

Article

Self-Brand Personality Differences and Attitudes towards Electric Cars

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Abstract: In two representative Belgian samples, by means of an online survey, we investigate the effect of self-brand personality differences on car brand evaluation, the evaluation of an eco-friendly branded electric car extension and the evaluation of car brands after electric extension. We show that self-brand personality differences influence the attitude towards car brands. The relative importance of personality dimensions that drive extension judgment and parent brand attitudes after electric extension is different from that of brand evaluation without extension. More particularly, perceptions of a brand being more responsible than one's self is a much more important driver of brand evaluation after electric extension than without extension. Car personality characteristics, such as activity and sophistication, drive brand evaluations before, as well as after electric extension. These effects are moderated by brand ownership in that the relative importance of brand personality dimensions is different for brand owners than for consumers who do not own a specific brand. Car manufacturers can fine-tune their marketing approach when launching eco-friendly extensions, taking into account that, in this context, partly different self-brand personality fit considerations are used by consumers than for car brands without electric extension.

Keywords: self-brand personality differences; electric cars; line extension evaluation; parent brand feedback effects

1. Introduction and Purpose of the Study

Electric cars may be an environmentally-friendly answer to the ecological consequences of personal mobility. Nowadays, forced by environmental and sustainability issues, major car brands, such as Nissan (Leaf) and Opel (Ampera), have developed fully eco-friendly electric car alternatives. The introduction of a technological innovation such as an electric car may fail because of a lack of acceptance by the consumer. Consumer acceptance is critical to the successful introduction and diffusion of more sustainable alternatives to mobility [1–3]. Therefore, insights into consumer perceptions are important for a successful introduction of the electric car.

When an established car brand launches an electric variant, it is extending its product line. The success of extensions depends, amongst others, on the perceived fit between the extension and the parent brand [4–9]. However, not only the fit between a brand and its extension, but also the symbolic fit between the brand and the individual consumer may play a role in consumers' brand evaluations. Consumers, valuing products for their self-expressive properties, use symbolic brand meanings to define and signal their actual or desired identities [10–13]. Brands carry symbolic meanings [14]. Brand personality is an important component of symbolic brand meaning [15,16]. It is a multidimensional construct defined as the set of human personality traits that are associated with brands [17] and that differentiate brands in the minds of people, even in the case that there are few differences in attributes and benefits between brands. Self-brand personality differences may thus be an important determinant of evaluative judgements of brands and their extensions.

Consumers may take self-brand personality differences into account in different ways, depending on the context (e.g., the nature of the extension) [18,19]. In their evaluative judgement of car brands and brand extensions, some personality characteristics may indeed be more important than others [20]. In the context of electric car extension evaluation, the importance of some personality characteristics to judge a brand after an eco-friendly extension may thus be different from those used to judge the brand in general. Self-brand personality differences have not been studied often as a factor in brand extension studies or in the context of sustainable products [7,16].

The main purpose and first contribution of the present study is to investigate how self-brand personality differences determine brand attitudes and whether the relative importance of personality dimensions differs between the evaluation of a brand without or after an eco-friendly electric extension. Additionally, we also explore to what extent brand ownership moderates these effects. Brand owners have already made a decision to buy a particular brand and may therefore be less susceptible to self-brand personality differences and branding contexts. On the other hand, self-brand personality differences may be more salient for brand owners, since the brand they own themselves may be more important for their self-concept.

In previous research on self-brand personality fit, researchers have used two main approaches. The first approach measures perceived actual or desired self-brand personality fit directly. The second approach measures individual and brand personality separately and constructs a distance measure between the two as an indication of the difference between the actual or desired self and brand personality [21–23]. The latter approach then constructs one measure of self-brand personality fit by weighing the different personality dimension scores with their relative importance [21,22]. Several authors suggest that researchers should examine individual brand personality dimensions to determine

if particular dimensions are more predictive of attitudes than others, depending on the context [22,24,25]. However, very few studies have attempted to do this (e.g., Rojas-Méndez *et al.* [23]). Our second contribution is that we measure individual and brand personality on five dimensions and enter each of these dimensions separately into the explanatory model. In that way, we are able to assess differences in the effects of self-brand personality differences on brand attitudes across contexts in a more precise way.

The study informs brand managers, advertisers and public policy organizations on how to position and communicate eco-friendly extensions of existing car brands.

2. Literature Review and Research Questions

Product categories and brands can either be predominantly functional (e.g., lawnmowers) or symbolic (e.g., cars). A functional product possesses mainly product-related or concrete, functional associations [26,27]. Products with a symbolic positioning usually entail non-product-related or abstract, image-based associations [26,28]. In this study, we focus on the symbolic meaning that cars carry [14]. Brand personality is an important component of this symbolic meaning and, as such, is a major component of brand identity and brand image [15,16]. In the minds of people, brands can have multidimensional personalities that are similar in their characteristics to individuals' personalities [19,29,30]. The concept of brand personality attributes human characteristics or traits to a brand on the basis of a consumer's perception of that brand [29,31,32]. These personalities differentiate brands in the minds of people. Brand personality can build unique and (un)favorable associations in consumer memory [16,33]. Consumer behavior is often significantly affected by symbols, rather than functionally-oriented attributes. Symbols may have a closer link to the consumer self-concept [34]. This is particularly important for publicly-consumed products, such as cars [22].

Individuals often use symbolic brand meaning for personal expression and social communication [22,35–37]. Consumers strengthen their own self-concept by means of being associated with brands whose symbolic images tend to be congruent with their own selves [35]. The self-concept is defined as the cognitive and affective understanding of who and what we are and can take two forms: the actual self and the desired self [25]. Self-brand congruity is the match between a consumer's actual or desired self-concept and brand image [38]. Self-congruity theory suggests that brand attitudes are partially a function of the similarity or dissimilarity of a brand's image and their own self-image or self-concept [22,38,39]. Self-brand congruity positively affects the brand in terms of the attitude towards the brand [40], brand purchase intention [41,42] and brand loyalty [21].

Consumers use this symbolic meaning of brands, and more particularly, brand personality, in different ways. Whether consumers desire brands that reflect their actual or desired self depends on their self-motives. Self-congruity can be guided by either the need for self-consistency and self-uncertainty or the need for self-esteem and self-enhancement [29,40,43,44]. Often, the motivation to express one's own actual self drives brand evaluation and use [40,45–47]. Consumers use brands to define, signal, sustain and manage their identity towards themselves and others. To satisfy this need for self-consistency and self-continuity, consumers tend to prefer brands that have a set of personality traits similar to their own [35,48–50].

Berger and Heath [51] and Bhattacharya and Sen [52] state that, besides self-continuity, also self-distinctiveness and self-enhancement drive brand identification and brand appreciation of consumers.

Consumers may prefer brands with appealing personalities to enhance their selves [10,53,54]. Self-enhancement is the motivation to maintain or increase the positivity, or decrease the negativity, of the self [55]. It is an individual's desire for increased status and a positive self-concept [56]. The brand may then have a positive effect on their self-perception and self-esteem in line with the brand's personality [41,57]. Much consumer research refers to the important role of self-enhancement in consumers' affinities towards brands (e.g., [11,12]).

In sum, the evaluation of brands may be guided by the motivation to maintain (actual self) or to enhance (desired self) the sense of self [37,58,59]. Personality is an important component of self-brand congruity. Cars are for most people value expressive and symbolic. For symbolic products or brands, such as cars, evaluative responses are expected to be strongly driven by self-brand personality considerations.

In the present study, we first investigate whether the evaluation of a brand is determined by actual self-brand congruity or rather by the aspirational (desired) differences between brand personality and the personality of the individual. For value-expressive products, like cars, it is expected that the latter will be more relevant than the former [42].

The self-concept is relatively stable over time and so are brand personalities. For instance, research shows that extensions that are non-fitting in terms of brand personality often do not lead to parent brand dilution effects [7,16]. Parent brands may be immune to such dilution effects when these brands have a high familiarity and well-established brand personalities [60]. On the other hand, to evaluate brands, consumers may take self-brand personality differences into account in different ways, depending on the context [40]. Individuals often adjust their appreciation structure when faced with new brand information. The relative importance or salience of different personality dimensions for brand evaluation may thus depend upon this new information, such as the nature of the extension [20,61]. More particularly, launching an electric car may trigger brand personality associations (e.g., inspired by the environmental friendliness of an electric car) that are different from the associations evoked by the car brand without the electric extension and may make some personality characteristics more important than others for brand attitude formation. Parent brand attitudes after an extension are often found to be partly driven by the attitude towards the extension (parent feedback effects [16,62,63]), but additionally, different self-brand personality differences may also be more important when evaluating a brand after an eco-friendly brand extension (such as an electric car) than when judging a car brand without this extension.

The present study tries to answer the following research questions (RQ):

RQ1. How do self-brand personality differences affect the attitude towards car brands?

RQ2. Do self-brand personality differences affect the attitude towards car brands after an electric extension differently than the attitude towards brands without an electric extension?

RQ3. Are these effects different for owners and non-owners of car brands?

The research design is presented in Figure 1. In the upper part of Figure 1, RQ1 is depicted. In the lower part, RQ2 is shown: self-brand personality differences have an effect on electric extension attitudes, which, in turn, have an effect on brand attitudes after electric extension. Additionally, self-brand personality differences may also affect brand attitudes after an extension directly. The attitude towards the extension thus (partly) mediates the effect of self-brand personality differences on brand

attitudes. The moderating role of car ownership on these effects (RQ3) is represented both in the upper and lower parts of the Figure.

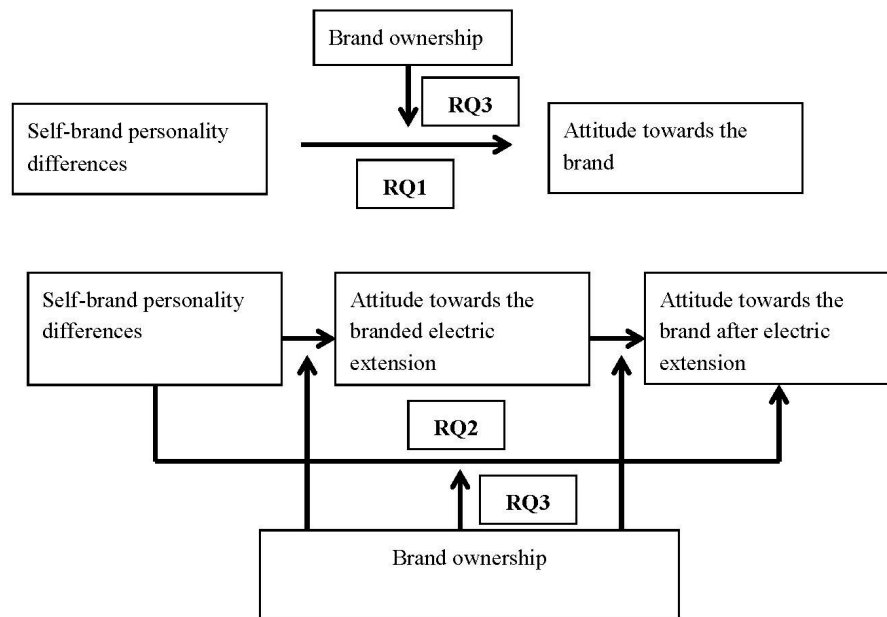


Figure 1. Research design. RQ, research question.

3. Method

3.1. Pretests

We conducted two pretests. The purpose of the first pretest was to select four car brands that are substantially different in terms of brand personality, in order to be able to draw conclusions across brands with different personalities. In the first stage, we composed a list of 39 brands. Twelve respondents participated in an individual interview. The sample consisted of different age categories, six male and six female respondents. The respondents categorized the brands on the basis of their personality, using the five personality dimensions as proposed by Geuens *et al.* [31]: responsible, active, bold, simple and emotional (see Section 3.3 for details). We selected twelve brands that were associated most often with predominantly one of these personality traits for further consideration: Alfa, Audi, BMW, Ford, Mercedes, Nissan, Opel, Renault, Saab, Toyota, Volkswagen and Volvo.

The purpose of the second step in this first pretest was to narrow down the list of 12 brands to a list of four car brands that were as different as possible with respect to their brand personalities. A sample of 38 car drivers (45% men) received an online questionnaire. The sample consisted of respondents of different age groups (11% 18–25 years; 18% 25–35 years; 26% 35–45 years; 42% 45–65 years; 3% >65 years). We asked them to indicate for each brand the most and the least fitting of the Geuens *et al.* brand personality dimensions. The four most differentiated brands in terms of brand personalities were Alfa, BMW, Toyota and Volvo. The respondents most frequently associated Alfa with an emotional brand personality (35%) and least with the personality dimension “simple” (53%). BMW is most strongly associated with the brand personality dimension “bold” (49%) and least with the personality characteristics “simple” (73%). The participants most strongly associate Toyota with

“simple” (58%) and least with “bold” (46%). Volvo is strongly associated with “responsible” (75%) and least with “bold” (23%). These four brands are used in the remainder of the study.

We set up a second pretest to develop and visualize an electric car concept. We formed groups between 6 and 10 participants (all master students in product development). One or two groups worked on each of the four car brands. We organized six brainstorming sessions to search for product attributes for an electric car, using the “idea to market” toolkit [64], to stimulate the creative process. This phase resulted in between 100 and 195 items per group. Next, we assigned these items to four categories on the basis of two dimensions: which of these items are actionable (implementable in the near future) or not and which of the items are original (breakthrough) or evolutionary. We only took into consideration those attributes that were deemed to be both original and actionable in the near future. Based on the six most often mentioned attributes, a professional product designer made concept cards with graphical and verbal stimuli, showing (pictures) and explaining (text) the six attributes, similar to the approach of Lau and Phau [7]. Car brands and models sometimes have very distinctive characteristics. Since the concept cards had to be used with different car brands, we used a generic, neutral car model, without any brand identifiers. To that end, we did not use a picture of an existing car, but a drawing of a generic car.

3.2. Main Study: Samples and Procedure

In the main study, two samples were selected. In the first one, 30 participants scored the personality of one of the four selected brands, as well as their own personality. The total size of Sample 1 was thus 120 (30 for each of the four brands). In each of these subsamples of 30 participants, half of the respondents owned the car brand they had to evaluate, while the other half owned another car brand. The second sample consisted of 480 participants, 120 per tested brand. In all subsamples of this second sample, again, half the respondents owned the car brand they had to evaluate, while the other half owned another car brand. The participants in this second sample saw eight pictures of the electric car concept developed in the pretest: one general picture of the car with the six characteristics, six pictures visually and verbally highlighting the details of each of the six characteristics and the general picture again. They were told that Brand A (the brand they had to evaluate later on) was going to launch this electric extension. They then had to evaluate the extension (their attitude towards the extension), their perception of the personality of the extension, evaluate the parent brand (attitude towards the parent brand after the electric extension, without explicitly mentioning this extension again) and their perception of the personality of the parent brand. Finally, they had to score their own personality. We collected the data by means of online questionnaires, administered to a selection of panel members of a professional online data collection agency. The samples are representative of the Belgian population of owners of a driver’s license, males (55%) and females between 18 and 65, in terms of gender and age. In both samples, 6.5% of the respondents are between 18 and 25, 23% between 26 and 35, 24% between 36 and 45 and 46.5% between 46 and 65. Forty one-point-four percent had a lower education or a high school diploma, while 58.6% received a higher education.

3.3. Measures

As the dependent variable, in the first sample, we measured the attitude towards the car brands by means of a 3-item, 5-point Likert scale (“I am positive about the brand”, “The car brand shown is a good car”, “I like the car shown”) ($\alpha = 0.93$). In the second sample, we measured the attitude towards the branded electric extension by means of the same scale, but now with reference to the electric extension (“I am positive about the electric car brand shown”, “The electric car shown is a good car”, “I like the electric car shown”) [65] ($\alpha = 0.92$). The attitude towards the brand after extension was measured using the same scale as in Sample 1 ($\alpha = 0.94$). The work of Aaker [29] inspired the majority of the research on brand personality to date [18,29,66,67]. However, this brand personality structure may not be universal [61]. One of the major criticisms of the Aaker scale is that it is a mixture of personality and other image dimensions. Geuens *et al.* [31] developed a scale that consists of only personality dimensions and that is a purer representation of the brand personality concept. Therefore, the present study uses the Geuens *et al.* 12-item 5-point scale brand personality dimensions to measure the independent variables of brand personality [31]. The scale consists of five personality dimensions: responsibility (responsible, down to earth, stable; $\alpha = 0.86$), activity (active, dynamic, innovative; $\alpha = 0.85$), boldness (aggressive, bold; $\alpha = 0.80$), simplicity (ordinary, simple; $\alpha = 0.79$) and emotionality (romantic, sentimental; $\alpha = 0.91$). We used the same scale in both samples to also measure the personality of the participants. Per scale, we averaged all scores across items for further analysis.

In the present study, we partly follow the approach by Rojas-Méndez *et al.* [23] in that we do not construct one single measure of actual or desired self-brand personality fit, but we calculate measures per personality dimension. Moreover, we do not measure “ideal” individual personality, but in our analyses, we test the effect of the difference between actual individual personality and perceived brand personality on brand attitudes. In that way, we are able to better assess the direction and nature of the effect of each personality dimension on consumer responses. To that end, on the basis of the brand and consumer personality scores, we calculated ten additional variables. First, we subtracted the consumer personality scores for each of the five personality dimensions from the brand personality scores for each of the five dimensions. This resulted in five scores. A positive score means that, in the perception of that individual, the brand possesses this personality characteristic more than the person himself. A negative score means that the individual possesses more of this personality characteristic than the brand (s)he evaluated. We then calculated five more variables (one per personality dimension) as the absolute value of the previously calculated difference scores. For these variables, a higher score means that there is a larger difference (in absolute terms) between an individual’s score and the brand’s score on this personality characteristic.

4. Results

4.1. Effects of Self-Brand Personality Differences on the Attitude towards the Brand without Electric Extension

RQ1 and part of RQ3 are investigated in the first sample of 120 participants. First, we checked to what extent the four selected brands had different personalities as anticipated in the pretest. Table 1 shows the results of five ANOVA analyses in which the scores per personality dimension are compared

across brands. The results show that the four brands have distinctly different personalities. Alfa Romeo is more strongly associated with “emotional” and “bold” and less often with “simple” and “responsible” than the other three brands. BMW is more often referred to as responsible, active and bold than the other brands, but less than Toyota and Volvo as simple. Toyota is described as simpler and less active, bold, responsible and emotional than the other brands. Volvo’s distinct characteristic is responsibility and not active, bold or emotional, especially compared to Alfa and BMW. The brands in the study are thus substantially different in terms of their brand personalities.

Table 1. Perceived differences in brand personality between Alfa, BMW, Toyota and Volvo.

	Alfa	BMW	Toyota	Volvo	<i>p</i>
Responsible	3.58	4.27	3.90	4.45	0.006
Active	4.11	4.45	3.51	3.75	0.001
Bold	3.50	3.24	2.44	2.28	0.001
Simple	1.50	1.65	3.24	2.44	0.000
Emotional	3.07	2.76	2.68	2.13	0.074

Cells are mean personality scores on 5-point Likert scales. *p*-values refer to ANOVA tests and indicate the significance of the difference in personality scores across brands.

In case individuals evaluate brands more positively the higher their actual self-brand personality fit is, brand attitudes should be more positive the smaller the absolute difference between brand personality and individual personality. This should result in a negative effect of the absolute difference personality variables on brand evaluation. Alternatively, individuals may evaluate a brand more positively or negatively when it possesses certain personality characteristics more or less than the individual himself. If, for instance, the perception of a consumer is that a car that is more active than himself is a better car, this reflects an aspiration or desire, *i.e.*, an evaluation that this brand is more valuable because it has a personality characteristic that is better than his own personality. If that is the case, brand attitude should be more positive or negative as a function of the non-absolute differences between brand and consumer personality. The results show that, as expected, the explanatory power of the models with non-absolute brand-consumer personality differences is substantially higher than those for absolute differences. This signals an aspirational judgment of brands in terms of personality fit.

In Table 2, the results are shown of two regression analyses in which the attitude towards the brand is predicted by non-absolute self-brand personality differences, one for non-owners of a brand and one for brand owners. Non-owners evaluate a brand more positively if it is more active and more sophisticated (less simple) than themselves. The relationship between brand personality and brand evaluation is less important for brand owners. Only the dimensions “active” and emotional’ have a marginally significant effect on brand attitudes.

Table 2. Brand attitude as a function of the difference between the brand scores and the individuals' scores on the five personality dimensions (Sample 1: brands without electric extension) (regression analysis), for non-owners and owners of a brand.

Personality Characteristic	Non-Owners	Owners
Responsible	0.160 (0.210)	−0.036 (0.813)
Active	0.552 (<0.001)	0.273 (0.077)
Bold	−0.200 (0.106)	−0.041 (0.759)
Simple	−0.320 (0.013)	−0.157 (0.216)
Emotional	−0.121 (0.295)	0.239 (0.053)
R^2	0.432	0.174
N	60	60

Cells are standardized betas (significance levels). Sample composition: equal number of respondents per brand.

4.2. Effects of Self-Brand Personality Differences on the Attitude towards the Brand after Electric Extension

RQ2 and part of RQ3 are investigated in the second sample in which we presented an eco-friendly electric extension for each brand and measured extension attitude and parent brand attitude after electric extension. These analyses were all performed on non-absolute personality differences, as also in this case, they proved to have substantially more explanatory power than the absolute differences. The effect of self-brand personality differences on the attitude towards the brand after electric extension is carried out in two steps, by means of regression analyses [68]. In the first step, we predict the attitude towards the electric extension by means of self-brand personality differences. In the second step, we predict the attitude towards the brand after extension by means of the attitude towards the extension (parent brand feedback effect) and the personality differences. In that way, the mediating role of the attitude towards the extension can be assessed. Each of these two regression analyses is carried out for owners and non-owners of the brands, in order to explore the moderating role of brand ownership.

Table 3 shows the results of two regression analyses (one for brand owners and one for non-owners of a brand) in which self-brand personality differences predict extension attitudes. For non-owners, the extension attitude is significantly influenced by the personality dimension “responsibility” and marginally by “activity”. If the extension is perceived as more responsible and more active than the self, extension attitudes are more positive. Based on the beta coefficients, for owners, again, the personality dimension “responsibility” has the strongest impact on extension attitudes, but also “simplicity” and “activity” have a significant effect. The more an extension is perceived as more responsible, active and sophisticated (less simple) than the self, the more positive the attitude towards the extension. Besides the generally aspired car characteristics, such as activity and sophistication, the evaluation of electric extensions is also driven by the personality characteristic “responsibility”. This can be explained by the fact that this extension connects the brand to the category of “environmentally-friendly” products and makes certain ecological associations more salient. This is the case for both non-owners and owners of the brand. As to the latter, presenting an electric extension cue is apparently meaningful extra brand information that primes them to reconsider self-brand personality criteria for evaluative judgement of an electric extension.

Table 3. Attitude towards the electric extension as a function of the difference between the brand scores and the individuals' scores on the five personality dimensions (Sample 2: brands with electric extension) (regression analysis), for non-owners and owners of the brand.

Personality Characteristic	Non-Owners	Owners
Responsible	0.369 (<0.001)	0.268 (<0.001)
Active	0.146 (0.056)	0.178 (0.006)
Bold	0.101 (0.106)	0.080 (0.160)
Simple	−0.019 (0.768)	−0.228 (<0.001)
Emotional	0.034 (0.589)	0.065 (0.220)
R^2	0.249	0.274
N	240	240

Cells are standardized betas (significance levels). Sample composition: equal number of respondents per brand.

Table 4 shows the results of two regression analyses (one for brand owners and one for non-owners of a brand) in which the attitude towards the extension and self-brand personality differences predict attitudes towards the brand after electric extension. For non-owners, the attitude towards the extension significantly positively influences parent brand attitudes after the electric extension. This confirms the parent brand feedback effect of extensions. The attitude towards the extension is the most important determinant of the attitude towards the parent brand after extension. The brands are also more positively evaluated when they are more responsible, more active and less simple than the individual. The analyses for brand owners show largely similar results, although in this case, the personality dimension “responsibility” is a more important predictor than the attitude towards the extension.

The conclusion is that the attitude towards the electric extension partly mediates the effect of self-brand personality differences on brand attitudes after extension. Especially, the personality dimensions “responsibility”, “activity” and, to a lesser extent, “simplicity” have both a direct and an indirect effect (through extension attitudes) on brand attitudes after extension. There is a moderating effect of brand ownership, but not to the extent that it fundamentally affects the basic conclusion. Both for brand owners and non-owners, there is a mediating effect of extension attitude and a direct and indirect effect of responsibility and activity. For owners, also simplicity is an important determinant of extension attitude, and thus, it has both a direct and indirect effect on brand attitude. For non-owners, the effect of simplicity is only direct. Further, the relative importance of personality dimensions is to a certain extent different for brand owners and non-owners.

The effect of self-personality differences on parent brand evaluation after extension is thus largely similar as in the case of extension evaluation. Again, the addition of an eco-friendly extension apparently makes specific personality considerations (more particularly “responsibility”) salient and important for brand judgement. Additionally, as anticipated, a clear parent brand feedback effect is present: extension evaluation strongly determines parent brand attitudes after extension.

Comparing the results of Tables 2–4, the conclusion is that being perceived as more active and to a lesser extent more sophisticated (less simple) than the self are significant drivers of brand attitude, but their impact is substantially smaller after electric extension than without electric extension. Being more responsible is a substantially more important driver of brand evaluation after electric extension than without extension. The mean brand attitude scores in the two samples were not different. Two *t*-tests

show no significant differences between the mean brand attitude in the two samples (non-owners: $t = 0.634$, $p = 0.528$; owners: $t = 0.1442$, $p = 0.150$). However, the brand attitude formation process as a function of self-brand personality differences is substantially different in the two contexts.

Table 4. Attitude towards the parent brand following electric extension, as a function of the attitude towards the extension and the difference between the brand scores and the individuals' scores on the five personality dimensions (Sample 2: brands with electric extension) (regression analysis), for non-owners and owners of the brand.

Personality Characteristic	Non-Owners	Owners
Responsible	0.216 (<0.001)	0.318 (<0.001)
Active	0.221 (0.002)	0.173 (<0.001)
Bold	−0.004 (0.950)	0.010 (0.866)
Simple	−0.153 (0.007)	−0.135 (0.014)
Emotional	0.072 (0.200)	0.043 (0.399)
Attitude towards extension	0.378 (<0.001)	0.222 (<0.001)
R^2	0.415	0.318
N	240	240

Cells are standardized betas (significance levels). Sample composition: equal number of respondents per brand.

5. Discussion

The extent to which a brand is perceived to possess certain personality characteristics more than oneself is more predictive of brand evaluations than the mere absolute difference between a brand's personality and one's own. This means that, when evaluating brands, consumers do not so much have actual self-brand congruity in mind, but rather desired self-brand congruity [51,52]. This is in line with research that demonstrates that brands are mainly used for self-enhancement, especially for publicly-consumed products, such as cars [25,35]. Malär *et al.* [25] found that brand personality fit with the actual self is more important than desired personality fit, especially for high involvement products. The authors explain this by arguing that, when a brand represents something that is out of reach, this need for distancing could result in a decreased emotional brand attachment. However, this may be true for, say, cosmetics, but is probably less true for cars or electric extensions of car brands, as these are usually more realistic and less out of reach than the positioning of certain other products.

The relative importance of dimensions of the self-brand personality difference for brand evaluations is different in an eco-friendly electric car context than for car brand evaluation in general. This lends support to the claim that different aspired personality characteristics can be important depending on the context in which judgments are formed [14,19], as people tend to take different personality dimensions into account in different contexts. Graeff [69] already mentioned that contextual cues may evoke other aspects of the role that self-brand personality congruity may play. Introducing the electric extension as a new contextual cue may evoke ecological personality fit dimensions, since it connects the car category to the category of environmentally-friendly products. The electric car may thus make the “responsibility” personality dimension more salient, as it may serve to expose a more ecologically-responsible personality [4,7,27,70]. Consequently, the personality dimension “responsibility” drives post-extension attitudes to a greater extent than pre-extension attitudes. An extension triggers different personality fit

priorities. This indicates that consumers in their relation to brands are “malleable” [43]. The electric extension has thus self-enhancement possibilities in offering a responsible personality profile.

Both without and after an electric extension, a number of self-brand personality differences are important for judgement formation, namely activity and simplicity: generally speaking, car brands are judged more favorably when they are more active and less simple than the individual. These results seem to point to a predominantly car category-driven desired personality effect [61,71]. Apparently, in general, people aspire for a car that enhances their activity and sophistication, no matter the context.

The fact that people own a certain car brand has an effect on how they take self-brand personality differences into account. In a “contextless” situation (Sample 1), owners do not seem to take personality dimensions into account so much. This is not surprising. These people already own the car brand they had to evaluate. They probably went through the process of considering self-brand personality fit (or other buying criteria) when they purchased the car. Consequently, they may have a stable attitude that is not easily reconsidered without any extra triggers to reevaluate their attitudes. Indeed, attitudes are relatively stable, especially without meaningful extra information [72]. Non-owners, on the other hand, are confronted with a brand that they are less familiar with, and therefore, they may elaborate more on their evaluation of such a brand, leading them to the conclusion that a car brand that they perceive as more active and sophisticated than themselves is more desirable.

Remarkably, the situation is different when owners are confronted with an electric car extension. Presenting this extension cue is apparently meaningful extra brand information and a prime to scrutinize and re-evaluate self-brand personality criteria. Besides considerations of activity and simplicity, also extension evaluations and especially considerations about self-brand responsibility differences drive brand attitudes after extension. This is not so much different from the attitude formation of non-owners. Furthermore, the latter take the same self-brand differences into account, be it that in their case, the effect of the personality dimension predominantly works through their evaluation of the extension, while for brand owners, the responsibility factor predominantly has a direct effect on brand attitudes. Apparently, the effect of extension attitudes for brand attitude formation is less important for owners than for non-owners. Again, non-owners may have elaborated more when forming a brand attitude, also including more actively the new extension information.

6. Future Research

In the present study, parent feedback effects were measured shortly after exposure to the electric extension and questions about the extension itself. This may have biased the results. Future research should measure parent feedback effects in the longer run.

Self-brand congruity can be measured in different ways, either directly or indirectly, or either on the basis of personality dimensions or otherwise. Future research should investigate to what extent these different approaches lead to different outcomes and what the reasons for these differences could be.

The extent to which the effect of self-brand personality differences on brand evaluation changes in different contexts may partly depend on implicit self-theories of consumers. Individuals who strongly believe in the entity self-theory perceive personal characteristics as fixed and difficult to change [18,19,73,74]. Strong entity self-theorists may therefore react more negatively to extensions that do not fit their own perceived personality [41,75]. Individuals adhering more to the incremental self-

theory believe that personality traits are malleable and can be developed [18,19]. Strong incremental self-theorists may therefore be more inclined to develop different personality fit responses in different contexts. Future research could measure the degree to which consumers perceive their personality in view of their relationships with brands to be malleable and study the effects of this malleability on self-brand congruity effects.

Self-brand personality fit effects on brands, extensions and parent brand feedback may differ from one brand to another. For instance, Jeong and Jung [9] investigated two dimensions of brand personality, “sincere” and “prestige”, and concluded that a non-fitting extension of sincere brands may alter brand personality, as opposed to extending a prestige brand, in which case the extension leaves the brand personality unaffected. Fournier [11] and Park and John [41] state that identification and appreciation is easier for “warm” than for “cold” brands. Future research could investigate differences in attitude formation for different brands and what causes them.

Besides brand ownership, other potentially moderating factors of the self-brand personality fit/brand attitude relation could be relevant, such as the general attitude towards electric cars. Additionally, for instance, more environmentally-conscious individuals may take different personality considerations into account than less eco-friendly consumers. An electric car is an innovative product. Strongly innovative individuals may take personality considerations into account in a different way than less innovative consumers. Previous research has shown that, in this early stage of the adoption of electric cars, these factors do not play an important role in the adoption intention process [76]. Nevertheless, as the adoption process progresses, these factors may play an increasingly important role.

Cars are, for most people, high involvement, publicly-used and self-relevant products. Future research should test the role of self-brand personality considerations in attitude formation, for less involving, less self-relevant or less conspicuously-used products.

7. Managerial and Policy Implications

The insights developed in this study can be used by designers and marketers of eco-friendly cars and public policy organizations. Designers and marketers could design and position electric cars in such a way that they appeal to the aspirational personality of prospective consumers. Apart from promoting generic desirable car personality characteristics, such as activity and sophistication, emphasizing the “responsibility” personality dimension will make this eco-friendly line extension even more appealing. Car marketers should realize that, whatever the current personality associations and aspirations with respect to their brands, adding an eco-friendly alternative to their product line will enrich the attractiveness of their brand with an extra aspirational personality dimension (responsibility). The eco-friendly association of adding an electric car to the product line triggers eco-related personality dimensions when evaluating both the extension and the parent brand after extension and makes this personality dimension more salient. Public policy organizations who wish to promote sustainable mobility by advocating the adoption of electric cars should realize that car buyers are still triggered by aspirational motives of activity and sophistication. However, appealing to the aspiration of responsibility is also an important buying motivation that could be used in awareness campaigns.

8. Conclusions

Self-brand personality differences are significant predictors of attitudes towards car brands. A car brand that is perceived as more active and less simple than the self is more positively evaluated, both without and after an electric extension. Most strikingly, the relative importance of self-brand personality differences for brand attitudes is different after electric extension than without this extension. After electric extension, brand attitudes are predominantly determined by the extent to which a person perceives a car as more responsible than himself, while the personality dimension “responsibility” does not determine brand attitudes without extension. This basic conclusion holds for both brand owners and non-owners. However, the relative importance of certain personality dimensions is different for both groups. In the formation of brand attitudes without extension, owners are hardly driven by self-brand personality differences (except, marginally, by “activity” and “emotionality”), while the attitude formation of non-owners is significantly driven by differences in self-brand activity and simplicity. Self-brand differences in responsibility strongly drive electric extension attitudes for non-owners of a brand, while for owners, the effect of responsibility differences is smaller, and contrary to non-owners, they are also driven by self-brand differences in simplicity. The attitude towards the electric extension partly mediates the effect of self-brand personality differences on car brand attitudes after extension. For non-owners, the attitude towards the brand after electric extension is strongly driven by extension attitudes, while for brand owners, the effect of self-brand differences in perceived responsibility has the strongest effect. Overall, responsibility perceptions are important for both owners and non-owners of a brand after electric extension, but in the case of non-owners, this effect works predominantly indirectly, through extension attitudes, while for owners, the effect of responsibility is more direct. For owners, also self-brand simplicity difference is an important determinant of extension attitude and, thus, has both a direct and indirect effect on brand attitude. For non-owners, the effect of this self-brand simplicity difference is only direct.

Author Contributions

The authors have each contributed equally to the research design, the analysis of the data and the writing of the manuscript. Both authors have read and approved the final manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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