0 - low, high)
[d] Dummy-coded (1 - high, 0 - low, moderate)

B. Extension evaluation (R^2 = .08, F(2, 290) = 12.19, p < .001)				
Variable	***B*[a]**	***SE*[b]**	***t*-statistic**	***p*-value**
(Intercept)	2.21	.28	7.79	< .001
Perceived fit – moderate[c]	.42	.20	2.13	.03
Perceived fit – high[d]	.23	.21	1.09	.28
Processing fluency	.47	.05	8.90	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - moderate, 0 - low, high)
[d] Dummy-coded (1 - high, 0 - low, moderate)

ii. Indirect effect of perceived fit (low vs. moderate vs. high) on extension evaluation through processing fluency:

Variable	*B*[a]	Bootstrap *SE*	95% Bootstrap *CI*
Perceived fit – moderate[b]	.57	.13	.31, .83
Perceived fit – high[c]	.78	.14	.52, 1.08

[a] Unstandardized estimates
[b] Dummy-coded (1 - moderate, 0 - low, high)
[c] Dummy-coded (1 - high, 0 - low, moderate)

iii. Total effect of perceived fit (low vs. moderate vs. high) on extension evaluation:

Variable	*B*[a]	*SE*[b]	*t*-statistic	*p*-value
Perceived fit – moderate[c]	.99	.23	4.33	< .001
Perceived fit – high[d]	1.01	.23	4.36	< .001

[a] Unstandardized estimates
[b] Standard error based on HC3 estimator (Davidson & MacKinnon, 1993)
[c] Dummy-coded (1 - moderate, 0 - low, high)
[d] Dummy-coded (1 - high, 0 - low, moderate)

Curriculum Vitae

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University of St.Gallen — **St.Gallen, Switzerland**
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