**Can Dissimilarity in Product Category Be an Opportunity for Cross-Gender Brand Extension?**

Abstract:

Leveraging cross-gender brand extensions (new product offerings under the same brand name for customers of the opposite sex) can facilitate brand growth. However, how such strategies should be implemented remains unanswered. A popular approach is to launch a brand extension in the same or a similar product category (high fit). However, for cross-gender brand extension, this strategy can dilute the gender personality of the parent brand (i.e. masculinity or femininity). We propose that launching cross-gender brand extensions in a product category with low fit is an effective strategy as it enables cognitive distancing of the extension from the parent brand. Two experiments confirm that introducing low (versus high) fit cross-gender brand extensions mitigate the parent brand’s gender personality dilution, leading to more positive evaluations of the parent brand amongst existing customers and higher purchase intention amongst new target customers for the cross-gender brand extension.

*Keywords: Cross-gender brand extension, Gendered branding, Product category fit, Brand gender personality dilution*

1. **Introduction**

Brands with a strong gender identity (i.e. gendered brands) have sought the opportunity to launch cross-gender brand extensions (BEs) (i.e. extend their brands to the opposite sex) ([Ulrich 2013](#_ENREF_28)) and, thus, grow their market share. For instance, Michael Kors, predominantly a feminine handbags brand, successfully targeted males with the Michael Kors Men’s line. Brands with a salient gender personality are valued by consumers for expressing their relevant biological sex-related self-identity ([Grohmann 2009](#_ENREF_13)). However, launching BEs often leads to the dilution of the personality of the parent brand (PB) ([Childs 2017](#_ENREF_6)), thus threatening the original brand’s gender image. Such brand dilution may result in existing consumers distancing themselves from either the PB or the BE, when the underlying image of the BE negatively affects their self-identity ([Machado et al. 2019](#_ENREF_20)). For example, Avery (2012) reports that the ‘gender contamination’ effect was experienced by male consumers of the Porsche sports cars after it launched the Porsche Cayenne SUV, which initially targeted the female market. This contamination of the brand was later corrected by a stronger positioning of the SUV as a sports car by adding a Cayenne GTS variant.

The risks associated with launching cross-gender BEs draw attention to limitations in the BE literature, especially in the context of cross-gender BEs. First, while research supports that launching BEs can dilute the identity of the PB ([Childs 2017](#_ENREF_6)), little is known about such dilution of brand gender personality in the context of cross-gender BEs among both existing and target customers.

Second, non-gender BE research considers the advantages of launching BEs predominantly with high product category fit (HPCF), i.e., when the BE has the same or similar product category as the PB’s offerings. The advantages of this include: (1) a low dilution of the PB identity, (2) an easy transfer of the perceptions of the PB to the BE, and (3) positive consumer responses to the BE ([Pina et al. 2013](#_ENREF_26)).

We argue that, in the context of cross-gender BEs, HPCF might be less preferable than low product category fit (LPCF), i.e., when BEs are launched in a product category dissimilar or unrelated to that of the PB. This is because HPCF allows the salient transfer of gender identity between the PB and the extension, which may dilute the gender identity of the PB. This may be negatively received by existing consumers who value the gender identity of the PB. Non-gender BE research suggests that LPCF offers cognitive distancing between the extension and the PB. Thus, LPCF cross-gender extensions could shield the PB from brand gender identity dilution. However, it remains unknown whether an LPCF (versus HPCF) cross-gender BE can help to (1) protect the gender identity of the PB from dilution, (2) prevent existing consumers from negatively evaluating the PB with a diluted brand gender identity, and (3) make new consumers react more positively to the extension.

We draw upon gender schema and categorisation theories to propose a framework for demonstrating how product category fit (PCF) of a cross-gender BE affects the responses of existing and new customers to the PB and BE. Gender schema theory illustrates how biological sex influences the formation of consumers’ sex-related self-identity, which fosters the development of the brand’s gender identity regarding products a male/female possesses. Categorisation theory explains that when consumers are exposed to a cross-gender BE, to understand what the BE means, they modify their perceptions of the PB’s identity ([Park et al. 1991](#_ENREF_23)). This theory explains that the degree of modification can vary depending on the degree of PCF between the extension and PB. We argue that LPCF/HPCF can be deployed as a cognitive distancing/associating technique (between the extension and PB) to influence the categorisation process of the BE ([Parker et al. 2017](#_ENREF_24)). For cross-gender BEs, an LPCF extension will help distance the BE from the PB’s gender identity and thus will be more consistent with the sex-related self-identity of the BE target consumers. Consequently, we expect that (1) cross-gender BEs will dilute the gender brand personality of the PB for both existing and target consumers, with the dilution effect being weaker with LPCF (versus HPCF), (2) exposing existing consumers (i.e. males or females) to LPCF (versus HPCF) cross-gender BEs results in more positive attitudes towards the PB, and (3) target consumers (e.g. males considering purchasing a cross-gender BE of a predominantly feminine brand) are more likely to purchase a cross-gender extension with LPCF (versus HPCF).

1. **Literature review**

PCF refers to the similarity between the product category of the BE and the original offerings of the PB ([Aaker and Keller 1990](#_ENREF_1)). Consumer perception of BEs at varying levels of PCF can be explained by the categorisation theory. This theory postulates that consumers perceive a brand based on brand-related information, such as BEs. Thus, when consumers are exposed to a new BE from the PB, their perception of the BE can modify their existing knowledge of the PB ([Boush and Loken 1991](#_ENREF_5)). Non-gender BE literature suggests that HPCF (versus LPCF) leads to a more favourable evaluation of the BE and less PB dilution ([Childs 2017](#_ENREF_6)). This is because the HPCF provides a consistent product category cue with consumers’ existing knowledge of the PB ([Loken and John 1993](#_ENREF_19)). For BEs with LPCF, the inconsistent product category cue results in a less favourable evaluation of the BE and a substantial modification of their consumers’ knowledge of and associations with the PB ([Boush and Loken 1991](#_ENREF_5)). This causes greater dilution of the PB’s image ([Loken and John 1993](#_ENREF_19)).

However, these effects of HPCF assume that the BE possesses an image and belief consistent with those of the PB ([Childs 2017](#_ENREF_6)). In the case of a cross-gender BE, we are less likely to observe this type of consistency, which might result in a stronger dilution of the gender image of the PB. Hence, the LPCF condition may be more effective in reducing the dilution effect on the PB. The typicality model of the categorisation theory suggests that when consumers are exposed to a BE that is inconsistent with the PB, they are more likely to create a sub-typing memory associating the extension with the PB ([Goedertier et al. 2015](#_ENREF_12)). This creates a cognitive distance between the BE and PB, thus avoiding dilution of the PB image ([Loken and John 1993](#_ENREF_19)).

The potential of LPCF has not been explored in the context of cross-gender BE studies. Following the conventional practice of BE research, studies of cross-gender BEs have mainly focused on the positive effects of HPCF. Table 1 summarises the findings of previous cross-gender BE studies. Generally, existing research suggests that although HPCF cross-gender extensions help to enhance brand awareness of the PB, they can harm the original attributes of and beliefs regarding the PB ([Avery 2012](#_ENREF_3)). In the sections below we conceptualise how such harm could be potentially mitigated by an LPCF cross-gender extension.

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1. **Conceptual background and hypotheses**

*3.1 Perceived gender brand personality according to gender schema*

Biological sex is the assigned physical or biological characteristic, i.e., male and female ([Fischer and Arnold 1994](#_ENREF_10)). As a segmentation variable, biological sex is easy to capture by marketers. Thus, it is one of the most popular demographic segmentation variables used in designing marketing strategies. The relevance of this variable is supported by the gender schema theory. The theory explains that individuals develop biological sex-typed information from their social surroundings, and store it in their memories, called ‘gender schema’ ([Bem 1983](#_ENREF_4)). Gender schema influences how an individual organises, perceives, processes, selects, and memorises biological sex-typed information to comply with the social definition of biological sex ([Jung and Lee 2006](#_ENREF_14)). It helps individuals to create their social identity according to their biological sex ([Avery 2012](#_ENREF_3)). The social identity theory also specifies that individuals are motivated to engage in biological sex-consistent consumption to protect their in-group status ([Ferguson et al. 2020](#_ENREF_9)). This creates a need for gender schema-consistent brands and products ([Bem 1983](#_ENREF_4)).

[Grohmann (2009)](#_ENREF_13) developed the concept and measurement of brand gender personality. The concept explains how consumers humanize the traits of gendered brands and perceive them in terms of gender personality. Brands described as adventurous, aggressive, brave, daring, dominant, and sturdy are considered to have masculine gender personality. Brands perceived as expressing tender feelings, being fragile, graceful, sensitive, sweet, and tender, are considered to have feminine gender personality. Previous research suggests that product and brand attributes and communication strategies can influence brand gender personality perceptions ([Grohmann 2009](#_ENREF_13)). These facilitate brand positioning as either masculine or feminine to attract male or female, respectively ([Machado et al. 2019](#_ENREF_20)).

*3.2 Consumer reactions to cross-gender BEs*

To leverage the values of gendered brands, marketers started introducing cross-gender BEs to attract the opposite sex ([Ulrich 2013](#_ENREF_28)). However, it is crucial to protect the gender brand identity of the PB from dilution. The introduction of a cross-gender BE (out-group information) creates gender schema-inconsistent information amongst existing consumers. This may threaten existing consumers’ sex-related self-identity and potentially evoke negative responses. Table 1 summarises how consumers react to the cross-gender BE. Azar et al. (2018) show that, apart from the dilution effects on the original brand gender personality, both existing and target consumers’ attitudes towards the PB deteriorate. Furthermore, [Jung and Lee (2006)](#_ENREF_14) suggest that since the gender-inconsistent image of cross-gender BEs prevents consumers from expressing their self-identity, consumers make unfavourable evaluations of the cross-gender BEs.

*3.3 Effects of PCF on the dilution of the PB gender personality*

When consumers are exposed to a cross-gender BE, they use the PB as an evaluative cue and assimilate the cross-gender BE information with their original perceptions of the gender personality of the PB ([Puligadda et al. 2012](#_ENREF_27)). As cross-gender BE involves information that is inconsistent with the original PB gender personality, after seeing it, both male and female consumers may modify their perceptions of the PB gender personality.

As explained before, PCF provides one of the evaluative cues for consumers to make an inference connecting the extended product with the PB and evaluate the brand concept consistency ([Gierl and Huettl 2011](#_ENREF_11)). When gendered brands introduce an HPCF cross-gender BE, consumers may strongly associate the PB’s gender personality inconsistent with the cross-gender BE, thus making the PB’s gender image more likely to be diluted ([Lane and Fastoso 2016](#_ENREF_17)).

Meanwhile, when the PCF is low, the perceived distance between the BE and the PB may reduce the magnitude of PB dilution. The typicality model in the categorisation theory illustrates that when consumers evaluate an LPCF extension, they create a sub-type of the PB ([Goedertier et al. 2015](#_ENREF_12)). Consequently, consumers are less likely to modify their existing knowledge about the PB’s gender identity ([Loken and John 1993](#_ENREF_19)), as proposed:

***H1a:*** *When a male brand introduces a female product, the masculinity of the male brand will be diluted more in the HPCF than the LPCF condition.*

***H1b:*** *When a female brand introduces a male product, the femininity of the female brand will be diluted more in the HPCF than the LPCF condition.*

*3.4 LPCF cross-gender BEs protecting the PB from negative evaluations amongst existing consumers*

Cross-gender BE can also influence existing consumers’ attitudes towards the PB because of the personal relevance of the PB to the consumer ([Kim et al. 2014](#_ENREF_16)). Such personal relevance will be higher if the consumer is the biological sex group originally targeted by the PB ([Machado et al. 2019](#_ENREF_20)). As the brand originally expresses the biological sex-related self-identity of the focal customer group, these customers are more motivated to protect the brand as a valuable resource to reflect their self-identity and refrain from the potential ‘contamination’ of the opposite sex group association (out-group) ([Avery 2012](#_ENREF_3)). Therefore, when a gendered PB introduces cross-gender BE, such gender identity inconsistent association may form negative attitudes towards the PB amongst existing consumers.

The distancing logic of PCF may help mitigate existing consumers’ negative attitudes toward the PB. Specifically, the lower the PCF, the weaker the out-group association resulting from the introduction of a cross-gender BE by forming a sub-typing association of the PB. This may reduce negative attitudes towards the PB. The opposite would be the case for cross-gender BEs with HPCF. Consequently, we propose:

***H2a:*** *When a male brand introduces a female product, male consumers have a more positive attitude towards the PB in the LPCF than the HPCF condition.*

***H2b:*** *When a female brand introduces a male product, female consumers have a more positive attitude towards the PB in the LPCF than the HPCF condition.*

1. **Study** **1**

*4.1 Method*

Study 1 was designed to test H1 and H2 through a scenario-based experiment, using real brands with fictitious BEs. It involves a 2 (PCF: high/low) x 2 (direction of cross-gender BE: male to female/female to male, M🡪F/F🡪M hereafter) x 2 (biological sex: male/female, recorded as a categorical demographic variable) between-subject design. Respondents were South Korean adults (n = 200) recruited through an online survey panel, Qualtrics, and randomly allocated to one of the four experimental scenarios. Among the participants, 59% were female, 74% of the respondents were aged between 18 and 34. The sample distribution of biological sex for each of the experimental conditions can be found in Appendix 2. Age was evaluated as a potential covariate, but we found no significant relationship between age and the dependent variables.

*4.2 Stimuli*

To select a focal product category, the study followed Ulrich’s (2013) criteria that the product category should be consumed by both male and female consumers and consist of strong masculine and feminine brands that have not introduced cross-gender BEs. Facial skincare was chosen as the focal product category.

To select brands with masculine or feminine brand personality, we employed the brand selection criteria as suggested by [Ulrich (2013)](#_ENREF_28), where the brands were required to 1) be perceived as either strongly masculine or feminine; 2) be well-known to consumers in the target sample; 3) not implement a cross-gender BE strategy by the date of data collection. Eleven potential brands were identified. A pretest was conducted to select brands representing high brand masculinity or femininity. Respondents (n = 76) rated the brand gender personality of the identified brands using the scale adapted from [Grohmann (2009)](#_ENREF_13). The paired t-test results point to the selection of Bulldog as a brand with perceptions of masculinity (MMBP = 4.25, SD = 1.27) significantly higher than perceptions of femininity (MFBP = 2.90, SD = 1.11, t(75) = 7.82, p < .01) and Estee Lauder as a brand with perceptions of femininity (MFBP = 6.43, SD = 1.24) significantly higher than perceptions of masculinity (MMBP = 4.75, SD = 1.71, t(75) = 7.42, p < .01).

Another pretest was conducted to select the PCF variations, i.e., HPCF and LPCF. The dominant product category of those brands and four product categories commonly extended to by other facial skincare brands were considered. Respondents (n = 50) rated potential extensions in the perceived PCF using the scale adapted from [Keller and Aaker (1992)](#_ENREF_15). The results of paired t-tests prompted the selection of facial skincare for HPCF and shampoo for LPCF for both brands. The level of PCF was significantly different for Bulldog (Mskincare = 5.09, SD = 1.93 versus Mshampoo = 2.98, SD = 1.73, t(49) = 5.42, p < .01) and Estée Lauder (Mskincare = 5.87, SD = 1.50 versus Mshampoo = 2.69, SD = 1.73, t(49) = 9.69, p < .01).

*4.3 Procedure*

The questionnaire started with demographic questions, including a question about respondents’ biological sex. Then, subjects were randomly assigned to one of the four experimental scenarios. They first saw brief information about the PB and then were asked about their attitudes towards and familiarity with the PB. We recorded respondents’ perceived PB gender personality before the experimental treatment for a manipulation check. As brand familiarity can potentially affect consumer responses to cross-gender BEs ([Czellar 2003](#_ENREF_8)), it was used as a covariate in the subsequent analyses. Then, respondents saw brief information about the cross-gender BE and were asked about the post-extension brand gender personality and attitude towards the PB. Upon completion, participants were debriefed and thanked for their participation.

*4.4 Measures*

All items were measured using 7-point Likert scales (1 = strongly disagree to 7 = strongly agree). Brand familiarity (entered as a covariate) was measured with a single item *‘Please indicate your familiarity with the brand Bulldog/Estee Lauder’*. The perceived PB gender personality was adapted from [Grohmann (2009)](#_ENREF_13) (α = .89 for masculinity and α = .91 for femininity). The post-extension attitude towards the PB was also adapted from [Grohmann (2009)](#_ENREF_13) (α = .88). Details of the questionnaire statements can be found in Appendix 1. The measurement model achieved adequate fit: χ2 = 145.67, df = 78, χ2/df = 1.87, CFI = .96, SRMR = .05. Composite reliability (CR) and average variance extracted (AVE) were above the required threshold (CR > .7; AVE > .5); see Appendix 1.

It is recognised that common method bias (CMB) could be a concern for self-reported questionnaires ([Liang et al. 2007](#_ENREF_18)). We adopted both procedural and statistical remedies to ensure that CMB would not compromise the findings. First, respondents were assured of their anonymous participation, and there was no right or wrong answer ([MacKenzie and Podsakoff 2012](#_ENREF_21)). Statistically, we employed the unmeasured latent variable method. The results reveal that the average substantive squared variance of the principal constructs is .56, while the average method-based squared variance is .034. The method-based squared variance is much less than that explained by the principal constructs with a ratio of 17:1. Most of the method factor loadings were also insignificant. Hence, CMB is not a serious concern in this study.

*4.5 Manipulation check*

Manipulation checks were conducted to verify that the selected brands were perceived as predominantly masculine and feminine. The pre-experimental treatment brand gender personality measure of the PB confirmed that the masculinity perceptions (M = 4.48, SD = .97) of the Bulldog brand were significantly higher than the femininity perceptions (M = 3.72, SD = 1.33; t(97) = 4.32, p < .001). The femininity perceptions (M = 4.93, SD = .83) of the Estee Lauder brand were also significantly higher than the masculinity perceptions (M = 3.89, SD = 1.05; t(101) = 8.38, p < .001).

*4.6 Results*

Before testing H1, we entered biological sex and PCF into a 2x2 ANCOVA to confirm that the PCF effects on the post-extension PB gender personality perceptions were independent of biological sex. We performed two separate tests: M🡪F and F🡪M. Insignificant interaction results for the M🡪F (F(1, 93) = .38, p > .10, ηp2 = .004) and F🡪M (F(1, 97) = 1.99, p >.10, ηp2 = .02) conditions confirm that PCF effects were independent of biological sex.

To test H1a, a one-way ANCOVA indicated that the post-extension masculinity perceptions of the Bulldog brand (M🡪F) were significantly lower in the HPCF (MHPCF = 4.04, SE = .21) than the LPCF condition (MLPCF = 4.78, SE =.24; F(1, 38) = 5.51, p < .05, ηp2=.13). For H1b, a one-way ANCOVA indicated that the post-extension femininity perceptions of the Estee Lauder brand (F🡪M) were significantly lower in the HPCF (MHPCF = 4.44, SE = .16) than the LPCF condition (MLPCF = 4.93, SE =.16; F(1, 58) = 3.64, p < .05, ηp2 = .07). Hence, H1a and 1b were supported, as illustrated in Figure 1.

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Testing H2, we entered our independent and dependent variables into a 2x2x2 ANCOVA. We found a significant three-way interaction (F(1, 191) = 5.69, p < .05, ηp2 = .03), as illustrated in Figure 2. As expected in H2a, male consumers’ post-extension attitudes towards the Bulldog brand (M🡪F) were significantly higher in the LPCF (MLPCF = 5.09, SE = .23) than the HPCF condition (MHPCF = 4.45, SE = .20; F(1, 38) = 4.50, p < .05, ηp2 = .11). For H2b, female consumers’ post-extension attitudes towards the Estee Lauder brand (F🡪M) were also significantly higher in the LPCF (MLPCF = 5.35, SE = .17) than the HPCF condition (MHPCF = 4.86, SE = .18; F(1, 58) = 3.90, p = .05, ηp2 = .06). Therefore, H2a and H2b were supported.

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*4.7 Discussion*

The results of Study 1 reveal that (1) when a brand introduces a cross-gender BE, brand personality dilution takes place but can be minimised by the LPCF (versus HPCF) condition; (2) existing consumers have more positive attitudes towards the PB launching cross-gender BEs in the LPCF (versus HPCF) condition. Consistent with our prediction, this may be caused by the brand concept disfluency, due to which consumers can no longer express their biological sex-related self-identity by purchasing the brand.

While the results are promising, there are certain limitations to their generalisability. First, our data come from one country, South Korea, and the results are in the context of a specific product category, i.e., personal care products. To further validate and generalise the results, we conducted Study 2 with a different product category in the UK. Second, by confirming our hypotheses concerning the opportunities for PBs launching cross-gender BEs in the LPFC, a new research question emerged. Could LPCF (versus HPCF) be also leveraged to enhance new consumers’ responses to the extended product? This question will be addressed in Study 2.

1. **Study 2**

When male (female) consumers receive the cross-gender BE from a female (male) brand, they employ category-based judgement by considering the PB’s association, including the original brand gender personality ([Boush and Loken 1991](#_ENREF_5)). The social identity theory suggests that consumers evaluate whether the female (male) PB can represent and communicate their male (female) in-group values ([Aguirre-Rodriguez et al. 2014](#_ENREF_2)). Since the female (male) PB is inconsistent with the male (female) in-group values, purchasing a product from an out-group resource creates an uncomfortable feeling as it is incongruent with the self-identity ([Avery 2012](#_ENREF_3)). To protect their own biological sex-typed self-identity, consumers may behave according to their respective biological sex-label and gender schema.

Consequently, the distancing technique through LPCF may play a significant role here. When a male (female) brand introduces a female (male) product with LPCF (versus HPCF), it may avoid the strong association with the opposite gendered image of the PB (out-group values). Thus, the targeted biological sex may prefer to purchase the LPCF product. Therefore, we propose:

***H3a:*** *When a male brand introduces a female product, female consumers have a higher purchase intention in the LPCF than the HPCF condition.*

***H3b:*** *When a female brand introduces a male product, male consumers have a higher purchase intention in the LPCF than the HPCF condition.*

*5.1 Method*

Study 2 employed a 2 (PCF: high/low) x 2 (direction of cross-gender BE: M🡪F/F🡪M) x 2 (biological sex: male/female, recorded as a categorical demographic variable) between-subject factorial design. Respondents were UK adults (n = 250) recruited through an online survey panel, Prolific Academic (ProA), and were randomly allocated to one of the four experimental scenarios. ProA was chosen because of the reliability and data quality of the platform ([Peer et al. 2017](#_ENREF_25)). Of the study participants, 53.6% were female, and the mean age was 32.45 (recorded by an open-ended question). The sample distribution of biological sex for each of the experimental conditions can be found in Appendix 2. Age showed no significant relationship with the dependent variables.

*5.2 Stimuli*

Following Study 1, a pretest was conducted to select two gendered PBs (masculine and feminine) in the clothing and accessories product category. The brand selection criteria followed Study 1. Twelve potential brands were identified. Respondents (n = 52) rated the brand gender personality of the identified brands using the scale adapted from [Grohmann (2009)](#_ENREF_13). The results of paired t-tests pointed to the selection of Jack and Jones as a brand with perceptions of masculinity (MMBP = 4.32, SD = 1.00) significantly higher than perceptions of femininity (MFBP = 2.38, SD = 1.04, t(51) = 10.69, p < .001) and Dorothy Perkins as a brand with perceptions of femininity (MFBP = 4.00, SD = 1.08) significantly higher than perceptions of masculinity (MMBP = 2.96, SD = 1.08, t(51) = 5.65, p < .001).

Another pretest helped to select product categories representing HPCF and LPCF for the preselected brands. By considering the product categories that other clothing brands have extended to, five product categories are considered. Respondents (n = 107) were randomly assigned to one of the two brands’ scenarios and rated on the perceived PCF scale adopted from [Keller and Aaker (1992)](#_ENREF_15) for each of the aforementioned five product categories. The results of paired t-tests prompted the selection of fragrance for HPCF and shower gel for LPCF for both brands. The level of fit was significantly different for Jack and Jones (Mfragrance = 4.81, SD = 1.39 versus Mshowergel = 3.05, SD = 1.10, t(53) = 10.37, p < .001) and Dorothy Perkins (Mfragrance = 4.32, SD = 1.52 versus Mshowergel = 2.64, SD = 1.38, t(52) = 7.41, p < .001).

*5.3 Procedure and measures*

We adopted the same experimental procedures as in Study 1. All measurements were also adopted from Study 1, including brand familiarity (used as a covariate), brand gender personality (α = .79 for masculinity; α = .92 for femininity), and post-extension attitudes towards the PB (α = .97). Purchase intention was adopted from O’Cass and Grace (2004) (α = .93). The measurement model achieved adequate fit: χ2 = 232.85, df = 115, χ2/df = 2.03, CFI = .97, SRMR = .08. CR and AVE were above the required threshold; see Appendix 1.

Considering the potential impact of CMB, we adopted the same procedural remedies from Study 1. The results of the unmeasured latent method construct revealed that the average substantive squared variance of the principal constructs was .62, while the average method-based squared variance was .044. The ratio of substantive variance to method variance was about 14:1. Most of the method factor loadings were also insignificant. Therefore, CMB is not a serious concern in this study.

*5.4 Manipulation check*

The pre-experimental treatment brand gender personality measure of the PB confirmed that the masculinity (MMBP = 4.38, SD = .85) of Jack and Jones was significantly higher than its femininity (MFBP = 2.70, SD = 1.14; t(124) = 13.97, p < .001); the femininity (MFBP = 3.87, SD = 1.12) of Dorothy Perkins was also significantly higher than its masculinity (MMBP = 3.30, SD = 1.06; t(124) = 5.68, p < .001).

*5.5 Results*

Testing H1, we first entered biological sex and PCF into a 2x2 ANCOVA to confirm that the PCF effects on the perceptions of PB personality are independent of biological sex. We performed two separate tests: the M🡪F and F🡪M conditions. Insignificant interaction results for the M🡪F (F(1, 120) = 2.74, p > .10, ηp2 = .02) and F🡪M (F(1, 120) = .03, p >.10, ηp2 = .00) conditions confirm that PCF effects are independent of biological sex.

To test H1a, a one-way ANCOVA indicated that the post-extension masculinity perception of the Jack and Jones brand (M🡪F) is significantly lower in the HPCF (MHPCF = 3.94, SE = .12) than the LPCF condition (MLPCF = 4.23, SE =.12; F(1,122) = 2.84, p = .09, ηp2 = .09). For H1b, a one-way ANCOVA indicated that the post-extension femininity perception of the Dorothy Perkins brand (F🡪M) is lower, albeit insignificant, in the HPCF (MHPCF = 3.30, SE=.16) than the LPCF condition (MLPCF = 3.42, SE = .16; F(1,122) = .29, p > .10, ηp2 = .002). Hence, H1a was supported, while H1b was directionally supported, as illustrated in Figure 3.

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To examine H2, we entered our independent and dependent variables into a 2x2x2 ANCOVA, which indicated a significant three-way interaction (F(1, 241) = 16.38, p < .001, ηp2 = .06); see Figure 4. Consistent with H2a, male consumers’ post-extension attitudes towards the Jack and Jones brand (M🡪F) were significantly higher in the LPCF (MLPCF = 4.83, SE = .28) than the HPCF condition (MHPCF = 3.45, SE = .24; F(1, 56) = 8.87, p < .01, ηp2 = .14). For H2b, female consumers’ post-extension attitudes towards the Dorothy Perkins brand (F🡪M) were also significantly higher in the LPCF (MLPCF = 4.99, SE = .23) than the HPCF condition (MHPCF = 3.79, SE = .23; F(1, 65) = 13.72, p < .001, ηp2=.17). Therefore, H2a and H2b were supported.

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For H3a, a one-way ANCOVA indicated that the purchase intention of female consumers towards the female product introduced by the Jack and Jones brand (M🡪F) was higher in the LPCF (MLPCF = 3.03, SE = .26) than the HPCF condition (MHPCF = 2.87, SE = .31; F(1, 63) = .17, p > .10, ηp2 = .003). Although the result was insignificant, we gained directional support for H3a. For H3b, a one-way ANCOVA indicated that the purchase intention of male consumers towards the male product introduced by Dorothy Perkins (F🡪M) was significantly higher in the LPCF (MLPCF = 3.44, SE = .28) than the HPCF condition (MHPCF = 2.60, SE = .26; F(1, 54) = 4.89, p < .05, ηp2 = .08). Hence, H3b was supported, while H3a was directionally supported; see Figure 5.

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1. **General Discussion**

*6.1 Theoretical implications*

Although previous studies in the non-gender BE context suggest that LPCF (versus HPCF) produces stronger PB dilution effects ([Czellar 2003](#_ENREF_8)), this research finds an opposite effect in cross-gender BEs. Specifically, as the PCF of cross-gender BEs is reduced, the perceived gender personality of the PB is less diluted for both male and female consumers, and existing consumers have a more favourable attitude towards the PB. Evaluating those effects considering consumers’ biological sex and direction of extension (e.g. M🡪F) is an addition to the existing research that does not consider existing consumers’ perceptions of the respective PB ([Ulrich 2013](#_ENREF_28)). This finding is consistent with the results of a qualitative case study ([Avery 2012](#_ENREF_3)), demonstrating that launching HPCF cross-gender BE negatively affects the original brand gender personality for male consumers. This research also extends such effects to female consumers.

Our findings regarding the PB attitude also contribute to the previous non-gender BE research. Our findings broaden the understanding of some exceptional cases when introducing LPCF extension is beneficial ([e.g. Chun et al. 2015](#_ENREF_7)). Because in HPCF (versus LPCF) consumers find it easier to notice the inconsistency between the gender image of the PB and the BE, this causes stronger brand concept inconsistency and, consequently, higher deterioration in the attitude towards the PB.

While non-gender BE research suggests that HPCF enhances purchase intention because of the information transfer from the PB to the BE ([Martinez and Pina 2010](#_ENREF_22)), our research suggests otherwise. For cross-gender BEs, HPCF extensions are less likely to be purchased by the new consumers. In support of LPCF, we discovered that male consumers prefer an LPCF cross-gender BE to a female brand. The same applies to female consumers purchasing a male brand, although this is just directionally supported. Our finding of how biological sex affects purchase intention is generally consistent with previous cross-gender BE studies suggesting that males are likely to renounce femininity associations and unlikely to purchase feminine brands ([e.g. Avery 2012](#_ENREF_3)). However, we propose a solution to this dilemma, in the form of LPCF (rather than HPCF) cross-gender BEs. We add the cross-gender BEs context to the list of exceptions to the HPCF rule ([e.g. Chun et al. 2015](#_ENREF_7)) (see Table 1).

*6.2 Managerial implications*

Our research indicates that introducing cross-gender BEs in LPCF can be seen by gendered brands as a way to acquire new target customers. The cognitive distancing achieved by the LPCF extension allows the BE to attract the opposite sex as a new target segment, and the PB can maintain its prestigious brand image among existing consumers.

Our findings can help to explain some of the successful examples of cross-gender BEs, as explained in Table 2. For instance, Michael Kors brand uses the LPCF option successfully, mainly benefiting from the dissimilar product category characteristics of the BEs to the focal product category of the PB. Interestingly, in some cases, with some product categories (e.g. automobiles in the case of Porsche), it can be more difficult to introduce LPCF BEs. However, these companies have the option to apply the mechanisms of cognitive distancing (we achieved with LPCF) through branding or market positioning, such as Porsche (see Table 2). In contrast, Miu Miu is an example showing how HPCF without considering cognitive distancing can be damaging in cross-gender BEs.

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Insert Table 2 about here
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Our research suggests that marketers of highly masculine/feminine brands may need to review their current and future market brand gender positioning and develop an appropriate marketing strategy. First, for those who are considering introducing cross-gender BEs, our research suggests avoiding the negative influence of HPCF extensions on the PB because most of these brands’ revenues are generated from existing consumers. Here, launching LPCF cross-gender BEs may be a useful strategy to enhance revenue streams while protecting the PB among existing consumers. Second, for those who have already launched HPCF cross-gender BEs, our research suggests monitoring the attitude towards the PB among existing consumers, and if the original brand gender positioning is crucial for the brand, they may need to consider withdrawing such product from the market to protect its gendered brand positioning.

*6.3 Limitations and Further Research Recommendations*

Our work has some limitations. Although the present research involves data from two different countries to examine the generalisability and validity of the results, it did not investigate how the cultural background of the society affected individuals’ sex-typing and gender schema. For instance, in some male-dominated cultures, like Japan, consumers may have a stronger gender schema. Introducing LPCF cross-gender BE may become even more important for brands to protect their originally targeted market by minimising the dilution of the original gender brand personality.

Because this is the first cross-gender BE study to take PCF into account and reveal the superiority of the LPCF extension (over the HPCF extension), it does not consider potential boundary conditions to that effect. Future research could mitigate this limitation. For example, consumers with high emotional attachment to the PB may experience lesser dilution of the PB image and less negative responses to HPCF cross-gender BEs as they may defend the brand ([Kim et al. 2014](#_ENREF_16)). Furthermore, dispositional variables reflecting gender identity, such as traditional gender role attitudes ([Ulrich 2013](#_ENREF_28)), could be another boundary condition. Consumers with less traditional gender role attitudes (showing less salient masculine or feminine gender identity and emphasis on gender schema) might prefer HPCF to LPCF BEs.

Finally, given that cognitive distancing explains more favourable outcomes of LPCF than HPCF in the cross-gender BE context, such a theoretical mechanism could also be applied to other marketing strategies, such as branding and positioning. Future research could examine whether using these strategies with HPCF extensions may avoid the negative impact of launching HPCF cross-gender BEs.

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Figure 1. Consumers’ perceived post-extension PB gender personality in Study 1



Figure 2. Post-extension attitude towards a male PB in Study 1



Figure 3. Consumers’ perceived post-extension PB gender personality in Study 2



Figure 4. Post-extension attitude towards the PB in Study 2



Figure 5. Male (female) consumers’ purchase intentions towards cross-gender BEs



Table 1. Literature review table of relevant BE research

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Author** | **Main findings** | **Effects on BE** | **Effects on PB** | **Context** | **PCF level** | **Contributions to the existing research** |
| **Review of studies suggesting possible benefits of low PCF** |
| Ahluwalia and Gurhan-Canli (2000) | With low accessibility of BE information, negative information about an HPCF (versus LPCF) extension leads to PB dilution; positive information about an LPCF (versus HPCF) extension leads to PB enhancement.  |  | x | Accessibility of BE information | High and low PCF | Cross-gender BE is one of the conditions in which LPCF (versus HPCF) extensions have less negative effects on the PB.  |
| Chun et al. (2015) | Brands with a high (versus low) reputation can have a more favourable attitude towards LPCF (versus HPCF) extensions offering innovative benefits.  | x | x | BEs for a reputable brand | High and low PCF | LPCF (versus HPCF) extensions work better when the PB has a strong gender image introducing cross-gender BE.  |
| Parker et al. (2017) | Introducing an LPCF extension earlier (versus later) in a multi-BE process can produce more positive effects on the BE and the PB in the long-term. | x | x | Process of building a multi-category brand  | High and low PCF | LPCF extensions are recommended in the cross-gender BE context.  |
| **Review of previous cross-gender BE research and the research gap** |
| Jung and Lee (2006) | The gender-inconsistent image of cross-gender BEs impedes consumers’ expression of their self-identity; consumers make unfavourable evaluations of the cross-gender BEs. |  | x | Cross-gender BE | High PCF | Demonstrates the effects of PCF by showing that an HPCF (versus LPCF) of the cross-gender BE can more negatively influence the PB. |
| Avery (2012) | Porsche owners were found to have a strong in-group masculine identity. When Porsche introduced the Porsche Cayenne SUV targeting women, existing Porsche owners reacted negatively to the PB and the BE. | x | x | Cross-gender BE | High PCF | Confirms existing research findings by showing that HPCF (versus LPCF) extensions lead to existing consumers having lower attitudes toward the PB;Demonstrates the positive impact of adopting LPCF to reduce the negative impact on the PB.  |
| Ulrich (2013) | Consumers with more traditional (versus liberal) attitudes to gender roles have more negative behavioural and attitudinal responses to the BE and the PB. | x | x | Cross-gender BE | High PCF  | Indicates how the PCF (HPCF versus LPCF) of the cross-gender BE can influence consumers’ evaluations of the cross-gender BE and the PB.  |
| Azar et al. (2018) | When a female (male) brand introduces a cross-gender BE, the perceived femininity (masculinity) of the PB is diluted for both male and female consumers. |  | x | Cross-gender BE | High PCF | Indicates that using LPCF (versus HPCF) to introduce a cross-gender BE reduces the negative impact on the PB.  |
| [Veg-Sala and Roux (2018)](#_ENREF_29) | PBs with more values desired by both biological sexes have a higher chance of successfully introducing cross-gender BEs.  | x |  | Cross-gender BE | High PCF | Launching an LPCF (versus HPCF) cross-gender BE is another condition that enhances the purchase intention of the targeted biological gender.  |

Table 2. Practical examples of cross-gender BEs relevant to our findings

|  |
| --- |
| **Successful BEs benefiting from cognitive distancing from the gender personality of the PB** |
| **Brand****(masculine/ feminine brand)** | **Product category of the PB** | **Product category of the cross-gender BE** | **Existing and target customers’ reactions** | **Relevance of current research findings** |
| Porsche (masculine) | Automobile | SUV (HPCF)***cognitive distance*** for the BE was achieved with the addition of the GTS element to the SUV | For **males**: Initially, it threatened males’ in-group masculine identity; males reacted negatively towards Porsche and distanced themselves from the new feminine SUV. The GTS version helped to attract males by positioning it as a sports car. For **females**: Positive reaction towards the SUV.  | * The significance of cognitive distancing in reducing the negative impact of a cross-gender BE on the PB.
* Porsche’s manager may consider introducing LPCF to create cognitive distancing.
 |
| Michael Kors (feminine)  | Predominantly handbags | Men’s handbags, watches, footwear (both HPCF and LPCF) | For **males**: Consumers reacted positively to the accessory offerings that fit the masculine gender personality (e.g. watches or footwear). The BEs with LPCF achieved more success with males than BEs with HPCF (i.e. handbags).For **females**: Strong sales of all types of accessories, predominantly handbags.  | * The success of LPCF cross-gender BEs.
* Michael Kors’ manager may consider withdrawing male handbags (HPCF cross-gender BE) because they may negatively influence the original Michael Kors feminine brand image.
 |
| **Less successful cross-gender BEs** |
| **Brand** | **Product category** | **Extended to the opposite gender** | **Customer reaction** | **Relevance of current research findings** |
| Miu Miu (feminine) | Fashion apparel | Fashion apparel for men (Miu Miu Men), HPCFMiu Miu Men was launched in 1999 and withdrawn in 2008. | For **males**: The apparel representing the spirit of wilful youth became too distinct to appeal to the male segment.For **females**: The brand was highly successful in attracting females with the image of wilful youth. Because the brand maintained its unique positioning for both males and females, launching it to males did not dilute the brand’s positioning. Instead, it failed to attract a large enough market share among males.  | * HPCF for a brand with a specific/unique positioning impedes the purchase of a cross-gender BE by male consumers.
* Miu Miu’s manager should consider designing LPCF cross-gender extensions as it would distance them from the traditional PB’s positioning and fashion design to enhance male consumers’ purchase intention.
 |

Appendix 1. Measures

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Construct** | **Source** | **Items** | **Cronbach Alpha (α)** | **CR** | **AVE** |
| Post-extension perceived masculinity of the PB | Grohmann (2009) | To what extent do you think the following words describe the *[PB]* well?1) Adventurous2) Aggressive3) Brave4) Daring5) Dominant6) Sturdy | 0.89 (0.79) | 0.89 (0.76) | 0.58 (0.50) |
| Post-extension perceived femininity of the PB | Grohmann (2009) | To what extent do you think the following words describe the *[PB]* well?1) Expresses tender feelings2) Fragile3) Graceful4) Sensitive5) Sweet6) Tender | 0.91 (0.92) | 0.91 (0.92) | 0.63 (0.65) |
| Post-extension attitudes towards PB | Grohmann (2009) | After seeing *[the cross-gender BE]* scenario, how would you rate your feelings towards the *[PB]*?1) Positive2) Like3) Favourable | 0.88 (0.97) | 0.88 (0.97) | 0.70 (0.92) |
| Purchase intention (measured in Study 2 only) | O’Cass and Grace (2004) | To what extent would you agree with the following statements regarding the *[cross-gender BE]*?1) I am likely to purchase this BE product2) I would consider purchasing this BE product3) It is very probable for me to purchase this BE product | 0.93 | 0.94 | 0.84 |

*Note: Figures in parentheses show results in Study 2.*

Appendix 2. Biological sex distribution by experimental conditions

|  |  |  |
| --- | --- | --- |
| **Study 1** | **Male** | **Female** |
| **Total** | **Frequency** | **Percentage** | **Frequency** | **Percentage** |
|  | 82 | 41% | 118 | 59% |
| Experimental conditions | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| F🡪M | 19 | 38.8% | 22 | 41.5% | 30 | 61.2% | 31 | 58.5% |
| M🡪F | 23 | 46.9% | 18 | 36.7% | 26 | 53.1% | 31 | 63.3% |
|  |  |  |  |  |  |  |  |  |
| **Study 2** | **Male** | **Female** |
| **Total** | **Frequency** | **Percentage** | **Frequency** | **Percentage** |
|  | 116 | 46.4% | 134 | 53.6% |
|  | HPCF | LPCF | HPCF | LPCF |
| Experimental conditions | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage | Frequency | Percentage |
| F🡪M | 30 | 47.6% | 27 | 43.5% | 33 | 52.4% | 35 | 56.5% |
| M🡪F | 34 | 54.8% | 25 | 39.7% | 28 | 45.2% | 38 | 60.3% |