

THEO LIEVEN

BRAND GENDER

Increasing Brand Equity
through Brand Personality



Brand Gender

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Brand Personality

palgrave
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*To Petra, Sophie, Dorothée, and Victoria,
highly feminine and strong personalities*

Preface

This book is about brands and their most important quality: equity. Whereas for a long time, the value of a brand was merely its trademark, today, as David Ogilvy said, a brand comprises the intangible sum of a product's attributes. In recent decades, many facets have been subsumed into this intangible sum of attributes. This book adds another: brand gender.

At a time when science and society are trying to eliminate gender differences, it seems a risky venture to introduce this construct to brands. However, excessive skepticism is inappropriate. As the reader will discover, femininity and masculinity are equal genders in this book; brands are sex-typed only so they will be perceived as strong and valuable. Moreover, to the best of my knowledge, the studies in this book are the first to reveal the significance of androgynous brands and their superior brand equity.

We all have learned, and we accept, that brands are important. Scholars and practitioners tell us about the effects of strong brands. Consultants with high reputations describe the impact of brands on sales and profits. But, what can brand managers who believe in these theories do to strengthen their brands? "Their brands" means that such managers love their brands, live with them—sometimes day and night—believe in them, and benefit from them when they are successful. The mere

description of great brands in literature is not sufficient to explain how one's own brand can be improved. This book will show how the value of a brand can be increased. A chain of reasoning will present how brand characteristics can be measured, how they can be altered, and how this process can increase their most important impact: their equity. Bluntly speaking, everything explained in this book can help brand managers. However, it is not claimed that the brand gender model is the only solution. Many other ways exist to fine-tune brand perceptions. Nevertheless, the method presented in this book is intuitive, easy, and generalizable across cultures and countries, which can particularly support global brand managers.

When I first encountered a brand, it was my own. After some years studying mathematics, my partner and I founded a start-up for scientific calculators. In 1975, slide-rule calculators were still state of the art. However, we believed in the future of microprocessors, and step-by-step, they were built into the first microcomputers. Finally, our company became the biggest PC retailer in the Europe with 1000 outlets, 3000 employees, and at the end, about \$3 billion in revenue. In 1996, we sold the company.

During that time, I knew marketing solely from the battlefield. It wasn't until a decade later when I had earned a degree in economics and management that I started to understand the theoretical secrets behind brands. I learned that not only a company has a value but also, separately, its brand.

Since the importance of brand equity is widely accepted, companies use specific brand managers to preserve their brands. It is their job to uphold or increase brand equity. But how? Indirect measures such as sales figures or cross-sectoral operating numbers can be used to compare one's brand with others. But wouldn't it be easier to have a way to measure a brand's equity immediately and, more so, to know which parameters must be changed or improved to increase brand equity?

I discovered the relation between brand gender and brand equity by coincidence. This theory has been associated with many open questions. The answers, found through extensive research, are presented in this book. Chapter 1 outlines the concepts of brand personality and brand equity. In particular, it describes why the assignment of human personality traits to brands, which at first sight might appear somewhat odd,

is a means for enabling consumers to easily categorize brands and what they stand for. In Chap. 2, this ease of categorization and the positive effect of brand gender on brand equity are demonstrated. The superior role of androgynous brands is also elaborated. Through examining surveys in ten countries and on several continents, Chap. 3 shows the brand gender–brand equity model’s fit for global branding due to the universality of gender. Furthermore, the global influence of androgyny, consumers’ sex, and culture are discussed in Chap. 4. At this point, the reader may be curious what makes brands feminine or masculine. The respective brand gender designs are explained in Chap. 5. In Chap. 6, a sports shoe brand is created with an advertising campaign including visual and audible stimuli. One argument against the brand gender construct could be that it is predetermined by perceived product genders, for example, that cars are masculine and cosmetics are feminine. Chapter 7 provides evidence that brand and product gender are independent; they are not orthogonal, but within-product genders, brand genders may vary from one to the other. A closer look at product gender is provided in Chap. 8, considering the influence of form, color, and material on gender perceptions. If human gender characteristics describe brands, then should brands affect the choice of salespersons, as well? Whether salespersons’ gender should follow brand gender is analyzed in Chap. 9. Gender matching could also be favorable in forming brand alliances. This is illustrated in Chap. 10. Chapter 11 discusses personality scales in general. To make them more generalizable, particularly on a global basis, an enhanced lexical approach is demonstrated that makes stronger use of the dictionary to create a priori valid and reliable constructs. Those who have worked through the proceeding chapters may still be uncertain whether the brand gender–brand equity theory is an artifact and a fallacy. Chapter 12 seeks to clear up those doubts with a demonstration using global data from Chaps. 3 and 4. In Chap. 13, the most important findings are summarized and discussed.

Since all chapters are organized as stand-alone parts, some information is repeated and, thus, may seem redundant. However, this assists the understanding of readers who may wish to examine only single chapters.

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The findings in this book were not devised by only one person. I offer my special thanks to my co-authors of several publications: Bianca Grohmann (Concordia University, Montreal, Canada), Andreas Herrmann and Miriam van Tilburg (University of St. Gallen, Switzerland), Jan R. Landwehr (Goethe University Frankfurt, Germany), Claudia Townsend (University of Miami, United States), and Christian Hildebrand (University of Geneva, Switzerland). My colleagues fought alongside me for several years despite disappointments due to the controversial nature of the topic. Locating suitable outlets for the publication of our findings was sometimes tedious. For that reason, I must further thank my editor at Palgrave, Liz Barlow, who initiated the idea of a brand gender–brand equity publication.

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Abbreviations

ANOVA	Analysis of variance
ARS	Acquiescence response style
BSRI	Bem sex role inventory
CA	Correspondence analysis
CBBE	Customer-based brand equity
CFA	Confirmatory factor analysis
CFI	Comparative fit index
CPI-FE	California psychological inventory–Femininity scale
CR	Construct reliabilities
EP	Evolutionary Psychology
ERS	Extreme response style
FBP	Feminine brand personality
FLG	Feminine logo personality
FPG	Feminine product personality
GIGO	Garbage in—garbage out
GIQ	Gender inequality (GIQ)
IDV	Collectivism versus individualism index
IVR	Indulgence versus restraint index
LMM	Linear mixed model
MBP	Masculine brand personality
MLG	Masculine logo personality

MPG	Masculine product personality
NEO FFI	NEO Five-Factor Inventory
NEO PI-R	NEO Personality Inventory-Revised
OBE	Overall brand equity scale
PAQ	Personality attributes questionnaire
PDI	Power distance index
PLS	Partial least square regression
RMSEA	Root mean square error of approximation
SEM	Structural equation model
SRMR	Standardized root mean square residual
WHR	Waist-to-hip ratio

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1

A Brand as a Person

Anthropomorphism and Animism

During the social program of the Swiss Consumer Research Summit in 2016, we took a tour of the Swiss Valais canton around Zermatt, which has an awesome view of the 4478-meter Matterhorn. One of my colleagues gaped, “What a majestic mountain!”

This sentence, as short as it is, reveals several secrets about the psychology of language. First, my colleague had a word for what she saw. She knew the name for “a landmass that projects conspicuously above its surroundings and is higher than a hill” (Merriam-Webster 2017). Had she never seen such an elevation and if she did not know from other parts of the world that such great masses existed, she probably would not have had a word in her language for such a phenomenon. Thus, those who never left the desert and did not know about elevations higher than sand hills would not find a word for *mountain* in their language. This leads to a first insight about language: the words for existing entities are in the dictionary.

Whereas a mountain is an object, *majestic* is a trait describing a human who has or exhibits majesty, showing grand, magnificent, impressive,

superb, noble, splendid, and dignified personality characteristics (Collins English Thesaurus 2015). In this early stage of exposition of the ideas in this book, it is essential to differentiate between the meaning of the word *majestic* as a description of a functional property (being a majesty) and its psychological meaning describing the personality traits described above. There may have been majesties who were in no sense majestic. Throughout our discussions in this book, the described traits characterize human properties.

Everything that is useful for describing human character has been set down in language. Following this so-called sedimentation hypothesis, “those individual differences that are of most significance in the daily transactions of persons with each other will eventually become encoded into their language” (Goldberg 1981, 141). *Majestic* is one of these words.

Psychologists have tried to use this knowledge to describe humans within a holistic taxonomy, thereby categorizing different human characteristics that seem particularly interesting for psychiatry. Based on this “lexical hypothesis,” researchers went to the dictionary to find a set of traits that could characterize the human personality. This method is called the (psycho-)lexical approach. It was elaborated by Klages (1932), Allport and Odbert (1936), Allport (1937), Cattell (1943), Eysenck (1947), Norman (1963), and Goldberg (1981); for a comprehensive overview, see John et al. (1988). At the beginning, every trait that seemed feasible was collected from the dictionary. Allport and Odbert (1936) began with 18,000 words and reduced this number to 4500. Cattell (1943) used this as a basis to create the 171 bipolar scales, which were condensed to 35 clusters. Goldberg (1990) reduced the list of 2800 items from Norman (1963) to 75 character traits, mostly by surveying participants’ self-assessments.

Through mathematical procedures, particularly factor analyses, these sets of traits were then divided into groups of characteristics, so-called personality constructs on which the respective traits “loaded” strongly. Next, these subgroups were assigned a suitable personality factor. In this way, Goldberg (1990) designed the famous Big Five personality model, incorporating the factors of extroversion, agreeableness, conscientiousness, emotional stability, and openness. Costa and McCrae (1992) enhanced this Big Five to the NEO FFI (Five-Factor Model) with 60

traits, and to the NEO PI-R (Personality Inventory-Revised) with 240 traits composed of 48 traits loading on five factors: neuroticism, extraversion, openness and experience, agreeableness, and conscientiousness. Particularly the factor “neuroticism,” which replaced Goldberg’s (1990) “emotional stability,” serves as an important personality identification in psychiatric examination.

Brand Personality

Personality characteristics concern humans. Yet, my colleague called the Matterhorn Mountain *majestic*, which may be inappropriate. Looking into the depths of history, however, reveals that at all times humans have assigned personality traits to inanimate objects, giving humanlike characteristics to things to better understand phenomena that they were not yet able to explain through the natural sciences. Particularly the nature religions made use of this strategy. In the language of Native Americans and according to Algonquian conceptions, Manitou, the “Great Spirit,” animates the inanimate objects of the world. The theories behind this are those of anthropomorphism (Epley et al. 2007) or animism (Gilmore 1919; Harvey 2005). People try to explain the world through their own experiences. Tangible objects are characterized with attributes that actually belong to humans. Individuals evaluate inanimate things in the same way that they evaluate other people (Govers and Schoormans 2005).

During the second half of the last century, when the development of personality scales was at its zenith, marketing researchers started to take an interest in assigning personalities to brands. Levy (1959) was the first to note that “the consumer is not as functionally oriented as he used to be” (117) but is influenced by psychological things, as well as by symbols. Levy (1959) found cigarettes suitable to place on a continuum of degrees of gender. The same should be true for “cheeses and the brand versions of each kind” (121). This was the beginning of the assignment of human characteristics to brands, resulting in the seminal concept of “brand personality.” Then, in the 1990s, the research pace picked up. Aaker and Fournier (1995) addressed the conceptualization and

measurement of brand personality. They described “a brand as a character, a partner and a person.” The most important article was Jennifer Aaker’s (1997) presentation of a complete brand personality model consisting of 42 traits loading on 15 facets and five factors in an analogy of Goldberg’s (1990) Big Five personality model: sincerity, excitement, competence, sophistication, and ruggedness (Fig. 1.1). Goldberg’s (1990) and Aaker’s (1997) factor solutions are not congruent. Aaker (1997) herself noted that the sophistication and ruggedness factors in her model differed from human personality structures. The pairs of openness–sincerity, extraversion–excitement, and experience–competence may constitute a feasible link between human and brand personalities. Most notably, the factor “neuroticism” in the human model is missing completely in the brand personality model and could not be replaced with a substitute. This is no surprise since it is questionable whether anxious, hostile, stressed, or depressed brands exist (Costa and McCrae 1992).

Aaker (1997, 347) defined brand personality as “the set of human characteristics associated with a brand.” This definition seeks to reduce

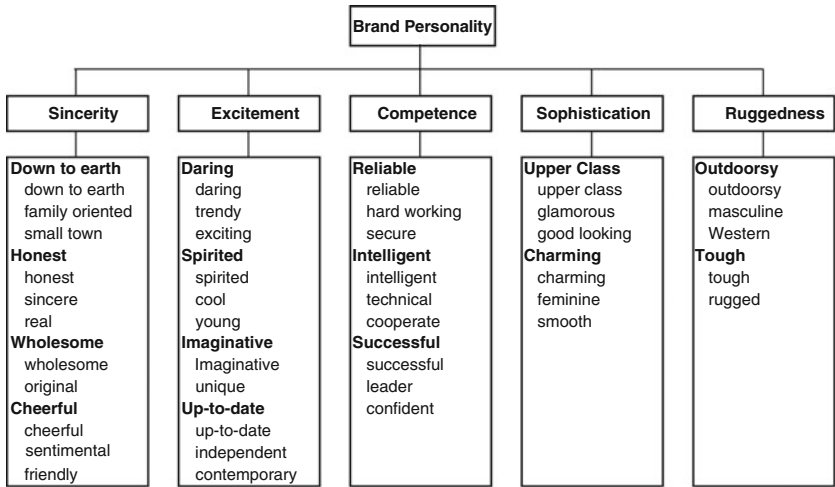


Fig. 1.1 Brand personality framework (Aaker 1997)

brand personality to a collection (a set) of items that come into consumers' minds when they think about a specific brand. Azoulay and Kapferer (2003, 150) proposed the following definition: "brand personality is the set of human personality traits that are both applicable to and relevant for brands" (151). Caprara et al. (2001) introduced the most stringent constraint, claiming that "personality descriptors [should] load under the same factor when used to describe human personality and brand personalities" (381). This suggests that a brand personality model is valid only if the traits that load on a factor in the brand model also load on the same factors in the human personality model, implying that the brand is, or is similar to, a person, which may sound odd. However, it is not.

A Brand as a Friend

We often describe humans as having strong personalities. This blurs the boundaries between a person and his or her personality. Someone's personality is the person him or herself, not merely a set of traits. Fournier (1998) accurately called the brand a legitimate partner for whom we feel passionate, self-connection, and love. Implicitly, she identified the secret to the brand–consumer relationship: our affection toward a brand cannot be rejected by the brand itself. In daily life, we sometimes are faced with experiences in which our affections are not reciprocated. However, when we love Porsche wholeheartedly, Porsche will never refuse us. This is what makes the brand personality concept so attractive for marketing. Because consumers are not afraid of potential rejection, they develop increased brand loyalty, brand awareness, brand sympathy, brand identification, brand trust, purchase intention, willingness to pay, and willingness to recommend. This can be achieved by only one measure: making the brand a person. Of course, consumers can become disappointed by a brand due to bad functional performance or poor service. However, in recent decades, these technical and organizational issues have widely improved in nearly all sectors and no longer primarily serve to differentiate brands.

Brand Equity

All the above advantages—brand loyalty, awareness, sympathy, etc.—have been subsumed into the concept of “customer-based brand equity” (CBBE), which has been explored extensively (Aaker and Keller 1990; Barwise 1993; Farquhar 1989; Keller 1993). CBBE differs from other brand equity concepts because the focal point is the consumer, not the financial revenue stream that can be generated by the brand. The advantage of CBBE is its applicability to the brands of companies with smaller revenues. While financially based equities depend on the size of the corporation that owns the brand, this is not the case with CBBE. Brands of small companies with smaller brand communities can also attract customers with high brand loyalty and equity. Prominent examples of marketing firms reporting brand equities are Interbrand, which publishes a yearly list of the best global brands based on financial figures, and Equitrend, which ranks annual CBBE.

When we compare a branded product with a non-branded counterpart, CBBE is the incremental utility (Aaker 1991; Keller 1993, 2003; Leuthesser 1988). Brand loyalty, consumer satisfaction, and the ability to command a price premium are positively influenced by brand equity (Aaker 1991, 1996; Park and Srinivasan 1994). Brand diversification in other markets is also facilitated, as well as the positioning of successful variants (Broniarczyk and Alba 1994; Loken and John 1993; Mela et al. 1997; Park et al. 1991). Brand equity contributes to increased sales, profits, and stock-market value (Ailawadi et al. 2003; Gupta et al. 2004). Regarding the suitability of either quantitative financial brand equity or qualitative CBBE, notably, only one-quarter of marketing practitioners prefer quantitative data (Farris et al. 2010).

Within the literature, many measures have been proposed for assessing brand equity. Kapferer (2013) sought a tracking system for brand equity that would be valid, reliable, not too costly, and not too complicated. However, because it is difficult to find, explore, and describe brand equity precisely, the literature often confines itself to presenting successful examples. To explain what brands have done so successfully, the authors often look to the famous brands of large corporations with huge

revenues. As an example, such brands can be seen on the front cover of David A. Aaker's (1991) book: Coca-Cola, Goodyear, IBM, Texaco, McDonald's, Kmart, Xerox, WordPerfect. Everyone knows these famous brands, and people easily understand that they are strong brands because they are so famous. But here, in this book, we do not exclusively discuss the big mainstream brands. The brands of smaller corporations are also trying to build strong brand equities. One example is the camera brand Leica, which may have only a small brand community but nevertheless has strong brand equity.

The Intangible Sum of a Product's Attributes

According to David Ogilvy, the famous advertising tycoon, the perception of a brand is an intangible sum of a product's attributes. This goes far beyond the meaning of a brand name or a trademark. However, this intangible sum is difficult to delineate; too many facets characterize a brand. It is agreed that strong brands are one of the more valuable assets a company owns (Neumeier 2006). However, what brand image, identity, vision, heritage, or mission mean is widely discussed by academics and practitioners. This results in some confusion about how to manage a brand. Should it be by image, identity, or personality? Brand management, however, is crucial for increasing brand equity. David A. Aaker and Joachimsthaler (1999) claimed that successful global branding requires a system that measures brand equity in terms of brand personality. This is a conceivable approach because the characteristics that describe personality also describe value. Describing a vehicle's engine as *spirited* is offering a high evaluation of the car and the brand. A *cheerful* brand such as BMW is strong because it provides joy and pleasure.

Brand Gender

In addition to their other shortcomings, which are discussed later in this book, the existing brand personality models, particularly Aaker's model, are too extensive. They try to cover many facets, which may lead to

ambiguity. For this reason, they have been criticized as “an all-encompassing potpourri” Azoulay and Kapferer (2003, 150). A simpler model for measuring brand equity would be welcome (Kapferer 2013). By coincidence, I have found such a model. Some years ago, during customer phone conversations, I tried to match the behavior of employees with brands. More precisely, I compared the personalities of brands with the personalities of employees. I used a short personality model derived from Aaker (1997) with 10 traits (spirited, imaginative, daring, ardent, cheerful as characteristics of spirit and passion; and successful, down to earth, honest, original, reliable as characteristics of trust and security). However, I was not able to match persons with brands in a meaningful way until I added gender to the personality model, so that brands and female/male phone operators were rated as being very feminine, rather neutral, or very masculine. Besides noting that employees could then be better assigned to matching brands, I recognized that brands with a strong gender perception also had high brand equity (the equities were derived from a German provider). The strongest brands were BMW, being highly masculine, and Nivea, being highly feminine.

At the same time as I was working on this project, I received a pre-print of Bianca Grohmann’s (2009) article, “Gender Dimensions of Brand Personality.” She had developed and validated a 12-item construct, which was superior to my simple one-dimensional “feminine–masculine” gender description. With her masculinity and femininity factors, it became possible to measure androgyny, which plays a prominent role in this book.

Bianca and I, together with some colleagues, teamed up and conducted comprehensive studies around the brand gender–brand equity phenomenon, the results of which were published in international journals and will be discussed in this book. For me as a practitioner, it was sufficient to learn about the positive link between brand gender and brand equity. Academics, however, are used to asking, “Why?” Therefore, we also asked this when we prepared our first publications. Because of this research, we found that the secret of the positive link between gender and equity is based on sex, beauty, preference, faster processing, fluency, and ease of categorization.

Beauty and Excellence

“What is beautiful is good” was Dion et al. (1972) insight on the link between beauty and excellence. They demonstrated that physically attractive females and males possess more socially desirable traits and are perceived as more competent. This phenomenon has since come to be known as the physical attractiveness bias (Swami and Furnham 2008). A closer look at the gender traits in Grohmann’s (2009) model makes this plausible (traits such as adventurous, brave, and daring mean attractiveness for males, while graceful, sensitive, sweet, and tender describe the beauty of women).

Beauty is connected to sex.¹ According to Freud (1949): “The science of aesthetics could not give an explanation of the nature and genesis of beauty. Only its origin out of the field of the sexual feelings seems assured” (35). Wells (1922) stated that “beauty is beautiful only when sex is involved” and, according to Chandler (1934), human beauty and sex are intimately related. Santayana (1896, 60) wrote, “If anyone were desirous to produce a being with a great susceptibility to beauty, he could not invent an instrument better designed for that object than sex.” Through this simple causal chain of sex–beauty–excellence, an intriguing approach is provided that enables marketers to measure and manage brands by assigning them gendered personalities. Dion et al. (1972) pointed to sexual identity as the most salient and accessible personality trait. This ease of accessibility itself increases the aesthetic response to beauty. Judgments of beauty, liking, and preference are closely related (Reber et al. 2004). More sex-typed individuals of either sex are considered better looking (Etcoff 2000). This and the associated ease of categorization are the reasons why we have been able to find a positive link between brand gender and brand equity in numerous surveys with different sets of brands and in different countries. Because perceptions of gender-personality stereotypes are universal (Lockenhoff et al. 2014), the brand gender–brand equity model can be implemented worldwide, which will be demonstrated in this book.

In response to Kapferer’s (2013) request for a brand equity tracking system that “must be valid, reliable, and not too complicated or too

costly” (15), this book offers brand gender as a solution. With only 12 gender items in Grohmann’s (2009) model, the method is simple, and its validity and reliability will be tested in subsequent chapters. We ourselves were often surprised by the simplicity of the brand gender–brand equity measurements, and we continuously scrutinized the method to prevent us from falling for a simple fallacy. We compared our assessed equity ratings with those from external sources (EquiTrend 2013) and conducted several tests for validity, invariance, and generalizability (see Chap. 12). We are now convinced that the presented method is a promising technique for managing brands and their equities on a global basis.

Note

1. In the 1950s and 1960s, British and American psychiatrists and medical personnel developed the English language distinction between the words sex and gender (Moi 2005). Sex is the dichotomous distinction based on biological differences, whereas gender is defined by other social, economic, political, and cultural forces. Although this distinction is controversial in the literature, a significant correlation exists between sex and gender (Lippa and Connelly 1990; Uzzell and Horne 2006). In this article, the use of the terms gender and sex reflects the probability that a personality trait will be attributed to a male or a female. For example, (Lippa and Connelly 1990) show that the trait *aggressive* is more strongly attributed to males than to females.

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2

Gender and Ease of Categorization

Gender as a Component of Human Personality

Brands that offer exclusive experiences receive users' positive recognition (Zarantonello and Schmitt 2010). Promising and exceptional brand associations lead to stable brand equity (Keller 1993; Krishnan 1996; Schmitt 2009, 2012). It can be assumed that favorable and strong associations are the foundation of strong equity ratings of masculine and feminine brands (i.e., those brands that possess a clear positioning in terms of brand gender). This statement coincides with the literature stating that sexual identity is the most outstanding personality quality (Dion et al. 1972) and that categorization based on gender is high in chronic accessibility (Blanz 1999). Given that consumers transfer their

The current chapter refers to the publication, "The Effect of Brand Gender on Brand Equity" by Theo Lieven, Bianca Grohmann, Andreas Herrmann, Jan R. Landwehr, and Miriam van Tilburg in *Psychology & Marketing* (Lieven et al. 2014). Wherever feasible, text passages have been modified and reworded; identical tables and figures, however, have been adopted.

judgments of personality traits, including gender, to brands, (Aaker 1997; Fournier 1998; Grohmann 2009), there is a high possibility that brand gender could be a salient brand aspect that is regularly available to users.

The supremacy of both masculine and feminine brands suggests that their position in the gender space is vivid and easily detected and can be classified with great levels of confidence. Higher degrees of masculinity or femininity are often associated with attractiveness without taking into account the sex of the observer (Grammer and Thornhill 1994; Johnston et al. 2001; Koehler et al. 2004; Penton-Voak et al. 2001; Perrett et al. 1998; Rhodes et al. 2003).

As a result, masculine and feminine brands offer promising associations without regard to the sex of the consumer. That is, strong brand gender approval leads to stable associations with promising valence due to the association between femininity or masculinity and attractiveness, as stated in evolutionary psychology (EP) writings (Grammer and Thornhill 1994; Johnston et al. 2001; Koehler et al. 2004; Penton-Voak et al. 2001; Perrett et al. 1998; Rhodes et al. 2003). In an interbrand context, brands that possess a clear masculine or feminine gender positioning earn higher choice shares (Schmitt 2012) and higher brand equity (Keller 1993).

Positive Associations Formed by Sex-Typed Stimuli

We conducted a number of studies to hypothetically test whether gender forms associations that lead to simpler brand classification. At the preliminary stage, 24 images (12 male faces and 12 female faces) were selected by male and female students from an online storage site for promotion firms. The criteria employed in choosing the photographs were that the male and female photographs should have an equal degree of positive facial expression and appeal but respective dissimilarities in masculinity and femininity.

Next, a web-based consumer panel in Germany ($n = 143$, 46.1% female, $M_{\text{Age}} = 43.5$ years, $SD_{\text{Age}} = 12.4$ years) rated the 24 photographs using a 7-point rating (1 = “very feminine” to 7 = “very masculine”). A random order was used in their presentation. The sex of the respondents had no effect on the approval levels of the photographs ($p = 0.56$). Four pronounced sex-typed portraits were chosen for further tests. Regarding their femininity/masculinity, they were rated as M_1 (highly feminine) = 1.58, M_2 (feminine) = 3.03, M_3 (highly masculine) = 5.94, M_4 (masculine) = 5.03; all $ps < 0.001$. The portraits are shown in Fig. 2.1.

Members of another web-based consumer panel ($n = 405$, 44.4% female, $M_{\text{Age}} = 43.0$ years, $SD_{\text{Age}} = 12.4$ years) were allocated at random to one of the four photographs in Fig. 2.1. In an unrestricted question, participants described the person shown in their own words, and as a manipulation check, the images were rated in terms of both

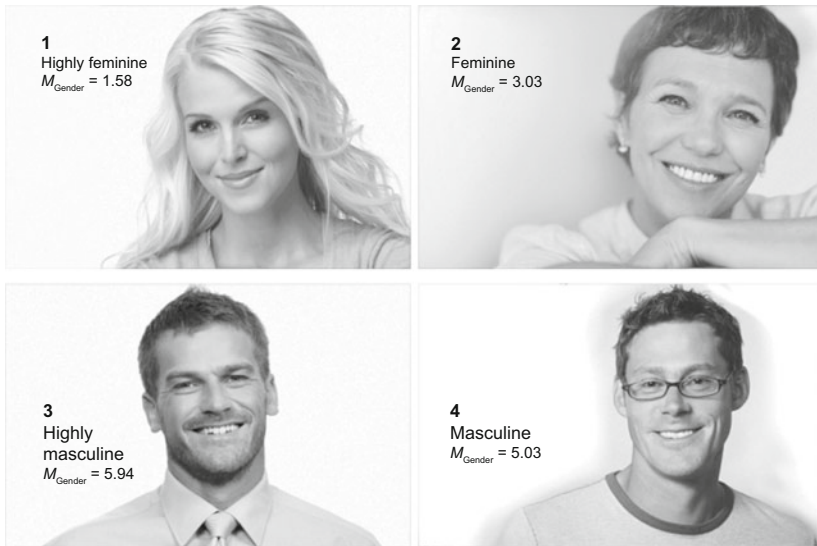


Fig. 2.1 Four portraits as stimuli differing in sex typing (© First row from left to right iStock.com/Global Stock, iStock.com/Stigur Karlsson; Second row: iStock.com/Global Stock, iStock.com/pink_cotton_candy.). Note Gender from 1 = “very feminine” to 7 = “very masculine”

femininity and masculinity (1 = “does not apply at all” to 7 = “does fully apply”).

Results: Masculinity and femininity perceptions were not affected by the gender of respondents ($p > 0.20$). The masculinity and femininity approval ratings were in line with the preliminary outcomes ($M_{1(\text{highly feminine})\text{masculinity}} = 1.52$, $M_{1(\text{highly feminine})\text{femininity}} = 6.30$, $M_{1(\text{highly feminine})\text{difference score}} = -4.78$; $M_{2(\text{feminine})\text{masculinity}} = 2.23$, $M_{2(\text{feminine})\text{femininity}} = 5.40$, $M_{2(\text{feminine})\text{difference score}} = -3.17$; $M_{3(\text{highly masculine})\text{masculinity}} = 5.81$, $M_{3(\text{highly masculine})\text{femininity}} = 1.80$, $M_{3(\text{highly masculine})\text{difference score}} = 4.01$; $M_{4(\text{masculine})\text{masculinity}} = 5.13$, $M_{4(\text{masculine})\text{femininity}} = 2.42$, $M_{4(\text{masculine})\text{difference score}} = 2.71$). Gender manipulations thus were appropriate.

The unrestricted feedback from group members was content analyzed. Seventy-six members (18.8%) did not mention any association; 127 members (31.4%) mentioned one association; 101 (24.9%) mentioned two; 51 (12.6%) mentioned three; 36 (8.9%) mentioned four; Seven (1.7%) mentioned five; Six (1.5%) mentioned six; and One mentioned seven.

More associations were drawn from highly sex-typed photographs\in comparison with less sex-typed photographs ($\chi^2 (1) = 7.40$, $p < 0.01$): highly feminine photographs drew 199 associations (from 109 group members); feminine photographs drew 166 associations (from 102 group members); highly masculine photographs drew 189 associations (from 97 group members); and masculine photographs drew 150 associations from 101 group members. For each of the four photographs, there was a significant difference in the number of associations elicited ($\chi^2 (3) = 8.40$, $p < 0.05$). In general, more associations were elicited by exceedingly strong sex-typed images (388 from 102 members) compared with the less sex-typed images. An analysis of variance (with the associations counted representing the dependent variable, and the gender and sex type of the images and the sex of the participants representing the independent variables) showed a major effect only for sex typing of the photograph ($F(1382) = 5.13$, $p < 0.05$): an average of 1.92 associations was elicited by the exceedingly strong sex-typed photographs, while the less sex-typed photographs elicited only 1.56 ($t(403) = 2.65$; $p < 0.01$). Neither the sex of the individual appearing in the portraits ($p > 0.85$) nor

the sex of the participants had an effect on the number of associations ($p > 0.18$), and no significant interactions occurred ($ps > 0.23$).

Further scrutiny into the regularly noted associations eliminated feedback differences between male and female participants. The most frequently listed associations were *smiling* (by female participants 53, by male 45), *friendly* (female 35, male 43), *likeable* (female 35, male 40), *nice* (female 24, male 26), *pretty* (female 10, male 21), *beautiful* (female 9, male 8), and *attractive* (female 5, male 9). Across participants' sex, the distributions of these associations did not differ ($\chi^2(6) < 5.80$, $p = 0.45$). All the noted associations were positive with one exception (the masculine photographs were linked with *boring*). It is important to note the number of unique associations listed for each image (feminine image: 38 unique associations; highly feminine image: 46; masculine image: 37; and highly masculine image: 50). Although the differences are not significant, strongly sex-typed images evoked more unique associations ($p > 0.10$).

According to the outcomes of this research, a greater number of positive associations are elicited by exceedingly strong sex-typed stimuli in comparison with less sex-typed stimuli. This was compelled by the degree of sex typing (high versus low) instead of the gender element (masculine versus feminine). In addition, the sex of the group members had no effect whatsoever on the number or nature of the associations derived from the sex-typed stimuli. To rule out effects from prior brand exposure or experience on type and number of associations, this research did not involve branded stimuli. Nevertheless, consumers' reactions to sex-typed stimuli were similar for women and men. Likewise, participants consistently categorize sex-typed stimuli.

It is easy to determine and classify gender-related features since all people belong to one or the other gender. Hofstede (1980, 262) explained gender as the duality of female versus male, "the number two law of nature (after the duality of life and death)." Inkeles and Levinson (1969) stated that masculinity and femininity pervade the idea of the self. According to psychologists, all cultures have the same views concerning gender (Hofstede 1998; Lockenhoff et al. 2014).

The pertinence of EP to economics, marketing research, and brand setting has been illustrated in the recent literature (Colarelli and

Dettmann 2003; Griskevicius et al. 2012). With reference to proximate and ultimate levels of understanding human behavior, the final explanations of behavior depend on six EP causes: (1)–(2) passionate partner attraction and retention, (3) taking care of oneself from physical damage, (4) developing relationships, (5) acquiring status, and finally, (6) taking care of one's children (Griskevicius et al. 2012). The first and second motives have a direct connection to gender, while the third and sixth motives have an indirect connection. These can be seen as the anticipation of offspring requiring care and love from both parents. The duality of femininity and masculinity is broader, not only entailing the gender dichotomy but also existing between fathers and mothers (Hofstede 1998).

It is necessary to distinguish socially inherited views from evolutionarily inherited ones. Socially inherited views are sometimes affected by socially driven changes and tend to incline toward gender equality. For example, Zentner and Mitura (2012) suggested that gender differences in mate preferences diminish with increased gender equality. However, only one of these preferences (good looks) concerns genetic essentials, whereas the other preferences are primarily socially trained perspectives, such as ideal age, status, education, or chastity. Regarding evolutionary views, it's necessary to focus on the underlying genetic information, which unlike social preferences doesn't change quickly. For a long time, EP theory, which links human beings to genetic inheritance theories, was disputed by the argument that infants possess "blank slate" minds that are later influenced through education (Pinker 2002). However, these two schools of thought have begun to converge (Eagly and Wood 1999).

Confer et al. (2010, 116) stated, "The framework of EP dissolves dichotomies such as 'nature versus nurture,' 'innate versus learned,' and 'biological versus cultural'" and, therefore, some genetic essentials beyond learning are ingrained in the genes of human beings (Buss 1995). These genetic essentials form the foundation of gender implementation. Referring to such reasoning, gender is globally viewed in the same way. Conclusions can then be made as to how brand equity is affected by brand gender.

Classification of Brands Using Brand Gender

Here, we apply the brand gender–brand equity model for the first time in this book. Twenty popular brands were used in the study: Chanel, Dove, Nivea (cosmetics); Lindt, Milka (candies, chocolate); Audi, Mercedes, Porsche, Citroen, Peugeot (automobiles); BiFi, EDEKA (food); Volksbank (savings and loans bank); West, Davidoff (cigarettes), Yello (power provider); Adidas, S’Oliver, H&M (clothing, sports shoes), and Lufthansa (air transport). An online panel of 1384 participants (49.2% female; $M_{\text{Age}} = 44.1$ years, $SD_{\text{Age}} = 14.3$) from Germany was asked to assess brand genders and brand equities. There were 12 items in the brand gender example (Grohmann 2009): *adventurous*, *aggressive*, *brave*, *daring*, *dominant*, and *sturdy* for masculine brand personality (MBP); and *expresses tender feelings*, *fragile*, *graceful*, *sensitive*, *sweet*, and *tender* for feminine brand personality (FBP). Outcomes were assessed on a 7-point scale (1 = “does not apply at all” to 7 = “fully applies”). Six options were used to access brand equity on a 7-point scale (1 = “strongly disagree” to 7 = “strongly agree”). Four of the options were obtained from the Overall Brand Equity Scale (OBE; Yoo et al. 2000): “It makes sense to buy X instead of any other brand, even if they are the same;” “Even if another brand has same features as X, I would prefer to buy X;” “If there is another brand as good as X, I prefer to buy X;” “If another brand is not different from X in any way, it seems smarter to purchase X.” To address brands’ ability to generate brand satisfaction and price premiums (Aaker 1996), two items were added: “It makes sense to pay more for X than for a similar product of another brand;” “I would recommend X to my friends.” Results are shown in Table 2.1.

The most fascinating part of these outcomes is where the association between gender and equity scores has been illustrated. The subsequent linear regression in the form of brand equity = $\beta_1 \times \text{MBP} + \beta_2 \times \text{FBP}$ with brand equity as the dependent variable and MBP and FBP as the predictors had a coefficient of determination $R^2 = 0.47$ ($F(3, 16) = 1.346$, $p < 0.05$). This R^2 value shows that the MBP and FBP could be used to explain almost half the variation in the equity ratings. The standardized coefficient for MBP was $\beta_1 = 0.76$ and for FBP was

Table 2.1 Brand gender and brand equity (German survey)

Brand	Adventurous	Aggressive	Brave	Daring	Dominant	Sturdy	Expresses tender feelings	Fragile	Graceful	Sensitive	
Adidas	5.19	3.70	4.31	4.71	4.52	5.49	3.33	3.57	4.07	3.69	
Audi	5.10	4.36	4.34	4.79	5.04	5.55	2.77	3.25	4.90	3.73	
BiFi	4.38	3.58	3.56	3.92	4.30	4.76	3.04	3.31	3.16	3.42	
Chanel	4.58	3.53	4.17	5.06	4.89	3.53	5.21	5.00	5.68	5.00	
Citroen	5.00	3.78	4.41	4.45	3.64	4.65	4.41	4.09	4.57	4.57	
Davidoff	4.27	4.04	4.29	4.73	4.04	4.42	3.77	3.92	4.28	4.33	
Dove	4.79	2.57	4.24	4.48	3.88	4.19	4.61	4.09	4.74	5.15	
EDEKA	4.48	3.28	3.96	4.16	4.14	4.40	3.31	3.59	3.59	3.86	
H&M	5.30	3.12	4.00	4.91	4.22	4.40	4.03	3.84	4.88	4.23	
Lindt	4.33	2.39	3.68	4.17	3.96	3.79	4.71	4.02	4.78	4.49	
Lufthansa	5.33	3.86	4.44	4.63	5.02	5.38	3.45	3.58	4.27	4.04	
Mercedes	5.44	4.57	4.88	5.00	5.74	5.91	3.78	3.65	5.42	4.36	
Milka	4.73	2.73	3.86	4.02	4.12	4.13	4.49	3.99	4.21	4.51	
Nivea	4.45	2.77	3.84	3.70	4.00	4.32	4.50	4.28	4.53	4.64	
Peugeot	5.12	4.00	4.24	4.29	4.15	5.07	4.24	3.87	4.54	4.27	
Porsche	5.61	5.44	4.83	5.22	5.92	5.59	2.88	3.50	4.85	3.34	
S'Oliver	4.65	3.00	4.04	4.47	4.15	4.74	4.02	3.85	4.74	4.46	
Volksbank	3.71	3.42	3.58	3.62	3.44	4.26	2.91	3.53	3.23	3.58	
West	4.24	3.47	3.66	3.90	3.84	3.84	3.06	3.34	3.33	3.29	
Yello	4.19	4.13	3.81	3.63	3.74	3.81	3.13	3.44	3.39	3.56	
Brand	Sweet	Tender	Masculine brand personality (MBP)	Feminine brand personality (FBP)	It makes sense to buy X instead of any other brand, even if they are the same	Even if another brand has same features as X, I would prefer to buy X	If there is another brand as good as X, I prefer to buy X	If another brand is not different from X in any way, it seems smarter to purchase X	It makes sense to pay more for X than for a similar product of another brand	I would recommend X to my friends	Overall Brand Equity (OBE)
Adidas	3.75	3.35	4.65	3.63	4.83	4.90	4.92	4.87	3.92	5.65	4.85
Audi	3.47	2.99	4.87	3.52	5.48	5.37	5.22	5.16	4.32	5.58	5.19
BiFi	4.46	3.48	4.08	3.48	3.67	3.73	3.13	2.87	2.60	5.27	3.54
Chanel	4.26	5.44	4.29	5.10	5.73	5.67	5.33	5.67	4.47	5.93	5.47

(continued)

Table 2.1 (continued)

Brand	Sweet	Tender	Masculine brand personality (MBP)	Feminine brand personality (FBP)	It makes sense to buy X instead of any other brand, even if they are the same	Even if another brand has same features as X, I would prefer to buy X	If there is another brand as good as X, I prefer to buy X	If another brand is not different from X in any way, it seems smarter to purchase X	It makes sense to pay more for X than for a similar product of another brand	I would recommend X to my friends	Overall Brand Equity (OBE)
Citroen	4.24	3.87	4.32	4.29	5.00	4.94	4.81	4.94	3.76	5.25	4.78
Davidoff	4.20	4.08	4.30	4.10	4.23	4.05	4.29	4.14	3.91	4.55	4.19
Dove	4.81	5.53	4.02	4.82	5.18	5.31	5.16	5.02	3.67	5.78	5.02
EDEKA	3.97	3.38	4.07	3.62	4.39	4.09	3.84	3.83	2.95	5.06	4.03
H&M	4.42	4.17	4.32	4.26	4.34	4.40	4.30	4.12	3.10	5.31	4.26
Lindt	4.66	5.78	3.72	4.74	5.31	5.14	5.23	4.87	4.56	6.13	5.21
Lufthansa	3.55	3.28	4.78	3.70	5.10	5.09	4.88	4.93	3.95	5.52	4.91
Mercedes	3.82	3.44	5.26	4.08	5.58	5.51	5.54	5.39	5.02	5.83	5.48
Milka	4.97	5.67	3.93	4.64	5.03	4.87	4.67	4.53	3.80	5.69	4.77
Nivea	4.15	5.22	3.85	4.55	5.29	5.11	5.13	5.01	4.04	5.96	5.09
Peugeot	4.21	3.89	4.48	4.17	4.81	4.81	4.75	4.63	3.92	5.08	4.66
Porsche	3.50	2.83	5.44	3.48	4.78	5.22	5.06	4.90	4.47	5.50	4.99
S'Oliver	4.45	4.36	4.17	4.31	4.21	4.24	4.18	4.24	3.42	5.05	4.22
Volksbank	3.34	3.07	3.67	3.28	4.15	4.42	4.29	3.98	2.85	4.75	4.07
West	3.48	3.09	3.83	3.27	3.88	3.88	3.76	3.48	2.92	4.08	3.67
Yello	3.33	3.19	3.88	3.34	3.38	3.27	2.86	3.14	1.86	3.33	2.98

$\beta_2 = 0.78$ (both $ps < 0.05$). These outcomes fully back the assumption that the stronger the masculine and feminine brand personalities, the higher the brand equity.

Referring to the concept of categorization (Lamberts and Brockdorff 1997; Solomon et al. 1999), the following section determines the extent to which customers freely allocate brands into classes depending on gender. The research also aims to investigate customers' act of brand classification through a process requiring them to equate brands with extremely versus fairly masculine/feminine stimuli to prove that customers have the habit of classifying brands based on gender perceptions even when no suggestion is made that brand gender should be used as a classification factor. If customers in any way use gender perceptions as a brand classification factor, then the outcome of a classification assignment should be a match between a highly masculine brand and strong masculine stimuli and between a highly feminine brand and strong feminine stimuli. Alternatively, undifferentiated brands should match with fairly (instead of extremely) masculine or feminine stimuli.

Participants enrolled from an online consumer panel based in Germany ($n = 272$, 49.1% female, $M_{\text{Age}} = 44.9$ years, $SD_{\text{Age}} = 12.2$ years) were shown the 20 logos of the brands in Table 2.1; each logo was displayed individually with the four sex-typed (i.e., highly feminine, feminine, highly masculine, masculine) photographs illustrated in Fig. 2.1. By selecting the image that best fit the brand, participants assigned each brand to a portrait ("If the following brand could be represented by a person, who would it be?"). In the instructions, no reference was made to gender as a potential basis of categorization.

Generally, feminine portraits were assigned to feminine brands and vice versa. The five feminine brands (i.e., Chanel, Dove, Lindt, Milka, Nivea) were mostly classified with the feminine photographs (extremely feminine photograph: 666 times, feminine photograph: 558, extremely masculine photograph: 49, masculine photograph: 73; $\chi^2(1) = 902.23$, $p < 0.001$). The brands related to men (i.e., Adidas, Audi, Lufthansa, Mercedes, and Porsche) were regularly classified with the masculine photographs (highly masculine photograph: 819, masculine photograph: 230, highly feminine photograph: 197, feminine photograph: 102; $\chi^2(1) = 417.29$, $p < 0.001$).

Therefore, highly feminine and highly masculine brands were most likely to be classified with highly sex-typed images. Nearly undifferentiated brands were mostly classified with the less gender-typed portraits (masculine: 524; feminine: 376; highly masculine: 328; highly feminine: 121).

The participants were then allowed to select their favorite brand from the 20. The outcomes were 156 selections of the highly sex-typed brands (both feminine and masculine) and a mere 64 selections of the less gender-typed brands. This supports the previous outcome on how brand gender affects brand equity.

A categorization account of the relationship between brand gender and brand equity was supported in this study. In most situations, the masculine and feminine brands were classified with the highly masculine and highly feminine photographs, respectively, without considering the sex of the respondents. Classifications of undifferentiated brands always involved less gender-typed images. Compared with undifferentiated brands, highly feminine and masculine brands elicited more favorable associations. The gender of the respondents had no influence. In general, most choices favored highly sex-typed masculine and feminine brands. This finding is in line with the assumption that ease of categorization accounts for the higher levels of brand equity of feminine and masculine brands. Associations acted as a proxy for brand equity. Although the association measure differs from common brand equity scales, the literature acknowledges associations as a valid and efficient way to assess brand equity (Faircloth et al. 2001). Additionally, brand equity significantly relates to the number of brand associations (Chen 2001; Keller 1993). This supports the appropriateness of the adopted approach.

The Gender Concept: Bipolar, Orthogonal, or Categorical

Biologically, sex can be male or female. It has always been known that masculinity or femininity is associated with biological sex and, thus, they are one-dimensional bipolar opposites on a continuum, such as on the

California Psychological Inventory–Femininity Scale (CPI–FE; Gough 1957). However, this basic concept has consistently been disproved because of changes in gender roles in work and daily life. The multidimensional measures of the Bem Sex Role Inventory (BSRI) and the Personality Attributes Questionnaire (PAQ) were demonstrated by Bem (1974) and Spence et al. (1975). In a single dimension concept, the ratings at the center of the scale could be described as neutral, implying neither feminine nor masculine. With a two-dimensional scale, however, four gender classes can be seen in a masculine–feminine diagram: feminine gender (high in femininity, low in masculinity), masculine gender (high in masculinity, low in femininity), undifferentiated gender (low in masculinity, low in femininity), and androgynous genders (high in masculinity, high in femininity). Bem demonstrated androgynous individuals as being likely to have multiple character traits, easily assuming new roles, and switching to new environments with ease. Androgynous people “define a more human standard of psychological health” (Bem 1974, 162). Our research investigates the androgynous nature of brands and highlights Bem’s concept with regard to the greater equities of androgynous brands.

To examine the impact of gender on brands outside the one-dimensional femininity–masculinity scale and to include androgynous brands, separate research was carried out in Germany involving 20 well-known brands: Ford, Mercedes, and Toyota (automobiles); Dove, Gillette, L’Oreal, Maybelline, Nivea, and Olay (cosmetics); Ferrero (candies); Nike (clothing); Samsung and Sony (electrical appliances); Coca-Cola and Heineken (drinks); Apple and Google (information technology); and American Express, Disney, and Hilton (service firms). The number of participants in the web-based research was 309 (51.9% female, $M_{\text{Age}} = 40.8$, $SD_{\text{Age}} = 13.1$). The logos of the above brands were randomly displayed on a single page, and the respondents were asked to select the brands they knew. This technique was appropriate for ensuring that participant feedback would be genuine and have minimal errors. Afterward, respondents were allowed to appraise 17 items for the selected brands: 12 items for Grohmann’s (2009) gender and brand attributes and five items for brand equity. In this case, the brand equity measures were obtained from the one suggested by Brady et al. (2008) containing

five items. The items were rated on 9-point scales according to the following: gender (1 = “does not apply at all” to 9 = “fully applies”), equity (1 = “not at all loyal” to 9 = “very loyal,” 1 = “negative attitude” to 9 = “positive attitude,” 1 = “negative image” to 9 = “positive image,” and 1 = “low quality” to 9 = “high quality”), and greater willingness to pay (1 = “definitely not” to 9 = “definitely”). The results were aggregated to MBPs, FBPs, and brand equity. They can be seen in Table 2.2.

Brand equity was positively affected by MBP and FBP ($R^2 = 0.20$, $F(2, 1634) = 197.81$, $p < 0.001$; coefficient for MBP 0.258, for FBP 0.20, both < 0.001). Additionally, a categorization according to the Bem (1974) scales was derived. Brands having MBP and FBP exceeding the sample median were categorized as androgynous, while those with MBP below and FBP exceeding the medians were feminine brands and those with medians above MBP and below FBP were categorized as masculine brands. Undifferentiated brands were those with both ratings below the

Table 2.2 Brand gender and brand androgyny in Germany

Brand	<i>n</i>	MBP	FBP	Brand gender	Equity
Disney	85	6.40	6.45	Androgynous	7.74
Gillette	69	6.19	5.60	Androgynous	7.69
Nivea	163	4.94	6.11	Feminine	7.52
Ferrero	124	5.21	5.84	Feminine	7.46
Nike	76	6.84	5.01	Masculine	7.46
Mercedes	65	6.66	4.52	Masculine	7.42
Sony	88	6.04	4.80	Masculine	7.36
Dove	85	5.23	6.39	Feminine	7.34
Samsung	119	6.04	4.93	Masculine	7.31
Apple	84	6.80	4.90	Masculine	7.31
Coca-Cola	179	6.55	4.79	Masculine	7.25
L’Oreal	67	5.61	6.07	Feminine	7.21
Maybelline	39	5.38	6.29	Feminine	7.18
Hilton	29	5.65	5.32	Undifferentiated	7.08
Olay	35	5.16	6.40	Feminine	6.83
Google	133	6.24	4.21	Masculine	6.82
Toyota	54	6.15	4.84	Masculine	6.69
Heineken	46	5.48	4.43	Undifferentiated	6.31
American Express	31	5.78	4.33	Undifferentiated	6.27
Ford	66	5.69	4.39	Undifferentiated	6.16
Total median	1637	6.00	5.33		7.40

Note Brands are arranged in descending order according to brand equity

median. With the type of data in Table 2.2, further investigations can be done through correspondence analysis (CA; Greenacre 2017; Hoffman and Franke 1986). An example of a CA plot is illustrated in Fig. 2.2.

Such CA plots can be interpreted from the midpoint. Around this so-called centroid, those items having strong relations are arranged together in the same angle. Thus, it can be concluded that the equity existing among androgynous brands is higher than that among masculine and feminine brands, and that undifferentiated brands are inferior to the

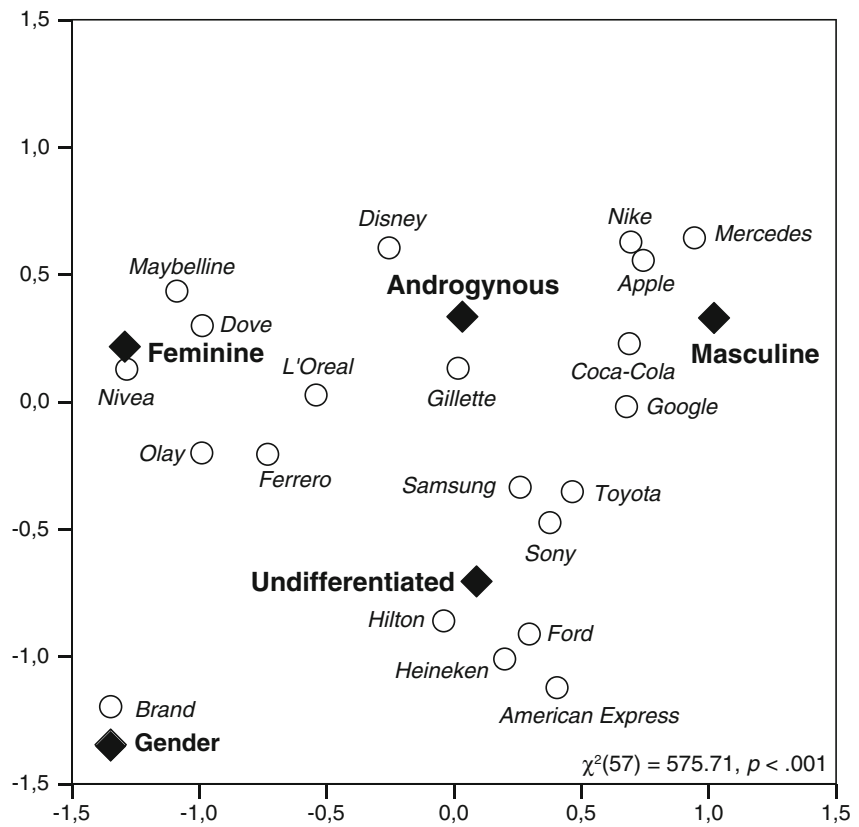


Fig. 2.2 CA plot for 20 brands depending on brand gender. Note Horizontal axis left = femininity, right = masculinity; vertical axis top = high brand equity, bottom = low brand equity

others. Outcomes from the ANOVA reveal that androgynous brands lead in brand equity (7.9), followed by masculine (7.4), feminine (7.3), and finally, the undifferentiated brands (6.4, $F(3,1633) = 113.04$, $p < 0.001$).

A confirmatory factor analysis (CFA) can be used to obtain the general assessment of both the Grohmann brand gender and the equity model. The result was a standardized root mean square residual (SRMR) of 0.0673, a comparative fit index (CFI) of 0.948, and a root mean square error of approximation (RMSEA) of 0.079. These indices provide evidence of the good fit of the model.

This model fully backs the hypothesis stated earlier that brand gender is a reliable estimator of brand equity. Through this model, vendors can enhance the equity of particular brands. For instance, Apple could try to enhance its ratings on feminine traits in Germany, as the Apple brand is perceived as rather assertive in Germany with strong masculinity. Enhancing approval on items such as *graceful* and *sensitive* could improve its femininity to a point where the brand would be seen as androgynous, thereby raising the brand's equity levels. In Chap. 3, it will be shown that, on a global basis, Apple is a rather androgynous and strong brand.

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3

Global Branding with Brand Gender and Brand Equity

Branding in Times of Globalization

Marketers, particularly those working in the headquarters of global corporations, face the question of how to manage brands in different countries (Douglas et al. 2001; Solberg 2002). The easiest strategy is to create a single marketing platform for all contexts, which requires only one marketing department and one advertising agency. If global culture is converging, then a homogeneous brand strategy saves time and expense (De Mooij 2003). However, if cultures are and will remain distinct along various dimensions (Hofstede et al. 2010), then a homogeneous strategy will be ineffective (Samiee and Roth 1992) and a differentiated approach will be required. Senior management often confronts the problem of information overload, which may obstruct its view of what is essential. What senior management needs is a key performance indicator (KPI; Parmenter 2010) such as brand equity. David A. Aaker and Joachimsthaler (1999) have suggested that global firms assess brand equity (Aaker 1991; Yoo et al. 2000) by assessing brand personality. Brand personality, defined as “the set of human characteristics associated with a brand” (Aaker 1997), is one of the drivers of brand equity (Keller 1993).

Despite this promising perception, the effect of brand personality on brand equity has not often been measured globally. One reason could be the difficulty of finding suitable scales that are valid on a cross-border and cross-cultural basis. Cross-cultural research requires particular equivalencies to compare results (Cheung and Rensvold 2000); thus, the implemented personality traits must be similarly understandable in different cultures. Choosing a sophisticated personality model risks injecting excessive complexity, which can lead to inconsistent responses across countries. Although a simple model is not necessary, it may be advantageous due to its ease of adoption by senior management and the reduced risk of invariances across cultures. Grohmann's (2009) gender dimensions of brand personality could serve as a lean model consisting of only 12 traits for the two factors of masculine brand personality (MBP) and feminine brand personality (FBP). This model has proven a reliable and valid tool for measuring brand gender and has been found to positively predict brand equity (Lieven et al. 2014).

In this chapter, we examine Grohmann's (2009) gender dimensions of brand personality and their ability to predict brand equity on a global basis. From a managerial perspective, the model enhances existing global branding systems by providing a reliable, valid, generalizable, appropriate, and efficient tool. We report the results of a comprehensive study assessing brand gender and equity scores for 20 internationally famous brands in 10 countries on four continents.

The Universality of Gender

To assess brand personality and equity globally, the underlying construct must be equivalently perceived across both borders and cultures; hence, it must be universal. As shown by Dion et al. (1972), sexual identity is the most salient and accessible personality trait. Gender-related characteristics are easy to recognize and categorize because all humans belong to one or the other biological sex. Hofstede (1980, 262) described gender as the duality of female versus male, "nature's number two law (after the duality of life and death)." According to Inkeles and Levinson (1969), masculinity and femininity pervade self-conception. Psychologists sometimes

assume that all cultures perceive gender similarly. The duality of femininity and masculinity extends beyond the dichotomy of a male or female sex and is also found between fathers and mothers characterizing protection and care (Hofstede 1980).

Applying a gender model to various countries and cultures implies a conviction that gender perceptions are similar everywhere. With respect to these perceptions, it is important to separate socially and evolutionarily inherited perspectives. The former change along with socially motivated changes, including shifts toward gender equality. For example, Zentner and Mitura (2012) demonstrated that gender differences in mate preference wane with gender equality. However, only one of these preferences (good looks) concerns genetic essentials, whereas the other preferences are primarily socially trained perspectives, such as ideal age, status, education, or chastity. From an evolutionary perspective, it is necessary to concentrate on inherently genetic knowledge, which does not change as rapidly as social preferences can. For decades, the theory of evolutionary psychology (EP), stating that humans are predisposed to genetic inheritance-based motives, was challenged by the view that newborn babies have “blank slate” minds shaped by learning (Pinker 2002). However, these two schools of thought have begun to converge: “[T]he framework of evolutionary psychology dissolves dichotomies such as ‘nature versus nurture,’ ‘innate versus learned,’ and ‘biological versus cultural’” (Confer et al. 2010, 116). Hence, some genetic fundamentals beyond those involved in learning are rooted in human genes (Buss 1995). These fundamentals are the underlying rationale for implementing a gender model on a cross-border and cross-cultural basis. According to this logic, gender is similarly understood worldwide. It is also posited that measurements themselves are invariant across cultures—that is, all cultures have the same perception of the measurement scale as a grid of longitudes and latitudes on a globe (Burt 1940)—and that, by controlling for MBP and FBP, inferences can be made about the effect of brand gender on brand equity across different countries. It is only with this understanding that we can imagine a global brand manager relying on results based on the brand gender–brand equity construct.

Four Genders Instead of Two

From a biological perspective, gender is either female or male. For many years, masculinity and femininity were assumed to be highly correlated with biological sex and, therefore, to be one-dimensional bipolar opposites on a continuum—for example, on the California Psychological Inventory-Femininity Scale (CPI-FE; Gough 1957). This simplified construction has been criticized due to changes in gender roles in work and daily life. Bem (1974), as well as Spence et al. (1974, 1975), presented the multidimensional scales of the Bem Sex Role Inventory (BSRI) and the Personal Attributes Questionnaire (PAQ). In the one-dimensional construct, estimates in the middle of the scale could be identified only as neutral, meaning neither female nor masculine. In the two-dimensional scale, not two but four gender categories could be identified in the masculine–feminine diagram: feminine gender (high in femininity, low in masculinity), masculine gender (high in masculinity, low in femininity), undifferentiated gender (low in masculinity, low in femininity), and androgynous gender (high in masculinity, high in femininity). According to Bem (1974), androgynous personalities have a wider range of possible behaviors, react more flexibly to requirements, and adapt better to situations. Androgynous people “define a more human standard of psychological health” (Bem 1974, 162). The concept of four genders instead of only two will be applied in a worldwide study.

Empirical Study: 20 Brands in 10 Countries on Four Continents

After the encouraging result in Chap. 2, we will proceed to a global examination of the positive effect of brand gender on brand equity. Grohmann’s (2009) gender dimensions of brand personality were assessed in 10 countries for 20 brands (*adventurous, aggressive, brave, daring, dominant, and sturdy* for masculine brand personality [MBP]; and *expresses tender feelings, fragile, graceful, sensitive, sweet, and tender* for feminine brand personality [FBP]). The brand equity scales were derived

from a model proposed by Brady et al. (2008) with five items. The items were rated on 9-point scales according to the following: gender (1 = “does not apply at all” to 9 = “fully applies”), equity (1 = “not at all loyal” to 9 = “very loyal,” 1 = “negative attitude” to 9 = “positive attitude,” 1 = “negative image” to 9 = “positive image,” and 1 = “low quality” to 9 = “high quality”), and greater willingness to pay (1 = “definitely not” to 9 = “definitely”). The results were aggregated to MBPs and FBP, brand equity, and the difference between MBP and FBP for each brand in each country, which acted as a measure for one-dimensional brand gender with greater differences indicating more masculine brands and vice versa (Uzzell and Horne 2006).

This study excluded African countries because of a lack of online polling facilities. To ensure coverage of different cultures, we used Hofstede’s classification as a guideline (Hofstede et al. 2010). The surveys were conducted in the Americas (Brazil and the USA), Asia (China, India, and Japan), Australia, and Europe (France, Germany, Russia, and Sweden). Therefore, the sample included countries comprising more than 50% of the worldwide population.

The brands in this study had to be available and relatively popular in each of the 10 countries. The research was conducted using the manufacturers’ web pages. The choices needed to include a variety of products and services with brands originating in several countries. In some cases, well-known brands could not be included because when the surveys were conducted they were not available in all countries (e.g., Colgate and Garnier in Japan or Amazon and eBay in Russia). Twenty brands covering eight product/service groups were identified: Ford, Mercedes, and Toyota (cars); Dove, Gillette, L’Oreal, Maybelline, Nivea, and Olay (cosmetics); Ferrero (sweets); Nike (apparel); Samsung and Sony (electronics); Coca-Cola and Heineken (beverages); Apple and Google (information technology); and American Express, Disney, and Hilton (service organizations). As might be expected, a majority of the brands (12) originated in the USA. Two brands originated in Germany; two in Japan; and one each in Italy, The Netherlands, France, and Korea. The worldwide revenues of these brands exceeded 1 trillion USD, and their market capitalization reached nearly 1.8 trillion USD (the figures for non-public brands/companies were estimated).

The surveys were identical in all studied countries and were conducted online. The original English versions were used in Australia, India, and the USA. For the other seven countries, the items were translated by a professional language service using an iterated procedure. The logos of the 20 brands were presented on one page in a random order, and participants could choose the brands with which they were familiar. This self-selection procedure guaranteed that respondents could provide valid responses and that data noise would be reduced. After brand selection, participants rated 17 items for each chosen brand: 12 items for brand gender (Grohmann 2009) and five items for brand equity (Brady et al. 2008).

Participants were recruited through one of the world's leading providers of sampling, data collection, and data analytics for survey research, with 26 offices worldwide. They were selected from all areas of their respective countries and were of average age, income, education, and profession. The distribution of respondents by country was as follows: 311 respondents in Australia (50.5% female, $M_{\text{Age}} = 41.2$, $SD_{\text{Age}} = 13.2$), 307 in Brazil (55.4% female, $M_{\text{Age}} = 37.0$, $SD_{\text{Age}} = 12.3$), 302 in China (50.7% female, $M_{\text{Age}} = 37.2$, $SD_{\text{Age}} = 10.5$), 309 in Germany (51.9% female, $M_{\text{Age}} = 40.8$, $SD_{\text{Age}} = 13.1$), 315 in France (55.7% female, $M_{\text{Age}} = 41.9$, $SD_{\text{Age}} = 13.3$), 303 in India (47.3% female, $M_{\text{Age}} = 35.33$, $SD_{\text{Age}} = 11.2$), 307 in Japan (51.4% female, $M_{\text{Age}} = 41.71$, $SD_{\text{Age}} = 13.6$), 303 in Russia (52.0% female, $M_{\text{Age}} = 39.1$, $SD_{\text{Age}} = 12.4$), 302 in Sweden (51.4% female, $M_{\text{Age}} = 42.0$, $SD_{\text{Age}} = 13.4$), and 304 in the USA (51.1% female, $M_{\text{Age}} = 41.2$, $SD_{\text{Age}} = 13.5$).

In total, the surveys yielded 16,934 brand ratings that were self-selected by respondents (5.5 on average). The frequencies of self-selected brands in each country are presented in the appendix at the end of this chapter. Although the distribution differs significantly among countries [$\chi^2(171) = 1643.683$, $p < 0.001$], this result appears to occur only for some brands in certain countries. Not surprisingly, 9.2% of Japanese respondents (4.6% above the worldwide average) selected Toyota. China exhibited fewer selections of Coca-Cola (5.8%, compared with the worldwide average of 9.5%) and a notably strong preference for Apple (14.4%, compared with an average of 6.4%). In Germany, 10% of participants chose Nivea (3.7% greater than average), and 7.6% chose

Ferrero (+4.9%). Ferrero was selected by 6.3% of respondents (+3.6%) in France. Finally, a strong difference was found in the USA, as only 2.9% of participants selected the cosmetics brand Nivea (−3.4%). By contrast, 3.5% of the US participants (1.2% more than the worldwide average) chose Olay. Although for economic reasons no brand pre-test was conducted, the self-selection procedure served as a useful substitute, and its results support the assumption of appropriate and balanced brand choice.

Results: The worldwide results are shown in Table 3.1. The total scores show that the response levels differed among studied countries. This finding is common for cross-cultural researchers, who often encounter different response styles (Clarke III 2000; Cronbach 1946, 1950; Hui and Triandis 1989; Stening and Everett 1984). In this study, these effects were reaffirmed, as shown in Fig. 3.1. For each country, the figure depicts the histograms and parameters for MBP, FBP, and equity. Because all the means are higher than the 9-point scale's midpoint (5), we can conclude that all the skewness values are negative. Thus, the distributions are skewed left (i.e., the left tail is longer than the right). In Brazil, India, and Russia, negative skewness values are accompanied by a strong mode on score 9. In these countries, the power distance index (PDI; Hofstede 1980) is relatively high, and this finding supports the assumption that high PDI values correspond to an extreme response style (Johnson et al. 2005).

We expected brand equities to rank highest within their countries of origin where they have their headquarters (Tse and Gorn 1993). However, this prediction was true only for the USA, where most of the studied companies are based. In Germany, Disney and Gillette were the top brands, and local brands Nivea and Mercedes were ranked third and sixth, respectively. In France, the large French corporation L'Oreal (ranked 13) was ranked after the top-rated Apple and Google brands. Although Toyota was expected to have the highest ranking in Japan, it was actually ranked third there, whereas Disney received the top ranking and Apple received the second highest ranking.

Cultural Effects on Raw Data Involving cultural indices (Hofstede et al. 2010) and measuring their influence on the raw measurement data in an

Table 3.1 Aggregated results for 20 brands in 10 countries

Brand	MBP									
	Australia	Brazil	China	Germany	France	India	Japan	Russia	Sweden	USA
American Expr.	5.0	6.3	6.5	5.8	5.5	7.5	5.5	5.7	4.9	5.9
Apple	6.6	7.5	6.5	6.8	6.7	7.7	6.3	6.4	6.4	7.2
Coca-Cola	6.4	7.2	6.3	6.6	6.1	7.0	5.8	6.1	6.0	6.7
Disney	6.0	7.2	6.4	6.4	5.9	7.3	5.9	6.4	6.2	6.8
Dove	4.9	6.2	6.2	5.2	5.0	6.6	4.8	5.4	5.1	5.6
Ferrero	5.8	6.6	6.2	5.2	5.6	6.7	5.1	5.7	4.6	5.6
Ford	6.3	7.6	6.5	5.7	5.7	7.4	5.8	6.6	5.5	7.2
Gillette	6.3	7.0	6.5	6.2	5.9	7.3	5.9	6.3	5.7	6.7
Google	6.7	7.7	6.5	6.2	6.2	7.5	6.0	6.5	6.3	7.0
Heineken	5.9	7.1	6.5	5.5	5.6	7.1	5.4	6.0	5.7	6.8
Hilton	5.6	7.0	6.2	5.6	5.6	7.3	5.3	5.6	5.5	6.2
L'Oreal	5.6	6.3	5.8	5.6	5.5	7.2	5.0	5.8	5.2	6.4
Maybelline	5.6	7.0	6.0	5.4	5.6	7.0	5.4	6.0	5.4	6.2
Mercedes	6.2	7.7	6.7	6.7	6.6	7.9	6.3	6.7	6.2	6.7
Nike	6.5	7.7	6.6	6.8	6.6	7.8	6.1	6.6	6.4	7.1
Nivea	5.4	6.2	6.2	4.9	5.2	6.7	4.8	5.8	5.2	6.3
Olay	5.5	5.6	5.9	5.2	4.6	7.0	4.6	5.1	4.8	6.3
Samsung	6.4	6.8	6.5	6.0	6.1	7.3	5.6	6.4	5.9	6.9
Sony	6.3	7.4	6.4	6.0	6.2	7.3	5.5	6.4	6.1	6.9
Toyota	6.3	7.9	6.5	6.1	6.0	7.5	5.8	6.9	5.7	6.8
Total	6.1	7.0	6.4	5.9	5.9	7.2	5.7	6.2	5.8	6.7
Brand	FBP									
	Australia	Brazil	China	Germany	France	India	Japan	Russia	Sweden	USA
American Expr.	3.8	4.8	6.4	4.3	4.8	7.5	5.4	4.7	3.8	4.8
Apple	5.2	6.3	6.8	4.9	5.5	7.5	6.0	6.1	5.7	5.4
Coca-Cola	4.8	5.5	6.3	4.8	5.0	6.5	5.2	5.8	5.3	5.4

(continued)

Table 3.1 (continued)

Brand	FBP									
	Australia	Brazil	China	Germany	France	India	Japan	Russia	Sweden	USA
Disney	6.2	7.4	6.7	6.4	6.6	7.4	6.4	6.8	6.4	6.4
Dove	6.3	7.2	7.1	6.4	6.4	7.2	5.8	7.5	6.2	6.7
Ferrero	6.4	6.8	7.2	5.8	6.1	7.5	6.0	7.5	5.2	6.4
Ford	4.6	5.6	6.4	4.4	4.9	7.2	5.1	6.2	4.7	5.4
Gillette	5.2	6.2	6.6	5.6	5.4	6.9	5.3	6.4	5.4	5.4
Google	4.8	6.0	6.5	4.2	4.9	6.9	5.1	5.7	4.8	5.3
Heineken	4.6	5.4	6.6	4.4	5.0	6.5	5.2	5.5	5.1	4.6
Hilton	5.0	6.2	6.4	5.3	5.5	6.9	6.0	5.6	5.4	5.5
L'Oreal	6.0	6.4	7.1	6.1	5.8	7.4	5.9	7.4	5.5	6.5
Maybelline	5.8	7.1	6.8	6.3	5.9	7.3	5.7	7.1	5.5	6.1
Mercedes	4.9	5.8	6.8	4.5	5.2	7.6	5.8	6.4	5.9	5.6
Nike	4.6	5.8	6.3	5.0	5.2	7.2	5.4	6.0	5.6	4.8
Nivea	6.2	7.0	6.9	6.1	6.3	7.2	6.0	7.3	5.9	6.9
Olay	6.3	5.9	7.1	6.4	4.6	7.5	5.5	6.9	5.9	6.6
Samsung	5.2	6.0	6.8	4.9	5.3	7.0	4.6	6.2	5.3	5.3
Sony	4.8	5.9	6.9	4.8	5.3	7.2	5.6	6.2	5.5	5.4
Toyota	4.8	5.8	6.5	4.8	4.9	7.1	5.7	6.5	5.4	5.5
Total	5.2	6.2	6.7	5.3	5.5	7.1	5.6	6.4	5.5	5.6
Brand	MBP-FBP									
	Australia	Brazil	China	Germany	France	India	Japan	Russia	Sweden	USA
American Expr.	1.2	1.5	0.1	1.5	0.7	0	0.1	1.1	1.1	0.84
Apple	1.4	1.2	-0.3	1.9	1.2	0.3	0.3	0.4	0.7	1.8
Coca-Cola	1.6	1.7	-0.1	1.8	1.1	0.5	0.6	0.4	0.8	1.3
Disney	-0.2	-0.2	-0.3	0	-0.6	-0.1	-0.5	-0.4	-0.2	0.4

(continued)

Table 3.1 (continued)

Brand	MBP-FBP										
	Australia	Brazil	China	Germany	France	India	Japan	Russia	Sweden	USA	Total
Dove	-1.4	-1.0	-0.9	-1.2	-1.4	-0.6	-1.1	-2.1	-1.0	-1.0	-1.18
Ferrero	-0.7	-0.2	-0.9	-0.6	-0.5	-0.8	-0.9	-1.8	-0.6	-0.7	-0.70
Ford	1.7	1.9	0.2	1.3	0.8	0.2	0.7	0.4	0.8	1.8	1.01
Gillette	1.2	0.9	-0.1	0.6	0.5	0.3	0.6	-0.1	0.2	1.3	0.50
Google	1.9	1.6	0	2.0	1.3	0.6	0.9	0.8	1.5	1.7	1.26
Heineken	1.4	1.7	0	1.1	0.7	0.6	0.2	0.5	0.5	2.2	0.81
Hilton	0.6	0.8	-0.2	0.3	0.1	0.4	-0.7	0	0.1	0.7	0.16
L'Oreal	-0.5	-0.2	-1.3	-0.5	-0.3	-0.2	-0.9	-1.6	-0.3	-0.1	-0.51
Maybelline	-0.2	-0.2	-0.8	-0.9	-0.3	-0.2	-0.3	-1.1	-0.1	0.1	-0.40
Mercedes	1.3	1.9	-0.1	2.1	1.3	0.3	0.5	0.2	0.3	1.1	0.87
Nike	1.9	2.0	0.3	1.8	1.4	0.5	0.7	0.5	0.8	2.3	1.17
Nivea	-0.7	-0.8	-0.7	-1.2	-1.1	-0.4	-1.2	-1.5	-0.7	-0.5	-0.96
Olay	-0.8	-0.3	-1.2	-1.2	0	-0.5	-0.9	-1.8	-1.0	-0.4	-0.83
Samsung	1.1	0.8	-0.2	1.1	0.8	0.2	1.0	0.2	0.6	1.6	0.63
Sony	1.5	1.5	-0.5	1.2	0.9	0.1	-0.1	0.2	0.6	1.5	0.65
Toyota	1.5	2.1	0	1.3	1.1	0.4	0.1	0.4	0.3	1.2	0.72
Total	0.8	0.9	-0.3	0.7	0.3	0.1	0.1	-0.2	0.3	1.1	0.37
Brand	Equity										
	Australia	Brazil	China	Germany	France	India	Japan	Russia	Sweden	USA	World rank
American	5.2	6.6	7.3	6.3	5.8	7.8	6.2	6.8	5.1	6.7	20
Expr.											
Apple	7.1	8.1	7.5	7.3	7.0	8.4	7.1	7.6	6.9	7.7	1

(continued)

Table 3.1 (continued)

Brand	Equity										World rank
	Australia	Brazil	China	Germany	France	India	Japan	Russia	Sweden	USA	
Coca-Cola	6.6	7.8	7.1	7.2	6.5	7.3	6.7	6.8	7.0	7.5	14
Disney	7.2	7.9	7.3	7.7	6.9	8.0	7.1	7.8	7.0	7.4	2
Dove	7.0	8.1	7.0	7.3	6.8	7.9	6.3	7.8	6.6	7.8	9
Ferrero	7.2	7.4	7.5	7.5	6.8	7.8	6.7	7.8	5.6	7.6	10
Ford	6.4	7.6	7.1	6.2	6.0	7.7	5.6	7.5	5.3	7.5	19
Gillette	6.9	8.1	7.0	7.7	6.6	8.0	6.6	7.9	6.8	7.5	5
Google	7.3	8.3	7.3	6.8	6.9	8.3	6.5	7.8	6.9	7.6	3
Heineken	6.4	7.5	7.3	6.3	6.3	7.8	6.2	7.4	6.3	6.9	17
Hilton	6.1	7.2	6.9	7.1	6.3	7.8	6.5	7.4	6.0	6.7	18
L'Oreal	7.1	7.7	7.2	7.2	6.6	7.9	6.3	7.7	6.4	7.4	13
Maybelline	6.4	7.8	7.1	7.2	6.6	7.9	6.4	7.5	6.3	7.1	15
Mercedes	6.2	8.1	7.6	7.4	6.7	8.3	6.7	8.3	6.5	7.0	7
Nike	6.4	8.0	7.4	7.5	6.8	8.1	6.7	7.7	7.0	7.6	6
Nivea	6.9	7.8	6.9	7.5	6.9	7.9	6.5	7.7	6.7	7.5	11
Olay	6.8	6.8	7.1	6.8	5.9	7.9	6.3	7.1	6.0	7.8	16
Samsung	7.4	8.0	7.4	7.3	7.0	8.0	4.8	7.9	6.7	7.4	8
Sony	6.9	8.1	7.2	7.4	6.9	8.2	6.8	7.8	6.7	7.7	4
Toyota	6.9	8.1	6.9	6.7	6.2	8.0	6.9	8.0	6.3	7.1	12
Total	6.8	7.9	7.2	7.2	6.7	8.0	6.6	7.6	6.6	7.4	

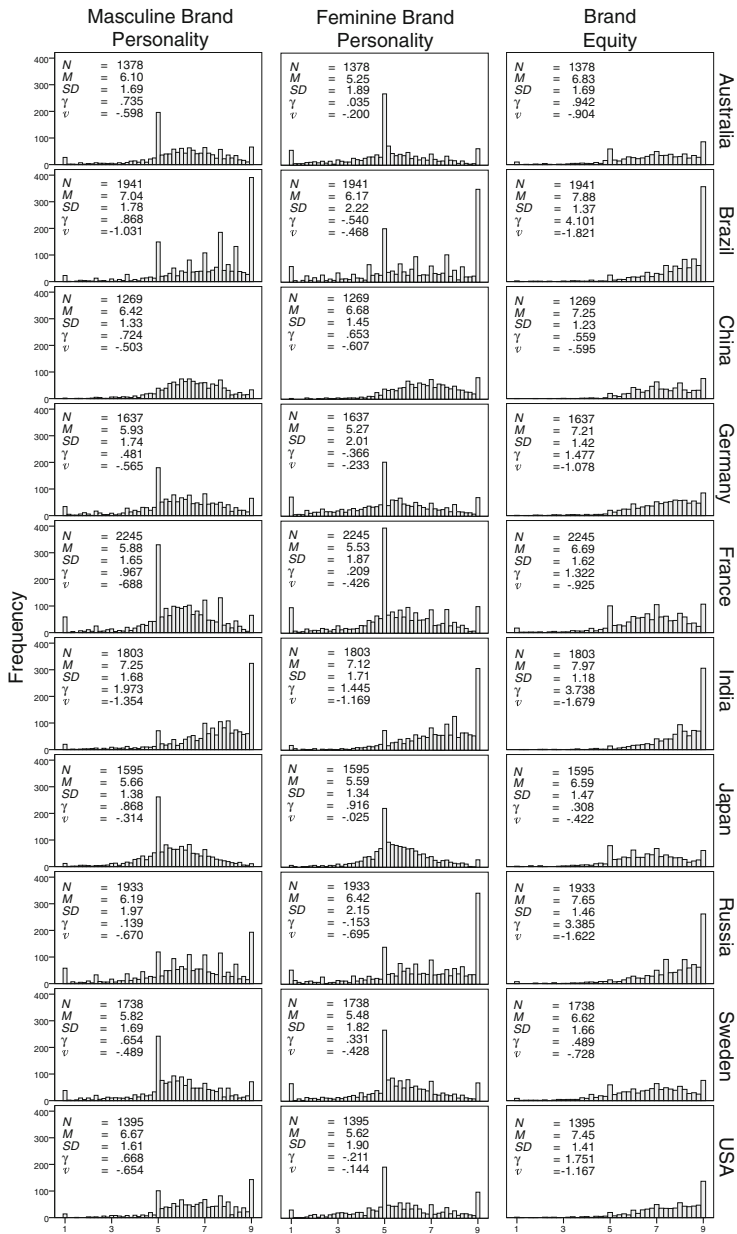


Fig. 3.1 Histograms of score distributions by country

structural equation model (SEM) revealed that countries with higher gender inequality (GIQ), higher power distance (PDI), lower individualism (IDV), and lower indulgence (IVR) indices tended to exhibit acquiescence response styles; that is, they had high scores at the positive end of the scale (the path coefficients of the cultural index variables to the manifest variables range from 0.10 to 0.23). Among these countries are India, Brazil, and Russia. The histograms of score distributions of the raw data in Fig. 3.1 confirm this finding, with strong modes on the highest score 9. One way to address these different response styles is to centralize the data (Fischer 2004; Hofstede 1980) to eliminate such effects. Here, the gender and equity scores were centralized so that the country-specific mean of the gender and equity items, respectively, could be subtracted from the individual scores in each country. Applying the above analyses to the centralized scores dispersed the culture-dependent effects (the path coefficients of the cultural index variables to the manifest variables were then, on average, below 0.005).

SEM and Scale Characteristics

The structural model for the worldwide data is covariance-based (AMOS) and is depicted in Fig. 3.2 with standardized coefficients for the worldwide data. These coefficients, as well as those for each country, are presented in Table 3.2. The reliability indices α are all sufficiently greater than 0.7 (Nunnally 1978). The average variance extracted (AVE) are greater than 0.50, and the construct reliabilities (CR) exceed 0.80 (Fornell and Larcker 1981). The evaluated selected fit indices are the standardized root mean square residual (SRMR), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA); all the CFIs are greater than 0.95, and all the SRMRs are less than 0.08. The RMSEA are not all in a range at or below 0.05. However, in combination with the other measures, sufficient fits for all models were supported (Hu and Bentler 1999). The assumption of a causal effect of brand gender on brand equity can thus be supported. Higher levels of MBP and FBP were associated with higher brand equity.

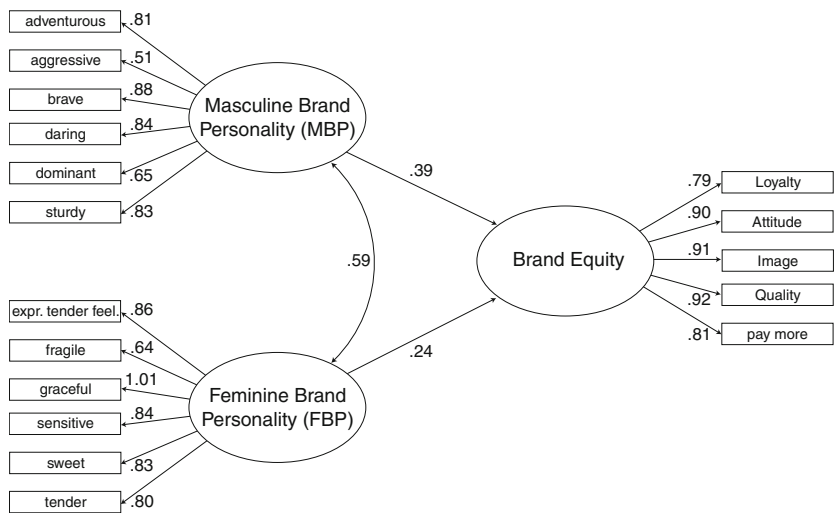


Fig. 3.2 Structural equation for the worldwide model

Brand Gender Differences Across Brands and Countries

The difference between MBP and FBP is a measure of one-dimensional gender (Uzzell and Horne 2006). All 20 brands showed a highly significant correlation across all 10 countries (min $r = 0.718$, max $r = 0.961$, average $r = 0.878$, $ps < 0.001$). This finding does not support the equality of gender ratings across countries (e.g., in China, the average MBP–FBP was -0.35 , whereas this value was 0.86 in the USA). However, there is evidence that perceptions of gender differences are similar. The one-dimensional genders for each brand and country are shown in Fig. 3.3.

Table 3.2 Path coefficients and scale characteristics of brands in 10 countries

	All	Australia	Brazil	China	Germany	France	India	Japan	Russia	Sweden	USA
<i>Male Brand Personality (MBP)</i>											
Adventurous	0.81	0.88	0.73	0.78	0.80	0.85	0.85	0.82	0.71	0.87	0.84
Aggressive	0.51 ^a	0.41 ^a	0.39 ^a	0.86	0.50 ^a	0.17 ^a	0.70	0.45	0.49 ^a	0.70	0.57 ^a
Brave	0.88	0.88	0.80	0.85	0.87	0.84	0.88	0.88	0.84	0.87	0.87
Daring	0.84	0.88	0.82	0.79	0.82	0.85	0.85	0.89	0.77	0.81	0.86
Dominant	0.65	0.77	0.73	0.21 ^a	0.62	0.77	0.78	0.44	0.76	0.52 ^a	0.74
Sturdy	0.83	0.74	0.78	0.73	0.72	0.79	0.78	0.81	0.76	0.74	0.75
α	0.87	0.90	0.85	0.82	0.88	0.86	0.92	0.85	0.86	0.89	0.90
AVE	0.58	0.61	0.52	0.55	0.54	0.57	0.65	0.55	0.53	0.58	0.60
CR	0.89	0.90	0.86	0.87	0.87	0.88	0.92	0.87	0.87	0.89	0.90
<i>Male Brand Personality (MBP)</i>											
Expresses tender feelings	0.86	0.90	0.85	0.85	0.86	0.94	0.82	0.81	0.82	0.87	0.87
Fragile	0.64 ^a	0.47 ^a	0.61 ^a	0.84	0.82	0.44 ^a	0.66 ^a	0.31 ^a	0.83	0.75	0.64 ^a
Graceful	1.01	0.86	0.77	0.84	1.05	0.90	0.82	0.69	0.83	0.83	0.74
Sensitive	0.84	0.88	0.80	0.75	0.89	0.81	0.81	0.86	0.83	0.77	0.82
Sweet	0.83	0.83	0.86	0.71	0.76	0.97	0.79	0.93	0.83	0.80	0.81
Tender	0.80	0.89	0.80	0.81	0.79	0.95	0.81	0.73	0.79	0.88	0.90
α	0.92	0.92	0.91	0.91	0.92	0.92	0.90	0.86	0.93	0.92	0.91
AVE	0.70	0.67	0.62	0.64	0.75	0.74	0.62	0.56	0.68	0.67	0.64
CR	0.93	0.92	0.91	0.91	0.95	0.94	0.91	0.88	0.93	0.92	0.91
<i>Brand equity</i>											
Loyalty	0.79	0.75	0.70	0.89	0.96	0.72	0.79	0.78	0.76	0.73	0.75
Attitude	0.90	0.91	0.92	0.91	0.95	0.93	0.89	0.93	0.89	0.89	0.92
Image	0.91	0.92	0.94	0.90	0.82	0.93	0.87	0.91	0.88	0.89	0.89
Quality	0.92	0.94	0.84	0.86	0.84	0.92	0.87	0.90	0.87	0.91	0.86

(continued)

Table 3.2 (continued)

	All	Australia	Brazil	China	Germany	France	India	Japan	Russia	Sweden	USA
Pay more	0.81	0.69	0.61	0.82	0.67	0.54	0.75	0.75	0.54	0.62	0.69
α	0.90	0.91	0.86	0.94	0.90	0.89	0.91	0.93	0.84	0.89	0.90
AVE	0.75	0.72	0.66	0.76	0.73	0.68	0.69	0.74	0.64	0.67	0.68
CR	0.94	0.93	0.90	0.94	0.93	0.91	0.92	0.93	0.90	0.91	0.91
MBP $\rightarrow$ brand equity	0.39	0.49	0.42	0.31	0.31	0.49	0.11	0.15	0.18	0.30	0.45
FBP $\rightarrow$ brand equity	0.24	0.21	0.14	0.48	0.20	0.24	0.41	0.56	0.37	0.29	0.12
SRMR	0.0345	0.0592	0.0571	0.0590	0.0584	0.0705	0.0349	0.0633	0.0558	0.0390	0.0629
CFI	0.981	0.967	0.963	0.955	0.965	0.951	0.976	0.961	0.969	0.977	0.964
RMSEA	0.051	0.071	0.064	0.078	0.069	0.083	0.054	0.070	0.061	0.055	0.067

^aCronbach's α increases if this item is deleted

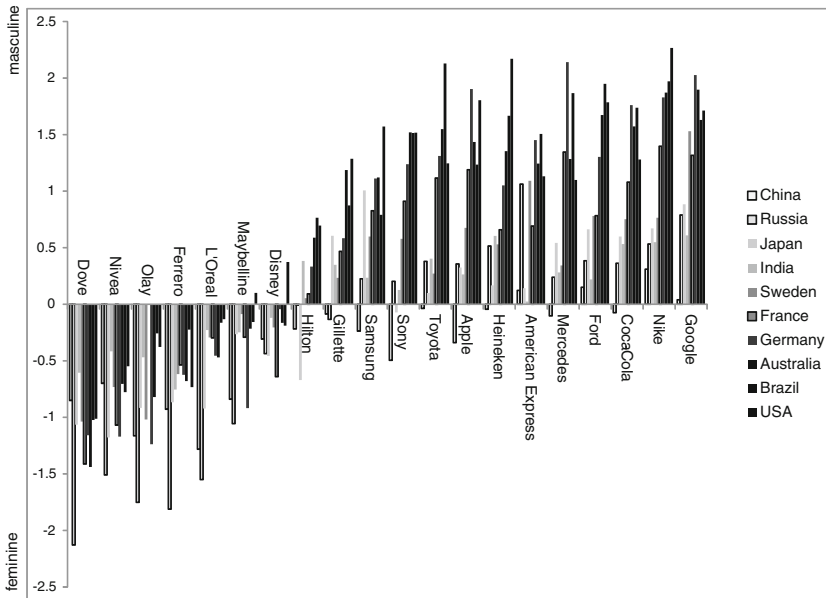
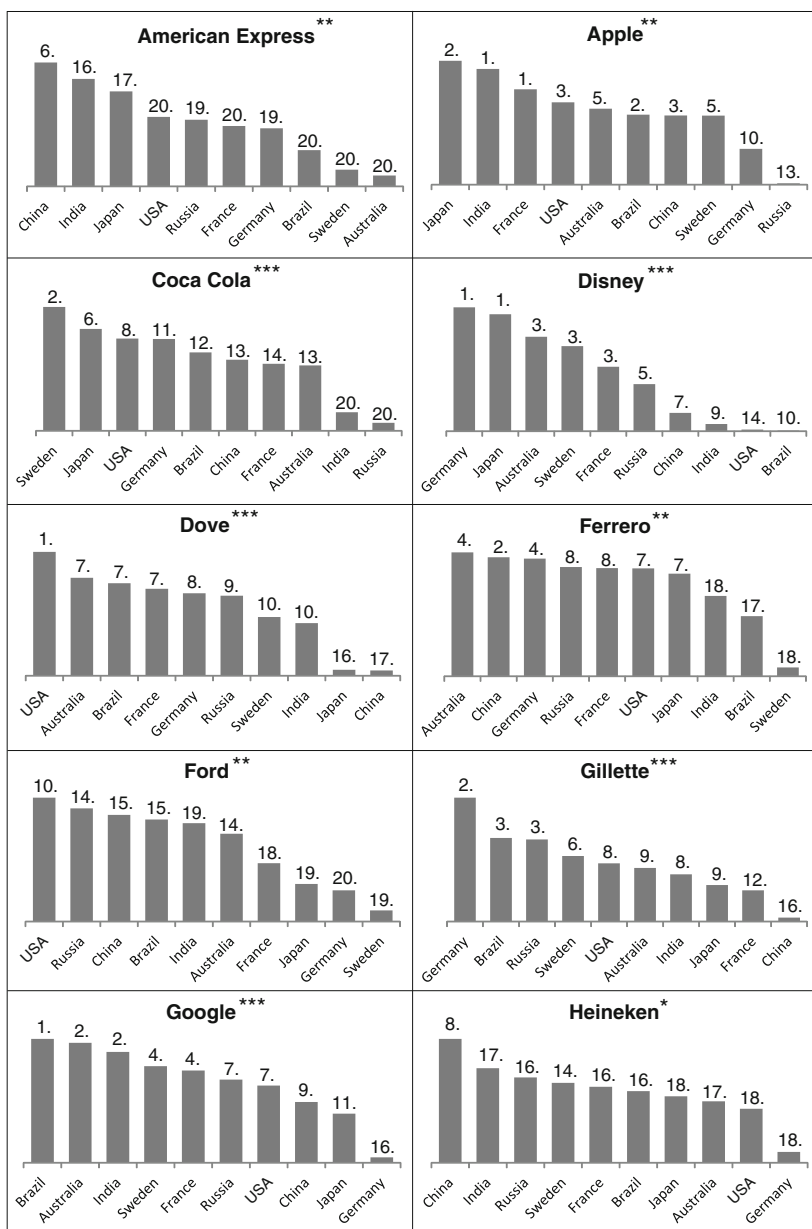


Fig. 3.3 Differences in MBP-FBP (one-dimensional gender) across brands and countries

Equity Differences Across Brands and Countries

Figure 3.4 shows the equities of the 20 brands in the 10 countries. The countries are ranked according to the equity of each brand (e.g., within a brand, country A is ranked higher than country B if the brand has a stronger equity in country A than in country B). Moreover, Fig. 3.4 depicts the rank of each brand in each country and demonstrates that those brands that are stronger in one country than in others also have a higher ranking in that country. For example, Disney achieved its highest rankings in Germany and Japan, and it ranks first in both countries. An analysis of both the between- and within-country rank orders resulted in positive correlations (all Kendall's $\tau > 0.60$, all $ps < 0.05$).



◀**Fig. 3.4** Relative strength of brands in 10 countries. *Note* The depicted bars represent deviations from the country-specific mean, normalized from 0 to 1 (between-country rankings). The numbers on top of the bars represent the rankings of a brand in the relevant country (within-country rankings; e.g., in Japan, Disney ranks first, Apple second, Toyota third, etc.). The significance of Kendall's τ regarding the correlation of brands' between- and within-country rankings are as follows: *** $p < 0.001$, ** $p < 0.01$, and * $p < 0.05$

Conclusion

The results in this chapter provide evidence that brand gender is an appropriate construct with which to evaluate the brand performances of global corporations. One could argue that gender is not the only appropriate model. However, the uncomplicated structure of this model makes it appropriate for the senior management level with only three simple KPIs: brand femininity, brand masculinity, and brand equity. Local brand managers may enhance the Grohmann model using additional characteristics and constructs that are more complex on an intra-country level. A global brand manager at headquarters, however, possesses a simple control mechanism that is generalizable around the globe. Despite its lean structure, the model has pronounced validity. A comparison of this study's equities with the EquiTrend (2013) equities for 17 of the 20 brands (Gillette, Dove, and Nivea were not included in the 2013 poll) resulted in a positive correlation of $r = 0.62$, $p < 0.01$. This finding is important because with EquiTrend's external data, a common source bias could be ruled out. Such biases could arise in a survey where genders and equities are assessed together. When survey participants tend to score high on the 7-point scales, they rate both gender and equity high. Others who tend to score low rate both gender and equity low. Consequently, this will result in positive correlations of gender and equity and the whole model appears suspicious of being a fallacy (this will be further discussed in Chap. 12).

The theoretical foundation of the link between gender and equity is partly based on evolutionary psychology (EP). However, EP extends beyond a mere assumption of sexual attraction. As Hofstede noted (1980), gender is also related to the roles of fathers and mothers,

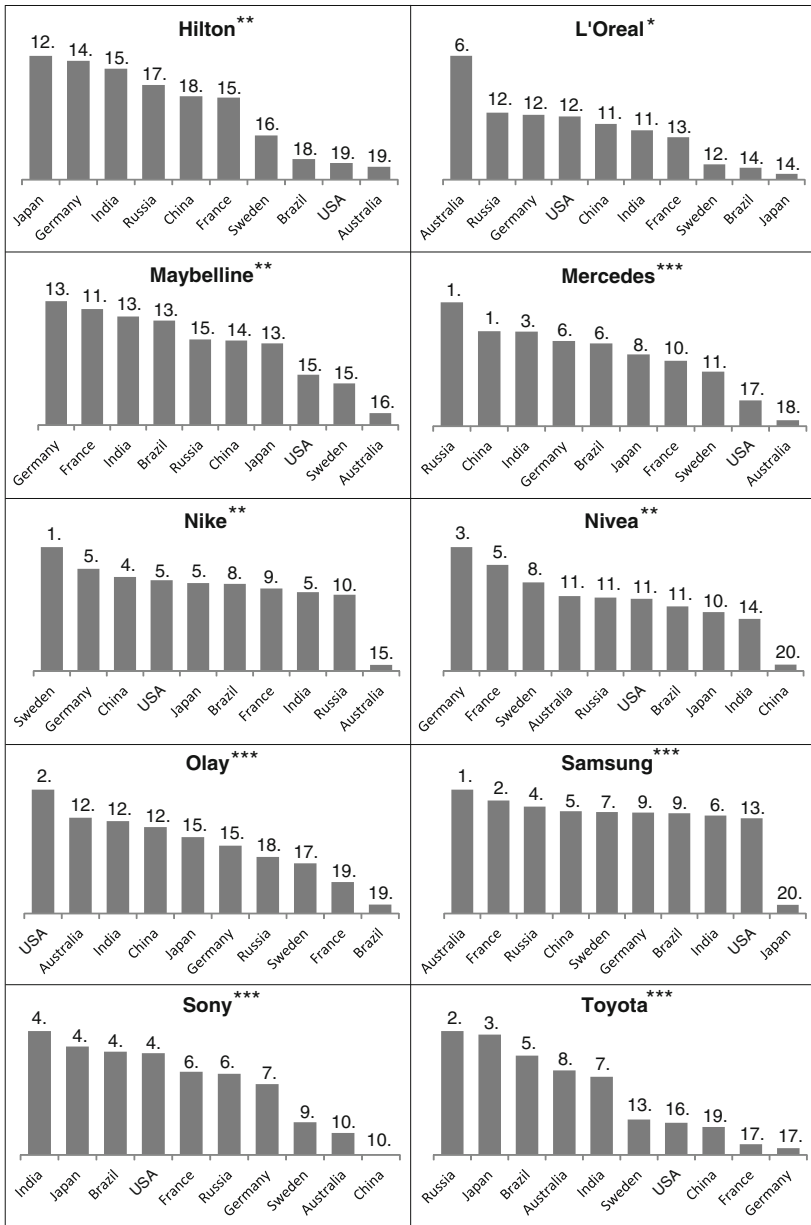


Fig. 3.4 (continued)

characterizing protection and care. This insight helps explain Disney's strong equity.

Concern may exist regarding respondents' self-selection of brands, which certainly led to an upward self-selection bias related to equity (Heckman 1979). Therefore, this method could be misleading. In this chapter, however, equity is a consumer-based value. Occasionally, strong consumer-based brands may nevertheless have a relatively small fan community. In surveys such as those reported in this chapter, if some brands had been randomly assigned (e.g., exclusive brands such as Hilton, Ferrero, Maybelline, or Olay), then positive reactions would have been unlikely. The fan communities for these brands are rather small, and brand scores would have been meaningless if respondents had no brand experience. Therefore, the self-selection procedure prevented respondents from confronting unfamiliar or unknown brands. The correlations within each country for all 20 brands between the selection numbers (%) in the Appendix and the equity scores in Table 3.1 show that selection itself did not predict equity with a systematic upward bias. The average correlation was 0.463, and it was significant in Sweden ($r = 0.741$, $p < 0.001$), France ($r = 0.686$, $p < 0.01$), Australia ($r = 0.543$, $p < 0.05$), Brazil ($r = 0.550$, $p < 0.05$), and Japan ($r = 0.484$, $p < 0.05$). In all the other countries, the correlations were low and not significant. Thus, the results are far from systematically biased by self-selection.

Three traits in this study's findings must be investigated more closely: *aggressive*, *dominant*, and *fragile*. With the exceptions of China, India, and Sweden, *aggressive* had relatively low loadings. Even in the USA, where Grohmann (2009) originally selected this trait to represent masculinity, the loading was only 0.57. A particularly remarkable finding for this trait was its low value in France, where it had a loading of 0.17. However, the term was translated into French literally as "*agressif*," which may have been understood as *vicious*. In China, the translation of *aggressive* tended toward the meaning of *challenge*, which is less hostile and thus a better fit with a coefficient of 0.86. In India, where the original English term was used, the loading was acceptable. Furthermore, in China, the item *dominant* did not fit the construct ($\lambda = 0.21$) well, and in Sweden, the coefficient for *dominant* was similarly low. Another

problematic item was *fragile*, which also received small loadings; in Australia, France, and Japan, the trait was rated less than 0.50. It is therefore questionable whether *fragile* is a good trait for branded products. Additionally, this term should be translated carefully to mirror its meaning in the context of human personalities. In the German version, *fragile* was translated as “*zierlich*,” which means *delicate*, and this term may better represent the characteristics of being fine-boned or dainty in relation to feminine products. Ongoing examination and improvement of Grohmann’s gender model, along with rigorous scrutiny of adequate translations, provide avenues for future research.

Appendix

Self-selected brands in 10 countries

Country		American Express	Apple	Coca-Cola	Disney	Dove	Ferrero	Ford	Gillette	Google	Heineken	Hilton
Australia	N	28	105	142	77	77	40	79	57	119	48	32
	% within country	2.0%	7.6%	10.3%	5.6%	5.6%	2.9%	5.7%	4.1%	8.6%	3.5%	2.3%
Brazil	N	55	78	203	94	167	46	95	126	168	73	22
	% within country	2.8%	4.0%	10.5%	4.8%	8.6%	2.4%	4.9%	6.5%	8.7%	3.8%	1.1%
China	N	15	183	73	45	46	7	62	27	113	45	26
	% within country	1.2%	14.4%	5.8%	3.5%	3.6%	.6%	4.9%	2.1%	8.9%	3.5%	2.0%
Germany	N	31	84	179	85	85	124	66	69	133	46	29
	% within country	1.9%	5.1%	10.9%	5.2%	5.2%	7.6%	4.0%	4.2%	8.1%	2.8%	1.8%
France	N	41	108	190	134	144	141	84	109	158	141	29
	% within country	1.8%	4.8%	8.5%	6.0%	6.4%	6.3%	3.7%	4.9%	7.0%	6.3%	1.3%
India	N	42	108	151	64	153	19	69	95	163	32	30
	% within country	2.3%	6.0%	8.4%	3.5%	8.5%	1.1%	3.8%	5.3%	9.0%	1.8%	1.7%
Japan	N	55	115	158	129	92	10	43	38	118	67	50
	% within country	3.4%	7.2%	9.9%	8.1%	5.8%	.6%	2.7%	2.4%	7.4%	4.2%	3.1%
Russia	N	24	79	165	95	123	47	94	143	134	90	23
	% within country	1.2%	4.1%	8.5%	4.9%	6.4%	2.4%	4.9%	7.4%	6.9%	4.7%	1.2%

(continued)

(continued)

Country		American Express	Apple	Coca-Cola	Disney	Dove	Ferrero	Ford	Gillette	Google	Heineken	Hilton
Sweden	N	20	110	194	127	116	17	76	83	167	101	22
	% within country	1.2%	6.3%	11.2%	7.3%	6.7%	1.0%	4.4%	4.8%	9.6%	5.8%	1.3%
USA	N	47	116	152	96	93	10	73	60	124	47	40
	% within country	3.4%	8.3%	10.9%	6.9%	6.7%	.7%	5.2%	4.3%	8.9%	3.4%	2.9%
Total	N	358	1086	1607	946	1096	461	741	807	1397	690	303
	% all countries	2.1%	6.4%	9.5%	5.6%	6.5%	2.7%	4.4%	4.8%	8.2%	4.1%	1.8%
Country		L'Oreal	Maybelline	Mercedes	Nike	Nivea	Olay	Samsung	Sony	Toyota	Total	
Australia	N	56	44	31	61	58	54	107	84	79	1378	
	% within country	4.1%	3.2%	2.2%	4.4%	4.2%	3.9%	7.8%	6.1%	5.7%	100.0%	
Brazil	N	116	18	54	121	130	22	164	136	53	1941	
	% within country	6.0%	.9%	2.8%	6.2%	6.7%	1.1%	8.4%	7.0%	2.7%	100.0%	
China	N	36	24	75	105	45	47	132	87	76	1269	
	% within country	2.8%	1.9%	5.9%	8.3%	3.5%	3.7%	10.4%	6.9%	6.0%	100.0%	
Germany	N	67	39	65	76	163	35	119	88	54	1637	
	% within country	4.1%	2.4%	4.0%	4.6%	10.0%	2.1%	7.3%	5.4%	3.3%	100.0%	
France	N	142	73	71	120	168	14	172	127	79	2245	
	% within country	6.3%	3.3%	3.2%	5.3%	7.5%	.6%	7.7%	5.7%	3.5%	100.0%	
India	N	81	41	51	96	106	91	190	145	76	1803	
	% within country	4.5%	2.3%	2.8%	5.3%	5.9%	5.0%	10.5%	8.0%	4.2%	100.0%	
Japan	N	43	51	67	116	90	10	49	147	147	1595	
	% within country	2.7%	3.2%	4.2%	7.3%	5.6%	.6%	3.1%	9.2%	9.2%	100.0%	
Russia	N	85	66	60	103	144	49	190	124	95	1933	
	% within country	4.4%	3.4%	3.1%	5.3%	7.4%	2.5%	9.8%	6.4%	4.9%	100.0%	

(continued)

(continued)

Country		L'Oreal	Maybelline	Mercedes	Nike	Nivea	Olay	Samsung	Sony	Toyota	Total
Sweden	N	80	46	53	102	115	26	123	93	67	1738
	% within country	4.6%	2.6%	3.0%	5.9%	6.6%	1.5%	7.1%	5.4%	3.9%	100.0%
USA	N	48	55	32	93	41	49	86	78	55	1395
	% within country	3.4%	3.9%	2.3%	6.7%	2.9%	3.5%	6.2%	5.6%	3.9%	100.0%
Total	N	754	457	559	993	1060	397	1332	1109	781	16934
	% all countries	4.5%	2.7%	3.3%	5.9%	6.3%	2.3%	7.9%	6.5%	4.6%	100.0%

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4

Androgyny, Consumers' Biological Sex, and Cultural Differences

Global Assumptions on the Effects of Brand Gender on Brand Equity

The literature on gender schema theory has offered ample proof that androgyny (i.e., having both feminine and masculine qualities) creates a range of constructive effects, such as an optimum adaptability level in both impersonal and interpersonal circumstances. Androgyny applies to, for example, combining feminine qualities, such as being expressive and compassionate, and masculine qualities, such as being instrumental and assertive (Bem 1974). Fascinatingly, this literature has confirmed that highly androgynous individuals are considered more attractive and successful (Jackson 1983). Therefore, building on the previously discussed findings on the dominant effects of brand gender, it is illuminating to investigate whether highly androgynous brands (those possessing

The current chapter refers to the publication, “The Impact of Brand Gender on Brand Equity: Findings from a Large-Scale Cross-Cultural Study in Ten Countries” by Theo Lieven and Christian Hildebrand in *The International Marketing Review* in 2016 (Lieven and Hildebrand 2016). Wherever feasible, text passages have been modified and reworded: identical tables and figures, however, have been adopted.

a combination of both extremely feminine and extremely masculine traits) create similarly leading brand equity when compared with counterparts that have a single strong brand gender positioning. Another key question focuses on whether an individual's biological sex impacts the effect of any brand gender on brand equity. As an individual's biological sex is readily determined (Dion et al. 1972) both by that individual and by external observers, it would be practically and ideally significant to examine moderating effects of consumers' biological sex on the impact of brand gender perception on brand equity. Despite previous literature indicating that a very feminine or masculine brand gender is highly positively valued when it matches a person's gender role (i.e., the social and cultural norms that are correlated with a biological sex; Grohmann 2009), such gender roles are classically not externally discernible (i.e., it is not clear whether male or female consumers consider themselves typically more or less masculine or feminine). As a result, gender roles have been deemed insufficiently effective to determine, for instance, the leisure or shopping behaviors of consumers (see Palan 2001). Therefore, the present study assesses the impact of consumers' biological sex (rather than gender role or "psychological sex") on their brand gender perceptions and brand equity.

Previous studies on the impact of brand gender have used smaller samples in only a few countries. These countries were typically Western and had highly individualistic cultures. This seemingly unimportant fact may actually affect the reliability of generalizations from previous brand gender impacts to those countries with less individualistic cultures. To be precise, previous literature has revealed that highly individualistic cultures are inclined to value very assertive personality features and that highly collectivistic cultures appear to encourage the less assertive and communal personality features that nurture mutual consent and sensitivity (Morris et al. 1994; Triandis 1997; Triandis 2001). There is a substantial possibility that cultural impacts may negate certain conclusions from the previous literature on predominantly feminine or masculine brand features. The central goal of this chapter is to offer solutions to these emergent questions by considering the previous literature on the function of androgynous brands and gender schemata, the function of consumers' biological sex based on their brand perceptions, and the impact of

cultural differences on attraction to various brand gender qualities (such as communal standards in collectivistic cultures contrasted with ego-centric values in highly individualistic cultures).

The outcomes and implications of the present study are threefold. First, this study offers proof from the sample in Chap. 3, comprising 16,934 observations of consumers from 10 countries across four continents, that androgynous brands produce increased brand equity compared with wholly feminine, wholly masculine, and undifferentiated brands. This advances the previous literature on the impact of brand gender, in addition to spanning the gap between the existing literature on brand gender and gender schemata, highlighting the constructive outcomes of perceptions of androgyny.

Second, this study presents and illustrates an impact of brand gender equivalence by demonstrating that female consumers prefer feminine brands more often than male consumers do, while male consumers have a higher preference for masculine brands when compared with females. Therefore, expanding on the focus on consumers' gender roles (i.e., the cultural standards linked with a biological sex) in the current literature on brand equity (e.g., Grohmann 2009; Lieven et al. 2014; Palan 2001), the present chapter creates a generalized and readily available link between the biological sex of consumers and the moderation impact of brand gender perception on brand equity. This significantly affects companies, since the biological sex of consumers is discernible, while gender roles are not.

Third, this study is the first to demonstrate that very masculine brands create higher brand equity in highly individualistic countries, while very feminine brands create higher brand equity in highly collectivistic countries. This conclusion has significant theoretical implications for the existing literature on the impacts of brand gender and for cross-cultural marketing at large. Specifically, by incorporating the previous literature on cross-cultural dissimilarities in individuals' evaluation of definite personality qualities, the present study discloses a theoretically and practically significant challenge to extant conclusions regarding consumers' assessments of brand equity.

The subsequent section thus offers an assessment of three crucial assumptions: the impact of androgyny on brand gender perception, the different brand gender perceptions of female and male consumers, and

the moderating effects of cultures that are highly collectivistic or individualistic.

Androgyny

Various studies on gender schemata have recently proposed a novel concept in femininity and masculinity research: the possession of identical characteristics by men and women. While this nuance is presently neglected, it offers a controversial proposal for the extension of gender schemata literature relating to femininity and masculinity (Bem 1974). The word “androgyny” was created by a combination of the Greek word *gyne* (woman) and *andros* (man). The basic concept, as illustrated by the word itself, is that qualities that are stereotypically correlated with masculinity (such as adventurousness and assertiveness) are not exclusive of qualities that are stereotypically linked with femininity (such as caring and sensitivity). Therefore, androgyny reflects the supposition that feminine and masculine qualities can coexist. Gough (1957) and Grohmann (2009) have argued that any unidimensional, bipolar gender range falls short of identifying the probable independence of feminine and masculine traits. This indicates that any barely stated gender identity within a unidimensional conception of gender may self-constrain the ideal realization of persons and the concerns for consumer brand perception. In a study by Grohmann (2009) concerning the impacts of brand gender, the author stressed the independence of feminine and masculine brand traits, resulting in four classifications (or quadrants in a two-dimensional category) of feminine brands, masculine brands, neither feminine nor masculine (i.e., undifferentiated) brands, and androgynous brands that are both feminine and masculine. However, the prevailing argument in the previous literature relies on either a wholly feminine or a wholly masculine brand gender positioning (see also Lieven et al. 2014), thereby excluding a combination of feminine and masculine brand positioning. Grohmann (2009) underscored part of the cause by arguing that the examined brand types captured the limits of feminine and masculine brand gender distributions.

This constraint is especially intriguing with respect to the literature on the positive impacts of an androgynous personality. For instance, a study by Katz (1986) confirmed the correlation of androgyny with numerous benefits, such as increased adaptability to ambiguous settings. Likewise, a study by Bem (1974) concerning the inventory of sex roles explained that a non-androgynous sex role limits an individual's array of traits as he or she shifts from one condition to another. This is unlike strongly sex-typed persons who consistently maintain an adopted sex-role norm and eliminate any behavior that may be regarded as inappropriate to that role. In a study by Campbell (2011), business owners with both masculine and feminine character traits were found to be highly successful in their business careers. This can also be seen in a study outcome on highly efficient androgynous management methods by Way and Marques (2013). Another study by Jackson (1983) has shown how the positive outcomes of the enhanced adaptability of androgynous qualities are not limited to the person bearing such qualities but also influence others' perceptions of this individual. Specifically, the author realized that others perceive androgynous persons more positively than they do wholly feminine or wholly masculine individuals. With respect to the social discernment model by Snyder and Swann (1978), Jackson further argued that those people who appear to show more interest in androgynous persons also demonstrate higher professional accomplishment and are more competent compared with their very masculine counterparts in terms of aspects such as instrumentality (Jackson 1983). That is, assertive persons appear highly competent and instrumental but are also regarded as less likeable. However, this deleterious implication is not true for androgynous people who are regarded as assertive (a stereotypical masculine quality). Instead, they are equally regarded, for instance, as highly sensitive (a stereotypical feminine quality), resulting in an increased amiability compared with wholly feminine or wholly masculine people.

The positive outcomes of androgyny from other people's points of view have been debated within the setting of modern culture and trends. For instance, the accomplishments of the Beatles, Jimi Hendrix, and Elvis Presley have been credited in part to their rejection of gender stereotypes, as well as their tendency to consider themselves highly androgynous instead of wholly feminine or masculine (such as the

androgynous outfits and long hair of the Beatles or the high-heeled boots of Jimi Hendrix), which created appeal for both males and females (Kemp 1985).

This type of androgynous positioning is also considered a prevailing driver of accomplishment in consumer fashion markets for various brands such as Pierre Cardin, Armani, Calvin Klein, or Ralph Lauren (Markham and Cangelosi 1999). With reference to the hypothesized appeal of perceived androgyny, the present study predicts the ability of androgynous brands to generate increased brand equity compared with wholly feminine, wholly masculine, or undifferentiated brands. Therefore, the initial assumption is that androgynous brands (i.e., brands combining highly feminine and masculine traits) create a higher brand equity when compared with brands that are (a) greatly feminine (but less masculine), (b) greatly masculine (but less feminine), or (c) undifferentiated (less feminine and less masculine).

Biological Sex Versus Gender Roles

An individual's biological sex is considered one readily available and perceptible dimension of that particular person (Blanz 1999; Dion et al. 1972). This has resulted in various studies that reveal an impact called "identical sex bias"—that is, the efficient identification and processing of stimuli that symbolize an individual's own sex. A superior processing of gendered stimuli corresponding to an individual's own biological sex may also affect the ways in which male and female consumers value a brand, as well as their perceptions of brands. Conventionally, feminine gender qualities include highly relational personality traits, such as empathy and compassion. For instance, femininity has been linked with integration, interdependence, and a highly communal orientation (Palan et al. 1999). By contrast, masculinity has been linked with assertiveness and independence. In addition to the ample literature on same-sex ambiguities (such as Alreck et al. 1982) suggesting that people appear to fall for objects matching their own sex, the literature indicates that consumers prefer brands with gender qualities matching their biological sex (Vitz and Johnston 1965; Whipple and Courtney 1985; Worth et al. 1992).

Similarly, a study by Grohmann (2009) indicated that in those cases where a brand corresponds to the buyer's gender role, highly feminine or masculine brands are more trusted, better liked, and have a higher probability of being purchased. Nonetheless, these gender roles are part of an individual's self-concept and are not perceptible to strangers. This renders the existing literature less pertinent. Therefore, from both practical and theoretical perspectives, it is useful to assess whether the biological sex of consumers may moderate the impact of brand gender perception on a brand's equity. The present study predicts an impact from gender similarity; that is, male consumers presented with a masculine brand (that is, one with high scores on qualities such as *daring*, *courageousness*, or *adventurousness*) will rate its brand equity higher than female consumers. Similarly, this study predicts that female consumers will rate feminine brands' (i.e., those having high scores on items such as *tender*, *sensitive*, or *sweet*) brand equity higher compared with the ratings of male consumers. The second assumption is that female/male consumers will consider a feminine/masculine brand's equity lower than male/female consumers.

Collectivism Versus Individualism

It is also important to investigate the consistency of the previously suggested impacts of brand gender across cultures. A key outcome from the previous literature on cross-cultural dissimilarities concerns the highly collectivistic orientation of East Asian cultures, underscoring firm communal values and increased social interdependencies, as well as stressing group association (see Markus and Kitayama 1991). This existing literature has also confirmed that people from Western cultures prioritize individual merit, independence, and striving for freedom considerably higher than people from highly collectivistic countries do.

Fascinatingly, such apparently diverse cultural values exemplify typical variations in gender roles. As indicated by Eagly (1995), when reviewing sex variations, assertiveness and independence are highly associated with masculinity. By contrast, interdependence and interactive values are highly correlated with femininity. Therefore, highly individualistic

countries (generally, Western) seem to prefer masculine qualities more than do highly collectively oriented countries (typically, Eastern). This study proposes that masculine brands are highly valued in individualistic cultures, while feminine brands are highly valued in collectivistic cultures. The third assumption of this study is that very feminine/masculine brands in collectivistic/individualistic countries create a higher brand equity compared with feminine/masculine brands in individualistic/collectivistic countries.

The subsequent section will test and justify the above hypotheses relating to the differential impacts of brand gender (i.e., the impact of androgyny on brand equity, the moderating function of biological sex among consumers, and the impact of collectivistic versus individualistic cultures).

Empirical Study

The study data in Chap. 3 were again considered for this analysis. The first results, from a sample of 3049 participants from 10 different countries, are discussed in Chap. 3. Table 4.1 illustrates the allocation across countries. To examine the tendency of collectivistic/individualistic cultures to rate feminine/masculine brands highly on brand equity compared with individualistic/collectivistic cultures (the third hypothesis), Hofstede's (1980) individualism versus collectivism (IDV) index was employed as the moderating variable, as evidenced by the subsequent analyses (see also Cannon et al. 2010 for an identical procedure). These IDV values have been included in the table.

Table 3.1 of Chap. 3 illustrates the findings for the 10 countries' 20 brands concerning Grohmann's (2009) feminine brand personality (FBP) and masculine brand personality (MBP), as well as brand equity by Brady et al. (2008). Estimation of a linear mixed model by engaging a random intercept for multiple observation control per person was considered in testing the stated hypotheses. To offer a logical test for the hypotheses and a reference point relative to the existing literature, the present study included gradual increments of the model complexity. Specifically, each nested model was tested during the integration of the

Table 4.1 Sample characteristics by country

Country	Participants	Females (%)	M_{Age}	SD_{Age}	Rated brands	IDV
Australia	310	50.5	41.2	13.2	1378	90
Brazil	302	55.4	37.0	12.3	1941	38
China	299	50.7	37.2	10.5	1269	20
Germany	309	51.9	40.8	13.1	1637	67
France	314	55.7	41.9	13.3	2245	71
India	302	47.3	35.3	11.2	1803	48
Japan	307	51.4	41.7	13.6	1595	46
Russia	301	52.0	39.1	12.4	1933	39
Sweden	302	51.4	42.0	13.4	1738	71
USA	303	51.1	41.2	13.5	1395	91
Total	3049	51.8	39.7	12.9	16,934	

Note: *IDV low* collectivistic versus *IDV high* individualistic culture index according to Hofstede (1980) and Hofstede et al. (2010)

assumed impacts (androgyny, brand gender perception of male consumers and female consumers, and brand gender impacts affected by collectivistic versus individualistic cultures) compared with the customary and less intricate model as a reference. A summary of the study outcomes is presented in Table 4.2.

As a benchmark outcome replicating the previous studies by Lieven et al. (2014) and Grohmann (2009), Model 1 offers integrated proof that any increment in brand femininity ($\beta_{FBP} = 0.442$, $p < 0.001$) and increment in brand masculinity ($\beta_{MBP} = 0.430$, $p < 0.001$) will eventually increase a brand's equity. While no hypothesis was offered concerning brand rating differences between female and male consumers, the results revealed a considerably lower rating of brand equity by male consumers compared with female consumers ($\beta_{\text{Female vs. Male}} = -0.056$, $p < 0.001$). The key influence of individualistic versus collectivistic cultures had no significant effect on a brand's equity ($\beta_{IDV} = -0.003$, $p = 0.780$).

The second model escalates the intricacy of the key effects model by integrating the interaction impact of FBP and MBP to evaluate the effect of androgynous brands on brand equity in addition to brand gender (FBP and MBP) multiplied by sample sex interactions. The highly complex model considerably enhanced the model fit compared with the key effects model ($\chi^2 = 23.07$, $p < 0.001$). Supporting the first assumption,

Table 4.2 Model parameters

Parameters	Model 1		Model 2		Model 3	
	Estimate	(Std. error)	Estimate	(Std. error)	Estimate	(Std. error)
MBP	0.430***	(0.011)	0.442***	(0.011)	0.441***	(0.011)
FBP	0.442***	(0.011)	0.438***	(0.011)	0.440***	(0.011)
Sex	−0.056***	(0.010)	−0.058***	(0.010)	−0.057***	(0.010)
IDV	−0.003 ^{n.s.}	(0.010)	−0.003 ^{n.s.}	(0.010)	−0.006 ^{n.s.}	(0.010)
Sex × MBP			0.064***	(0.011)	0.078***	(0.011)
Sex × FBP			−0.011 ^{n.s.}	(0.011)	−0.023*	(0.011)
MBP × FBP			0.022**	(0.007)	0.023***	(0.007)
MBP × IDV					0.099***	(0.011)
FBP × IDV					−0.025*	(0.011)
Sex × IDV					−0.068***	(0.010)
−2LL	55,738.734		55,715.667		55,609.250	
AIC	55,740.734		55,717.667		55,611.250	
χ^2 Difference test			$\chi^2\Delta(3) = 23.067***$		$\chi^2\Delta(3) = 106.42***$	

Note * $p < 0.05$, ** $p < 0.01$; *** $p < 0.001$

n.s. not significant; *FBP* feminine brand personality; *MBP* masculine brand personality; participant sex is coded 0 for females and 1 for males; *IDV low* collectivistic versus *IDV high* individualistic culture index according to Hofstede (1980) and (Hofstede et al. 2010)

androgynous brands had a significant impact (as designated by a substantial $MBP \times FBP$ interface) on brand equity, in addition to the two key impacts of FBP and MBP ($\beta_{MBP \times FBP} = 0.022$, $p < 0.01$). This outcome was demonstrated by testing the four gender quadrants (Grohmann 2009) against each other with an ANOVA. The continuous data were categorized via the following specification of the set of brands: androgynous brands = $(FBP > m) \wedge (MBP > m)$, feminine brands = $(FBP > m) \wedge (MBP < m)$, masculine brands = $(FBP < m) \wedge (MBP > m)$, undifferentiated brands = $(FBP < m) \wedge (MBP < m)$, with m considered the median of the sample. As shown in Fig. 4.1, androgynous brands produced considerably greater brand equity compared with very feminine, very masculine, and homogenous brands ($F(3,16930) = 1729.645$, $p < 0.001$). Therefore, while both FBP and MBP separately enhanced a brand’s equity, their association (i.e., brands that incorporate both feminine and masculine qualities) produced a higher brand equity compared with the key effect estimates, which supports our assumptions.

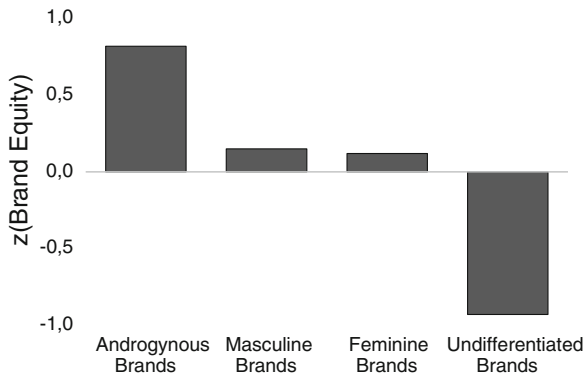


Fig. 4.1 Influence of brand gender on brand equity

To examine brands' categorical data, correspondence analysis (CA), which is similar to the primary component analysis, is considered a suitable tool for additional analyses (Greenacre 2007; Hoffman and Franke 1986). Through visualization, the contingency table's dissemination has been created in two-dimensional space. Figure 4.2 presents the plotting of the CA for all brands for all 10 countries. As shown in Fig. 3.4 of Chap. 3, most countries confirmed high equity rankings for Disney and Apple brands, while American Express scored lower rankings. This suggests that American Express is an undifferentiated brand, while Disney is an androgynous brand. This is the case for several of the countries in Fig. 4.2 and for the worldwide sample in Fig. 4.3.

Consistent with the second assumption of this chapter, the outcome supports the theory of a brand gender congruency impact based on consumers' biological sex. Male consumers discerned higher brand equity in masculine than feminine brands and vice versa for females ($\beta_{MBP \times \text{Male}|\text{Female}} = 0.064$, $p < 0.001$; $\beta_{FBP \times \text{Male}|\text{Female}} = -0.011$, $p = 0.326$). Figure 4.4 demonstrates this finding by showing the outcome of a simple slopes analysis (Aiken and West 1991), in addition to the contrast of significant brand equity for highly masculine brands assessed by male consumers and significant brand equity for highly feminine brands assessed by female consumers. The brand equities' sequence as rated by male participants was -0.21 for feminine and 0.00

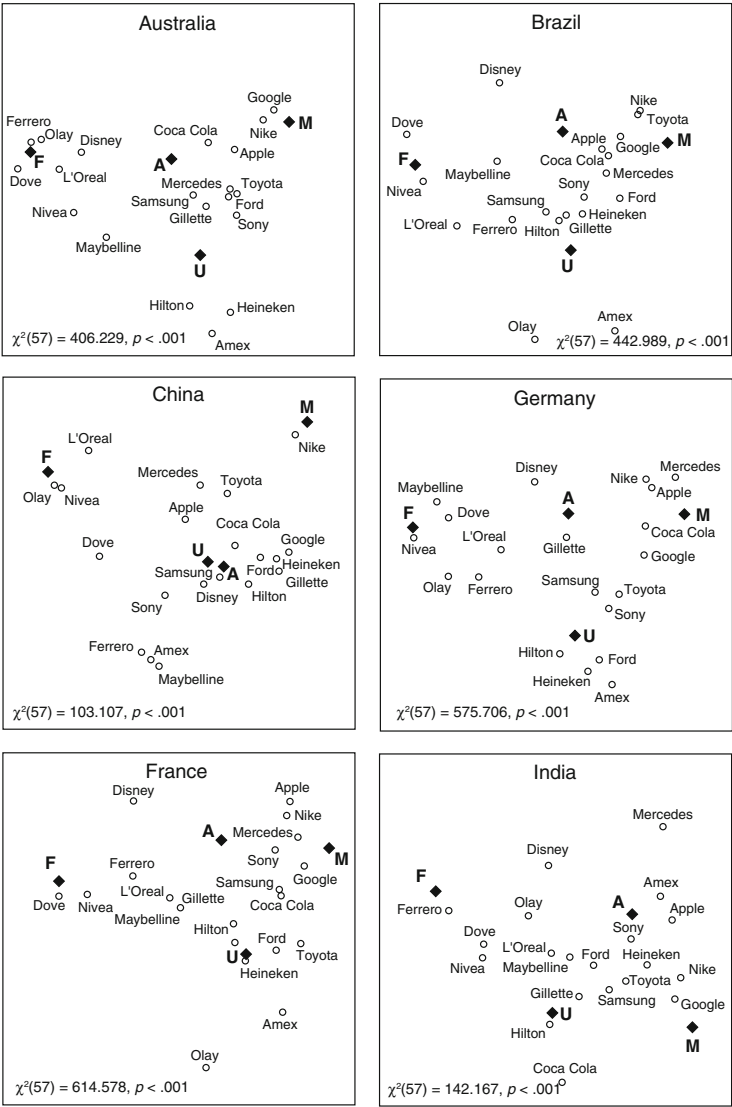


Fig. 4.2 Categorized brand gender in countries. *F* feminine brands; *M* masculine brands; *A* androgynous brands; and *U* undifferentiated brands. The horizontal X-axis denotes gender from feminine to masculine; the Y-axis denotes low brand equity (*bottom*) to high equity (*top*)

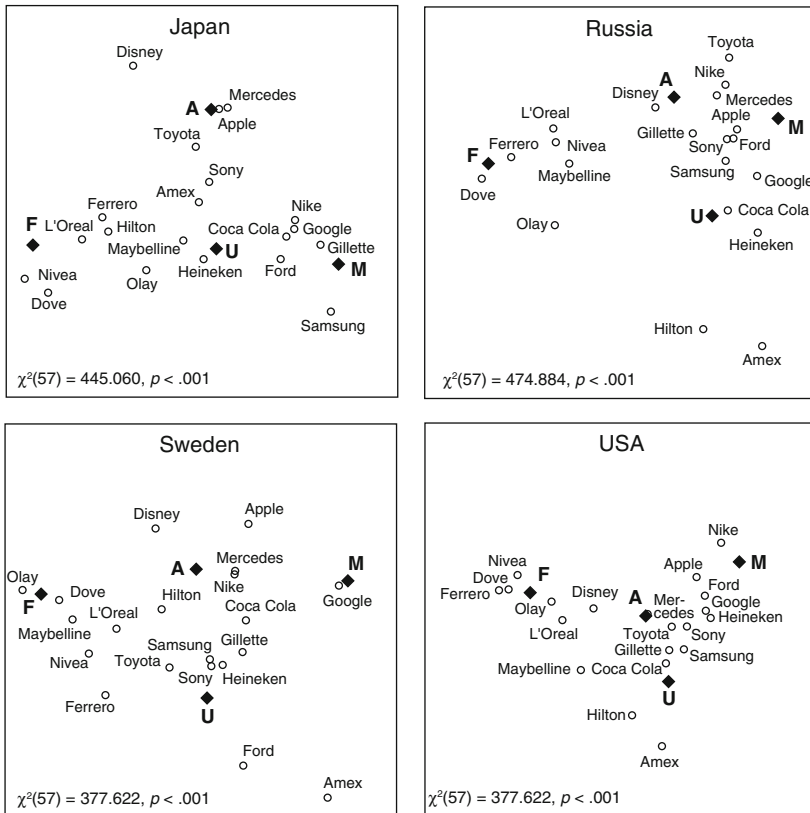


Fig. 4.2 (continued)

for masculine brands. The sequence for female consumers was -0.09 for masculine and 0.11 for feminine brands. Androgynous brands were rated highest, while undifferentiated brands were rated lowest, regardless of the biological sex of consumers. The discussion section comprehensively considers the consistency of this result with participants' gender identity (i.e., the feelings and attitudes that a particular culture relates to a person's biological sex).

Integrating the "individualistic versus collectivistic $\times$ brand gender associations impacts" considerably enhanced the model fit, as exemplified in Model 3 (evaluated against Model 2; $\chi^2 = 106.42, p < 0.001$).

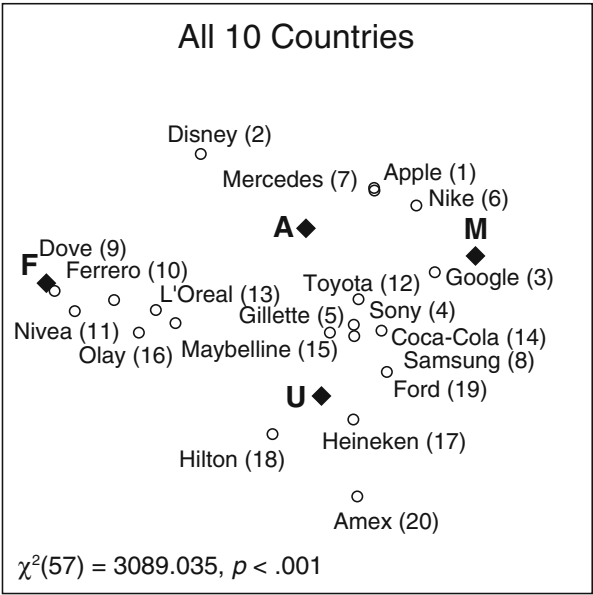


Fig. 4.3 Categorized brand gender worldwide. *F* feminine brands; *M* masculine brands; *A* androgynous brands; and *U* undifferentiated brands. Numbers in brackets denote worldwide rank in brand equity. The horizontal X-axis denotes gender from feminine to masculine; the Y-axis denotes low brand equity (*bottom*) to high equity (*top*)

Consistent with the third assumption, Fig. 4.5 shows that very masculine brands appear to produce greater brand equity in individualistic compared with collectivistic countries ($\beta_{MB\Pi \times IDV} = 0.099$, $p < 0.001$), whereas very feminine brands produce higher brand equity in highly collectivistic compared with individualistic countries ($\beta_{FBP \times IDV} = -0.025$, $p < 0.05$). Significantly, the earlier model findings remain reliable and robust even when accounting for further interaction impacts. The brand equities' value sequence by participants from individualistic countries was -0.18 for feminine and 0.07 for masculine brands. The sequence for consumers from collectivistic countries was -0.17 for masculine and 0.08 for feminine brands. Again, undifferentiated brands were rated the lowest, while androgynous brands were rated the highest, regardless of individualistic or collectivistic tendencies.



Fig. 4.4 Simple slopes analysis of the effect of biological sex of consumers on brand equity of feminine and masculine brands

General Discussion

Theoretical implications. This chapter offers a further assessment of how brand equity is influenced by brand gender across 10 countries on four continents. A key outcome is that androgynous brands create greater brand equity in comparison with either exclusively feminine or exclusively masculine brands. This outcome expands on the previous literature by indicating that brands that are credibly *aggressive* and *dominating* and also *graceful* and *sensitive* may see positive results for their equity. In addition to advancing the existing literature on the effects of brand gender, the present study also closes the gap between the existing literature on brand gender and gender schemata that has underscored the positive effects of a perception of androgyny.

This section also offers reliable proof for a brand gender analogy impact, in that feminine brands create higher brand equity among

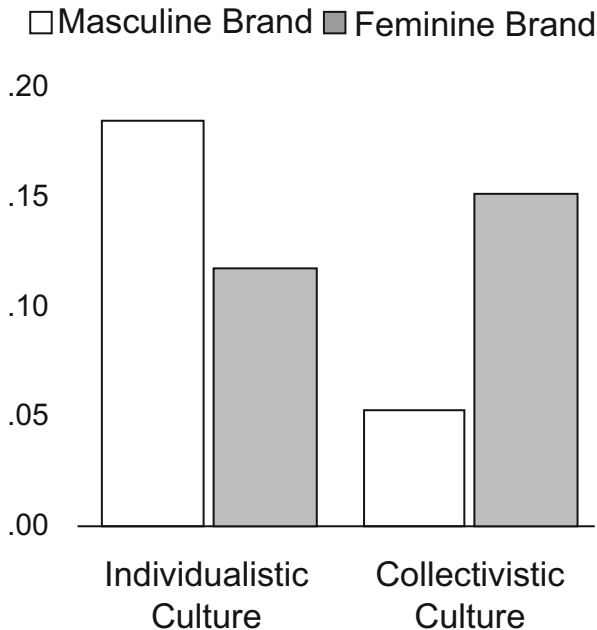


Fig. 4.5 Effect of collectivism and individualism on the brand equity of feminine and masculine brands

consumers of the feminine gender while masculine brands create higher brand equity among consumers of the masculine gender. This extends the previous literature assessing gender roles relating to brand gender perception and underscores that consumers' biological sex creates identical impacts despite the potential inhibition of cross-cultural environments. Additionally, the present study is the first of its kind to reveal how the impacts of brand gender vary based on culture. Specifically, a considerable range of masculine brands creates increased brand equity among individualistic countries, while feminine brands create larger brand equity among collectivistic countries. This outcome underscores the findings of the literature on cross-cultural gender identity schemata, exemplifying how individualistic cultures value the quest for personal objectives, accomplishment, and self-separation from others more than collectivistic cultures, whereas highly collectivistic cultures value the quest for profoundly integrative, common objectives, which solidly

emphasizes the contextual impacts on choice (Chen et al. 1998; Triandis et al. 1990).

Managerial implications. The central challenge facing managers of international brands is effective brand management in various countries (Solberg 2002). The key concern is the tension between adapting a brand to local markets versus global standardization. The results from the present study offer significant implications for the two preferences. On the one hand, the present set of results indicates how the adaptation of a brand's gender to a targeted culture (or market) can benefit businesses. Specifically, the results reveal how brands gain from tailoring to increase masculinity in individualistic countries and femininity in collectivistic countries. Nonetheless, adapting a brand to particular cultures will most likely place intricate demands on brand managers in addition to increasing costs. On the other hand, androgynous brands produce identically increased brand equity across countries; therefore, an androgynous brand setting could offer a much-needed efficient universal standardization strategy (Solberg 2002). This may resolve certain dilemmas for brand managers, such as the need to adapt a brand to both the culturally reliant predilections for highly feminine qualities in collectivistic countries and highly masculine qualities in individualistic countries. Tailoring a brand to encompass both feminine and masculine brand personality qualities appears to be more fruitful than merely capitalizing on wholly feminine or wholly masculine qualities. Popular androgynous brands, such as Apple, Calvin Klein, or Disney, have demonstrated success, indicating how androgynous brands can improve their brand's equity across cultures and countries.

Nevertheless, rather than having a pure dichotomy of entirely standardized or entirely customized brand tailoring, businesses may balance the two methods based on a country's individualistic versus collectivistic tendencies. It is crucial to retain (or converge toward) highly feminine brand positioning (for collectivistic countries) or highly masculine brand positioning (for individualistic countries). However, the brand's tailoring should be standardized in these countries at intermediate levels of collectivism and individualism. Most firms seem to have a brand that is either globally standardized or founded on a basic dichotomy (such as Eastern versus Western countries), but both instances produce less valuable outcomes across markets. De Bellis et al. (2015) showed the

significance of examining other techniques. Arguably, only a minimal percentage of countries lie at the extremes of collectivism (such as China) or individualism (such as Australia and the USA), while a significant number of countries fall within the intermediate area of the IDV scale (such as India, Sweden, Brazil, and Sweden, varying roughly from 40 to 70). Therefore, it is critical for international businesses to implement hybrid techniques founded on the limits of a country's individualistic versus collectivistic affinities, as well as to institute brand positioning approaches that balance specifically feminine or masculine versus androgynous qualities.

Aside from conventional marketing communications that signify a brand, such as advertising campaigns or a logo, brand managers may tactically utilize a set of stimuli to enable a conditional emphasis on desired brand personality qualities that will attract certain consumer segments. For instance, Apple's highly stern, masculine in-store design can be offset by a definite script for salespeople that reflects highly feminine qualities such as "personalized warm welcome," "ending with a fond farewell," and "emotional reassurance and understanding" (Kane and Sherr 2011). Therefore, brand managers may capitalize on additional stimuli representing a brand (for instance, in-store design, salespersons' attire, or salespersons' particular scripts, as with Apple) to effectively underscore desired brand gender qualities.

In this chapter, a particularly interesting observation for brand strategists and practitioners was, within the 20 sampled brands, the lack of masculine brands in some countries and feminine brands in others. These brands were either feminine in some countries and undifferentiated or androgynous in others, or masculine in some countries and undifferentiated or androgynous in others. The strongest brands were never undifferentiated in any country. Apple was associated with masculinity in Germany, Sweden, Australia, France, and the USA, while it was androgynous in the rest. Disney was considered highly feminine in Sweden, Australia, and France, while it was considered androgynous in the remaining seven countries. Therefore, agencies may initially assess their general brand positioning, then adapt to opposite gender perceptions for target markets as necessary. Regardless of such gender perceptions, the critical managerial implication is to prevent undifferentiated brands as much as possible. Brand equity was highly negatively correlated with the

number of countries where brands were undifferentiated ($r = -0.786$, $p < 0.001$). For instance, Hilton and Heineken are both undifferentiated in six countries and American Express is undifferentiated in seven countries, and they were respectively ranked seventeenth, eighteenth, and twentieth on brand equity among the 20 brands.

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5

Brand Gender and Equity Through Brand Design

A Brand Is More Than a Name

Various researchers (Walsh et al. [2010](#), [2011](#)) have defined brand design components as the symbols, signs, and names used in the identification and differentiation of brands and as comprising the name of the brand, the shape of the logo, and its color and type font. In marketing studies, elements of brand design have greatly affected customers' perceptions of "brand character" (Batra et al. [1993](#))—the human personality traits consumers associate with a brand (J. L. Aaker [1997](#)). Brand personality comprises manifold dimensions: sincerity, excitement, sophistication, ruggedness, and competence (J. L. Aaker [1997](#)), as well as femininity and masculinity (Grohmann [2009](#)). While there has been a drastic growth in the research examining the impact of brand design features on brand personality dimensions (Grohmann et al. [2012](#); Labrecque and Milne

The current chapter refers to the publication, "The Effect of Brand Design on Brand Gender Perceptions and Brand Preference" by Theo Lieven, Bianca Grohmann, Andreas Herrmann, Jan R. Landwehr, and Miriam van Tilburg in the *European Journal of Marketing* in 2015 (Lieven et al. [2015](#)). This chapter was selected by the journal's editorial team as a Highly Commended Paper in the 2016 Emerald Literati Network Awards for Excellence. Wherever feasible, text passages have been modified and reworded; identical tables and figures, however, have been adopted.

2012; Orth and Malkewitz 2008), the influence of brand design on perceived brand femininity and masculinity has not previously been well examined and will be considered comprehensively in this chapter.

To begin, this review will examine the impact of brand design elements (brand name; logotype font, color, and shape) on brand femininity and masculinity awareness. The subsequent objective includes examining the impact, if any, of design-induced brand femininity and masculinity perceptions on brand equity and consumer preferences. The existing literature indicates that brand personality plays a role in brand equity (Keller 1993) since it enables consumers to easily relate to a brand (Fournier 1998) or to exhibit themselves via brand use (J. L. Aaker 1997). The developing literature reveals that the feminine and masculine dimensions of brand personality are interrelated positively to consumer's responses to a brand and to brand equity (Grohmann 2009; Lieven et al. 2014). In providing evidence of the impact of brand femininity and masculinity discernments on brand equity and consumer preferences, various studies have emphasized the impact of brand design on managerially significant outcomes (D. A. Aaker and Keller 1990; Leuthesser et al. 1995; Salzer-Mörling and Strannegård 2004).

The present study engages an evolutionary psychology (EP) point of view in considering the impact of physical brand design characteristics on consumers' discernment of brand femininity and masculinity. An argument from the EP perspective says that the psychological processes impacting behavior and preferences are associated with the outcome of evolution through selection (Buss 1995). The contemporary literature on marketing has clearly illustrated the significance of EP-founded theories in explaining consumption behaviors (Griskevicius et al. 2012). By assessing the impact of brand design features on brand femininity and masculinity perceptions, as well as on brand equity and consumer preference, this chapter contributes to the literature in several ways. While researchers have begun to examine the impact of brand design features on brand personality perceptions (Labrecque and Milne 2012; Grohmann et al. 2012), these analyses underscore only a small number of design aspects, such as logo color (i.e., saturation and hue; Labrecque and Milne 2012) or type font traits, such as harmony, flourish, natural, weight, and hue (Grohmann et al. 2012). This chapter extends the consideration of

brand design features to include brand name and logo, while also reexamining the impact of type font and color. By considering these aspects from a theoretical point of view, the present study underscores the prudence of an EP-centered justification of the impacts of manifold and dissimilar design features. From a managerial point of view, this assessment of brand design features clearly shows their efficiency in producing the preferred brand perception of femininity or masculinity.

Next, this study underscores the impact of brand design on perceptions of brand masculinity and femininity—two brand personality dimensions not yet examined by others despite their significance to brand positioning in diverse product categories such as individual care products and fragrances. Previous studies on brand design (Labrecque and Milne 2012; Grohmann et al. 2012) have, however, taken dimensions of sincerity, sophistication, excitement, competence, and ruggedness into consideration (J. L. Aaker 1997).

Last, this study is among the few assessing the ability of design-evoked brand personality perceptions to influence consumer responses to a brand. While it has been suggested in the literature that both brand femininity and masculinity lead to affirmative consumer reactions (Grohmann 2009; Lieven et al. 2014), empirical evidence of this relation remains scarce. This study explicitly examines the degree to which brand femininity or masculinity compels consumer choice and consumer-based brand equity.

Conceptual Background

EP has turned out to be an excellent conceptual framework for marketing, as well as brand positioning research (Colarelli and Dettmann 2003; Foxall 1993; Foxall and James 2003; Griskevicius et al. 2012; Griskevicius and Kenrick 2013; Saad 2013; Saad and Gill 2000). EP explains how the evolution of the human mind occurred via sexual and natural selection; its adaptation to challenges such as mating, survival, and kin selection; and reciprocal altruism (Saad 2013). According to EP, key motives such as self-defense from physical damage and disease, passionate partner attraction and retention, associations, status, and care for offspring (Kenrick et al. 2010) affect emotions, discernments,

cognition, and memory (Saad 2013), as well as preferences and behavior (Griskevicius and Kenrick 2013).

This chapter extends EP-based studies by investigating the capacity of brand design elements to impact consumers' perceptions of brand femininity and masculinity. Elements of brand design include those elements linked to a brand, such as color, shape, logo, and type font (Henderson and Cote 1998), that play a major role in brand perception (Batra et al. 1993), identification, and differentiation (Walsh et al. 2010, 2011). In associating the physical aspects of a brand setting with perceptions of femininity and masculinity, the present chapter exploits existing EP literature linking physical aspects to individuals' perceptions of femininity and masculinity. This literature argues that individuals' discernments of femininity and masculinity based on physical features are entrenched in psychological considerations for the selection of mates. The establishment of various dissimilarities in physical qualities between genders, called sexual dimorphism (Darwin 1871), was highly influenced by acclimatization to dissimilar reproductive roles. To the extent that a person's degree of feminine or masculine qualities may enable them to more efficiently compete against other persons of the same sex (i.e., intrasexual competition; Buss and Barnes 1986) and to increase the probability of being preferred in mate choice (Buss and Barnes 1986), such qualities seem to increase competitive advantage for sexual preference and are transferred to the next generation (Andersson 1994).

In the mate-selection process, physical features are considered signs of the quality and reproductive value of a probable mate (Gillian Rhodes 2006; Symons 1979; Gangestad and Scheyd 2005). Physical features that strongly indicate individuals' femininity or masculinity are highly valued, and they therefore play a key role in the consideration of others' genetic fitness for offspring and attractiveness as potential mates (Kaplan and Gangestad 2005; Grammer et al. 2003). The evolutionary-based trend to search for a genetically fit mate probably enhances individuals' degree of attention to physical aspects that have to do with attractiveness (Jokela 2009). This is an indication that most people may be highly receptive to physical appearance indicating femininity or masculinity. Significantly, feminine and masculine features seem to increase supposed attractiveness—notwithstanding the perceiver's gender (Grammer and Thornhill

1994; Johnston et al. 2001; Penton-Voak et al. 2001; Perrett et al. 1998; G. Rhodes et al. 2003). This could be the result of intrasexual competition, which necessitates competence in deducing feminine and masculine characteristics in order to judge identical sex competitors, as well as in measuring those qualities capable of enhancing ones' own attractiveness to the opposite gender (Buss and Schmitt 1993). In the same vein, persons appear to prefer mates corresponding to their personally perceived degree of attractiveness, which necessitates persons judging their personal degree of attractiveness in addition to that of potential key mates (Buss and Schmitt 1993).

Overall, physical characteristics have some level of impact on masculinity and femininity perceptions (Furnham and Radley 1989), while the level to which a person expresses masculine or feminine characteristics defines others' judgment of his or her attractiveness (Kaplan and Gangestad 2005). Since such psychological methods pertain to key motives (Buss 1989, 1994), it is probable that clients will identify and react positively to physical qualities expressing femininity and masculinity in brand design. The subsequent section discusses particular elements of brand design and their impact on brand masculinity or femininity, brand equity, and brand preferences.

Brand Name

Evolutionary phonology describes language as the product of an adaptive procedure that is pertinent to evolutionary psychology (Blevins 2004; Croft 2008). Language entails sound interpretation. From this vantage point, the theory of sound symbolism postulates that word meaning originates from the sound of those phonemes having the least sound units: that is, consonants or vowels. Various researchers have confirmed a correlation between vowel sounds and brand perception (Klink 2000, 2003; Yorkston and Menon 2004). For instance, products whose brand names contain front vowels (such as *i* and *e*)—contrary to back vowels (such as *o* and *u*)—were considered more feminine, lighter in weight and color, thinner, milder, weaker, colder, faster, bitter, softer, prettier, and friendlier (Klink 2000).

The other categories of phonemes comprise consonants such as stops (*p*, *t*, *b*, and *k*) and fricatives (*f*, *s*, *v*, and *z*). Brand names are considered highly masculine, heavier, or slower when the consonant is a stop rather than a fricative (Klink 2000). The present study concentrates on the impact of vowels on brand femininity and masculinity perceptions. We anticipate that femininity perceptions are highly impacted by the use of front vowels, while masculinity perceptions are highly affected by the use of back vowels. Therefore, brand names are expected to impact perceived brand femininity and masculinity in that (a) front vowels enhance perceived feminine brand personality (FBP) while (b) back vowels increase perceived masculine brand personality (MBP).

Type Font

The influences of bold/airy and angular/round qualities on femininity/masculinity discernments may likewise be considered in brand design aspects such as type font. In accord with Peacock (2005), those type fonts considered feminine include elegant, sleek, and serif-type fonts, while masculine ones include solid, boldface type fonts. In equal measure, Shaikh et al. (2006) show that script fonts (such as Monotype Corsiva, Kristen) tend to have a feminine connotation, while modern display fonts (such as Agency FB, Impact) represent masculinity. In general, airy, round-type fonts will in most cases represent brand femininity, while heavier (such as boldface, hereinafter called bold), angular fonts will represent brand masculinity. The subsequent hypothesis argues that type font affects perceived brand femininity/masculinity, in that (a) a type font that is more airy and rounder will increase FBP, while (b) a type font that is bold and highly angular will increase MBP.

Color

Color has the capacity to express brand meaning and generate brand identity in packaging, advertising, distribution, and brand logo design (Klink 2003). The association between color and the femininity/masculinity

perception is, in most cases, assessed with regard to the sex-affiliated stereotyping of colors in the process of socialization (Picariello et al. 1990; Pomerleau et al. 1990) and cultural factors, as well as discernments of gender stereotypes associated with color relations (Cunningham and Neil Macrae 2011).

EP offers an efficient description of the association between color and femininity/masculinity, in that face color may act as an indicator of femininity and masculinity. Women appear to be relatively more light-skinned compared with men (Jablonski and Chaplin 2000) as a result of their increased estrogen levels (Perrett et al. 1998). From the perspective of ethnic groups, studies reveal that mate choice predilections appear to favor women with light skin tones in comparison with the local average, as well as men with darker complexions compared with the local average (van den Berghe and Frost 1986). This fondness toward women defined by a lighter skin tone is often associated with a connection between lighter skin and health (and therefore reproductive fitness; Stephen et al. 2009), as well as the enhanced facial contrast between lighter skin and eyes or lips, thereby acting as an indicator of femininity (Russell 2009). This underscores why lighter colors are highly correlated with femininity, while darker complexions are highly associated with masculinity. There is thus a probability that using light colors in brand presentation escalates brand femininity perceptions, while using dark colors escalates brand masculinity perceptions.

In addition, in the EP literature, it has been suggested that the color red is associated with femininity and attraction (Elliot and Niesta 2008; Pazda et al. 2012). Therefore, the impact of color on femininity and masculinity perceptions seems to comprise both hue, such as blue versus pink or red (Alexander 2003; Elliot and Niesta 2008), and brightness (Jablonski and Chaplin 2000). This study hypothesizes that color affects perceived femininity/masculinity in that (a) lighter (pink/red) color increases perceived FBP and (b) darker (blue) color increases perceived MBP.

Logo Shape

In accordance with Henderson and Cote (1998), this study defines logo shape as entailing the graphic design of a brand logo. Since logos are a physical expression of brands, a logo shape is capable of impacting perceived brand femininity/masculinity according to EP principles. The EP literature indicates that physical qualities—such as shoulders, waist-to-hip ratio, upper body musculature and biceps, body-mass index, and waist-to-chest ratio—affect perceptions of femininity and masculinity (Horvath 1981; Gillian Rhodes 2006; Singh 1993; Symons 1979; Gangestad and Scheyd 2005). Two physical appearance dimensions—bold versus airy and angularity versus roundness—seem to play a significant role in such perceptions. The literature has shown how an angular, V-shaped torso proportionate to physical power and muscle progress in the upper body enhances the perceived attractiveness of men (Furnham and Radley 1989). Furthermore, consistent with Fisher et al. (2002), among the qualities affecting perceptions of male attractiveness is a muscular physique.

While the prototypical man's body shape comprises an angular V-shape defined by a low waist-to-chest ratio (Horvath 1981) and moderate heaviness (Furnham and Radley 1989), a curved ("hourglass") body defined by a waist-to-hip ratio of typically 0.7 and an airy build is correlated with females and feminine attractiveness (Singh and Young 1995). Logo shapes of airy versus bold and round versus angular appearances (expressing typically feminine and masculine body appearances, respectively) have the capacity to influence consumers' perceptions of brand femininity and masculinity. The literature on marketing aesthetics equally underscores this prediction concerning the impact of angularity and roundness, correlating rounder appearances to femininity and angular forms to masculinity (B. H. Schmitt and Simonson 1997). That being said, it is hypothesized that logo shape impacts perceived brand femininity/masculinity in that (a) bold and angular logos increase MBP while (b) airy and rounder logos increase FBP.

Impact of Brand Design-Based Masculinity and Femininity Perceptions on Brand Preferences and Equity

In accordance with Barrett et al. (2002) and Buss (2005), EP indicates how physical features are able to impact perceived attractiveness. Women seem to gauge rank, power, and the capacity to defend others as necessary male characteristics, while men appear to consider fertility the most desirable quality in women (Buss 1989, 1994; D. P. Schmitt et al. 2001). Femininity and masculinity indicators that signify the presence of such desired qualities play a huge role in mate selection choices and attractiveness perceptions (Gangestad and Simpson 2000; Symons 1979). A highly masculine appearance signifying status and strength or a highly feminine appearance signifying fertility is in most cases regarded attractive (Etcoff 2000).

The correlation between femininity or masculinity and attractiveness could indicate a connection between highly feminine and masculine brands and the consumer response to these brands. The assumption that consumers consider brands to be feminine or masculine (Grohmann 2009) and apply social verdicts to non-human entities (J. Aaker et al. 2010) is dependent on consumers' capacity to identify and deduce physical indicators of femininity and masculinity in a brand. If so, perceptions of femininity and masculinity are capable of affecting brand choices and, thus, brand equity due to their being positively assessed as having highly feminine or masculine features. Past studies have likewise indicated the existence of strong and positive correlations between brand preferences and brand equity. For instance, Keller (1993) considers brand equity to have a differential impact on consumer reactions, which are highly affected by consumer preferences. Likewise, Cobb-Walgren et al. (1995) show how high-equity brands are capable of creating considerably stronger brand preference. Therefore, it is highly expected that highly feminine or masculine brands induce greater brand equity in comparison with only slightly feminine or masculine brands.

Empirical Studies

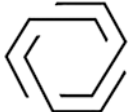
Study 1 assesses how perceptions of femininity and masculinity are influenced by brand logo shape. Study 2 examines the impact of brand names and type fonts on brand preferences and brand gender perceptions. Study 3 examines the impact of type fonts and color on brand preferences and brand gender perceptions. Finally, Study 4 assesses the influence of modifying prevailing brand designs on perceived brand gender and equity.

Study 1: Logo Shapes and Brand Masculinity/Femininity

Study 1 utilized a two (bold versus airy) by two (angular versus round) comparison between participants' designs. To exclude the impact of brand familiarity, this study used a fictional brand logo chosen from Henderson and Cote (1998). As indicated in Table 5.1, the logo was modified to vary it along the angular/round and bold/airy dimensions. The sample comprised associates from a European consumer panel (totaling 65,000 participants) whose response channel was entirely by email, inclusive of a survey link inviting them to engage in an online survey. The logo conditions were randomly assigned to participants. The logo was rated by the sample ($n = 548$, 40.0%, $M_{\text{Age}} = 45.3$, $SD_{\text{Age}} = 12.1$) on two differential scales reflective of angularity/roundness and slenderness/heaviness in a design setting (1 = "bold/solid" to 11 = "airy/delicate;" 1 = "angular/sharp" to 11 = "round/smooth;" Björntorp 2006). The participants rated the perceived brand gender of the logos on two 7-point masculinity and femininity scales.

In support of the first hypothesis, the perceptions of brand femininity and masculinity were affected by logo shape, with bold and angular logos increasing perceptions of brand masculinity, while perceptions of brand femininity were increased by airy and round logos.¹

Table 5.1 Study 1: Logos and ratings

	Logo 1	Logo 2	Logo 3	Logo 4
				
1 = bold/solid versus 11 = airy/delicate	3.78	6.06	4.72	6.04
1 = angular/sharp versus 11 = round/ smooth	4.40	4.24	8.58	8.82
Masculinity	5.18	4.49	3.86	3.34
Femininity	2.63	3.09	3.91	4.44
Masculinity– Femininity (Gender)	2.55	1.40	–0.05	–1.09

Logo and its modifications based on a logo from Henderson and Cote (1998)

Study 2: Type Font, Brand Name, Brand Masculinity/Femininity, and Brand Preferences

This study takes into consideration the impact of brand name and type font in a within-participants setting that thoroughly estimates the brand assessment contexts faced by consumers. This study also assesses the correlations among brand name, type font, and femininity/masculinity, and consequential consumer preferences for brands within a given product classification. Since the impact of brand femininity/masculinity on brand preferences can depend on product category gender associations, this study further examines the impact on preferences of similarity between brand and product category femininity and masculinity.

Identical to brands, product categories are related to femininity and masculinity (Fugate and Phillips 2010; Milner and Fodness 1996). Since product-level correlations affect consumers' brand perceptions (Keller 1993), such perceptions are capable of weakening or strengthening brand correlations. Based on the theory of categorization and the conclusion that facilitated classification enhances preference (Lamberts and Brockdorff 1997; Solomon et al. 1999), congruence between brand femininity/masculinity and product category femininity/masculinity is thought to affect brand preferences in a positive way. This means that similarity between brand and product type femininity/masculinity (such as a masculine brand in a masculine product classification) probably strengthens brand femininity/masculinity perceptions and enhances preferences, while dissimilarity (e.g., a feminine brand within a category of masculine product) may result in difficult categorization, in addition to a weakening of brand-level associations via mismatching product category associations that eventually adversely impact preferences. It is highly significant to consider that, for those categories linked equally to women and men (such as smartphones, cars, deodorants), brands can situate themselves at any position along the femininity/masculinity range to attract a certain target segment (i.e., women only, men only, or consumers from both groups). Nonetheless, in accordance with the literature on brand association and categorization, any brand position that is highly congruent with masculine/feminine brand categories strengthens brand femininity/masculinity,

thereby benefiting the brand. This means that there is a likely higher congruence of brand femininity/masculinity (FBP, MBP) with product category femininity/masculinity (FPG, MPG), increasing brand preferences. While examining the impacts of brand femininity/masculinity on preferences, the second study equally contemplates the influence of product category femininity/masculinity associations.

A two (brand name) by four (font name) within-subject experiment assessed the impact of type font and brand name on perceptions of brand femininity and masculinity, as well as brand preferences. In this study, the brand name operations comprised two invented brand names with back (Bloyt) or front vowels (Edely). Type font manipulations included two bold/angular fonts (Impact, Agency FB) and two airy/round fonts (Monotype Corsiva, Kristen; Shaikh et al. 2006). The sample ($n = 657$, 44.2% female, $M_{\text{Age}} = 41.2$, $SD_{\text{Age}} = 12.2$) enrollment was from a European consumer panel via an email containing a survey link. They initially rated the two brand names (typed in Arial font) considering brand name femininity and brand name masculinity (1 = “not at all masculine [feminine]” to 7 = “very masculine [feminine]”), as well as the four type fonts (displayed as a string of letters) on a double semantic differential range (1 = “bold/solid” to 11 = “airy/delicate”; 1 = “angular/sharp” to 11 = “round/smooth”). The type font masculinity or femininity was evaluated as well (1 = “not at all masculine [feminine]” to 7 = “very masculine [feminine]”) based on a type sample (string of letters). Thereafter, participants rated MBP and FBP associated with each of the eight combinations of brand name/type font (i.e., two brand names combined with four type fonts). Brand gender was measured on Grohmann’s (2009) model (MBP: *adventurous, aggressive, brave, daring, dominant, and sturdy*; FBP: *expresses tender feelings, fragile, graceful, sensitive, sweet, and tender*). Participants were then randomly assigned to three of 12 product categories (cars, sweets/snacks, fragrance/cosmetics, transportation, soft drinks, alcohol/tobacco, financial services, household products, electronics, apparel, information technology, and food) and asked to rate product category masculinity/femininity perceptions (MPG, FPG) on the MBP/FBP items (MPG: $\alpha = 0.88$; FPG: $\alpha = 0.92$; $r_{\text{FPG-MPG}} = 0.67$). To express brand preference in that product category, they then distributed 100 points across the eight type font/brand name

Table 5.2 Study 2: The impact of brand name and type font on brand, femininity, masculinity, and preference

Name	Name masculinity	Name femininity	Type font	Bold/solid versus Airy/ delicate	Angular/sharp versus Round/ smooth	Font masculinity	Font femininity	Name	Brand MBP	Brand FBP
Bloyt	4.53	1.98	Impact	2.40	4.14	5.08	2.14	Bloyt	5.33	2.10
			Agency	5.62	3.87	4.31	2.89	Bloyt	4.45	2.57
			Kristen	6.89	7.74	2.70	4.29	Bloyt	3.41	3.40
Edely	2.40	4.28	Monotype	7.71	8.95	2.48	5.11	<i>Bloyt</i>	2.96	4.09
			Impact	2.40	4.14	5.08	2.14	Edely	4.33	2.87
			Agency	5.62	3.87	4.31	2.89	Edely	3.65	3.41
			Kristen	6.89	7.74	2.70	4.29	Edely	2.70	4.26
			Monotype	7.71	8.95	2.48	5.11	<i>Edely</i>	2.25	5.22

combinations. Table 5.2 summarizes brand name and type font perceptions, as well as MBP, FBP, and MBP–FBP difference ratings.²

To analyze the relationships among brand design elements and perceived brand gender and fit between brand preference and brand/product category gender, we aggregated the data. By this, the 12 product categories with eight brand versions for each resulted in 96 cases. Product category gender and preference rankings are depicted in Table 5.3.

The Euclidian distance was calculated as a measure of dissimilarity between brand and product category gender. By this, product category effects on brand perceptions were included:

$$\text{Distance} = \sqrt{(MBP - MPG)^2 + (FBG - FPG)^2}$$

Figure 5.1 summarizes the associations between brand design elements, brand femininity/masculinity, and preferences verified in linear regression analyses.³ In support of our hypothesis, brand masculinity and femininity positively related to brand preferences. The more brand and product genders were congruent, the stronger this relation. A simultaneous partial least square (PLS) regression model (Ringle et al. 2005) replicated these findings.

The outcome supported our assumptions. Brand logos having airy, round-type fonts and brand names inclusive of front vowels enhanced brand femininity, while brand names with bold, angular-type fonts comprising back vowels heightened brand masculinity perceptions. Utilization of constant cues led to highly pronounced perceptions of femininity and masculinity, thereby increasing brand preference. Considering product category and brand gender similarity suggested that enhanced similarity between brand and product category gender escalates preferences.

Study 3: Type Font, Color, Brand Femininity/Masculinity, and Brand Preference

The third study assesses the impact of color and type font on perceptions of brand femininity and masculinity, while replicating the results of the correlation between brand femininity/masculinity and brand preferences

Table 5.3 Study 2: Product gender, brand gender, and brand equity ratings by product category

Product category	Masculine product gender	Feminine product gender	Name	Type font	Brand MBP	Brand FBP	Brand equity
Fragrance, Cosmetics	3.47	4.76	Bloyt	Impact	5.36	2.14	6.03
				Agency	4.37	2.57	6.49
				Kristen	3.49	3.44	8.72
			Edely	Monotype	3.10	4.13	19.54
				Impact	4.42	2.89	6.66
				Agency	3.85	3.43	9.75
Sweets, Snacks	3.05	4.45	Bloyt	Kristen	2.86	4.33	12.31
				Monotype	2.41	5.12	28.74
				Impact	5.31	2.09	7.74
			Edely	Agency	4.45	2.55	7.40
				Kristen	3.27	3.40	15.88
				Monotype	2.79	4.12	16.86
Food	3.15	3.78	Bloyt	Impact	4.31	2.79	7.47
				Agency	3.50	3.26	7.58
				Kristen	2.52	4.15	14.02
			Edely	Monotype	2.19	5.17	22.40
				Impact	5.21	2.16	10.93
				Agency	4.32	2.62	8.25
Soft drinks	3.31	3.75	Bloyt	Kristen	3.39	3.48	10.52
				Monotype	2.85	4.25	15.89
				Impact	4.48	2.84	11.81
			Edely	Agency	3.70	3.34	12.77
				Kristen	2.75	4.11	10.54
				Monotype	2.17	5.23	18.68
			Bloyt	Impact	5.42	2.00	11.45

(continued)

Table 5.3 (continued)

Product category	Masculine product gender	Feminine product gender	Name	Type font	Brand MBP	Brand FBP	Brand equity
Fashion, Apparel	3.79	4.23	Edely	Agency	4.65	2.53	9.62
				Kristen	3.49	3.26	14.76
				Monotype	3.09	3.87	15.82
				Impact	4.14	2.96	8.40
				Agency	3.51	3.61	9.15
				Kristen	2.65	4.46	12.99
			Bloyt	Monotype	2.23	5.36	15.37
				Impact	5.21	2.16	8.48
				Agency	4.32	2.62	8.90
				Kristen	3.39	3.48	10.44
				Monotype	2.85	4.25	17.72
				Impact	4.48	2.84	5.60
Cigarettes, Alcoholic Beverages	3.91	2.88	Edely	Agency	3.70	3.34	10.48
				Kristen	2.75	4.11	12.77
				Monotype	2.17	5.23	25.60
				Impact	5.36	2.14	14.58
				Agency	4.37	2.57	10.42
				Kristen	3.49	3.44	10.55
			Edely	Monotype	3.10	4.13	16.60
				Impact	4.42	2.89	10.54
				Agency	3.85	3.43	10.36
				Kristen	2.86	4.33	8.67
				Monotype	2.41	5.12	16.51
				Impact	5.31	2.09	15.44
Home-related products	4.02	2.79	Bloyt	Agency	4.45	2.55	16.11

(continued)

Table 5.3 (continued)

Product category	Masculine product gender	Feminine product gender	Name	Type font	Brand MBP	Brand FBP	Brand equity
Information technology	4.03	2.93	Edely	Monotype	2.79	4.12	13.84
				Impact	4.31	2.79	12.69
				Agency	3.50	3.26	9.77
				Kristen	2.52	4.15	6.50
			Bloyt	Monotype	2.19	5.17	9.99
				Impact	5.42	2.00	12.41
	4.07	2.84	Edely	Agency	4.65	2.53	19.74
				Kristen	3.49	3.26	12.73
				Monotype	3.09	3.87	8.38
				Impact	4.14	2.96	9.78
			Bloyt	Agency	3.51	3.61	14.91
				Kristen	2.65	4.46	10.04
Transportation	4.07	2.84	Bloyt	Monotype	2.23	5.36	8.95
				Impact	5.21	2.16	18.93
				Agency	4.32	2.62	12.72
				Kristen	3.39	3.48	9.47
			Edely	Monotype	2.85	4.25	12.80
				Impact	4.48	2.84	13.84
	4.07	2.84	Edely	Agency	3.70	3.34	12.16
				Kristen	2.75	4.11	7.25
				Monotype	2.17	5.23	11.62
			Bloyt	Impact	5.21	2.16	18.93
				Agency	4.32	2.62	12.72
			Edely	Monotype	2.85	4.25	12.80

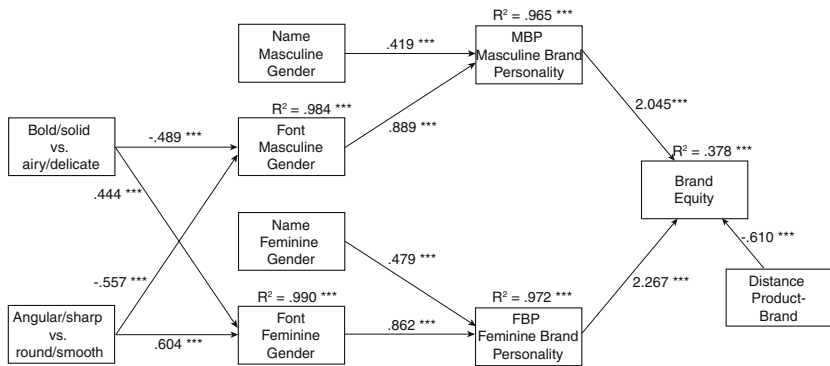


Fig. 5.1 Study 2: Path and determination coefficients. *Note* Summary of the separate regressions from Study 2. Results are the same when calculated simultaneously in a partial least-squares (PLS) model

and offering additional proof of a congruence between brand and product femininity/masculinity. This study considered a two (type font) by two (color) by two (product category) between-subjects design, while the product categories (i.e., smartphones, deodorants) had different associations with femininity/masculinity. Smartphones and deodorants both have identical usage levels among women and men. A further study indicates that information technology products (the category affiliated with smartphones) and cosmetics products (the category for deodorants) are related, respectively, to masculinity and femininity.

Stimuli comprised four brand designs merging an airy/round-type font (Monotype) or a bold/angular-type font (Impact) with a light hue/brightness color (bright pink [RGB 255, 0, 127]) or a dark hue/brightness color (navy blue [RGB 0, 0, 128]). Color selection was based on prevailing studies of color-associated perceptions of femininity and masculinity (Picariello, Greenberg, and Pillemer 1990), while not considering the independent influence of hue and brightness. The application of these designs was considered on a deodorant dispenser (with a fictional “Young” brand), as well as on a smartphone (with “Connect” being the fictional brand). As indicated in Fig. 5.2, the stimuli examples were physically represented. Sample selection was considered from a European consumer panel ($n = 1103$; 41.3% female, $M_{Age} = 44.7$,



Fig. 5.2 Study 3: Stimuli (© iStock.com/natashica, iStock.com/31moonlight31)

$SD_{\text{Age}} = 12.1$). The aforementioned sample took part in an online study, with subjects assigned randomly to the deodorant ($n = 516$) or smart-phone ($n = 587$) category and associated with one brand design. The brand was rated by the participants with respect to FBP and MBP (Grohmann 2009). The participants were required to look at the four brand designs in the product category to express their relative preferences on a 100-point constant sum scale.

Following the findings in this study, type fonts have an effect on brand gender, while weak evidence existed for such an effect by color. A further important finding was the existence of consumer preferences for feminine/masculine brands in feminine/masculine product categories. Gender congruence between brand and product is a driver of brand preferences. This preference shifts with the gender of the product category: When the product category is feminine, feminine brands are preferred. The same holds for masculine products.⁴

Study 4: Modification of Brand Communication for Existing Brands and Brand Equity

Studies 1, 2, and 3 provided evidence that brand design elements influence brand gender perceptions. In Study 4, the following were examined:

- The efficiency of modifying the elements of brand design integrated into brand communications to alter the femininity/masculinity perceptions of prevailing brands,
- The likelihood of these modifications having a negative impact on a prevailing brand's equity. The above concern is a significant consideration in brand repositioning since brand femininity and brand masculinity are in most cases intellectualized as brand personality dimensions (Grohmann 2009), and
- The impact of brand femininity and brand masculinity on brand equity in addition to the influence of additional dimensions of brand personality such as sophistication, sincerity, competence, excitement, and ruggedness (Aaker, 1997).

The study analyzed Dove's (feminine brand: MBP = 4.02, FBP = 4.82) and Mercedes' prevailing print adverts (masculine brand: MBP = 5.26, FBP = 4.08), founded on a pre-test. The inventive Mercedes advert used a dark blue color (RGB 50, 50, 55) and bold-type font (Centaur; henceforth identified as dark/bold design). An airy type font (Monotype; hereafter referred to as light/delicate design) and a light

red color (RGB 145, 100, 125) were part of the modified advertisement. The inventive Dove print advert used an airy type font (MyriadPro; light/delicate design) and a light gold–brown color (RGB 150, 130, 80), while the modified advert was blue (RGB 50, 80, 100) with a bold-type font (Arial Rounded MT Bold; dark/bold design). The two (brand: Mercedes, Dove) by two (brand design: dark/bold, light/delicate) between-participants online study randomly assigned 413 participants (44% female, $M_{\text{Age}} = 42.8$, $SD_{\text{Age}} = 11.8$) to a single advert and asked them to scale the advert brand with 42 brand personality items (Aaker 1997), 12 MBP/FBP items (Grohmann 2009), and six brand equity items based on Yoo et al. (2000).

By engaging design elements integrated into brand communications, it can be shown how the modification of brand femininity and masculinity of prevailing brands can be achieved. By utilizing the prevailing brands, this study replicated some of the previous literature concerning the impact of brand design on perceptions of brand femininity or masculinity, and for a single brand, on the association between brand femininity/masculinity and brand equity. Integrating brand design elements in adverts effectively altered brand femininity and masculinity perceptions for established brands: In consideration of Mercedes, the dark/bold design enhanced brand masculinity ($MBP_{\text{dark/bold}} = 4.83$, $MBP_{\text{light/delicate}} = 4.18$; $t(272) = 4.77$, $p < 0.001$) and decreased brand femininity ($FBP_{\text{dark/bold}} = 3.42$, $FBP_{\text{light/delicate}} = 3.88$; $t(272) = 2.99$, $p < 0.01$) perceptions. These results generally held for Dove ($MBP_{\text{dark/bold}} = 4.06$, $MBP_{\text{light/delicate}} = 3.71$, $t(137) = 1.86$, $p < 0.07$; $FBP_{\text{dark/bold}} = 3.47$, $FBP_{\text{light/delicate}} = 4.87$, $t(137) = 6.57$, $p < 0.001$). The MBP–FBP difference (Uzzell and Horne 2006) equally signified how dark/bold designs aroused increased levels of brand masculinity (Mercedes: $M_{\text{dark/bold}} = 1.41$, $M_{\text{light/delicate}} = 0.30$, $t(272) = 6.19$, $p < 0.001$; Dove: $M_{\text{dark/bold}} = 0.59$, $M_{\text{light/delicate}} = -1.17$, $t(137) = 7.47$, $p < 0.001$). Brand equity differed for Mercedes ($BE_{\text{dark/bold}} = 4.34$, $BE_{\text{light/delicate}} = 3.73$, $t(272) = 3.28$, $p < 0.001$), but not for Dove ($p > 0.55$). The comparative influence of the dimensions of brand personality on brand equity was assessed in a linear regression with brand equity being the criterion plus the 15 brand personality facets (Aaker 1997) being predictors ($R^2 = 0.65$; $F(15, 397) = 48.71$,

$p < 0.001$). Adding MBP and FBP significantly improved model fit ($\Delta F(2, 405) = 3.15, p < 0.05$). The model regressing equity on MBP and FBP only was significant ($R^2 = 0.43; F(2, 410) = 151.23, p < 0.001; b_{MBP} = 0.48, b_{FBP} = 0.38, ps < 0.001$).

Regarding the Dove designs, brand masculinity and brand equity did not differ significantly. The reason may be a limitation arising from the stimulus calibration: rather than a femininity-associated color scheme, a neutral gold/brown design was used as a light/delicate design for Dove. The modification for Mercedes between masculinity to femininity may have been more effective than for Dove. As another finding, brand equity could be increased by brand gender beyond the five personality dimensions (Aaker 1997). When brand gender was considered the sole predictor, a significant amount of equity variance could be explained.

Conclusion

This chapter successfully examined the likelihood of brand design features affecting perceptions of brand femininity and masculinity, and consequently, brand equity and preferences. Study 1 reveals that brand masculinity perceptions are increased by bold logo shapes, while brand femininity perceptions are increased by airy logo shapes. Study 2 shows that brand femininity/masculinity perceptions are influenced by both type fonts and brand names. In addition, brand femininity/masculinity has been confirmed to enhance brand preferences—more so when brand femininity/masculinity highly corresponds to the corresponding gender linked with a product category. Study 3 provides brand managers proof of the impact of color on brand femininity/masculinity; however, it supports the view that greater similarity between brand and product category femininity/masculinity enhances preference ratings. The final study reveals how the integration of design elements into the communications of prevailing brands alters brand femininity/masculinity perceptions and illustrates how brand femininity/masculinity determines brand equity—although other brand personality dimensions are also considered.

This study created EP-based estimations and revealed EP's implications for branding: Brand designs founded on EP principles efficiently molded brand femininity and masculinity perceptions. This study therefore contributes to the evolving literature showing the significance of EP for comprehending and justifying consumer behavior and marketing results (Griskevicius et al. 2009; Vlasas Griskevicius, Shiota, and Nowlis 2010; Saad and Gill 2000). This study equally offers some input on the assessment of brand personality perceptions' antecedents (Grohmann et al. 2012; Labrecque and Milne 2012; Orth and Malkewitz 2008; Wentzel 2009). While existing studies assess the emergence of the "Big 5" dimensions of brand personality, namely competence, sincerity, excitement, sophistication, and ruggedness (Aaker 1997), the present study is among the earlier to consider design-affiliated sources of brand femininity and masculinity perceptions.

This chapter has likewise exhibited sufficient relevance to the previous literature on the impact of package design on brand impression. The present study depends on the empirical manipulation of design aspects (font, logo, brand names, and colors) and determines the degrees to which these design factors are highly efficient in establishing gender perceptions.

The results facilitate important guidelines for design features indicating a preference for brand femininity or masculinity. Brand masculinity is enhanced by the utilization of bold, angular logo shapes and type fonts, plus back vowels in brand names. On the other hand, brand femininity is increased by the utilization of airy, round logo shapes and type fonts, and front vowels. The present study establishes that a strong congruence between brand gender and product category gender correlates positively with consumer preference ratings.

The present study further documents the impact of brand design features on brand gender perceptions of both unfamiliar and customary brands. Brand design elements have been confirmed to reposition prevailing brands (such as by attracting novel consumer segments) in addition to facilitating initial brand positioning concerning femininity and masculinity. This indicates that, besides the significance of continued utilization of brand designs for reinforcing brand associations and recognition, it may also lead to consumer anticipations concerning the

nature of design features representing the brand. Negative consumer reactions to a particular brand may be triggered by designs deviating from consumers' expectations (Walsh et al. 2010).

Notes

1. An analysis of variance (ANOVA) with brand masculinity serving as a dependent variable and the two logo shape dimensions as independent variables shows that heavy logos were rated as more masculine ($M = 4.50$) compared with airy logos ($M = 3.92$; $F(1, 544) = 25.30$, $p < 0.001$) and angular logos ($M = 4.82$) were rated as more masculine compared with round logos ($M = 3.60$; $F(1, 544) = 105.67$, $p < 0.001$). In an ANOVA with brand femininity serving as a dependent variable and the logo shape dimensions serving as independent variables, heavy logos ($M = 3.29$) were perceived as less feminine compared with airy logos ($M = 3.76$; $F(1, 544) = 16.31$, $p < 0.001$) and angular logos ($M = 2.87$) were rated as less feminine compared with round logos ($M = 4.18$; $F(1, 544) = 115.71$, $p < 0.001$). No significant interaction effects emerged (brand masculinity $p > 0.49$; brand femininity $p > 0.82$).
2. Paired sample t -tests examined the effects of brand name and type font on perceived brand gender. Compared with the brand name including front vowels, the brand name including a back vowel was perceived as more masculine ($M_{\text{back}} = 4.53$; $M_{\text{front}} = 2.38$, $t(647) = 24.95$, $p < 0.001$) and less feminine ($M_{\text{back}} = 1.97$; $M_{\text{front}} = 4.27$, $t(642) = -29.28$, $p < 0.001$). We averaged the data over the two airy/round fonts (Monotype, Kristen) and the two bold/angular fonts (Impact, Agency) and found that compared with the airy/round fonts, the bold/angular fonts were perceived as more solid ($M_{\text{bold/angular}} = 4.02$; $M_{\text{airy/round}} = 7.29$, $t(653) = -35.54$, $p < 0.001$), less round ($M_{\text{bold/angular}} = 4.01$; $M_{\text{airy/round}} = 8.34$, $t(652) = -39.41$, $p < 0.001$), more masculine ($M_{\text{bold/angular}} = 4.71$; $M_{\text{airy/round}} = 2.59$, $t(653) = 30.73$, $p < 0.001$), and less feminine ($M_{\text{bold/angular}} = 2.52$; $M_{\text{airy/round}} = 4.70$, $t(652) = -33.89$, $p < 0.001$).
3. Paired sample t -tests examined the effects of brand name and type font on perceived brand gender. Compared with the brand name including front vowels, the brand name including a back vowel was perceived as more masculine ($M_{\text{back}} = 4.53$; $M_{\text{front}} = 2.38$, $t(647) = 24.95$, $p < 0.001$) and less feminine ($M_{\text{back}} = 1.97$; $M_{\text{front}} = 4.27$, $t(642) = -29.28$, $p < 0.001$). We averaged the data over the two airy/round fonts (Monotype, Kristen)

and the two bold/angular fonts (Impact, Agency) and found that compared with the airy/round fonts, the bold/angular fonts were perceived as more solid ($M_{\text{bold/angular}} = 4.02$; $M_{\text{airy/round}} = 7.29$, $t(653) = -35.54$, $p < 0.001$), less round ($M_{\text{bold/angular}} = 4.01$; $M_{\text{airy/round}} = 8.34$, $t(652) = -39.41$, $p < 0.001$), more masculine ($M_{\text{bold/angular}} = 4.71$; $M_{\text{airy/round}} = 2.59$, $t(653) = 30.73$, $p < 0.001$), and less feminine ($M_{\text{bold/angular}} = 2.52$; $M_{\text{airy/round}} = 4.70$, $t(652) = -33.89$, $p < 0.001$).

4. The effect of type fonts and color on brand masculinity, femininity, and the MBP–FBP difference score was analyzed in a series of ANOVAs. The assumption that a bold and angular-type font enhances brand masculinity received partial support in that bold/angular-type font significantly enhanced brand masculinity in one product category (deodorant: $F(1, 496) = 7.92$, $p < 0.01$, smartphone: $p > 0.58$). The MBP–FBP difference score was positively influenced by use of a bold/angular-type font (deodorant: $F(1, 496) = 27.44$, $p < 0.001$, smartphone: $F(1, 557) = 9.75$, $p < 0.01$). The assumption that a slender and rounder type font enhances brand femininity was supported in that use of an airy/round-type font significantly enhanced brand femininity (deodorant: $F(1, 496) = 6.09$, $p < 0.05$, smartphone: $F(1, 557) = 7.24$, $p < 0.01$). The hypothesis that darker (blue) color enhances perceived brand masculinity was only partially supported: A dark color did not enhance brand masculinity (deodorants: $p > 0.92$, smartphone: $p > 0.55$). However, the effect of color on the MBP–FBP difference score was significant (deodorants: $F(1, 496) = 12.28$, $p < 0.01$, smartphone: $F(1, 557) = 7.83$, $p < 0.01$), such that a darker color enhanced brand masculinity. Partial support emerged for the assumption that lighter (red/pink) color enhances perceived brand femininity, such that brand femininity was enhanced by a light color in only one of the product categories (deodorants: $F(1, 496) = 12.02$, $p < 0.05$, smartphone: $p > 0.15$). The type font $\times$ color interactions did not reach significance ($ps > 0.16$). In ordinal regressions of standardized MBP–FBP scores on preference ratings for four groups that expressed the match between participants' sex and product category (female participants/deodorants, female participants/smartphones, male participants/deodorants, and male participants/smartphones), all coefficients differed significantly from 0 ($R^2(1) > 16$, $ps < 0.001$). For female participants/deodorant, the coefficient was -0.62 (i.e., the more masculine the deodorant brand, the less it was preferred). For female participants/smartphones, the coefficient was -0.24 ; for male

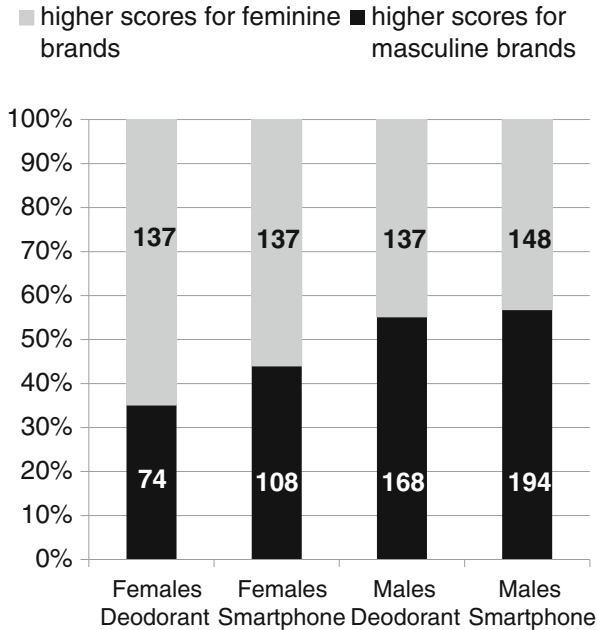


Fig. 5.3 Study 3: Preferences. *Note* Numbers in bars are extrapolated from the odds ratios for the respective sample sizes

participants/deodorants, the coefficient was 0.21; and for male participants/smartphones, the coefficient was 0.27. These results suggest that female (male) consumers prefer feminine (masculine) brands, but even more so in feminine (masculine) product categories. Figure 5.3 illustrates the odds ratios for the preference ratings distribution (female participants/deodorant = 0.54, female participants/smartphone = 0.79, male participants/deodorant = 1.23, male participants/smartphone = 1.32; odds ratio = 1 indicates an equal distribution of preference ratings; an odds ratio = 1.32 indicates a 31.5% higher probability for the brand to receive a higher preference score when it is more masculine, i.e., its MBP–FBP difference score increases by one unit). The distribution of preference ratings significantly differed from equal distribution ($R^2(3) = 31.38$, $p < 0.001$). These results support our assumption that greater congruence between brand and product category enhances brand preferences.

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6

Creating a Strong Sports Shoe Brand

A Brand Is More Than a Name

Findings in previous chapters will be applied in a simulated design of a sports shoe brand, including brand name, type font, and color. Additionally, a campaign will be set up with a print advertisement and radio spot.

Brand communications in an advertisement or on packaging often use a combination of multiple individual components, such as brand name, font, color, and appearance of a brand representative, as well as someone's voice (Wolin 2003). The holistic approach to brand design plays an important role in brand communication (Orth and Malkewitz 2008). This study extends the examination of the effects of brand elements on brand gender and brand valuation, based on the components of color, voice, and outer appearance of the brand representative (Freiden 1984). It focuses on the way in which a holistic perception of these elements influences the femininity and masculinity of the brand and its perceived value arising therefrom.

The structure of the study was a one factor between-subjects design with four conditions (A: highly masculine, B: moderately masculine, C: moderately feminine, and D: highly feminine). Four stimuli were

designed as print advertisements, in which the appropriate components were aligned to consistently amplify the brand perception signals (Miyazaki et al. 2005).

The brand names “Bloyt” with back vowels and “Edely” with front vowels were used, while Impact, Agency, Kristen, and Monotype served as type fonts. The color selection was based on a study of the gender-related stereotypes of color (Picariello et al. 1990), in which pink and lavender were identified as feminine and navy blue and maroon as masculine. In this study, the colors used were: navy blue (RGB 0, 0, 128; i.e., on a scale of 0–255, the portion of R[ed] is 0, G[reen] is 0, and B[lue] is 128), maroon (RGB 100,50,128), pink (RGB 255, 0, 127), and lavender (RGB 230, 230, 250). The color signals were applied to the brand logo, parts of the sport shoe, and models’ attire.

For voice manipulation, four radio spots with the same text were recorded (“I’m keen about jogging! It’s great fun and it keeps me fit. All I need? <brand name>! Me and <brand name>, we’ll make it!”). The speakers were four professionals from radio stations, selected based on their voice pitch. The average frequency of the highly masculine announcer was 90 Hz, while it was 150 Hz for the moderately masculine announcer, 200 Hz for the moderately feminine announcer, and 270 Hz for the highly feminine announcer. As doubling the frequency increases the pitch by an octave, the highly feminine voice was about 1.5 octaves higher than the voice of the highly masculine speaker. The four stimuli were presented online as print advertising combined with the corresponding radio spot.

The appearance of the spokespersons was manipulated with various body shapes. An athlete with a V-shaped torso and well-defined muscular physique represented the highly masculine announcer. The moderately masculine speaker had a less distinctively V-shaped upper body and was less muscular. The highly feminine announcer had a waist-to-hip ratio (WHR) near 0.7, and the moderately feminine speaker had a higher WHR. For all five elements, the gendering proceeded in steps and always from strong masculinity for condition A to strong femininity for D. The effectiveness of the manipulation was supported by an online survey with 220 participants (43.6% female, $M_{\text{Age}} = 41.8$, $SD_{\text{Age}} = 12.8$). Manipulations and respective checks are summarized in Table 6.1. The advertisements can be seen in Fig. 6.1.

Table 6.1 Four combinations of five brand cues in advertisements

Condition	Brand name	Type font	Color	Appearance	Voice
A: Highly masculine	Bloyt $G = 5.00$	Impact $G = 5.31$	Navy blue $G = 5.20$	Man with V-shaped torso and muscular $G = 6.68$	F_0 -Top at 180 Hz $G = 6.10$
B: Moderately masculine	Bloyt $G = 5.00$	Agency $G = 4.80$	Maroon $G = 3.69$	Man with less V-shaped torso and less muscular $G = 5.42$	F_0 -Top at 290 Hz $G = 5.32$
C: Moderately feminine	Edely $G = 2.80$	Kristen $G = 3.73$	Lavender $G = 3.38$	Woman with WHR higher than 0.7 $G = 2.59$	F_0 -Top at 400 Hz $G = 3.08$
D: Highly feminine	Edely $G = 2.80$	Monotype $G = 3.00$	Bright pink $G = 1.79$	Woman with WHR close to 0.7 $G = 1.54$	F_0 -Top at 540 Hz $G = 2.15$

G Gender (1 = very feminine, 7 = very masculine); F_0 Fundamental frequency of voice; WHR Waist-to-hip ratio

In the main study, 774 participants responded in an online survey in Germany (46.0% female, $M_{Age} = 41.0$, $SD_{Age} = 11.4$). Participants were assigned at random to one of the four stimuli (Fig. 6.1, together with the corresponding radio spot). The participants evaluated brand gender on the basis of Grohmann's (2009) two-dimensional scales with 12 traits (masculine brand personality MBP: *adventurous*, *aggressive*, *brave*, *daring*, *dominant*, and *sturdy*; feminine brand personality FBP: *expresses tender feelings*, *fragile*, *graceful*, *sensitive*, *sweet*, and *tender*). Then, participants expressed their preferences by assigning a score to each, with four points given to the stimulus with the highest perceived value, down to one point given for the version that was preferred the least.

Results. ANOVAs showed significant differences regarding the brand gender-related characteristics (MBP: $F(3713) = 18.78$, $p < 0.001$; FBP: $F(3713) = 49.15$, $p < 0.001$). The highly masculine version obtained the highest MBP value (4.16) and the highly feminine stimulus the lowest (3.30). The latter, by contrast, achieved the highest value for FBP (4.49), whereas the MBP only received 2.90. Table 6.2 shows the values for MBP and FBP.

The rating distribution with four points for the highest preference and one point for the lowest preference is shown in Table 6.3.



Fig. 6.1 Four sports shoe advertisements (© First row from left to right: iStock.com/Michael Svoboda, iStock.com/amriphoto; Second row iStock.com/Ana Abejon, iStock.com/Angela Hawkey.)

Continuous ratings (e.g., from 4 points to 1) can be applied in an ordered logistic regression as the outcome variable with the four dummy coded stimuli as independent factors. The preference scores depended significantly on the type font (χ^2 was 96.22, $p < 0.001$). The estimated regression coefficients are shown in Table 6.4.

Table 6.2 Brand gender for four sports shoe advertisements

Conditions	n	Pairwise t-tests				Pairwise t-tests			
		MBP	B: Moderately masculine	C: Moderately feminine	D: Highly feminine	FBP	B: Moderately masculine	C: Moderately feminine	D: Highly feminine
A: Highly masculine	155	M 4.16 SD	$t(342) = 1.38$ $p = 0.170$	$t(332) = 3.42$ $p = 0.001$	$t(347) = 6.52$ $p < 0.001$	2.90	$t(342) = -3.92$ $p < 0.001$	$t(332) = -6.51$ $p < 0.001$	$t(347) = -11.12$ $p < 0.001$
B: Moderately masculine	189	M 3.99 SD		$t(366) = 2.41$ $p = 0.017$	$t(381) = 5.94$ $p < 0.001$	1.32		$t(366) = -3.27$ $p = 0.001$	$t(381) = -8.45$ $p < 0.001$
C: Moderately feminine	179	M 3.71 SD			$t(371) = 3.41$ $p = 0.001$	1.14			$t(371) = -4.81$ $p < 0.001$
D: Highly feminine	194	M 3.30 SD				1.30			
						4.49			
						1.34			

Table 6.3 Preference ratings for four sports shoe brands

Rating	Bloyt impact	Bloyt agency	Edely Kristen	Edely monotype
4 points	257	121	127	247
3 points	178	166	211	193
2 points	154	242	223	135
1 point	163	225	188	175

Note 4 points, highest preference; 1 point lowest preference

Table 6.4 Coefficients for four sports shoe brands

	Number of observations	$\chi^2(3)$	p
	3005	96.22	<0.001
Condition	Coefficient	Odds Ratio	p
A: Bloyt Impact	0.749	2.115	<0.001
D: Edely monotype	0.715	2.044	<0.001
C: Edely Kristen	0.204	1.226	<0.001
B: Bloyt agency	0	1	<0.001

Note The reference category is B (Bloyt Agency)

Condition A (Bloyt Impact) had the highest coefficient, followed by conditions D (Edely Monotype), C (Edely Kristen), and B (Bloyt Agency). Based on the odds ratios, the probability of Bloyt Impact being selected was 68% compared with only 32% for Bloyt Agency (Odds Ratio = 2.115 $\approx$ 68/32). The rating averages for the strongly gendered conditions, A and D, were statistically equal ($M_{\text{Bloyt Impact}} = 2.70$ versus $M_{\text{Edely Monotype}} = 2.68$, $p < 0.001$). Neither the feminine nor the masculine brand gender itself resulted in a higher preference for one over the other. Rather, the strong communication of their respective brand genders generated an advantage against brands with less strong gender communication.

The simultaneous application of distinctively masculine or feminine attributes in brand names, font, and color, along with the voice and outward appearance of the representative, achieved a higher perception of the respective brand gender and resulted in higher brand valuation of these brands than of those to which only moderately effective masculine or feminine attributes had been applied.

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7

The Independent Gender Effects of Logo, Product, and Brand

Isn't It Obvious?

Grohmann (2009) developed and validated the gender model for brands. However, it might be argued that it is obviously not the brand but rather the product category that determines brand gender. Cars are said to be “men’s own thing,” and the early days of motorization featured talk of gentlemen drivers. Consequently, any car brand should be masculine, whether it is a sports car or a family van. However, Grohmann (2009) found that brand genders within specific product categories vary significantly. In this chapter, we will explore whether brand gender is exclusively determined by the gender of the applicable product category or, instead, brands have genuine genders that can widely vary within product categories.

To answer this question, product categories and brands had to be analyzed separately, which is impossible to do with existing brands. No one can think of Ford without thinking of cars, which could result in confounding problems. Therefore, this study separated brands from their product category by using fictitious brands. The brand names and logos were manipulated to be perceived as more or less feminine or masculine

in line with the discussion in Chap. 5 of brand gender design. Because the brands were fictitious and unknown, no gender effect from any product category could influence gender perceptions. The logos were attached to products in 16 different categories, so logo gender, product gender, and brand gender could be assessed separately.

The study distinguished between pure brand logos, product categories, and branded products (the “brands”). Genders were measured following Grohmann’s (2009) model and were referred to as logo gender, product gender, and brand gender. Grohmann’s model uses six items to measure masculine personality (*adventurous, aggressive, brave, daring, dominant, and sturdy*) and six items to measure feminine personality (*expresses tender feelings, fragile, graceful, sensitive, sweet, and tender*). To avoid any learning effects due to common source biases, three different surveys were conducted: Survey 1 collected data for the logo genders; survey 2 collected data for the product genders; and survey 3 collected data for the brand genders.

Gendered Brand Names

Four fictitious and therefore unknown brand logos without any link to a product category were created and endowed with a specific gender (Lieven et al. 2015; Chap. 5 in this book). The first step was to identify gender-typed brand names. The theory of sound symbolism suggests that names with front vowels (i.e., *e, i*) are perceived as feminine, and names with back vowels (i.e., *o, u*) are perceived as masculine (Klink 2000). The name “Edely” was chosen as a feminine-sounding name and “Bloyt” as a masculine-sounding name. Two more names were thought to fall in between: “Yeren” as a slightly feminine name and “Ceras” as a slightly masculine name. The second step required these names to be written in a way that supported their perceived gender. According to Childers and Jass (2002), airy, slender, round, and smooth fonts are feminine, whereas bold, solid, angular, and sharp fonts are masculine. Following Shaikh et al. (2006), the font Monotype was used for Edely, and the font Impact was used for Bloyt. To maintain an in-between gender perception of the other two names, Ceras was written in the airy and slender but angular font Agency, and Yeren was written in the round but bold font Kristen.



Fig. 7.1 Four fictitious brand logos

The logos were colored following the gender perception color rules (Picariello et al. 1990). The Edely logo thus was printed in bright pink, Yeren in lavender, Ceras in maroon, and Bloyt in navy blue (Fig. 7.1). These four brand logos served as stimuli for survey 1, the assessment of logo genders.

Gendered Brands

The four brand logos were attached to products from 16 categories: cosmetics (hand cream dispenser), sweets (candy), household products (bottle of fabric conditioner), fashion (shirt), hotels (window front), soft drinks (can of lemonade), food (pizza), travel (the front of a travel agency), cigarettes (a pack), airlines (jet on a runway), banks (window front), transportation (train), rescue vehicles (ambulance), cars (compact-size car), information technology (notebook computer), and electronics (hi-fi system). Photographs of these products were obtained from a professional photography service. Each consistently colored product was branded with the abovementioned logos, which resulted in 64 brands (4×16). Figure 7.2 presents stimuli for three product groups. The 16 product category names served as the stimuli for survey 2, the assessment of product genders. The 64 branded products served as the stimuli for the assessment of brand genders in survey 3.

Empirical Studies

Survey 1. All surveys in this research were conducted online. The participants were recruited through a leading provider of sampling, data collection, and data analytics for survey research. The respondents were



Fig. 7.2 Gendered stimuli for three product categories (banks, cosmetics, and soft drinks) (*First row: iStock.com/highdog; Second row: iStock.com/Jaques Bagios; and Third row: iStock.com/Catherine Yeulet/Monkey Business Images.*)

of average age, gender, income, education, and profession. A total of 202 respondents participated in survey 1 (37.3% female, $M_{\text{Age}} = 47.3$, $SD_{\text{Age}} = 12.3$). The four colored brand logos (Fig. 7.1) were presented to each participant in a random order. Each participant rated the six gender items for masculine logo personality (MLP, $\alpha = 0.95$) and feminine logo personality (FLP, $\alpha = 0.97$), using the Grohmann scale (Grohmann 2009), resulting in the masculine and feminine logo personalities (MLP and FLP). The difference (MLP—FLP) served as a measure of gender (Uzzell and Horne 2006). The lower/higher these values were, the more feminine/masculine the genders were. Because the four logo genders were repeatedly measured by respondents, a linear mixed model analysis (LMM) was conducted using the participants as subjects, the four brand logos as repeated variables and factors, and the logo genders as a dependent variable (MLP, FLP, and the difference between them). The scores differed significantly by the factor logo ($F(1,3) = 82.046$, all $ts > 4.0$, all $ps < 0.001$). Female and male respondents did not differ in their scores for any of the 12 traits across the four logos. The logos were

Table 7.1 Logo genders

Brand logo	Masculine logo personality (MLP)	Feminine logo personality (FLP)	Logo gender (MLP – FLP)
Edely	3.48	4.63	–1.15
Yeren	3.70	3.99	–0.29
Ceras	4.12	3.57	0.55
Bloyt	4.33	3.18	1.15

Note Scale from 1 = “does not apply at all” to 7 = “fully applies”

consistent with their expected genders; thus, the gender manipulation of the logos described above was successful. Table 7.1 shows the results.

Survey 2. In total, 1217 respondents participated in the online survey (43.7% female, $M_{\text{Age}} = 42.4$ years, $SD_{\text{Age}} = 12.5$ years). The 16 product descriptors were randomly presented in groups of two or three. The respective values for the masculine product personality (MPP, $\alpha = 0.88$), the feminine product personality (FPP, $\alpha = 0.92$), and the difference between them (MPP—FPP) are shown in Table 7.2. The results of an LMM analysis using participants as subjects, the 16 product categories as repeated variables and factors, and the product gender as a dependent variable (MPP, FPP, and the difference between them) presented scores that differ significantly across product categories ($F(1,15) > 24.189$, $p < 0.001$ for MPP, FPP, and the difference between them). Scores for eight of the 12 traits showed no difference between female and male respondents. The masculine traits of *adventurous* ($p < 0.050$), *daring* ($p < 0.050$), and *dominant* ($p < 0.001$) were rated higher by females, and the feminine trait *expresses tender feelings* was rated higher by males ($p < 0.010$). However, these differences were small, and the aggregated scores of MPP and FPP did not differ significantly ($t(2502) < 1.81$, $p > 0.07$ for MPP and FPP).

Survey 3. In total, 2041 respondents participated (45.7% female, $M_{\text{Age}} = 44.5$ years, $SD_{\text{Age}} = 12.4$ years). Each brand was rated by an average of 32 participants. The masculine brand personality (MBP, $\alpha = 0.90$), the feminine brand personality (FBP, $\alpha = 0.94$), and the brand gender as the difference of MBP—FBP are shown in Table 7.3. One-way ANOVAs for MBP, FBP, MBP—FBP, and the 64 brands as a

Table 7.2 Product genders

Product category	Masculine product personality (MPP)	Feminine product personality (FPP)	Product gender (MPP—FPP)
Cosmetics	3.47	4.79	−1.32
Sweets	3.05	4.44	−1.39
Household products	4.04	2.78	1.27
Fashion	3.76	4.23	−0.47
Hotels	3.39	3.33	0.06
Soft drinks	3.33	3.77	−0.44
Food	3.13	3.81	−0.66
Travel	3.98	3.02	0.96
Cigarettes	3.92	2.91	1.01
Airlines	4.04	3.16	0.88
Banks	4.20	2.44	1.76
Transportation	4.07	2.86	1.20
Rescue	4.74	3.15	1.59
Cars	4.62	3.18	1.44
IT	4.04	2.94	1.11
Electronics	3.88	2.85	1.03

Note Scale from 1 = “does not apply at all” to 7 = “fully applies”

factor resulted in significant F-values (all above 5.1, all $ps < 0.001$). Thus, the brands differed by gender.

The bottom row of Table 7.3, which shows the total average scores for the logo groups, discloses brand genders similar to the logo genders (Table 7.1). A simple visual inspection of the scores—and of the correlations (all $ps < 0.001$)—in Tables 7.1 and 7.3 reveals these findings. Similarly, albeit less concisely, the brand genders (which in Table 7.3 are shown in the total column) correlate with the product genders in Table 7.2 (for MBP/MPP, $p < 0.050$; and for the other correlations, $p < 0.001$). Thus, both logo and product genders determined the gender of the branded products.

This finding is supported by an analysis of variance (ANOVA). Brand gender was significantly determined by the logo ($F(3, 2022) = 174.314$, $p < 0.001$, effect size partial $\eta^2 = 0.21$) and the product category ($F(15, 2022) = 16.859$, $p < 0.001$, effect size partial $\eta^2 = 0.11$). A regression of brand gender on logo gender and product gender resulted

Table 7.3 Sixty-four brand genders

Product	Edely			Yeren			Ceras			BLOYT			Total		
	MBP	FBP	Gender	MBP	FBP	Gender	MBP	FBP	Gender	MBP	FBP	Gender	MBP	FBP	Gender
Cosmetics	3.02	5.12	-2.10	2.79	4.23	-1.44	3.40	3.89	-0.49	3.76	3.53	0.23	3.26	4.21	-0.95
Sweets	3.74	5.34	-1.60	3.18	4.86	-1.68	4.50	4.22	0.28	4.69	3.64	1.06	4.04	4.49	-0.45
Household products	2.91	4.37	-1.46	3.16	3.68	-0.52	3.89	3.06	0.82	4.00	2.81	1.19	3.51	3.47	0.04
Fashion	3.49	4.35	-0.86	3.21	3.28	-0.07	4.27	3.85	0.42	4.26	3.38	0.88	3.82	3.71	0.11
Hotels	3.82	4.69	-0.87	3.59	4.03	-0.44	4.48	3.44	1.05	4.68	3.03	1.65	4.14	3.81	0.33
Soft drinks	3.40	4.47	-1.07	3.73	3.57	0.16	4.13	2.86	1.27	5.10	3.33	1.78	4.12	3.57	0.55
Food	3.52	4.44	-0.93	2.86	4.16	-1.30	4.24	3.09	1.16	4.40	3.16	1.25	3.76	3.70	0.06
Travel	3.48	4.03	-0.55	3.99	3.46	0.53	4.35	3.32	1.04	4.22	3.14	1.08	4.04	3.46	0.58
Cigarettes	2.84	4.17	-1.33	3.24	4.00	-0.76	3.82	2.77	1.05	3.88	2.82	1.05	3.46	3.43	0.03
Airlines	3.39	4.31	-0.92	4.07	3.21	0.85	4.33	3.01	1.32	4.26	2.83	1.43	3.98	3.39	0.59
Banks	4.18	4.51	-0.33	3.57	4.10	-0.53	4.35	2.80	1.55	4.58	2.82	1.77	4.21	3.55	0.66
Transportation	4.07	4.11	-0.04	4.37	3.23	1.14	4.69	2.83	1.87	5.04	3.40	1.64	4.53	3.37	1.16
Rescue	4.09	3.90	0.19	4.69	2.63	2.06	4.40	2.82	1.58	4.57	2.29	2.28	4.42	2.96	1.46
Cars	3.71	4.43	-0.71	3.70	4.23	-0.53	3.55	3.55	0.00	4.01	4.05	-0.04	3.74	4.07	-0.33
IT	3.40	4.93	-1.53	3.69	3.66	0.02	3.98	3.18	0.80	3.82	2.60	1.22	3.71	3.67	0.05
Electronics	3.95	4.01	-0.06	3.70	3.50	0.20	3.64	2.72	0.92	3.93	2.81	1.13	3.81	3.25	0.55
Total	3.56	4.45	-0.88	3.61	3.71	-0.10	4.14	3.20	0.94	4.31	3.12	1.20	3.91	3.62	0.28

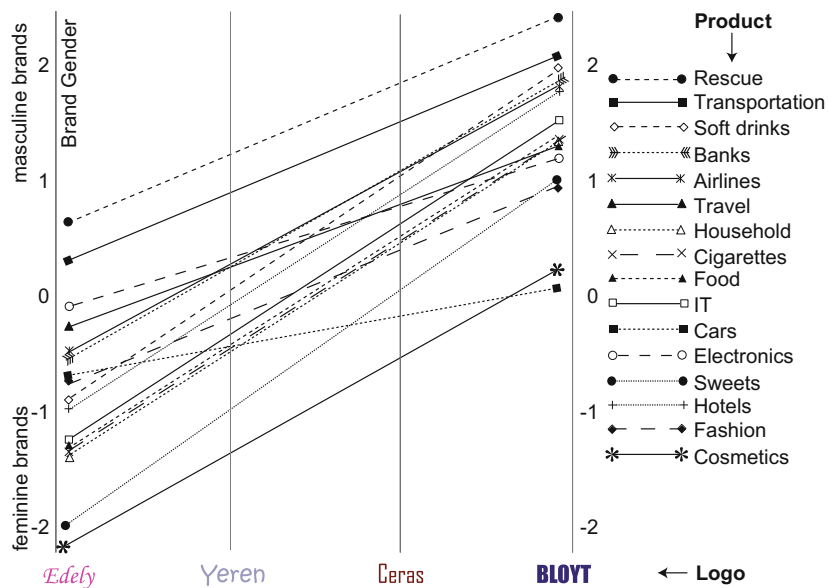


Fig. 7.3 Product category slopes across brand logos

in standardized coefficients for logo gender $b = 0.43$, $p < 0.001$ and for product gender $b = 0.18$, $p < 0.001$ ($F(2, 2038) = 279.016$, $p < 0.001$).

Brands are nested in product groups. Figure 7.3 demonstrates the different intercepts of the 16 categories. An LMM showed that only the intercept location was significant ($p < 0.050$) and that the slopes differences were not significant ($p = 0.078$). As an example, the rescue product category had a highly masculine image (+1.59, Table 7.3). The branded product with the highly masculine Bloyt logo showed the highest masculinity (+2.28, Table 7.3). However, when this masculine product category was branded with the highly feminine Edely logo, it became much less masculine, and its gender score was close to zero (+0.19, Table 7.3). The highly feminine cosmetic product branded with the highly masculine Bloyt had a positive gender value (0.23, Table 7.3). When branded with the highly feminine Edely logo, its gender value was the most feminine of all 64 branded products (-2.10, Table 7.3). In many cases, even the gender sequence from masculinity to femininity

from Bloyt to Ceras and Yeren to Edely was exactly replicated within the 16 product categories. A mediator analysis revealed that neither the logo nor the product gender had a suppression effect on the other. The assumption that brand gender has an independent nature over and above product gender was supported.

The results of this study support the assumption that brands have a gender and that this gender is not predetermined solely by its product category. Although product categories contribute to perceived gender by building gender classes, brand genders themselves vary significantly within these classes, such that a brand within a masculine product category may be perceived as more feminine than a brand within a feminine product category.

The Power of Androgyny

Positive attitudes toward brands and products are increased not only by their strong femininity or masculinity: Simultaneously, strong femininity and masculinity further enhance equity. This so-called androgyny (Bem 1974, 1977; Spence et al. 1975) is associated with a larger repertoire of behavioral options. Androgynous people can better adapt to situations, respond more flexibly to their environments, and eventually experience better psychological health (Bem 1974). To consider the effect of androgyny, the above findings demonstrating the independence of brand gender from product gender were complemented by the respective equities of the 64 fictitious brands.

The influence of both brand logo gender perceptions and product category gender perceptions on consumers' brand equity perceptions was assessed. In an online survey ($n = 812$; 51.5% female, $M_{\text{Age}} = 43.7$, $SD_{\text{Age}} = 13.7$), participants were randomly assigned to four of the 64 fictitious brands and asked to rate them in terms of brand equity (Aaker 1991; Keller 1993)—measured on five 7-point items (1 = “not at all loyal” to 7 = “very loyal”; 1 = “negative attitude” to 7 = “positive attitude”; 1 = “negative image” to 7 = “positive image”; 1 = “low quality” to 7 = “high quality”; “greater willingness to pay”: 1 = “definitely not” to 7 = “definitely”; $\alpha_{\text{BrandEquity}} = 0.97$; Brady et al. 2008). Each brand received about 50 ratings.

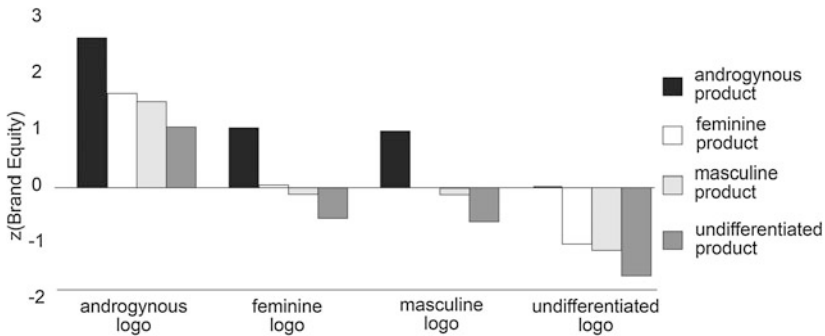


Fig. 7.4 Brand equity depending on logo and product gender

Brand equity was regressed on logo gender and product category gender (Tables 7.1 and 7.2 in this chapter). The gender scores for logos and products were z-standardized (Aiken and West 1991). The linear regression ($R^2 = 0.108$; $F(4, 2036) = 61.946$; $p < 0.001$) indicated positive coefficients for all four gender scores (MLP, FLP, MPP, and FPP; $p < 0.001$). Thus, as assumed, logo and product gender positively influenced brand equity. Inclusion of the interaction terms significantly increased the coefficient of determination $\Delta R^2 = 0.013$; $\Delta F(2, 2034) = 15.283$; $p < 0.001$) with coefficients $b_{MLP} = 0.643$, $b_{FLP} = 0.674$, $b_{MPP} = 0.363$, $b_{FPP} = 0.429$ and the interactions $b_{MLP \times FLP} = 0.154$, and $b_{MPP \times FPP} = 0.122$ (all $ps < 0.001$). Since the interaction terms represent simultaneously high masculinity and femininity, androgyny increased brand equity.

To further illustrate these findings, the above linear regression function was calculated for the z-standardized logo and product scores. The brand equity ratings for the four logo genders across the four product category genders are illustrated in Fig. 7.4. Again, the superiority of androgyny could be demonstrated.

Logo and Product Gender Aid One Another to Build Strong Brands

Brand logo, products, brands, and equities can be combined into one common system (Fig. 7.5).

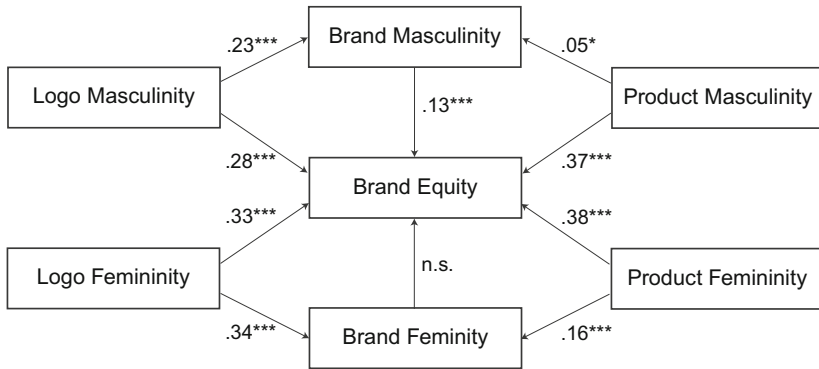


Fig. 7.5 Combined model of logo, product, brand, and equity

Logo and product gender affect brand gender, and all genders affect brand equity positively. This expressly underlines the need to gender all aspects of product and brand design consistently to benefit from the highest equity—as we have seen in Chap. 6 (Miyazaki et al. 2005). This chapter provides evidence of the prominent role of gender in the brand management process. All parts contribute to brand gender independently, however, reinforcing each other.

The reader of this chapter should keep one thing in mind: brand equity was assessed separately from logo, product, and brand gender in a different survey. Thus, common source or common method biases (Podsakoff et al. 2003) could be preempted. Such biases could arise in a survey where genders and equities are assessed together. Some survey participants tend to score high on the 7-point scales, rating both gender and equity high. Others tend to score low, rating both gender and equity low. Consequently, this will result in positive correlations of gender and equity, and the whole model appears suspicious of being a fallacy (this will be further discussed in Chap. 12). Here, however, such a bias could not occur because genders and equities were assessed separately. This strengthens the credibility of the proposition that brand gender positively affects brand equity.

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8

Product Gender and Product Evaluation

Feminine Cars and Masculine Fragrances

As we have seen in Chap. 7, brand gender does not only originate from product gender, as one might expect. Of course, there are overlaps, for example, perfumes seem naturally feminine while cars seem masculine. Nevertheless, male fragrances exist (Calvin Klein, as a case in point), and the French car Citroen DS was quite feminine, which is not astonishing owing to the design and name used. DS stands for the French “la deesse,” the feminine goddess. Moreover, this book shows in Chap. 5 that, through design components, it is possible to alter an active brand gender (Mercedes, Dove). This chapter investigates the elements that produce product gender insights. Employing glasses, shoes, and fragrance bottles, the means for producing a preferred gender will gradually be clarified.

The current chapter refers to the publication, “Beyond ‘Pink It and Shrink It’—Perceived Product Gender, Aesthetics, and Product Evaluation” by Miriam van Tilburg, Theo Lieven, Andreas Herrmann, and Claudia Townsend in *Psychology & Marketing* (van Tilburg et al. 2015). Wherever feasible, text passages have been modified and reworded; identical tables and figures, however, have been adopted.

Furthermore, it will be considered whether strong gender ideas about products create stronger product inclinations such as brand equity.

Both designers and customers universally comprehend several design principles employed to indicate an item's target gender. From power tools to razors, there is an idea that companies should "pink it and shrink it" when introducing a formerly masculine item to a female destination marketplace. Although some relations between gender and design elements are unquestionably learned, others may be inborn. Users appear to anthropomorphize products, giving them humanlike features (Epley et al. 2007) and assessing them similarly to how they assess other persons (Govers and Schoormans 2005). In fact, products and brands seem to contain characteristics similar to persons (Aaker 1997; Jordan 1997). Furthermore, many of the ways a product's character is conveyed by designers and comprehended by customers is through its manifestation (Govers et al. 2002). This study suggests that physical features powerfully recognized as feminine or masculine in humans may have similar symbolic connotations when articulated in products. In addition, just as brands with powerful gender appearances tend to be popular (Lieven et al. 2014), this study suggests that objects having strong gender recognition generate larger behavioral and affective reactions.

These issues are considered here within two diverse studies. From the initial research, it is shown that product gender perceptions can be impacted by the design components of shape, color, and material. Particular variations of each of these components to generate further feminine or masculine perceptions are then identified. The second study investigates the effect of product gender on customer reactions to functionality and aesthetics, as well as consumers' affective attitudes toward the products and their purchase intentions. Therefore, the objective of this study is to establish whether an object's aesthetics are a vital source of product gender and to emphasize the significance of product gender in engaging customer reaction. From a managerial viewpoint, this study provides comprehensive principles for designers concerning the formation of masculine product gender (MPG) and feminine product gender (FPG) and thereby improving product value. A current trend in the marketing field is the employment of evolutionary psychology (EP; e.g., Saad 2006; Griskevicius and Kenrick 2013), since it has been found to

efficiently clarify customer behavior (Colarelli and Dettmann 2003; Foxall 1993; Foxall and James 2003; Griskevicius and Kenrick 2013; Saad 2004, 2006; Saad and Gill 2000). Therefore, this study also provides a helpful demonstration of the ways EP results can proffer guidance in ostensibly unconnected areas such as marketing and product design.

Product Gender Deriving from Product Aesthetics

Most studies of product gender have viewed it as a descriptive variable for customer conduct. Gender has been studied as a mediator of views on products employing variables such as self-conception, sex role, or biological sex (e.g., Gentry et al. 1978; Golden et al. 1979; McGrath 1995). Several studies have also shown objects to have a gender similar to persons. Researchers have discovered that the determination of a product's gender is dependent on the product promoter's gender (Debevec and Iyer 1986; Iyer and Debevec 1989; Golden et al. 1979), together with the views of the product's universal user group (Allison et al. 1980).

Comparable with human physical characteristics that affect the perception of an individual's character, the appearance of a product is a key determinant of its character, and people appear to share similar opinions on the personality of a specific product (Govers et al. 2002). As stated earlier, this propensity to ascribe human attributes to inanimate items is known as anthropomorphism; a case in point would be seeing a human body in the form of a bottle (Epley et al. 2007). Previous studies propose that a product's physical features should present a consistent product character (Townsend and Shu 2010). Nevertheless, product design is more than this; in line with Luchs and Swan (2011), it is "the collection of traits of an artifact, comprising the separate traits of the shape (i.e., the aesthetics of the touchable product and/or service) and the purpose (i.e., its abilities) alongside the holistic attributes of the incorporated form and purpose" (2011, 338). As a result, this study inspects how the attributes of a product's shape (i.e., its aesthetics) affect customers' view of its gender.

According to previous work on product qualities (Govers and Schoormans 2005), research on people's perceptions is deemed to offer insight on the manner in which product gender is seen. Hypotheses of human perception suggest that gender is an initial feature perceived and psychologically processed when coming across someone new (Dion et al. 1972); moreover, the initial basis on which someone critiques the gender of another person is through his or her physical manifestation (Deaux and Lewis 1984). Therefore, appearance seems a probable candidate to be a powerful indicator of product gender. The majority of what is ascribed as masculinity and femininity has originated from the EP field, which synthesizes ideas from evolutionary biology and contemporary psychology (Buss 1994). Physical features suggest femininity or masculinity and good looks, and these values of mate choice affect human data processing and are entrenched in individuals' brains (Buss 1994). According to EP, people use certain signals from the opposite sex as the basis for choosing mates. Moreover, hypotheses of sexual policy say that the traits preferred in females and males differ. For instance, the perfect male mate exhibits readiness and ability to invest in his offspring and partner, while elevated productiveness in females is a sign of health, youth, and physical attractiveness (Buss 1994). These cues are articulated through definite physical features that represent either femininity or masculinity. It follows that physical manifestation is important when judging the gender of a product, and an EP perspective will support an understanding of the manner in which aesthetics may affect a product's professed gender. A differentiation between socially learned features (nurture) and evolutionarily inherited (nature) features might play a significant role in gender perception. Nevertheless, as Confer et al. (2010) say, "the evolutionary psychology framework dissolves dichotomies like 'nature against nurture,' 'innate in opposition to learned,' and 'biological against cultural'" (116). As a result, there appears to be a convergence of both intellectual traditions (Eagly and Wood 1999).

In fact, some studies have considered the way various design features affect the gender perceptions of the creator of a graphic or brand, as well as the objective product user (e.g., Danger 1969; Moss et al. 2006; Lieven et al. 2015). In this chapter, these results are taken into account in devising hypotheses on the effect of aesthetics on product gender.

Dimensions of product aesthetics. The general visual conception of an object is formed from a variety of traits (Bloch 1995), for instance, shape, proportion, scale, material, reflectiveness, color, and ornamentation (Davis 1987). In accordance with previous work on aesthetics, in this study, these features are separated into three elements (i.e., form, color, and material), and every dimension is discretely taken into account. The form of a product has been demonstrated to elicit diverse consumer reactions, for instance, aesthetic preference and universal affinity (Yamamoto and Lambert 1994; Westerman et al. 2012).

Product form comprises the elements of line, shape, and proportion. Regarding proportion, Lieven et al. (2015) have discovered that bold, angular, solid, and sharp features in brand logos heighten brand masculinity while airy, fragile, round, and even features in brand logos heighten brand femininity. Concerning shape, previous studies propose that angular forms personify dynamism and masculinity, while round shapes suggest gentleness and femininity (Schmitt and Simonson 1997). Moreover, gender has been demonstrated to affect the creation of graphics: Graphics created by males seem to comprise more vertical lines, while those produced by females seem to comprise more rounded lines (Moss et al. 2006). Therefore, following prior studies, products having a slim or bulky size, an angular or round form, and straight or curvy lines are acknowledged as masculine and feminine, respectively. EP likewise proposes that the physical aspects of facial form and body shape point to femininity and masculinity. A round, even body form suggests femininity (Singh 1993), while a solid, distinct body is typically masculine (Fisher et al. 2002). Additionally, the literature states that fragile, light facial forms are feminine (Johnston et al. 2001), while edged, sharp forms are masculine (Scheib et al. 1999). As a result, we can anticipate that products having a round shape, slim proportion, or curvy lines improve the acuity of a product's femininity while products having an angular form, bulky proportion, or straight lines improve the acuity of a product's masculinity.

Product color also has the ability to incite certain psychological and emotional reactions (Hevner 1935) and is therefore employed in marketing, packaging, circulation, and brand logo design to produce brand and product personalities (Klink 2003). Product color comprises the

elements of color tones, light reflection, and color quantity. Danger (1969) provides a general association catalog of color tones that links pink with femininity and blue with masculinity. Once more, a parallel can be discovered between EP perception and color. In general, women have lighter skin compared with men (Jablonski and Chaplin 2000); this results in the supposition that lighter colors are seen as feminine whereas darker colors are seen as masculine. A study by Moss et al. (2006) comparing female and male drawings claims that there is a propensity by females to utilize more colors and to favor warmer colors (e.g., red and pink) over cooler colors (e.g., blue and green).

An additional color trait that might affect product gender is the reflectiveness of the product surface. Besides definite body and facial forms, strong and shiny hair can be viewed as a sign of physical health and fertility in women (Etcoff 2000). It follows that the shiny surface of product might be seen as feminine, whereas matte surfaces might be seen as masculine. Therefore, a further supposition is that products having extra colors, lighter tones, or a shiny surface improve the acuity of a product's femininity, and that items having darker tones, fewer colors, or a matte surface improve the perception of a product's masculinity.

Moreover, product material can depict a definite meaning, and it is employed by designers to express products' characteristics. For instance, designers frequently employ metal to stress a product design's technical superiority and elevated engineering level (Ashby and Johnson 2002). Although material qualities such as compliance, warmth, weight, and surface quality are felt with the haptic mechanism (touch), this information can also be visually delivered (Klatzky et al. 1987). EP also offers views on material perceptions. Even though a beard does not seem to hold any key advantage for survival, it is seen as a sexual trait identifying a masculine individual (Darwin 1871). Skin texture has also been investigated as an indicator of the femininity of a mate (Symons 1979): Smooth skin signifies female fertility and influences male judgments of attractiveness (Johnston et al. 2001). These results mean that hard (soft) or harsh surfaces improve masculinity (femininity). These perceptions of the male beard and the female skin also offer insight on a texture framework. Smooth skin may be linked with a delicate structure, while strong, hairy skin may be perceived as a bumpy structured surface.

Therefore, smooth surfaces may lead to a perception of femininity, whereas a rough structure may lead to a perception of masculinity. Moreover, EP proposes that since men are usually heavier than women owing to their musculature and bone formation, products that seem heavier may be linked with masculinity, whereas products that seem lighter may be linked with femininity. Last, we can anticipate that products that seem to have a smooth texture formation, light weight, or soft surface improve the perception of a product's femininity, and products that seem to have a bumpy texture structure, firm surface, or a heavy weight improve the perception of a product's masculinity.

Interviews were carried out with persons working in product design as an initial investigation of the presented theories concerning whether product aesthetics affect product gender. Comprehensive interviews were performed using a sequence of open-ended, non-guiding queries. An iterative elicitation method permitted the queries to be attuned to respondents' answers. The four interviewees (one female and three males: $M_{\text{Age}} = 37.5$, $SD_{\text{Age}} = 4.33$, $M_{\text{experience in years}} = 8.75$, $SD_{\text{experience in years}} = 4.82$) were all engaged in or directly linked to product creation or design procedures, thus exerting a key influence on the design of products (they held the positions of assistant designer, development manager, product administrator, and category administrator). Three of the four designers were from a renowned German company, and the fourth was from a renowned American sport article manufacturer with global sales (the American designer offered insights only concerning product shape). Two of the interviews were conducted by telephone while the other two were conducted one-on-one. The designers received a short update on the project and were subsequently asked specific questions on influencing product gender via design.

Regarding product form, all four designers realized the significance of product proportion. They recognized "slim" and "bulky" as gender identifiers. Further traits noted were "slim, airy, and narrow" for female items and "clumsy and broad" for male items. A personality trait for feminine items was "harmonic" whereas "aggressive" was employed to denote male products. Each designer cited shape, defining feminine items as "extra shaped, curved" and masculine items as "more edgy, angular, and straight." Moreover, lines were cited by all four designers, employing

“curved, soft” to denote female products and “straight, strong” to denote male items.

Of the sampled designers, three underwent additional interviews and considered the use of color tones to be highly significant and the easiest method of distinguishing male and female products. These interviewees defined the client market with increased stereotyping concerning colors, discussing how female products are customarily colored with purple, pink, pastels, and light colors while male products are defined by resilient matte colors. From a color distribution point of view, it was confirmed that female products are in most cases colored with two colors, while male products largely use three. Of the three participants, two considered the use of shiny materials to be associated with female products and matte materials to be associated with male products in the European market. Conversely, glittery materials were associated with male products in Asian markets.

The three interviewed designers further provided their views on product materials. The interviewees confirmed a high correlation between a product’s femininity and a smooth texture, and between masculinity and an uneven texture. The surface qualities of hard versus soft were noted by all three designers regarding masculinity and femininity. Moreover, female products were further associated with evenness and comfort, and male products with being highly “stiff, harsh, and hard.” Furthermore, the interviewees associated female products with lighter weights and male products with being highly “robust.” (A high level of subtlety was associated with female products.) Taking into consideration that there were few participants and no gender balance, the increased range of interindividual agreement among them indicates the validity of the qualitative input as the basis of the investigation.

In general, the above suppositions were supported. In terms of reflectiveness, shiny materials indicated femininity while matte materials indicated masculinity in Western states. This culture-definite gender point of view can be further clarified by engaging the theory of dual-inheritance, whereby human behavior results from the assimilation of double evolutionary methods—cultural evolution and genetic evolution (designated the selection process by Darwin)—as evident in the literature (Barkow et al. 1995; Richerson and Boyd 2008). All the

designers asserted that such discernments were acquired via expertise and not via any established or published guidelines. This assertion shows the significance of the present study, as well as its managerial inferences. Furthermore, in general, the outcome of the present study indicates how the aforementioned suppositions concerning the colors, tones, materials, and proportions of products are pertinent to the discernment of product gender plus product preference. Subsequent to the interviews, a range of products were tested to establish guidelines for creating gender in the design of products.

Product Value Deriving from Product Gender

After assessing the drivers of masculinity and femininity among products, the subsequent task was to apply the resulting findings on the impact of product gender to determine consumer response. The design of a product has an aesthetic impact inclusive of both the product's personality and its alleged potential. The effectiveness of product design will be upheld only after establishing the desired consumption experience (Desmet and Hekkert 2007) and, therefore, is considered based on its acceptance and market share (Bloch 1995). In accordance with Creusen and Schoormans (2005), the appearance of a product involves various factors determining its preference as a channel of aesthetic value, including the attention it attracts, its promotion of symbolism, ergonomics, functionality, and categorization. The study considered how the attitudes of consumers were influenced by product gender considering equally the product, its aesthetic worth, its alleged functionality, and the consumer's purpose for acquiring the item.

Product value and how to define it. In accordance with Holbrook (1980), the initial pleasure of simply gazing at an item (while withholding value judgments) leads to aesthetic value. A considerable range of literature indicates that aesthetic value is hedonic in addition to being an outcome of construal plus depiction (Schmitt and Simonson 1997). It has been argued that aesthetic preference is naturally guided by principles of visual organization such as symmetry, proportion (for instance, "the Golden ratio"), plus unity (Hekkert 1995; Veryzer and Hutchinson

1998). Through unity, an object becomes easy to process and understand. Furthermore, and in accordance with Reber et al. (2004), an element's clarity increases its fluency in addition to resulting in a highly positive judgment of stimuli. A favorable attitude toward the stimuli happens as a result of an increment of error-free processing and efficient stimulus identification through fluency (Winkielman et al. 2013). Numerous preference phenomena identified in the fields of aesthetics, and psychology can be described by this influence (Reber et al. 2004). Preference for prototypes is considered a key indicator of the preference for an item's clear gender indicators (Hekkert 1995; Veryzer and Hutchinson 1998). This predilection for clarity in product gender signs ought to be delineated through fluency so the product can be considered an error-free stimuli processor. Smooth processing of highly gendered products results in an affirmative and affective attitude toward those products, enhancing their appeal. Therefore, the correlation between aesthetic preference and EP lies in what is often regarded as a "transfer hypothesis" (see Rhodes 2006), which is essentially founded on the idea of mate selection. Highly feminine or highly masculine human qualities are considered highly attractive (Kaplan and Gangestad 2005), while qualities that indicate femininity and masculinity are regarded as indicators of excellent health that signify the capacity to provide healthy offspring.

Therefore, prototypical illustrations of females or males are attractive since they produce resilient indicators of mate worth (Symons 1979). While there is no biological significance for these qualities, their appeal can be conveyed to non-human entities and may clarify why consumers embrace femininity and masculinity in both objects and humans. Actually, some prevailing studies have employed principles of human discernment in clarifying consumer reactions in order to generate aesthetics (Townsend and Sood 2012). Considering the aforementioned perceptions, it can be strongly argued that products that appear to be highly gendered (more feminine or masculine) tend to stimulate a highly positive affective approach among consumers compared with those that are meagerly gendered. Nonetheless, strongly gendered products (more feminine or masculine) should have increased aesthetic value compared with those considered less gendered.

With that said, product design is equally capable of affecting consumer's perceptions of utility and functionality (Bloch 1995). Diverse designs may suggest diverse functions, as well as diverse intensities of functional performance (Hoegg et al. 2010). For instance, construction materials may indicate durability, lengthy sizes may indicate power, and shape may indicate aerodynamics (Creusen and Schoormans 2005). Generally, high aesthetics indicate increased functionality (Creusen and Schoormans 2005; Yamamoto and Lambert 1994). Of note is the exception when unappealing products nevertheless seem highly functional, particularly when people stress the inconsistencies between verbal and visual information (Hoegg et al. 2010). Notwithstanding this exception, the association between alleged aesthetics and functionality holds in the literature on social psychology. The literature on interpersonal perception indicates a positive correlation between physical appeal and socially desired features, for instance, being intelligent, ethical, nurturing, or competent (Dion et al. 1972; Langlois et al. 2000). The literature has offered two clear descriptions concerning the phenomenon of "beautiful is good." From one angle, this may indicate a stereotyped method associating an individual's beauty with positive individual features (Dion et al. 1972). From another perspective, a halo impact may generate this phenomenon (Nisbett and Wilson 1977), whereby beauty is a highly apparent and available character attribute; in an association, it is recognized first and eventually affects all consequent discernments of additional character qualities (Dion et al. 1972). For that reason, highly gendered products (more feminine and/or masculine) are expected to be highly functional.

Nonetheless, in accordance with Creusen and Schoormans (2005), with all factors considered, buyers will opt for the most appealing products. Considering the above reflections, strongly gendered products (highly feminine or masculine) are expected to have higher purchase-intention ratings compared with products that are meagerly gendered. Other mediators are aesthetic value, affective attitude, and functionality. The above features provide a suitable description of the impact of product gender on purchase intention. The association between the gender of a product and purchase intention is facilitated first by the product's affirmative attitude emanating from its flawless stimuli

processing, then through the appeal resulting from its affirmative affective approach, and finally through a discernment of its functionality resulting from the correlation between its functionality and increased aesthetic worth. Therefore, the mediation process includes the following: the heightening of an item's gender results in (1) a positive, affective approach toward the product due to the stimuli's easy processing, (2) an increased discernment of functionality, and (3) an enhanced discernment of aesthetic value. This results in consumers' increased procurement intent. Figure 8.2 later in this chapter offers an illustration of a corresponding structural model. The reason for the positive impact of a product on the intention to purchase has been associated with aesthetic value, affective attitude, and functionality. The features of affective approach, aesthetic value, and functionality facilitate a positive correlation between highly gendered items and purchase preference. The assumptions offered in this study hypothesize that strong masculinity, strong femininity, or both enhance positive outlooks and procurement intentions.

Items with simultaneously high MPG and FPG are considered androgynous (Bem 1974). The literature on gender shows a correlation between androgyny and an increased range of behavioral preferences. Androgynous persons seem to adapt well to conditions, react more amenably to their surroundings, and ultimately have excellent psychological health (Bem 1974). With respect to the above considerations, products appearing highly gendered with simultaneously high femininity and high masculinity will have a highly affirmative affective stance, be considered highly aesthetic and highly functional, and be subject to increased purchase intent compared with those low on FPG, MPG, or both.

Study 1: Product Gender Affected Through Product Characteristics

The objective of the initial three studies 1a–1c was to analyze the influence of aesthetic magnitudes of form, color, and materials on consumers' perceptions of the gender of a product. To examine the impact of

aesthetic features on a product's masculinity or femininity, the respondents were given product images with different aesthetic dimensions of color, form, or material. Study 1a tests the product's form by assessing its shape (angular, round), proportion (bulky, slim), and lines (straight, curvy) based on within-subject factors. Study 1b examined the impact of color by assessing colors (dark, light), contrast (fewer colors, more colors), and reflectiveness (matte, shiny) as within-subject features. Study 1c examined the impact of material by assessing texture (rough, smooth), weight (heavy, light), and surface (hard, soft) as within-subject features. By deliberating on the above assumptions' generalizability, three product categories—fragrances, shoes, and glasses—were used as stimuli. These categories are considered neutral with unisex purposes. Nonetheless, all categories are normally used publicly and are highly correlated with individual identity. Therefore, it is likely that any recognized impacts of item gender may be strong due to the inherent increased correlation between item classifications and their users. Image development was done in association with a design agency to exclude associations with prevailing products. Based on a conducted pre-test, the neutrality of base models' product gender was assessed on a 7-point measure (1 = "feminine," 4 = "neutral," and 7 = "masculine"). The outcome indicated that shoes ($n = 361$, $M = 3.87$, 95% confidence interval [CI]: 3.74–4), glasses ($n = 307$, $M = 4.05$, CI: 3.91–4.19), and fragrances were perceived as neutral ($n = 375$, $M = 4.18$, CI: 4.04–4.32).

In study 1a, the items entailed a full two (proportion: slim, bulky) two (shape: round, angular) $\times$ two (lines: curvy, straight) within-subject empirical design, leading to eight varieties of each product (see Fig. 8.1a). In study 1b, the products were defined by a full two (color: light, dark) $\times$ two (contrast: more, fewer) $\times$ two (reflection: shiny, matte) experimental design, leading to eight varieties of each product (refer to Fig. 8.1b). The method used to choose the colors was based on the study by Picariello et al. (1990), who considered lavender and bright pink to be light, highly feminine colors, while maroon plus navy blue was considered highly masculine. More colors exemplified greater contrast and vice versa: 50% (90%) gray, 40% (0%) in a less sex-typed color, and 10% (10%) in a high sex-typed color. The surface of the product was made to appear matte or shiny. In study 1c, the products

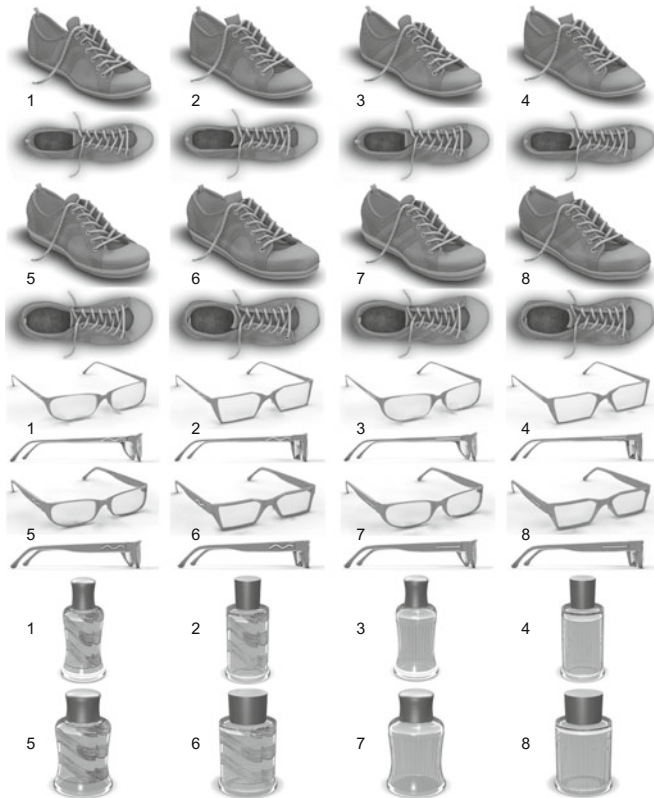


Fig. 8.1 a Stimuli of studies 1 and 2—Panel A: Product form 1—slim, round, and curvy; 2—slim, angular, and curvy; 3—slim, round, and straight; 4—slim, angular, and straight; 5—bulky, round, and curvy; 6—bulky, angular, and curvy; 7—bulky, round, and straight; and 8—bulky, angular, and straight (© Figs. 8.1a–c are reprinted with permission from formZ, Fabian Zerling).

were defined as a full two (texture: smooth, rough) $\times$ two (surface: soft, hard) $\times$ two (weight: light, heavy) empirical design, leading to eight strategies for each item (see Fig. 8.1c). Leather and wool shoes were selected to signify the heavy and light shoe versions, in that order. The design of the two versions was done once using a plain or hard surface and two times using an uneven or soft surface, in addition to the rough and smooth texture. Both fragrances and glasses were treated to appear even (soft) and uneven (hard), thereby applying smooth and rough



Fig. 8.1 b Stimuli of studies 1 and 2—Panel B: Product color 1—light, more, and shiny; 2—light, fewer, and shiny; 3—light, more, and matte; 4—light, fewer, and matte; 5—dark, more, and shiny; 6—dark, fewer, and shiny; 7—dark, more, and matte; and 8—dark, fewer, and matte.

structures. The light glasses were composed of a transparent material while the heavy glasses incorporated a nontransparent material. A thick bottle was used in the illustration of the hefty fragrance while a thin bottle was used to display the light fragrance.

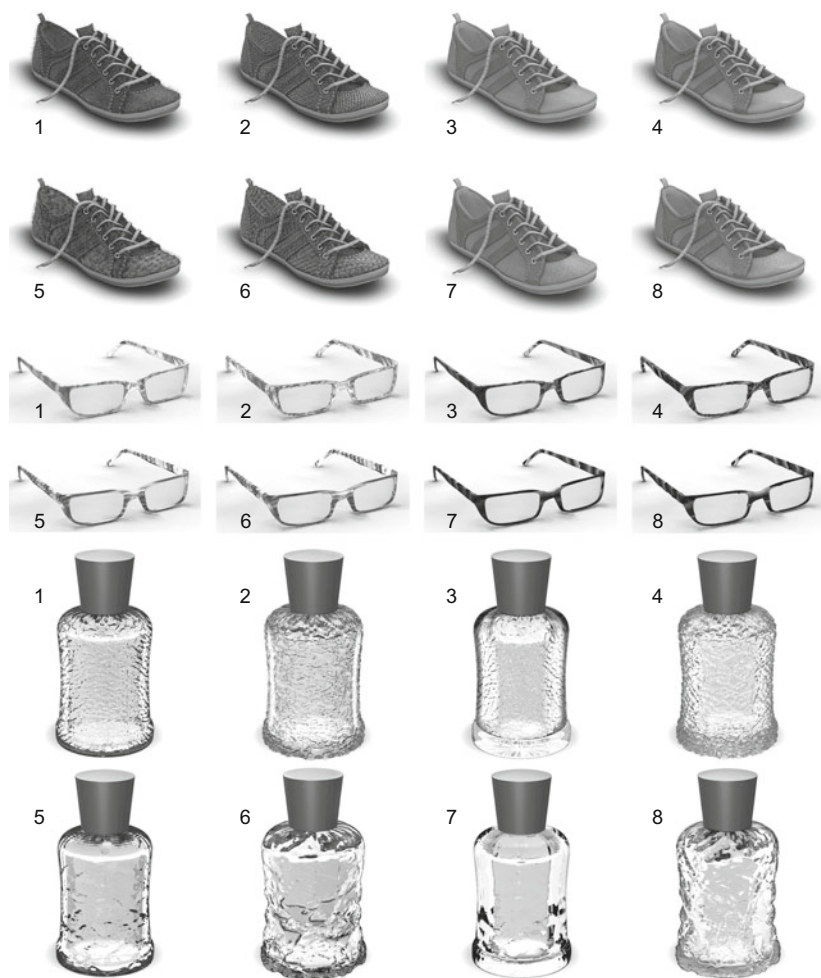


Fig. 8.1 c Stimuli of studies 1 and 2—Panel C: Product material 1—smooth, soft, and light; 2—smooth, hard, and light; 3—smooth, soft, and heavy; 4—smooth, hard, and heavy; 5—rough, soft, and light; 6—rough, hard, and light; 7—rough, soft, and heavy; and 8—rough, hard, and heavy

All the studies utilized a consumer online panel from Germany. The study's sample size (n) included 146 for study 1a (45.7% female, $M_{\text{Age}} = 42.99$, $SD_{\text{Age}} = 13.59$), $n = 142$ for study 1b (41.2% female, $M_{\text{Age}} = 44.36$, $SD_{\text{Age}} = 15.59$), and $n = 212$ for study 1c (37.7% female, $M_{\text{Age}} = 46$, $SD_{\text{Age}} = 15.44$). Every participant took part in the online research on (1a) form, (1b) color, or (1c) material via a web link. They received a short introduction and later perceived the various products and designs. In studies 1a and 1b, the participants examined the shoes, followed by the fragrances, and eventually the glasses. For study 1c, the participants viewed only a single product category. There were limitations on the total products in study 1c due to the intricacy of judging product material (Klatzky et al. 1987). Beneath each picture, there was a query prompting participant's gender perception of the product. Two 7-point scales were considered in gauging gender so as to determine MPG and FPG (1 = "not masculine at all" to 7 = "very masculine"; 1 = "not feminine at all" to 7 = "very feminine"; Allison et al. 1980).

A linear mixed model (LMM) process was used to scrutinize significant effects since LMM is capable of dealing with missing values in repeated measures (Verbeke and Molenberghs 2009). All findings of study 1a were studied with participants as subjects, the manipulation of aspects as repeated measures, MPG and FPG as the dependent variable (DV), and the three manipulations as factors (for proportion: slim versus bulky, round versus angular, and curvy versus straight). The entire fixed effects were significant with F-values higher than 64 for slim versus bulky, more than 185 for round versus straight, and more than 70 for curvy versus straight (all $ps < 0.001$). The round versus straight manipulations had the strongest effects on gender perception. The similar LMM test was also carried out for within-product class (glasses, shoes, and fragrances). The majority estimates of the fixed effects were significant. The slim, round, and curvy manipulations were found to raise FPG and decrease MPG, therefore making the product feminine, and the opposite manipulations reduced FPG and increased MPG. See Table 8.1 for FPG and MPG ratings across manipulations and Table 8.2 for estimated fixed effects.

Table 8.1 Feminine (FPG) and masculine (MPG) product genders

Proportion		Shape	Lines	FPG	MPG	Product color	Color	Contrast	Reflectiveness	FPG	MPG
Product form	Shoe	Slim	Curvy	4.53	3.50	Shoe	Light	More	Shiny	5.57	2.54
		Slim	Curvy	4.28	3.73		Light	Fewer	Shiny	5.45	2.71
		Slim	Straight	4.61	3.45		Light	More	Matte	5.40	2.77
		Slim	Straight	4.24	3.74		Light	Fewer	Matte	5.16	2.99
		Bulky	Curvy	3.85	4.16		Dark	More	Shiny	4.49	3.79
	Glasses	Bulky	Curvy	3.63	4.29		Dark	Fewer	Shiny	3.69	4.58
		Bulky	Straight	3.80	4.29		Dark	More	Matte	4.22	3.94
		Bulky	Straight	3.54	4.32	Glasses	Dark	Fewer	Matte	3.44	4.84
		Slim	Curvy	4.90	3.37		Light	More	Shiny	6.01	2.06
		Slim	Curvy	3.94	3.96		Light	Fewer	Shiny	5.85	2.20
Fragrance		Slim	Straight	4.32	4.01		Light	More	Matte	6.01	2.01
		Slim	Straight	3.75	4.34		Light	Fewer	Matte	5.90	2.14
		Bulky	Curvy	5.01	3.35		Dark	More	Shiny	4.19	3.97
		Bulky	Curvy	4.07	4.00		Dark	Fewer	Shiny	3.53	4.74
		Bulky	Straight	4.35	4.03		Dark	More	Matte	3.95	4.08
	Fragrance	Bulky	Straight	3.55	4.47		Dark	Fewer	Matte	3.61	4.68
		Slim	Curvy	5.45	2.86	Fragrance	Light	More	Shiny	5.83	2.35
		Slim	Curvy	4.08	4.24		Light	Fewer	Shiny	5.74	2.35
		Slim	Straight	5.01	3.18		Light	More	Matte	5.76	2.41
		Slim	Straight	3.48	4.84		Light	Fewer	Matte	5.73	2.43
Product material	Shoe	Bulky	Curvy	4.86	3.46		Dark	More	Shiny	3.21	4.88
		Bulky	Curvy	3.53	4.60		Dark	Fewer	Shiny	3.05	5.15
		Bulky	Straight	4.14	4.06		Dark	More	Matte	3.16	4.98
		Bulky	Straight	2.84	5.47		Dark	Fewer	Matte	2.94	5.24
		Angular	Straight				Dark	Fewer	Matte		
		Texture	Surface	WeightWeight				FPG	MPG		
		Smooth	Soft			Light		3.94		3.71	
		Smooth	Hard			Light		4.42		3.28	
		Smooth	Soft			Heavy		3.75		3.97	
		Smooth	Hard			Heavy		4.00		3.88	
		Rough	Soft			Light		4.49		3.16	

(continued)

Table 8.1 (continued)

	Texture	Surface	WeightWeight	FPG	MPG
Glasses	Rough	Hard	Light	4.61	3.03
	Soft	Soft	Heavy	3.84	3.87
	Rough	Hard	Heavy	3.96	3.58
	Smooth	Soft	Light	4.85	3.14
	Smooth	Hard	Light	4.87	3.06
	Smooth	Soft	Heavy	3.94	4.21
	Smooth	Hard	Heavy	4.03	3.96
	Rough	Soft	Light	4.65	3.51
	Rough	Hard	Light	4.75	3.36
	Rough	Soft	Heavy	3.54	4.56
Fragrance	Rough	Hard	Heavy	3.51	4.67
	Smooth	Soft	Light	3.93	4.03
	Smooth	Hard	Light	4.14	3.93
	Smooth	Soft	Heavy	4.18	3.93
	Smooth	Hard	Heavy	4.14	3.93
	Rough	Soft	Light	3.99	4.23
	Rough	Hard	Light	3.87	4.37
	Rough	Soft	Heavy	4.10	4.23
	Rough	Hard	Heavy	4.15	4.07

The results of study 1b were scrutinized in a comparable way. For the entire set of study 1b data, the fixed effects were significant for light versus dark colors ($ps < 0.001$), for more versus fewer colors ($ps < 0.001$), and for shiny versus matte colors ($ps < 0.05$). The dark versus light manipulations had the strongest effects on gender perception, while the shiny versus matte dimension had a small effect that can also be viewed within the estimations of fixed effects (Table 8.2) after a similar LMM test was conducted for the within-product classes. All estimations for shoes were significant. However, for fragrances, the estimates for more versus fewer colors were not significant; for both glasses and fragrances, the results for shiny versus matte were also not significant. The assumptions within these cases were not supported. Given that no considerable contradictions were realized, and due to the general implication, it was realized that, generally, more colors, lighter tones, and a shiny reflectiveness raise FPG and lessen MPG.

The results of study 1c demonstrated significant fixed effects only for light versus heavy weight with F s higher than 38 ($ps < 0.001$) for both MPG and FPG. As can be observed from the LMM test within-product groups, the signs of the respective estimates were as assumed (Table 8.2). Therefore, light weight augmented the perception of femininity at least for shoes and even for glasses. Although a smooth texture had the anticipated significant effect on increasing the femininity of glasses, there was a reverse result for shoes. Smooth textures tended to make shoes seem extra masculine. As a result, for the surface features, our suppositions cannot be supported. However, for the other features, they are partially supported.

To inspect the impact of participants' gender, LMM studies were carried out with gender as the dependent variable. Inside the three (dimensions) $\times$ three (products) = nine groups, six showed considerably fewer product femininity perceptions by female participants (in the type measurement for glasses, -0.55 , $p < 0.05$; for form and fragrance, -1.05 , $p < 0.001$; in the color dimension for shoes, -0.40 , $p < 0.05$; within the material measurement for shoes, -1.09 , $p < 0.001$; for glasses, -0.95 , $p < 0.001$; and for fragrance, -1.55 , $p < 0.001$). Generally, female participants gave ratings closer to the intermediate of the 7-point

scale compared with male participants (average FPG 4.24 and MPG 3.92 against 4.52 and 3.60 for the male participants).

According to our suppositions, study 1 recognized product aesthetics to be a basis of product gender. Nevertheless, dissimilarities at the product level concerning the strength of the effect of the respective traits should be considered. Therefore, products having slim or bulky sizes, round or angular forms, or curvy or straight lines normally improved the perception of the product's masculinity or femininity, respectively, although the effects of this strength might be somewhat state dependent. Moreover, in accordance with the study's expectations, products having darker or lighter tones, extra or fewer colors, or a matte or shiny surface improved the perception of the item's femininity or masculinity, respectively.

Restricted support was found for the effect of product material, which appears to be product specific. A rough or smooth texture did not improve the acuity of femininity or masculinity, respectively, of any of the objects. Indeed, for shoes, the opposite was true: A rough texture made the product seem feminine, whereas a smooth texture made it appear more masculine. This might be because of a product-specific relationship (e.g., rough shoes may appear lighter compared with smooth-structured shoes, and hence, they are possibly linked with femininity). Moreover, contrary to the study's assumptions, a hard versus a soft surface suggested femininity. Once more, this outcome might be owing to other relations related to the product (e.g., the hard surface may be further detailed compared with the soft surface). Nevertheless, the direction of the effect was captured for all product groups, showing that hard versus soft surfaces can be employed to improve product femininity against masculinity. In general, a light weight was discovered to improve the perception of femininity, whereas a heavy weight improved the perception of masculinity. Therefore, the findings of study 1c identify product-specific connotations.

Last, gender dissimilarities in studies 1a–1c were identified. Nevertheless, this might reflect females' superior vulnerability to anchoring effect (Kato and Hidano 2007) instead of disagreement on product gender.

Study 2: Increasing Perceived Product Value Through Product Gender

Participants in studies 2a–2c were provided with the same gendered products as those in study 1 (see Fig. 8.1a–c) and asked to rate their affective attitude toward the item, its visual aesthetic value, its functionality, and their purchase intent toward it.

As in study 1, the data were gathered online from a German user panel. A total of 1657 participants took part; 35 excessive outliers were recognized by means of Cook's distance, leaving 1622 participants. Of these, 1335 persons provided their age and gender (42.8% female, $M_{\text{Age}} = 44.92$, $SD_{\text{Age}} = 12.88$). Missing values within a rating scale led to the omission of that particular rating. As every participant was requested to rate three items, diverse numbers of cases for the diverse scales were acquired: 4129 for *affective attitude*, 4089 for *visual aesthetic value*, 4093 for *utilitarian attitude toward the product*, and 4140 for *purchase intent*.

The subjects participated in the online study via a web link and were allocated to assess the object's (a) shape, (b) color, or (c) material. Participants arbitrarily observed one product of every kind (glasses, shoes, and fragrances) and were requested to rate them on several scales (in a randomized order). In particular, to determine their affective attitude toward the product, participants were requested to provide three ratings of their trust that the object had the capability to promote a positive attitude, employing 9-point bipolar scales: "it's depressing"/"it's upbeat"; "I felt sad"/"I felt happy"; and "it created a negative mood"/"it created a positive mood" (Cohen and Andrade 2004; $\alpha = 0.966$). To determine the visual aesthetic value by means of 5-point bipolar scales, participants were requested to provide five product ratings: "bad"/"good," "unpleasant"/"pleasant," "not likeable"/"likable," "unflattering"/"flattering," and "unattractive"/"attractive" (Cox and Cox 2002; $\alpha = 0.944$). To determine their utilitarian attitude toward the object (i.e., functionality), participants were requested to rate the products by means of 5-point bipolar scales: "not effective"/"effective," "not helpful"/"helpful," "not functional"/"functional," "not necessary"/"necessary," and "not

practical”/“practical” (Voss, Spangenberg, and Grohmann 2003; $\alpha = 0.933$). To determine their attitude toward the action of acquisition (i.e., their purchase intention), participants were requested to respond to the subsequent three queries by means of a 5-point probability scale for all: “if you were planning to buy a product of this type, would you choose this product?”; “would you purchase this product?”; and “if friends were looking for a product of this type, would you advise him or her to purchase this product?” (Berens et al. 2005; $\alpha = 0.939$).

Results and analysis. The items for each of the four dimensions were aggregated with their means for affective attitude, aesthetic value, functionality, and acquisition intent. Regression analyses were carried out by means of Hayes’ actual syntax file for SPSS, which is based on the work of Hayes and Preacher (2013). This process has the benefit that the model defined within Fig. 8.2 can be assessed for direct and indirect effects and the significance of mediations (particularly, above one X variable is permitted; therefore, both MPG and FPG might be executed as independent variables).

The affective attitude regression on MPG and FPG led to a significant positive $F(24|26) = 34.93$ with $b_{FPG} = 1.38$ and $b_{MPG} = 1.21$ (all $ps < 0.001$). Therefore, the larger the product gender, the larger the affective

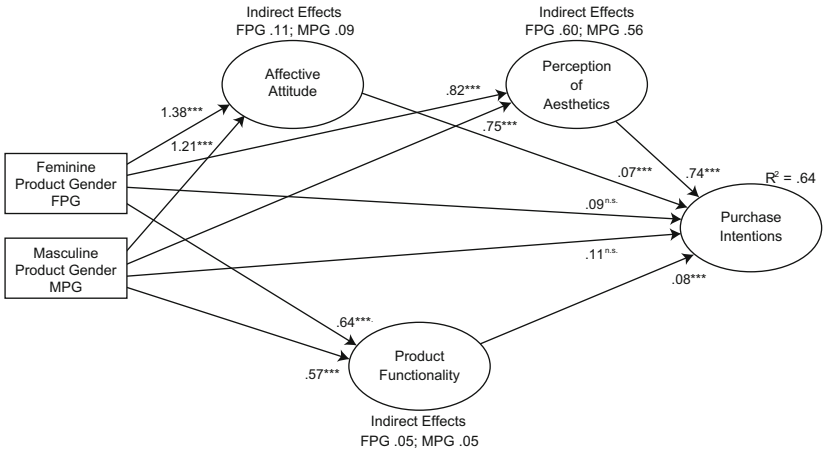


Fig. 8.2 Coefficients of the structural model. Note *** $p < 0.001$, ** $p < 0.01$, and * $p < 0.05$

approach. The aesthetic value regression on MPG and FPG led to a significant $F(24,088) = 44.76$, having $b_{FPG} = 0.82$ and $b_{MPG} = 0.75$ (all $ps < 0.001$). Therefore, superior product gender improves aesthetic value. The functionality regression on MPG and FPG led to a significant $F(24,090) = 34.74$ with $b_{FPG} = 0.64$ and $b_{MPG} = 0.57$ (all $ps < 0.001$). Hence, functionality rises with stronger product gender. Our most important assumption posits that purchase intent positively responds to superior product gender represented by MPG and FPG. The particular regression was significant with positive coefficients upholding this supposition $F(24,137) = 36.35$; the coefficient b_{FPG} was 0.83 and $b_{MPG} = 0.77$ (all $ps < 0.001$).

To examine the mediation effect, the model within Fig. 8.2 was computed once with just affective attitude, once with just aesthetic value, and once with just functionality. Affective attitude mediated the effect only to some level, but the coefficients of gender were still highly significant ($b_{FPG} = 0.34$ and $b_{MPG} = 0.35$, $ps < 0.001$). Aesthetic value only mediated the effect to a higher extent; nevertheless, the coefficients of gender remained significant ($b_{FPG} = 0.13$ and $b_{MPG} = 0.14$, $ps < 0.05$). Functionality had the smallest mediation effect with remaining $b_{FPG} = 0.41$ and $b_{MPG} = 0.41$, $ps < 0.001$. Therefore, no solitary variable completely mediated the effects of MPG and FPG on acquisition intent.

Within the subsequent step, three pairs obtained from the three variables were chosen. Foremost, the pair of affective attitude and functionality was incorporated. Even though it was not capable of mediating the effects of MPG and FPG on purchase intent, the gender coefficients were nevertheless highly significant ($b_{FPG} = 0.26$ and $b_{MPG} = 0.28$, $ps < 0.001$). The duo of functionality and aesthetic value completely mediated FPG ($b_{FPG} = 0.11$, $p = 0.07$). MPG was still significant ($b_{MPG} = 0.12$, $p < 0.05$). This was comparable for the pair of aesthetic value and affective attitude with $b_{FPG} = 0.11$, $p = 0.08$. MPG was still significant ($b_{MPG} = 0.12$, $p < 0.05$). No single dimension or any pair of the dimensions completely mediated the effects of product gender on purchase intent.

Including all three variables within the model and evaluating the entire model within a regression yielded an $F(53,911) = 1383.05$ having an R^2

of 0.64; thus, 64% of the variance of the result variable of acquisition intent was clarified by the model. Besides, MPG and FPG were no longer significant ($b_{FPG} = 0.09$, $p = 0.13$ and $b_{MPG} = 0.11$, $p = 0.07$). The direct effect of affective attitude on acquisition intent was 0.07 ($p < 0.001$), and the indirect effects of MPG and FPG were $b_{FPG} = 0.11$ and $b_{MPG} = 0.09$. The direct effect of aesthetic value on purchase intent was 0.74 ($p < 0.001$), and the indirect effects of MPG and FPG were $b_{FPG} = 0.60$ and $b_{MPG} = 0.56$. The direct effect of functionality on purchase intent was 0.08 ($p < 0.001$), and the indirect effects of MPG and FPG were $b_{FPG} = 0.05$ and $b_{MPG} = 0.05$. All upper and lower limits of the CI for the indirect effects were positive. Therefore, the concurrent addition of the three variables completely mediated the effects of product gender on purchase intent, therefore supporting the mediation hypothesis.

The correlation between the two exogenous variables MPG and FPG was an extremely negative $r = -0.98$, suggesting that product gender can be considered on a bipolar scale. Nevertheless, the model demonstrates that purchase intent rises for both elevated FPG and MPG. Therefore, high values for both proportions cannot be estimated on a bipolar scale apart from at the neutral midpoint. As a result, categorical product gender was defined in line with the medians of the MPG and FPG variables: Values higher than the medians for the two genders point to androgynous products; values more than the median for FPG (MPG) and underneath the median for MPG (FPG) point to feminine (masculine) products; and values beneath the medians on the two point to undifferentiated products (Bem 1974; Bem 1977; Spence et al. 1975). The respective classification was analyzed by a one-way ANOVA having the four attitudes as the dependent variables. All four were significant. For affective attitude, $F(34,183) = 9.521$, $p < 0.001$; for aesthetic value, $F(34,183) = 9.440$, $p < 0.001$; for functionality, $F(34,183) = 22.574$, $p < 0.001$; and for purchase intent, $F(34,183) = 5.296$, $p < 0.01$. For all attitudes, the androgynous brands received the uppermost scores, and the undifferentiated products received the lowest scores. Feminine products were next uppermost, followed by the masculine products (Table 8.3). Therefore, the hypothesis that products that are more strongly gendered by simultaneously high masculinity and high femininity will receive a

Table 8.3 Attitude scores for four product gender categories

	Affective attitude	Aesthetic value	Functionality	Purchase intent
Androgynous products	5.47	3.45	3.83	2.85
Feminine products	5.39	3.31	3.56	2.77
Masculine products	5.15	3.21	3.51	2.69
Undifferentiated products	4.82	3.07	3.19	2.54

more positive affective attitude, will be perceived as more aesthetic and as more functional, and will receive higher purchase intent than products low on MPG, FPG, or both, is supported.

Product Value Increases Through Product Gender

Higher product gender levels led to stronger purchase intent; nevertheless, though also positively manipulating the aesthetic value, affective attitude, and functionality, these three variables totally mediated this effect. Products that had female or male appearance were professed to be agreeable, and even more so when the product provided strong features of both genders. It appears that the evolutionary appreciation of the manifestation of strong gender features within others is so intensely attached to the human brain that highly gendered products are more attractive to customers. Moreover, elevated product gender yielded superior functionality perceptions. Therefore, there is proof that the “what is beautiful is good” stereotype relates to products, with powerfully gendered products seeming more beautiful and extra functional. The fact that none of the three variables alone or any selected pair was able to completely mediate effects of gender on purchase intent demonstrates that these three dimensions are essential and adequate for clarifying the technicalities behind the gender impact on purchase intent.

The above findings give designers and managers instructions for how to devise a gendered product employing the proportions of form, color, and to some extent material. Furthermore, this study emphasizes the positive result of creating products having strong aesthetic demonstrations of gender, since elevated product gender suggests positive customer behavior and perceptions. Particularly, studies 2a–c show that highly gendered products are seen as highly aesthetic. Furthermore, the aesthetic pleasure provided by an extremely gendered product results in superior purchase intent.

The exceptional responsibility of androgyny could be demonstrated once more and the unique role of androgynous brand gender, as well. Androgynous products with concurrently elevated perceptions of masculinity and femininity obtained the most reaction, whereas undifferentiated products with concurrently low masculinity and femininity received the lowest scores.

It is notable that the impact of general aesthetics on object perceptions has been demonstrated in several cases in which self-presentation was less obviously pertinent, for instance, industrial products (Yamamoto and Lambert 1994), financial documents (Townsend and Shu 2010), and computers (Tractinsky et al. 2000). Therefore, it appears reasonable that the consequences found in this study might extend to other products.

Further, this study expands the literature on product character by clarifying product aesthetics as a basis of perceptions of product gender. It supplements the study of Fugate and Phillips (2010), which suggested a tendency toward powerfully gendered products. Furthermore, this study demonstrates the ways in which EP may be applied to and incorporated into marketing theory.

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9

Salesperson Gender Follows Brand Gender

Behavioral Branding

In this chapter, we will find another benefit of the application of brand gender. The fit of employees to the brand they represent has been emphasized in the literature (de Chernatony and Cottam 2009; Wentzel 2009). Numerous sales processes are accompanied by personal counseling. Thus, the behavior of the salesperson (SP) plays a dominant role, particularly in retail. The theory behind this phenomenon is called *behavioral branding* (Henkel et al. 2007). The outcome of this process and the resulting vendor–customer relationships have been the subject of numerous investigations (Bitner 1990). The literature refers to the relationship between seller and customer as a dyad (Dwyer et al. 1998; Evans 1963; Williams and Spiro 1985), in which disturbances should be avoided to favor a positive outcome for the sales encounter.

The current chapter refers to the publication, “Customers’ Choice of a Salesperson during the Initial Sales Encounter” by Theo Lieven in *Journal of Retailing and Consumer Services* (Lieven 2016). Wherever feasible, text passages have been modified and reworded; identical tables and figures, however, have been adopted.

In recent years, however, efforts have also been made to orient the behavior of employees in relation to a brand itself. The personality of the salesperson and the brand should fit. This *on-brand behavior* (de Chernatony and Cottam 2009) affects brand loyalty and the willingness to recommend a product, which characterizes consumers' overall attitude toward a brand. The brand attitude of customers is an important predictor of purchase intention, and it reflects a brand's value.

The application of Heider's (1958) balance theory shows that, with the triad of brand (B)–customer (C)–salesperson (S), only if all three relationships B–C, C–S, and particularly B–S are in an optimal or balanced condition will consumers' attitude to the brand achieve the most positive effect. Any disturbance in the triad severely damages the attitude toward the brand (Lieven and Schuwirth 2014).

Moreover, gender is a salient part of salespersons' personalities (Dion et al. 1972). Consequently, there arises the question of the relation of SP gender to brand gender. This question will be explored in this chapter.

From Humans to Brands and Back

With the theories of anthropomorphism (Epley et al. 2007) or animism (Gilmore 1919; Harvey 2005), we have learned that people try to explain the world through their own experiences. According to Govers and Schoormans (2005), individuals evaluate inanimate things such as brands in the same way that they evaluate other people. The previous chapters have provided evidence that this theory is true and that, furthermore, the assessment of brand gender affects the attitude toward the brand through the perception of higher brand equity for those brands showing a pronounced brand gender.

Would it, then, not be logical that the same process flows from the brand to humans such as SPs in a store? Do consumers prefer a male SP for a masculine car and a female SP for a feminine fragrance? And what is the preference for androgynous brands?

First, it seems obvious to try to assign male or female SPs to the 64 fictitious brands from Chap. 7 where the independence of brand and product gender was supported. To this end, the 64 brands (16 products,

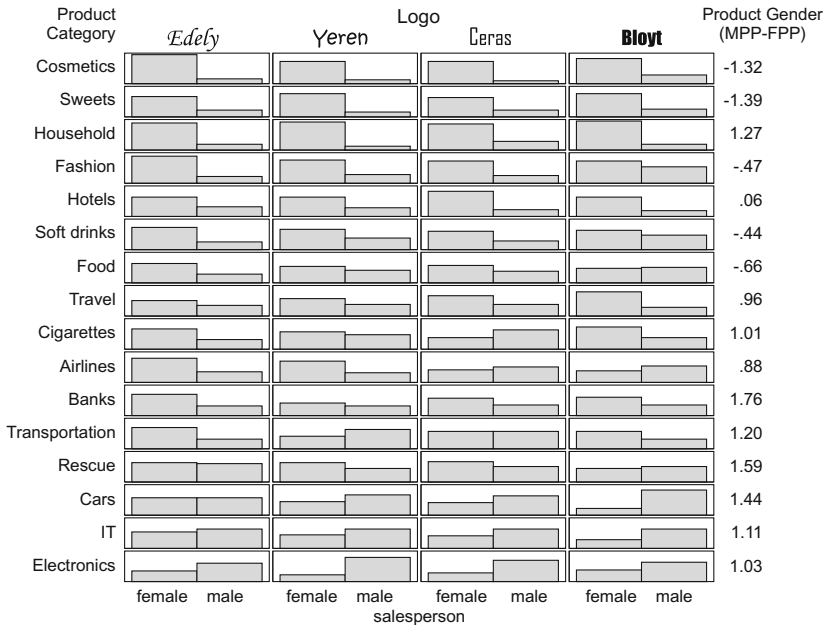


Fig. 9.1 Choice of female or male SPs for 64 branded products (How to read this figure: To see the distribution for the cosmetics brand Edely, go to the cosmetics row and the first two columns for Edely; for this product, considerably more participants chose a female salesperson.)

each with four brand logos; see Table 7.3 in Chap. 7) were presented to 2041 participants in an online survey (45.7% female, $M_{\text{Age}} = 44.5$ years, $SD_{\text{Age}} = 12.4$ years). For each brand, respondents were asked to indicate whether they preferred a female or male SP during a sales encounter in a store. Participant choices for either a female or a male SP are depicted in Fig. 9.1. It is apparent that females/males are chosen more frequently for feminine/masculine products. This finding was supported by a logistic regression with the binary SP gender as a dependent variable (0 = female, 1 = male) and brand and product genders as independent variables. The regression itself was significant ($\chi^2(4) = 70.113$, $p < 0.001$) with odds ratios of 1.452 for the masculine product personality ($p < 0.01$), 0.744 for the feminine product personality ($p < 0.01$), 1.074 for the masculine brand personality ($p < 0.05$), and 0.908 for the feminine brand

personality ($p < 0.01$). The odds ratios denote the ratio between the probability of choosing a male versus a female SP, which in the case of masculine products can be interpreted as a probability of about 59% choosing male SPs and 41% choosing female SPs (odd ratio = 1.452 59/41). Thus, when consumers ask advice on feminine/masculine products/brands, they tend to choose a female/male SP.

Laboratory Choice Experiment

This finding was supported by a choice experiment in which we observed whether consumers turned to a male or female salesperson regarding a specific brand. A possible experimental design for this analysis would be a real point of sale, such as in a department store with various brands. However, controlling for environmental variables in such a setting would only be possible with great effort. Because of the normal daily business with uncontrollable processes, the experiment would need to take place outside of business hours, almost totally negating the advantage of realistic conditions. Therefore, it was decided to create laboratory conditions in a German market research studio.

The prepared showroom was 13.8 feet wide and 15 feet long. The open door with a width of 2.8 feet was located exactly in the middle. In each of the two back corners, a table of exactly the same construction and height was placed (L $\times$ W $\times$ H: 2.6 $\times$ 2.6 $\times$ 3 ft.). A female salesperson waited behind one table, and a male salesperson waited behind the other. The tables were placed far enough apart from one another that a decision on whom to turn to for advice was unavoidable. A wide-angle video camera in the rear part of the room was able to film all movements (all film and audio recordings were produced with the consent of the participants).

A questionnaire was given to each participant, and 1 out of 15 well-known brand logos was randomly placed on the first page. The participant was instructed to obtain advice on this brand. The participant then entered the prepared room and selected either the male or female salesperson. This process was filmed to detect any possible hesitation in making this decision.

To avoid bias regarding which way to walk, right or left (it is reported, for example, that right-handed persons feel an urge to go right; Robinson 1933; Scharine and McBeath 2002), the positions of the salespersons were switched for each participant. In this way, any possible influence of the right- or left-hand location could be controlled for.

The participants were not to deduce the purpose of the experiment in advance. Thus, no mention whatsoever of a gender-based dimension was made to the participants before they entered the room. In addition, the experiment was embedded in filler tasks at the start and end of the study. The participants knew only that the experiment dealt with a brand and that they needed to communicate with one of the two salespersons. Based on the video recordings, it could be determined afterward whether the subjects hesitated in making this decision. Only after selecting the male or female salesperson was the questionnaire filled out for the brand, which also contained items on brand gender. The questionnaire was completed after the decision on one or the other salesperson had already taken place. In the questionnaire, the brand gender was determined on 7-point scales using the model by Grohmann (2009) with a set of 12 traits: six of them describing femininity and six describing masculinity (femininity: *expresses tender feelings, fragile, graceful, sensitive, sweet, and tender*; masculinity: *adventurous, aggressive, brave, daring, dominant, and sturdy*).

As SPs, two siblings of approximately the same age were selected, a woman and a man. Both could be described similarly in terms of attractiveness. They wore similar clothing and therefore could almost exclusively be distinguished from one another only by their gender.

Serving as stimuli were 15 well-known product and service brands: BMW, Audi, Opel (cars), Krombacher (beer), Camel (cigarettes), Sparkasse, Postbank (savings and loan banks), DHL (parcel service), Allianz (insurance), Lufthansa (airline), Nivea (cosmetics), Du darfst (margarine), Sheba (cat food), Persil (detergent), and Milka (chocolate). These stimuli promised a certain variation in brand gender.

Ninety-two persons participated in the laboratory experiment (45 female and 47 male, $M_{\text{Age}} = 33.9$, $SD_{\text{Age}} = 9.0$). These persons were invited based on a pool of addresses of consumers willing to take part in marketing studies. The female salesperson was selected 35 times at the left-hand table and 31 times at the right-hand table; the male salesperson

was selected 14 times on the left and 12 times on the right. A systematic bias due to the experimental design or the habits of the participants could therefore not be detected ($\chi^2(1) = 0.005$, $p = 0.944$). Approximately, every third participant (26 female, 7 male) hesitated for a moment before turning to one of the salespersons. An influence on the selection of the salesperson, however, could not be determined ($\chi^2(1) = 1.261$, $p = 0.261$).

Each of the six gender characteristics was aggregated into MBP (masculine brand gender) and FBP (feminine brand gender). In addition, the differences between the masculine and the feminine brand personality (MBP – FBP) were calculated as an expression of the gender (Uzzell and Horne 2006).

The genders of the product brands from the areas of cosmetics and food tended to be female, and those from the areas of automobiles, alcohol, and tobacco tended to be male. The more neutral service brands lay somewhat in between. A logistic regression of SP gender on brand gender (MBP – FBP) resulted in a positive coefficient of 0.380 with an odds ratio of 1.462 ($p < 0.010$). The odds ratio refers to the likelihood of a gender being chosen versus not being chosen. The nearly identical odds ratio supports the evidence from the first study.

Choosing Portraits of Salespersons for Brands

In the above experiment, we placed importance on the fact that both the female and the male salespersons did not differ in attractiveness. What, however, would happen if SPs were differently attractive? This does not exclusively involve physical but also task and social attractiveness. Therefore, interpersonal attraction constructs were included in the analyses in addition to brand gender (McCroskey et al. 2006). Customers have different requirements for the core or relational aspects of brands. This aspect is included, as well.

Four alternatives were presented as a SP choice. Four portraits of two females and two males were carried over from previous research

(Lieven et al. 2014). The four images differed significantly in terms of femininity/masculinity ($M_{\text{Female } 1}$ (very feminine) = 1.58, $SD_{\text{Female } 1}$ = 0.92; $M_{\text{Female } 2}$ (feminine) = 3.03, $SD_{\text{Female } 2}$ = 1.03; $M_{\text{Male } 1}$ (very masculine) = 5.94, $SD_{\text{Male } 1}$ = 1.18; $M_{\text{Male } 2}$ (masculine) = 5.03, $SD_{\text{Male } 2}$ = 1.10; all $ps < 0.001$). Figure 9.2 shows the portraits.

Again, a German online sample was used for the survey. Sixty-four well-known brands were selected. The service sector, travel, hotel, and airline brands were included. Each participant rated only one of the 64 brands to avoid learning effects. Participants rated the 12 brand gender items (Grohmann 2009). From the four SP photographs, respondents had to choose the person who should give them advice in a potential sales encounter regarding the selected brand. These decisions could only be made based on the appearance. The attractiveness ratings for the four portraits were assessed by the following questions (McCroskey, McCroskey, and Richmond 2006) on a scale from 1 = “I do not agree at all” to 7 = “I fully agree”:

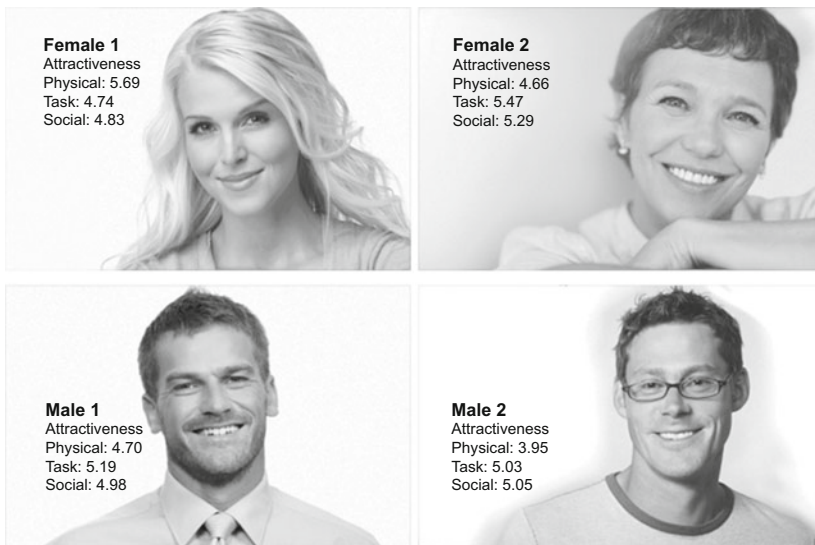


Fig. 9.2 Four salespersons (© First row from left to right: iStock.com/Global Stock, iStock.com/Stigur Karlsson; Second row: iStock.com/Global Stock, iStock.com/pink_cotton_candy)

- Physical attraction: “I think this person is handsome/pretty”; “this person is sexy”; and “this person has an attractive face.”
- Task attraction: “I could probably depend on this person”; “I have confidence in the expertise and ability of this person”; and “this person takes her/his work seriously.”
- Social attraction: “This person could be a friend of mine”; “I could have a friendly talk with this person”; and “this person is easy to get along with.”

With a 5-point scale (1 = “exclusively core aspects” to 5 = “exclusively relational aspects”), participant’s preference for their selected brand was assessed.

Results. In total, 1804 respondents participated (50.4% female, $M_{\text{Age}} = 41.7$ years, $SD_{\text{Age}} = 13.2$ years). The scales were sufficiently reliable ($\alpha_{\text{MBP}} = 0.87$; $\alpha_{\text{FBP}} = 0.93$; Nunnally (1978)). Means and reliabilities of the three attractiveness constructs (McCroskey et al. 2006) were all above 0.7 and thus sufficiently high.

Calculating the brand genders by the difference MBP – FBP and assigning them to the respective product categories led to the assumption that the more the brands were masculine or feminine, the more male or female SPs would be chosen. For cosmetics and sweets, female SPs would be preferred; and for electronics, cigarettes, and IT/computers, male SPs would be preferred.

In this case, brand genders were calculated from the difference between MBP and FBP, which might serve as a measure for gender (Uzzell and Horne 2006). When masculinity is higher than femininity or vice versa, this value delivers a clear result with respect to masculinity or femininity. When both values are equal, however, the MBP – FBP difference is close to zero, and the gender then is said to be neutral. In such a case, MBP and FBP could be either equally high or equally low. To differentiate brand genders according to these nuances, the brands were categorized into groups in which MBP and FBP were above their respective medians (androgynous brands), FBP was above and MBP below their medians (feminine brands), MBP was above and FBP was below their medians (masculine brands), and both MBP and FBP were below the medians (undifferentiated brands; Bem 1977; Spence et al. 1975). Table 9.1 presents the results.

Table 9.1 Four brand gender groups

Brand gender group			
Androgynous	Feminine	Masculine	Undifferentiated
Calvin Klein ¹	Nivea ¹	Meister Proper ³	Colgate ³
Levis ⁴	Dove ¹	adidas ⁴	Knorr ⁷
Esprit ⁴	Penaten ¹	Red Bull ⁶	Maggi ⁷
Gerolsteiner ⁶	Lindt ²	Marlboro ⁹	McDonald's ⁷
Coca-Cola ⁶	Haribo ²	West ⁹	alltours ⁸
TUI ⁸	Milka ²	Camel ⁹	Neckermann ⁸
Thomas Cook ⁸	Langnese ²	Deutsche Bank ¹¹	Air Berlin ¹⁰
Gauloises ⁹	Ariel ³	UPS ¹²	Ryanair ¹⁰
Lufthansa ¹⁰	Persil ³	Police ¹³	Germanwings ¹⁰
Red cross ¹³	Zara ⁴	THW ¹³	Sparkasse ¹¹
Mini ¹⁴	Marriott ⁵	Porsche ¹⁴	Commerzbank ¹¹
VW ¹⁴	Intercontinental ⁵	BMW ¹⁴	Volksbank ¹¹
Sony ¹⁶	Sheraton ⁵	Microsoft ¹⁵	Bahn AG ¹²
Philips ¹⁶	Holiday Inn ⁵	Google ¹⁵	Post ¹²
Canon ¹⁶	Volvic ⁶	HP ¹⁵	DHL ¹²
	Tchibo ⁷	Apple ¹⁵	
	Malteser ¹³	Nintendo ¹⁶	

Note Product categories: 1 = Cosmetics, 2 = Sweets, 3 = Household products, 4 = Fashion, 5 = Hotels, 6 = Soft drinks, 7 = Food, 8 = Travel, 9 = Cigarettes, 10 = Airlines, 11 = Banks, 12 = Transportation, 13 = Police/rescue, 14 = Cars, 15 = IT/computers, and 16 = Electronics

In a multinomial regression, the SP choice served as the outcome. Predictors were the four brand genders, the three attractiveness scores, the requirement for core or relational aspects, and participant gender. This resulted in a significant χ^2 for all variables ($ps < 0.001$, except for core/relational requirements with $p < 0.05$). The odd ratio, which represents the likelihood of the specific SP being chosen divided by the likelihood of not being chosen, can be found in Table 9.2.

Male 2 as the reference had an odds ratio of 1 for physical attractiveness, which means an equal chance of being chosen. For a group of 100 consumers, this would result in a 50:50 chance for male 2. Female 1 had an odds ratio of 7.64, representing 88 consumers choosing her and only 12 still choosing male 2 ($88/12 = 7.33 \approx 7.64$) due to the highest physical attractiveness of female 1. On the other hand, female 1 was the least social and task attractive person with odds ratios of 0.51 and 0.46, respectively. The odds ratio for female 1 was 2.93 for androgynous

Table 9.2 Odds ratios of multinomial regression

Variable	Chosen salesperson			
	Male 2 ^a	Female 1	Female 2	Male 1
Androgynous brands	1	2.93***	1.62*	1.27
Feminine brands	1	3.00***	2.87***	1.11
Undifferentiated brands	1	2.12**	2.43***	1.19
Masculine brands ^b				
Physical attractiveness	1	7.64***	1.43***	1.88***
Task attractiveness	1	0.46***	1.17	1.09
Social attractiveness	1	0.51***	0.95	0.68***
Need for core aspects versus relational aspects	1	1.18	1.01	0.92
Female participants	1	0.44***	1.48*	1.09
Male participants ^b				

Note Dependent variable: Chosen salesperson (one out of four). ^aThe reference category is Male 2. ^bParameters are redundant. * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$

brands, which means that 75 would choose her and 25 would choose male 1 ($75:25 = 3.00 \approx 2.93$, Table 9.2). Across both female 1 and female 2, feminine brands were equally distributed with an odds ratio of about 3 ($75:25 = 3.0$ for female 1 and $74:26 \approx 2.87$ for female 2). This supports the assumption that for feminine brands, female SPs are preferred.

Which Salespersons Fit Androgynous Brands?

Androgynous brands are defined as having high scores for both masculinity and femininity. To determine which SP best fit androgynous brands, the distribution of the four categorical brand genders on the four SPs was examined. The cross-tabulation was significant ($\chi^2(9) = 59.819$, $p < 0.001$). Since such tables are difficult to interpret from mere data, correspondence analysis (CA) offers a visualization (Hoffman and Franke 1986), which is depicted in Fig. 9.3.

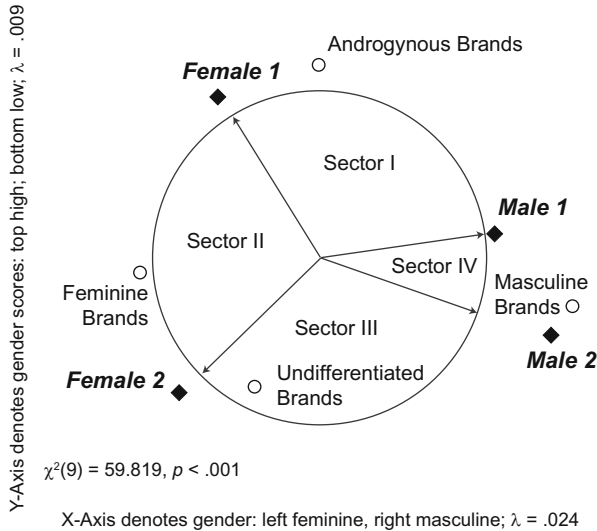


Fig. 9.3 Correspondence analysis plot of brand gender categories versus chosen SPs

From the midpoint, CA plots can be interpreted for this so-called centroid by the angles within it (Hoffman and Franke 1986). Four sectors can be seen in Fig. 9.3 with androgynous brands falling between female 1 and male 1, who are the most physically attractive. Between female 1 and female 2, the feminine brands are found, and masculine brands are found between male 1 and male 2. At the bottom between female 2 and male 2, undifferentiated brands are found. Consequently, physically attractive SPs of either sex should represent androgynous brands during sales encounters.

In a four-way interaction model, the probability of choosing a female or male SP was the dependent variable; participant gender was the independent variable. Three moderators were included: task attractiveness, social attractiveness, and the requirement for core versus relational aspects (variable coding: SP gender: 1 = female and 2 = male; attractiveness: low versus high; core versus relational requirements: low = only core and high = only relational; participant gender: 1 = female and 2 = male). The model had the following main effects ($\chi^2(6) = 57.642, p < 0.001$): $b_{\text{participant gender}} = -0.113, p < 0.05$ (i.e., males tend to

prefer female SPs); $b_{\text{task attractiveness}} = 0.291$, $p < 0.001$ (task-attractive SPs are usually male); $b_{\text{social attractiveness}} = -0.289$, $p < 0.001$ (i.e., socially attractive SPs are usually female); and $b_{\text{requirement for core vs. relational aspects}} = -0.114$, $p < 0.05$ (i.e., participants with mainly core requirements tend to choose male SPs, and those with mainly relational requirements prefer female SPs). Parameters of the interactions were $b_{\text{participant gender} \times \text{task attractiveness}} = 0.297$, $p < 0.001$ (i.e., male participants preferring male SPs with high task attractiveness); $b_{\text{participant gender} \times \text{social attractiveness}} = -0.257$, $p < 0.001$ (i.e., male participants preferring female SPs with high social attractiveness). Four-way interactions are easier interpreted with a visualization, which can be seen in Fig. 9.4. Across task and social attractiveness, female participants showed balanced choice behavior. However, male participants preferred male SPs who are task but not socially attractive. Furthermore, they preferred female SPs who are socially but not task attractive. Customers with mainly relational requirements tended more toward female SPs; those with mainly core requirements tended instead toward male SPs.

Another model was evaluated with a three-way interaction. The probability of choosing a male versus female SP was the dependent outcome; participant gender was the independent variable; and physical, social, and task attractiveness were moderators. The model with task attractiveness was significant ($\chi^2(5) = 271.032$, $p < 0.001$).

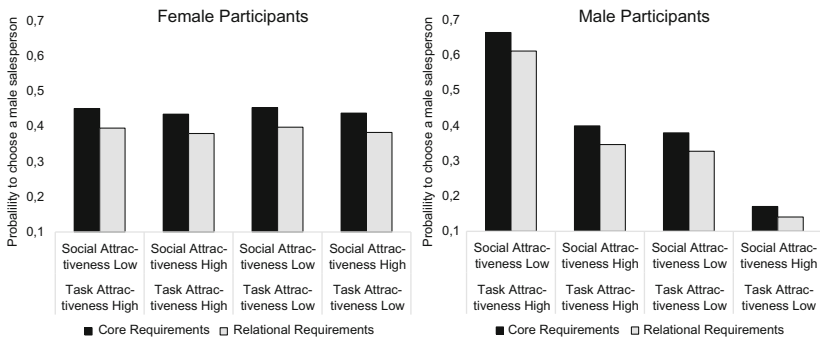


Fig. 9.4 Interaction of participant gender, task, and social attractiveness, and core versus relational requirements

The significant main effects were as follows: $b_{\text{participant gender}} = -0.140$, $p < 0.01$ (which supports the assumption that males tend to choose female SPs); $b_{\text{task attractiveness}} = 0.296$, $p < 0.001$ (i.e., task-attractive SPs are usually male); and $b_{\text{physical attractiveness}} = -0.614$, $p < 0.001$ (i.e., physically attractive SPs are usually female). Two interaction terms were significant: $b_{\text{participant gender} \times \text{task attractiveness}} = 0.335$, $p < 0.001$ (i.e., male participants preferred male SPs with high task attractiveness); $b_{\text{participant gender} \times \text{physical attractiveness}} = -0.657$, $p < 0.001$ (i.e., male participants preferred female SPs with high physical attractiveness). The parameters for social attractiveness did not differ substantially. Again, a visualization facilitates interpretation and is shown in Fig. 9.5. Particularly when task attractiveness was low, male participants were oriented toward female SPs with high physical attractiveness. Particularly when task attractiveness was high and physical attractiveness was low, male participants preferred male SPs. However, female participants showed a balanced ratio of about 60:40 in favor of female SPs, regardless of different physical and task attractiveness.

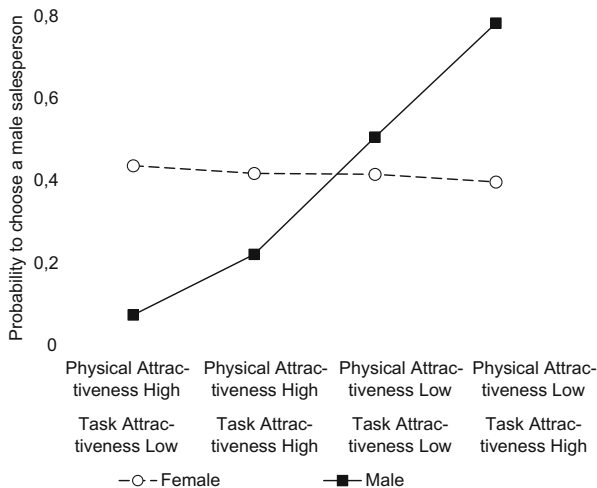


Fig. 9.5 Interaction of participant gender, task, and physical attractiveness

The Particular Role of Female Salespersons

In past literature, women are said to be predestined for sales careers (Skolnik 1985) because of women's strong work ethic; service orientation; and sustainable, humanistic, and ethical–moral attitudes. Male SPs are said to prefer a transactional style (Comer et al. 1995). Female SPs are more often found in service-based businesses (Lane and Crane 2002) because of their better listening ability. Thus, it can be expected that female SPs can be found more often for service brands than for product brands. Typical service categories include hotels, airlines, and the travel business. For the respective service brands in the above data, 70.2% chose female SPs (either female 1 or 2). Only 59.7% chose female SPs for products ($\chi^2(1) = 12.004$, $p < 0.01$).

Conclusions

Because of its ease of categorization, brand gender is a good measure for optimizing the fit between the brand and the salesperson in the behavioral branding process. It would be more advisable to assign female salespersons to cars than males to cosmetics because women are able to meet both core and relational desires, whereas men are less able to meet relational desires. Male salespersons are still predominant at car dealerships; the same holds for electronics and computers. While car manufacturers traditionally control the retail process through their own dealer chains, the application of these findings could be more difficult in the distribution of typical retail products. In self-service environments, there are no salespersons. However, vendors of strong brands are increasingly reverting to the traditional retail approach including having sales personnel. In shopping malls, the sales process may not be under the full control of the manufacturer; however, such control is the norm in a growing number of factory outlets (Karande and Ganesh 2000). Consumers at factory outlets are more involved with the brand itself than are customers at traditional shopping malls (Reynolds et al. 2002).

Thus, vendor-owned and/or vendor-controlled factory outlets offer the best opportunity to implement the findings of the present chapter.

If one accepts the findings from this study, there remains one important question. How can findings on the best gender match be implemented in the current employment environment without breaking rules preventing discrimination? The findings do not appear to be based on discrimination, because both female and male customers have identical preferences for female and male salespersons. The results show that men as well as women are perceived as being highly qualified. This finding means that women and/or men are a good fit for particular products, and the corresponding salesperson allocation should be accepted. This finding holds true more in large retail organizations with hundreds or thousands of sales staff, where an appropriate allocation is more acceptable.

From a legal perspective, there are laws that require equal employment opportunities (Title VII of the Civil Rights Act of 1964 in the USA; Directive 2002/73/EC of the European Parliament and the Council of Europe). Both regulations are similar in prohibiting discrimination regarding any aspect of employment or occupation, including—among others—job assignments (USA) or recruitment conditions (EU). To analyze the legal issues in detail would go beyond the scope of this study. However, these laws do not require a 50:50 gender distribution of sales personnel. Rather, they prevent employers from being unfair, particularly in the recruitment process. The assignment of salespersons should not be an insuperable barrier, particularly for larger retail corporations. The deeper investigation must be left for further research in the areas of economic and employment law.

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10

Brand Gender and Brand Alliances

Birds of a Feather Flock Together

Some instances of alliances, such as between Apple and Nike or Nescafé and DeLonghi (Voss and Gammoh 2004), illustrate that brand alliances are a useful strategy for strengthening brand images (Rao et al. 1999; Washburn et al. 2000). Alliances between two or more brands provide an alternative to brand extensions (Venkatesh et al. 2000), and they are a profitable strategy for entering new and unfamiliar markets (Voss and Tansuhaj 1999). Simonin and Ruth (1998) argue that if a strong fit exists between constituent brands, a brand alliance is evaluated more positively. Although brand personality is seen as the basis for brand fit, brand gender—describing brands’ masculinity or femininity—has been neglected as a basis for brand fit.

Brand personality is often described as the set of human characteristics linked with a brand (Aaker 1997, 347). According to social perception

The current chapter refers to the publication, “The Effect of Brand Gender Similarity on Brand-Alliance Fit and Purchase Intention” by Miriam van Tilburg, Andreas Herrmann, Bianca Grohmann and Theo Lieven in *Marketing ZFP* (van Tilburg et al. 2015). Wherever feasible, text passages have been modified and reworded; identical tables and figures, however, have been adopted.

theory, a person's gender is perceived as an individual's most fundamental human characteristic (Dion et al. 1972). Consumers also transfer social perception theory to brands, and they view gender as an important brand characteristic (Grohmann 2009). As a result, brand gender may serve as a potential basis for perceptions of brand fit.

In this chapter, we have two objectives. The first is to close brand gender–fit gap by suggesting that gender-congruent brands make more harmonious alliances and are processed more fluently than brands that differ in gender. The second objective is to propose that brand fit is effective if two allying brands have the same gender. To achieve these two objectives, this research will rely on two theories. The first is congruence theory, which suggests that humans prefer harmony among objects (Eagly and Chaiken 1993). The second is fluency theory, which suggests that fluently processed objects are associated with positive impressions (Reber et al. 2004).

Two studies have been conducted to test this proposed relationship. The first study shows that individuals opt for gender-congruent brands if asked to choose the brand that best fits with a given brand. The second study shows that greater brand alliance fit, perceived unity, brand fit, visual unity, and purchase intention are achieved if the allying brands have the same brand gender.

Brand Fit

In studying brand fit, it is important to first look at co-branding since it forms the basis of the study. “Co-branding” is the standard long-term branding of one product by at least two brands that are viewed by third parties as legally independent (Park et al. 1996). The main objective of co-branding is to obtain a positive image of the integral brands in the form of co-brand and spillover effects (Washburn et al. 2000). Image transfer is more effective if there is better perceived fit between the integral brands. “Fit” is the subjective fit of the brand match (Ugla 2004). Brand fit can be well established if there is a consumer perception of a comprehensive connection between the brands, and consumers can integrate the concepts associated with them. The brand fit is crucial to

the success of brand alliances (Bucklin and Sengupta 1993; Levin and Levin 2000; Park et al. 1996; Simonin and Ruth 1998). Studies have examined the fit between brands in the context of co-branding and have obtained inconsistent results on brand fit. Some studies have shown that strong similarities between the personalities of the constituent brands are necessary (Simonin and Ruth 1998), while others have placed more emphasis on the importance of combining brands with crucial characteristics to obtain a successful co-branding. Further studies have emphasized that brand complimentary is a prime factor in the outcome of co-branding initiatives. All these studies explain the compatibility of two integral brand personalities (Park et al. 1996).

Brand Gender

Brand masculinity and femininity are two distinct things, as recent research studies have illustrated. They are subdimensions of gender brand personality (Grohmann 2009) that complement Aaker's (1997) model of brand personality. Brand gender is a crucial universal brand dimension (Grohmann 2009). Brand gender personality originates from the use of either single or multiple brand elements, such as brand name, colors, and logos (Lieven et al. 2015, see also Chap. 5). For that reason, gendered brands can be created through the use of only a few brand design constituents, though studies say that additional factors such as advertisements shape brand personality perceptions (Maehle et al. 2011). Research studies also demonstrate that consumers view brand gender as a series of masculine and feminine traits. Due to this, brand gender profiles may be highly masculine or feminine (Lieven et al. 2014). Previous research has shown that strongly gendered brands have positive effects on the attitude toward them, increasing brand equity (Grohmann 2009; Lieven et al. 2014, 2015). Brand gender remains important to consumers, as previous research studies have suggested (Grohmann 2009). It has also been elaborated that brand gender perceptions originate from the use of a few design cues such as brand name and font. These cues (brand name and type of font) are sufficient to originate brand gender perceptions (Lieven et al. 2015). To prove this, research conducted by Lieven

et al. (2015) shows the link between brand gender and brand preference using fewer cues than are accessible to consumers for their brand evaluation. We therefore assume that consumers perceive that a brand is represented by its brand name and a specific type font, with a strong masculine and feminine nature preferred by consumers.

Congruence and Fluency Theories

Cognitive constituency theory is used to explain the perception of brand gender fit since it claims that individuals seek to reduce disharmonious conditions among objects (Eagly and Chaiken 1993). Congruence theory (the major branch of cognitive constituent theory) provides useful insight for understanding the brand fit perceptions of consumers. Positive consumer responses regarding brand choice, brand impressions, and perceived value result from the congruence of meanings that have been articulated across or within elements of a product's marketing mix (e.g., Erdem and Swait 2004; Van Rompay and Pruyn 2011). Congruence of meanings in a brand alliance and co-branding context can originate from the product. For instance, a high level of complimentary among brands linked by the same product category (e.g., the coffee brand Nescafé and the coffee brewer maker brand DeLonghi) prevents the development disharmony in consumers' minds (Bigné et al. 2012). The current research aims to examine brand fit based on congruence arising not from product-level associations but from brand gender.

The idea of processing fluency provides more insight into this context, as described by Reber et al. (2004) and Winkielman and Cacioppo (2001). Easily processed stimuli are examined in positive terms and stimulate favorable attitudes, including perceptions of the item in question being aesthetically attractive, beautiful, and pleasant to the senses (Lee and Labroo 2004; Reber et al. 2004). These positive consumer responses occur because the processing fluency is hedonic, meaning that fluent processing is experienced in a positive way (Reber et al. 2004). Therefore, individuals evaluate stimuli more positively if they are processed in a more fluent manner. The number of positive associations with highly feminine or masculine representations exceeds

those with less feminine and masculine representations (Lieven et al. 2014). The fact that these associations are more positive supports the assumption of a positive effect of processing ease on positive perceptions and preference.

Co-branding compels a consumer to make a purchase decision based on the integration of two constituent brand symbols. Consumers perceive a better brand gender fit between brands with congruent genders than brands without similar genders, as described by early research studies. Studies on gender strongly emphasize that customers categorize cues linked with brand gender (brand name, color, and type font) based on congruence rather than divergence, and they find the maximizing of gender cues to be more positive (Lieven et al. 2015). We can conclude that the same result holds for marketing, sponsorship, and brand alliances: Birds of the same feather flock together (Fleck and Quester 2007). Therefore, it is assumed that consumers with the freedom to choose a brand to match a given brand will opt to match brands with similar genders and similar gender magnitudes. Another assumption is that greater similarity in brand gender between the constituent brands will be associated with perceived brand alliance fit, perceived visual unity and visual appeal, and finally, purchase intention.

Pre-Tests

Several pre-tests were conducted to identify focal study stimulus material on brands associated with different genders. To avoid confounding effects that might be associated with familiar brands such as brand preference or popularity, 10 artificial brands were created for the purpose of this research. These brands included two highly masculine, two masculine, two neutral, two feminine, and two highly feminine.

Pre-test 1. In the pre-test, 30 brand names associated with different genders were used. These names were engineered with front and back vowels. Previous research suggests that a relationship exists between brand gender perception and vowel and consonants sounds (Klink 2000; Yorkston and Menon 2004). For instance, front vowels (e.g., *i* or *e*) and fricatives (e.g., *f*, *s*, *v*, or *z*) strengthen associations with femininity, while

back vowels (e.g., *o* or *u*) and stops (e.g., *p*, *t*, *b*, or *k*) strengthen perceptions of masculinity (Klink 2000). Feminine and masculine brand names were manipulated using front vowels and fricatives while highly masculine and highly feminine brands were engineered using a larger number of these. Neutral brand names were formed from non-zero numbers of masculine and feminine vowels and consonants. The font used in engineering the brand names was aerial font, which is seen as neutral (Shaikh et al. 2006). The following brand names were formed and used: for highly feminine, Avora, Meiva, Adela, Esera, Erisa, and Adane; for feminine, Edara, Ipola, Irisu, Yilda, Edana, and Garena; for neutral, Alero, Edelo, Idano, Aloro, Orilo, and Emoro; for masculine, Odano, Blotan, Breton, Yodor, Belg, and Arton; and for highly masculine, Odelo, Turt, Burt, Delmos, Jerod, and Byton.

We invited 40 participants through e-mail communication to complete an online survey (65% female, $M_{\text{Age}} = 27$, $SD_{\text{Age}} = 4$). Each participant was assigned one of two brand name groups. In each group, respondents were expected to rate 15 brands on a 7-point masculinity scale and a 7-point femininity scale (ranging from 1 = “not at all masculine [feminine]” to 7 = “very masculine [feminine]”). We calculated the difference between the mean masculine brand gender and feminine brand gender to obtain the mean brand gender scores. The scores ranged from 6.00 (indicating maximal masculinity) to -6.00 (indicating maximal femininity).

Based on the mean gender scores, the following 10 brand names representing the different gender categories were selected for additional pre-testing: the highly feminine names Edana ($M_{\text{BG}} = -5.17$), Erisa ($M_{\text{BG}} = -4.94$), and Adela ($M_{\text{BG}} = -4.77$); the neutral name Irisu ($M_{\text{BG}} = -0.46$); the masculine names Odelo ($M_{\text{BG}} = 2.39$), Aloro ($M_{\text{BG}} = 2.18$), and Idano ($M_{\text{BG}} = 2.28$); and the highly masculine names Jerod ($M_{\text{BG}} = 4.33$), Arton ($M_{\text{BG}} = 4.68$), and Burt ($M_{\text{BG}} = 4.82$).

Pre-test 2. This pre-test involved 16 neutral and 16 feminine brand names, which were manipulated the same way as in pre-test 1 to form additional feminine and neutral brands. In this pre-test, five doctoral students in the field of marketing (60% female, $M_{\text{Age}} = 25$, $SD_{\text{Age}} = 0$) were asked to rate the masculinity and femininity of the brand names.

Based on the brand gender (i.e., difference scores) and fit of the tested brand names within the aforementioned categories of brand gender magnitude, the three feminine brand names Inany ($M_{BG} = -2.60$), Irisu ($M_{BG} = -2.40$), and Belisi ($M_{BG} = -3.00$), and the two neutral brand names Yeren ($M_{BG} = 0.20$) and Ceras ($M_{BG} = 0.60$) were identified in this pre-test.

Pre-test 3. This pre-test was conducted online to examine the brand names Yeres, Belisi, Inany, Irisu, and Ceras in neutral fonts and to examine another 17 brands displayed in various fonts. Generally, these 17 brands were used in pre-test 1, but in this pre-test, they were presented in different fonts, which made it possible to determine participants' preliminary gender perceptions. Some brands were added in this pre-test to provide an alternative to the previous tested brands. These brands were randomly split into three groups: two groups with 11 brands and one group with 10 brands.

Forty-one participants were invited via e-mail communication, of which 40 responded (42.50% female, $M_{Age} = 32.24$, $SD_{Age} = 5.68$). They were randomly assigned to one of three brand groups, and they were asked to rate the femininity and masculinity of the provided brands.

The results of this pre-test confirmed the findings in pre-test 2 since the same gender categories were obtained for the brand names Inany ($M_{BG} = -2.86$), Irisu ($M_{BG} = -2.07$), Belisi ($M_{BG} = -1.71$), Yeren ($M_{BG} = -0.07$), and Ceras ($M_{BG} = 0.79$). The other names examined in this pre-test were not used in subsequent experiments.

Pre-test 4. This pre-test was also conducted online. Twenty-eight brands retrieved from previous pre-tests and presented in various fonts were examined to generate the final 10 brands. Lieven et al. (2015) argue that brand gender associations are usually influenced by the use of different fonts. We selected fonts according to Shaikh et al. (2006) findings, which demonstrate that, regarding brand gender perceptions, fonts should be assigned to brand names so that the gender association of brand names remains consistent. We adopted the following font selection: Three highly feminine brand names (Edana, Erisa, and Adela) were presented in the feminine fonts Monotype Corsiva and Rage Italic; three feminine brand names (Inany, Irisu, and Belisi) were presented in the feminine fonts Gigi and Kristen ITC; two neutral brand names (Yeren

and Ceras) were presented in the neutral fonts Courier and Arial; three masculine brand names (Aloro, Idano, and Odelo) were presented in the masculine fonts Agency FB and Courier New; and three highly masculine brand names (Jerod, Arton, and Burt) were presented in the masculine fonts Rockwell Extra Bold and Impact.

The 48 individuals who participated in this pre-test were invited via e-mail communication (62.5% female, $M_{\text{Age}} = 29.38$, $SD_{\text{Age}} = 7.61$). They were required to examine 14 brands femininity and masculinity based on the Likert scale (Schmitt et al. 1994), which involved 7-point scales to assess the following items: “like/dislike,” “positive/negative,” “good/bad,” “agreeable/disagreeable,” “pleasant/unpleasant,” “not at all acceptable/very acceptable,” and “unsatisfying/satisfying”; $\alpha = 0.98$.

The following brand names/font combinations most clearly reflected the gender categories. Highly feminine combinations included Adela ($M_{\text{BG}} = -4.93$, $M_{\text{Liking(L)}} = 4.42$, $SD_{\text{L}} = 1.25$) and Erisa ($M_{\text{BG}} = -4.77$, $M_{\text{L}} = 4.59$, $SD_{\text{L}} = 1.39$), with no significant difference between the positive responses to these brands ($t(13) = 0.52$, $p > 0.05$). Feminine combinations included Belisi ($M_{\text{BG}} = -2.68$, $M_{\text{L}} = 4.13$, $SD_{\text{L}} = 1.69$) and Inany ($M_{\text{BG}} = -2.19$, $M_{\text{L}} = 3.86$, $SD_{\text{L}} = 1.67$), with no significant difference between the positive responses to these brands ($t(12) = 0.85$, $p > 0.05$). Neutral combinations included Ceras ($M_{\text{BG}} = 1.15$, $M_{\text{L}} = 3.65$, $SD_{\text{L}} = 1.27$) and Yeren ($M_{\text{BG}} = 0.54$, $M_{\text{L}} = 3.99$, $SD_{\text{L}} = 0.93$), with no significant difference between the positive responses to these brands ($t(13) = -0.92$, $p > 0.05$). Masculine combinations included Idano ($M_{\text{BG}} = 2.96$, $M_{\text{L}} = 3.74$, $SD_{\text{L}} = 1.29$) and Aloro ($M_{\text{BG}} = 2.50$, $M_{\text{L}} = 4.17$, $SD_{\text{L}} = 1.66$), with no significant difference between the positive responses to these brands ($t(5) = 0.58$, $p > 0.05$). Highly masculine combinations included Arton ($M_{\text{BG}} = 4.74$, $M_{\text{L}} = 4.32$, $SD_{\text{L}} = 1.48$) and Burt ($M_{\text{BG}} = 4.86$, $M_{\text{Liking}} = 4.48$, $SD_{\text{L}} = 2.10$), with no significant difference between the positive responses to the brands ($t(8) = -0.39$, $p > 0.05$). These brand names were used in studies 1 and 2.

Linear regression, with the preference scores as dependent variables (DV) and the absolute brand gender terms as measures of perception of brand gender strength as independent variables (IV), resulted in a significant coefficient of $\beta = 0.809$ ($R^2 = 0.654$, $F(1,8) = 15.149$;

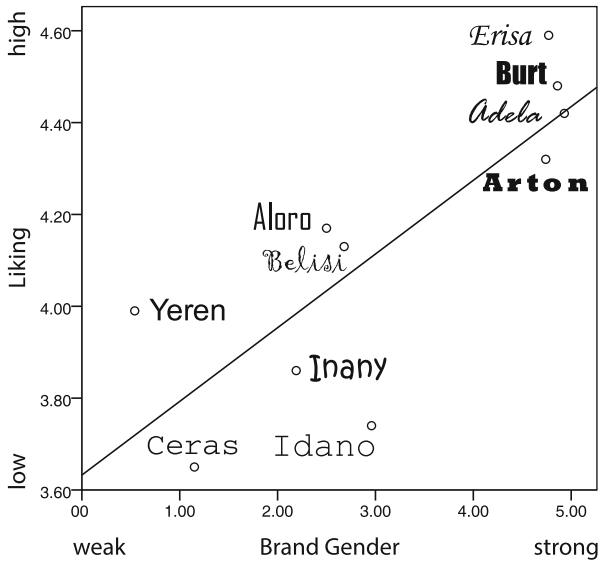


Fig. 10.1 Positive relation between brand gender and brand liking

$p < 0.01$). The regression is depicted in Fig. 10.1. Strongly gendered brands were more appreciated, which supported our assumptions. Findings from previous research were thus replicated (Grohmann 2009; Lieven et al. 2014, 2015).

Matching of Brand Gender

The aim of the first research study was to examine whether consumers who were free to choose a brand to match a given brand would opt for a matching brand of a similar gender, as well as a similar brand magnitude. An online consumer panel of 87 participants took part in this study (49.4% female, $M_{\text{Age}} = 39.2$, $SD_{\text{Age}} = 11.9$). The participants entered an online survey in which they were told to imagine that they were brand managers given the task of matching the brands that appeared to fit best with each other. To avoid product-related gender effects, the study gave the participants no information regarding the products associated with

Table 10.1 Frequency of brand matches

Given Brand ↓		Chosen Brand					Total	Average Gender per Row
		<i>Erisa</i>	<i>Inany</i>	<i>Yeren</i>	<i>Alora</i>	Burt		
	M_{BG}	-4.77	-2.19	0.54	2.50	4.86		
<i>Adela</i>	-4.93	23	28	8	24	4	87	-1.00
<i>Belisi</i>	-2.68	29	18	7	24	9	87	-0.81
<i>Ceras</i>	1.15	20	15	31	13	8	87	-0.46
<i>Idano</i>	2.96	12	20	11	40	4	87	0.28
Arton	4.74	8	6	11	14	48	87	2.56

M_{BG} = Mean Brand Gender (−6.00 feminine, 6.00 masculine)

each brand. The participants were then successively presented with five initial brands, including one brand from each brand gender category (see Table 10.1, first column). The brand from each category that exhibited the most pronounced brand gender in the pre-test was chosen as the initial brand. The five brands that participants were able to match with each of the presented brands are listed in the first row of Table 10.1. The order in which the five initial brands and the matching options were displayed was randomized.

The response frequencies for this matching task are presented in Table 10.1. The independent variable was the initial brand presented to the participants, which was manipulated in terms of brand gender based on the results of pre-test 4. The dependent variable was the matching brand chosen by the participants, with available selections differing on the brand gender scale based on the results of pre-test 4. The selection of a brand was indicative of the selection of the brand's gender score. The distribution of matching selections was significant ($\chi^2(16) = 176.385$, $p < 0.001$). The brand gender mean revealed that consumers tend to match brands with similar genders. The highly feminine brand was typically matched with another feminine brand ($M_{\text{highly feminine}} = -1.00$). Consumers perceived the feminine brand to be the best match for the feminine brand ($M_{\text{feminine}} = -0.81$). Similarly, the participants most frequently matched the neutral brand with a neutral brand ($M_{\text{neutral}} = -0.46$), selected the masculine brand as the best match for a masculine brand ($M_{\text{masculine}} = 0.28$), and chose a highly masculine brand to match a highly masculine brand ($M_{\text{highly masculine}} = 2.57$). As the

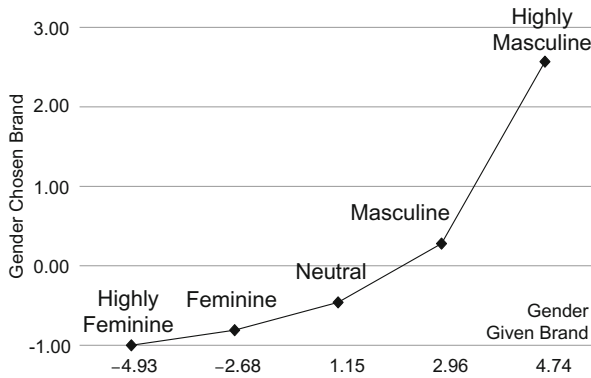


Fig. 10.2 Brand matching choices. Note Low value = feminine gender; high value = masculine gender

results indicate, the gender-matching effect was stronger for masculine brands than for feminine brands. Figure 10.2 presents the results.

To test the relationship between the initial and the chosen brands, a repeated-measures analysis of variance was conducted. Mauchly's test showed that the assumption of sphericity had been violated ($\chi^2(9) = 18.24, p < 0.05$); therefore, the degrees of freedom were corrected using Greenhouse–Geisser estimates of sphericity ($\epsilon = 0.90$). The results demonstrated that the initial brand had a significant main effect ($F(3.60, 309.20) = 17.40, p < 0.001$) on the choice of the second brand.

Brand Gender Similarity and Its Effects

The second study examined the effects of brand gender on perceived alliance and brand visual fit, perceived unity of the brand alliance, and purchase intention toward the brand alliance. Brand alliances were built to allow measurement of fit perception and purchase intention. To create brand alliances, the brands identified in pre-test 4 were crossed. The brands were randomly grouped, with each group consisting of highly feminine, feminine, neutral, masculine, and highly masculine brands. This means that the groups were not similar to the initial and chosen

brands employed in study 1. In the first study, the initial brands all exhibited stronger gender scores than the brands in the corresponding gender categories in the pool of chosen brands. This is why different groupings were employed in the second study to avoid consistently listing brands with stronger gender scores first in any potential brand alliance. Twenty-five brand alliances with various gender combinations were produced by crossing the two brand groups.

An online consumer panel involving 440 participants was employed in this study ($n = 401$, 50.6% female, $M_{\text{Age}} = 39.44$, $SD_{\text{Age}} = 12.42$). Each participant was asked to rate 5 of 25 randomly selected brands on various 7-point scales. Brand alliance fit was measured with three items: “good/bad,” “positive/negative,” and “favorable/unfavorable” (Osgood et al. 1958; $\alpha = 0.97$). To examine brand fit, participants were asked to classify whether brands “complemented each other” or were “consistent” (Aaker and Keller 1990; $\alpha = 0.92$). The visual appeal was assessed by asking participants to rate the optical fit between the allied brands as either “bad/good,” “pleasant/unpleasant,” “likable/not likable,” “flattering/unflattering,” “unattractive/attractive,” or “stylish/not stylish” (Cox and Cox 1988; $\alpha = 0.98$). Visual unity was assessed by asking participants to rate the fit between brand images of the allied brands in terms of “low in unity/high in unity,” “poorly coordinated/well-coordinated,” or “inconsistent/consistent” (Bell et al. 1991; $\alpha = 0.97$). The purchase intention was measured by asking participants to adopt a 5-point scale to respond to the following questions: (1) “Would you purchase a product by this brand alliance?”; (2) “I’m likely to make a purchase/I’m unlikely to make a purchase”; and (3) “I would like to receive more information/I would not like to receive more information” (Rodgers 2003; $\alpha = 0.91$). These questions were asked without regard to specific products since the product itself is an additional driver of gender perceptions (Lieven et al. 2015).

Results. This study used a linear mixed model to examine how similarity of brand gender in a brand alliance related to brand fit, alliance fit, visual appeal, visual unity, and purchase intention with a random intercept to account for the intercorrelation produced by repeated

measures, since participants rated 5 out of the 25 brand alliances. For each of the 25 possible brand alliances, their respective brand dissimilarity as the independent variable was calculated by the real distance between the two brand's genders as the absolute value of their numerical difference ($|Gender_{Brand\ 1} - Gender_{Brand\ 2}|$; Table 10.2). A value close to zero indicated high similarity between the genders of the constituent brands, whereas a value close to 10 indicated low similarity. Table 10.2 shows the absolute dissimilarity values for brand alliances.

The regression of these brand dissimilarities in alliance fit implied that dissimilarity negatively affected alliance fit ($b = -0.02$, $t = -2.59$, $p < 0.01$), and the regression of brand dissimilarity on brand fit revealed that brand dissimilarity had negative effects on brand fit ($b = -0.03$, $t = -3.07$, $p < 0.01$). The regression of brand dissimilarity on visual appeal revealed that brand dissimilarity negatively affected visual appeal ($b = -0.04$, $t = -4.26$, $p < 0.001$). Regression analysis also indicated that brand dissimilarity negatively affected perceived unity ($b = -0.05$, $t = -5.92$, $p < 0.001$). The brand dissimilarity negatively affected purchase intention as articulated by the regression analysis ($b = -0.01$, $t = -2.11$, $p < 0.05$). Additional analyses showed that neither the sex (all p values > 0.05 , $F_s < 1.88$) nor the age (p values > 0.05 , $F_s < 0.676$) of the participants significantly affected their ratings of alliance fit, brand fit, visual unity, visual appeal, or purchase intention. These findings supported our assumptions that greater similarity in brand gender between two brands would be associated with greater perceived brand alliance fit and brand fit, greater perceived visual unity and visual appeal, and greater purchase intention.

Table 10.2 Absolute dissimilarity values for brand alliances ($|M_{BG\ 1} - M_{BG\ 2}|$)

Brands		<i>Adela</i>	<i>Inany</i>	<i>Yeren</i>	<i>Idano</i>	Arton
	M_{BG}	-4.93	-2.19	0.54	2.96	4.74
<i>Erisa</i>	-4.77	0.16	2.59	5.31	7.73	9.64
<i>Belusi</i>	-2.68	2.25	0.50	3.22	5.64	7.42
<i>Ceras</i>	1.15	6.06	3.34	0.61	1.81	3.59
<i>Alora</i>	2.50	7.43	4.69	1.96	0.46	2.24
Burt	4.86	9.79	7.05	4.32	1.90	0.12

Discussion

We explored the role of brand gender in predicting the perceived brand fit, visual unity, alliance fit, visual unity, and purchase intention associated with co-brands. The results of the two studies reveal that co-brands with similar brand genders are seen to fit better in an alliance than co-brands with dissimilar brand genders. The results of the first study suggest that if consumers are asked to match the brands that fit best, they will opt for brands with congruent brand genders. This shows that consumers perceived brand alliances between brands of the same gender as congruent combinations with high levels of perceived fit. The effect was more dominant for masculine brands than for feminine brands, suggesting that consumers have more fluent responses to masculine brands. Consumers might perceive matches between masculine brands as inherently more congruent than matches between feminine brands, and that congruence might be more effective if alliances involve brands with not only the same brand genders but also the same brand gender magnitudes. Future research could comprehensively analyze this effect. The second research study revealed that, relative to brands with dissimilar genders, brands with similar genders form more successful co-brands that evoke only positive consumer reactions with regard to brand fit, brand alliance fit, visual appeal, and visual unity, as well as increased consumer purchase intention. These findings apply to both male and female consumers irrespective of age.

These findings should assist managers in their evaluation criteria for prospective brand alliances by including the gender of a potential partner brand. High brand gender similarity is fundamental to the success of a brand alliance, though this appears to be more applicable to masculine than feminine brands.

From a theoretical perspective, these findings contribute to the brand alliance literature, which aids in closing the knowledge gap pertaining to brand gender fit perceptions. Congruence and fluency theories demonstrate how brand gender similarities affect fit perception, expanding the theories used in co-branding literature. This is the first investigation examining brand gender fit as a basis for successful brand alliances. As

revealed by the research results, brand gender is an important characteristic for consumers and serves as a sufficient criterion for brand alliances despite the absence of additional brand information.

In the selection of appropriate stimuli, fictitious brand names were engineered and represented in various type fonts for evaluation. Because of the extensive number of stimuli, a full factorial design was not used, and this could lead to concerns that gender perceptions arising from brand names and type fonts are confounded. Using a full factorial design involving two brand names and four type fonts demonstrated, however, that a brand with a feminine/masculine name is perceived as more feminine/masculine when written in each type font than a brand with a masculine/feminine name using that same type font (Lieven et al. 2015). Moreover, brands with a more feminine/masculine type font were seen as more feminine/masculine for each of the two brand names than brand names written in less feminine/masculine type fonts using the same name. This means that the evidence that brand name and type font act as independent drivers of gender perception is relatively strong and can alleviate this concern. In this study, participants were first asked about fit characteristics for some pairs of brands. They then stated their purchase intent. There is a possibility that a common source led to biased purchase intentions. This, however, is not far from the reality that consumers appreciate an alliance fit characterized by positive visual appeal and visual unity, and they have higher purchase intentions toward it. In a Harman single factor test (Harman 1976), the varimax-rotated solution, however, showed two clearly distinct groups: one with the three purchase intent items and one with the alliance fit, visual appeal, and perceived unity items. This implies that it was appropriate to examine all constructs in one survey.

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11

How to Create a Personality Scale

The Missing Generalizability of Brand Personality Scales

It has been outlined in previous chapters that the construction of the personality or brand gender model is crucial for successful brand implementation, particularly global brand management. When Aaker (1997) published “Dimensions of Brand Personality,” her intention was to replace sporadically developed ad hoc personality scales with a “reliable, valid and generalizable scale” (347; for factors and facets of this scale, see Fig. 1.1 in Chap. 1).

In the period that followed this seminal innovation, several researchers attempted to replicate Aaker’s model using their own data. At times, Aaker’s five-factor solution could not be found (Austin et al. 2003; Milas and Mlačić 2007). In addition, cross-loadings prevented the development of appropriate solutions. Azoulay and Kapferer (2003) even concluded “that the current scale of brand personality, which is gaining popularity in academic marketing circles, does not in fact measure brand personality, but merges a number of dimensions of a brand identity

which need to be kept separate both on theoretical grounds and for practical use” (144).

Some academics have challenged Aaker’s (1997) definition of brand personality as “the set of human characteristics associated to a brand” (347). Freling and Forbes (2005), for instance, argued that the definition was vague and indistinguishable from brand image or brand identity. Azoulay and Kapferer (2003) provided a narrower definition: “Brand personality is the set of human personality traits that are both applicable to and relevant for brands” (151). Generalizability becomes questionable when personality models are applied across borders, that is, on a cross-cultural basis. Missing measurement invariance renders brand personality models useless, and as Stewart (1981) stated, “[W]hen different factors [in different measurements or countries] emerge analysis must stop” (52).

This chapter attempts to identify and revise previous misconceptions regarding the creation of brand personality scales. Most—if not all—brand personality scales are based on the psycho-lexical approach, which dates back to Galton (1884). Traits that describe human personalities are collected from a dictionary or other linguistic sources. Thereafter, factor analyses based on empirical data refine the model by post hoc elimination of attributes that do not fit. However, such post hoc decisions may not be based on theory but on the requirements of mathematical procedures (Kelloway 1995). This rather arbitrary method can be avoided by implementing the extended lexical approach described in this chapter. By means of this approach, brand personality scales can be developed a priori without implementing statistical procedures at the beginning of the scale construction. The method will be demonstrated with Aaker’s (1997) and Grohmann’s (2009) models.

From a theoretical perspective, the contribution of this chapter is that it may replace the current heuristic post hoc construction of personality scales with a theory-grounded connection to language and lexical knowledge. From a practitioner’s perspective, the extended lexical approach should offer marketers greater confidence that their brand models can perform across different heterogeneous groups, which might

enable them to avoid continual efforts to adjust the scales. The demonstrated procedure is not limited to marketing but may be applied to any set of traits in psychometric research.

How It Proceeds Today

The psycho-lexical approach. Following the sedimentation hypothesis of the psycho-lexical approach, those characteristics that are important for describing humans are deposited in language. The psycho-lexical approach was elaborated by Galton (1884), Klages (1932), Allport (1937), Cattell (1943), Eysenck (1947), Norman (1963), and in 1982 by Goldberg (for a comprehensive overview, see John et al. 1988). Regarding human characteristics, “[t]hose individual differences that are of most significance in the daily transactions of persons with each other will eventually become encoded into their language” (Goldberg 1981, 141). Based on this theory, Goldberg (1990) designed the Big Five model that included the factors *extroversion*, *agreeableness*, *conscientiousness*, *emotional stability*, and *openness*. Costa and McCrae (1992) extended the Big Five to the NEO FFI (five-factor model) with 60 traits and the NEO PI-R (Personality Inventory-Revised) with 240 attributes.

Allport and Odbert (1936) began with 18,000 words and reduced this number to 4500. Cattell (1943) used this as a basis to create the 171 most bipolar scales, which were condensed into 35 clusters. Goldberg (1990) reduced the list of 2800 items from Norman (1963) to 75 character traits, mostly by surveying participants’ self-assessments. Aaker’s brand personality model (1997) began with 309 attributes. This set was subsequently reduced by exploratory factor analyses based on surveys in which traits were assigned to brands.

Exploratory factor analysis (EFA). The widespread practice of post hoc reduction of traits may be challenged. EFA is first and foremost a mathematical approach that is “largely blind to any substantive theory” (Mueller and Hancock 2001, 5239). The deductive procedure combines observations with correlation matrices and assigns the items to several factors via a mathematical algorithm. If certain items do not behave as expected in identifying an appropriate solution, those items are

eliminated post hoc. It is the nature of EFA that a detailed model is not specified in advance (Bollen 1989). However, “marketers seem to be choking on their measures” and expending “much effort and time operating by the routine which computer technicians refer to as GIGO—garbage in, garbage out” (Churchill 1979). Helpful mathematical procedures cannot replace a profound theoretical basis. Admittedly, most marketers initially identify human personality traits by implementing the psycho-lexical approach. However, they subsequently attempt to extract factors by calibrating prior human trait scales with their relation to certain brands—in the case of Aaker’s model (1997), only two brands. In addition to the fact that this might distort the meaning of what were formerly only human attributes (Caprara et al. 2001), it might also be a circumlocution, if not actually misleading. First, a human personality scale is created by dictionary meanings. Then, respondents are required to validate the scales not according to their lexical meaning, but according to the potentially non-generalizable property of a brand. The resulting personality scales may be valid for the respective brands; however, their generalizability is questionable. Bollen (1989) has described the post hoc explanation of latent factors as “spinning theory to meet the constraints of a statistical procedure” (231). The complete model should be based on theoretical grounds. A potential second step would then be to examine its validity and generalizability.

Generalizability and measurement invariance. One must distinguish factor loadings and factor scores. The loadings may be interpreted as the weights of the items, whereas scores measure individual deviations from the average (Henrysson 1957). The emerging factors serve as measurement scales that are axes of coordinates similar to the grid of longitudes and latitudes on a globe (Burt 1940, 79 et seq.). There is no doubt that these measurement scales must be invariant to be generalizable and to make results comparable. Irrespective of the extent to which the factor scores may differ from individual to individual and from group to group, identical loading patterns should apply to all groups. This measurement invariance across groups may be defined even more precisely with two types of invariances (Thurstone 1947): One is merely a configurational invariance (as in Caprara et al.[2001] claim), and the other goes further

to postulate metric invariance, that is, that the factor loadings across heterogeneous groups must be equal (Steenkamp and Baumgartner 1998).

The Extension of the Psycho-Lexical Approach

Principle of the extended lexical approach. The most common procedure attempts to derive commonalities between traits by using their correlations and conducting a factor analysis. Would it not be more logical to detect these correlations in advance in the dictionary, which by its nature is a generalized collection of lexical knowledge? Galton (1884) first described the motivation for this approach:

I tried to gain an idea of the number of the more conspicuous aspects of the character by counting in an appropriate dictionary the words used to express them. Roget's *Thesaurus* was selected for that purpose, and I examined many pages of its index here and there as samples of the whole, and estimated that it contained fully one thousand words expressive of character, each of which has a separate shade of meaning, while each shares a large part of its meaning with some of the rest. (181)¹

The latter part of this quote represents the basic concept behind the approach demonstrated in this study, namely, synonyms. A synonym is “one of two or more words or expressions of the same language that have the identical or nearly the same meaning in some or all senses” (Whitten et al. 1979, 109). Following implicit personality theory (Goldberg and Kilkowski 1985), humans exhibit consistent consensus regarding synonymous personality traits. Goldberg and Kilkowski (1985) applied synonyms to explore correlations in self- and peer-rating studies. According to their findings, “[t]his issue can never be resolved in the absence of detailed information regarding the sheer similarity of meaning among the trait-descriptive terms used in these investigations” (82). Consequently, the probability that two or more traits will ultimately load on the same factor the more the characteristics are correlated, that is,

when they are synonyms, nearly synonyms, or have common synonyms. Based on this principle, an alternative method of creating generalizable scales will be described.

According to the traditional lexical approach, several traits will be collected at the beginning of the process. In the extended approach, however, the analyses will not proceed directly to empirical analyses, as is common in personality scale development with EFAs. Instead, the lexical analyses will be extended to identify all synonyms among all selected traits from a thesaurus. Thereafter, traits that obviously belong together because of the magnitude of their common synonyms will be grouped. The rationale is the maximization of the cross ratio between the average number of common synonyms of items within a factor against the average number of common synonyms outside this factor (cross relations). This procedure might be described as the translation of the rules of convergent and discriminant validity (Fornell and Larcker 1981) into rules for semantic factor analysis in this extended lexical approach. Because the procedure is based exclusively on the dictionary, we call this method “the extended psycho-lexical approach.”

Theoretical Study

This section will demonstrate the extended approach in the pre-empirical phase and will evaluate Aaker’s (1997) brand personality model and Grohmann’s (2009) brand gender model exclusively based on lexical knowledge. First, character traits that describe the human personality are collected from the dictionary. Here, we included all traits from Aaker’s and Grohmann’s models. Each of the items was analyzed for synonyms. Words similar in meaning are near-synonyms (Edmonds and Hirst 2002). Thus, not only direct synonyms were selected but also common synonyms (e.g., the traits *charming* and *sweet* have the common near-synonym *attractive* and are thus related). As a dictionary, the popular *Collins English Thesaurus* (2015) was chosen.

Thereafter, all pairs of traits were examined so that each synonym of the first trait was compared with all other synonyms of the second trait. The procedure is explained in Fig. 11.1 by the traits *honest* and *reliable*.

honest; above board; authentic; bona fide; candid; conscientious; decent; dinkum; direct; equitable; ethical; fair; fair and square; forthright; frank; genuine; high-minded; honest to goodness; honorable; impartial; ingenuous; law-abiding; on the level; on the up and up; open; outright; plain; proper; real; reliable; reputable; round; scrupulous; sincere; straight; straightforward; true; trustworthy; trusty; truthful; undisguised; unfeigned; upfront; upright; veracious; virtuous

reliable; attested; certain; definitive; dependable; failsafe; faithful; honest; predictable; regular; reputable; responsible; safe; sound; stable; staunch; sure; tried and tested; tried and true; true; trustworthy; trusty; unfailing; upright; well-built; well-engineered; well-founded

Fig. 11.1 Seven common synonyms between *honest* and *reliable*. (*Collins English Thesaurus*)

The first word is the trait itself, followed by its synonyms. Each item from the first trait is compared with each item of the second trait regarding their identity. By this, it can be determined that *honest* and *reliable* are direct synonyms (*reliable* is a synonym for *honest* and vice versa). Other words are listed as synonyms under both traits and thus are common synonyms. Altogether, *honest* and *reliable* possess seven synonyms, one direct and six common. For the 42 traits from Aaker's model, 1277 synonyms were found in the *Collins* thesaurus. This added up to more than 800,000 pairwise comparisons, which were made with a software algorithm. The numbers of common synonyms between traits were then inserted in a symmetrical cross-diagram that is depicted in Fig. 11.2.

Inside Aaker's first factor *sincerity*, $11 \times (11 - 1) = 110$ cells exist (the diagonals do not count). Outside *sincerity*, this number is $(42 - 11) \times 11 = 341$. By the sum of common synonyms within *sincerity* (118) and outside *sincerity* (54), the cross ratio between the average number within and outside *sincerity* can be calculated ($1.073/0.158 = 6.774$). The higher this ratio is, the greater is the lexical coherence of these traits, and it can be expected that these items will load on a common factor in subsequent factor analyses.

		SINCERITY (n = 11)	EXCITEMENT (n = 13)	COMPETENCE (n = 9)	SOPHISTICATION (n = 6)	RUGGEDNESS (n = 5)
Items (N = 42)		down-to-earth family-oriented small-town honest sincere real wholesome original cheerful sentimental friendly daring trendy exciting spirited cool young imaginative unique up-to-date independent contemporary reliable hardworking secure intelligent technical corporate successful leader confident upper class glamorous good-looking charming feminine smooth outdoorsy masculine western tough rugged				
SINCERITY	down-to-earth					
	family-oriented					
	small-town					
	honest					
	sincere					
	real					
	wholesome					
	original					
	cheerful					
	sentimental					
	friendly					
	daring					
EXCITEMENT	trendy					
	exciting					
	spirited					
	cool					
	young					
	imaginative					
	unique					
	up-to-date					
	independent					
	contemporary					
	reliable					
	hardworking					
COMPETENCE	secure					
	intelligent					
	technical					
	corporate					
	successful					
	leader					
	confident					
	upper class					
	glamorous					
	good-looking					
	charming					
	feminine					
SOPHISTICATION	smooth					
	outdoorsy					
	masculine					
	western					
	tough					
	rugged					
RUGGEDNESS						
# of cells within factor [$n \times (n - 1)$]		110	110	72	30	20
# of cells outside factor [$n \times (N - n)$]		341	341	297	216	185
# of common synonyms within factor		118	94	28	64	78
# of common synonyms outside factor		54	49	45	30	22
Avg # of synonyms within factor		1.1	0.9	0.4	2.1	3.9
Avg # of synonyms outside factor		0.2	0.1	0.2	0.1	0.1
Cross Ratio		6.8	5.9	2.6	15.4	32.8

Fig. 11.2 Number of common synonyms for Aaker's model (1997)

To compare Aaker's model with Grohmann's scales, the same procedure was done with its 12 respective traits. The results can be found in Fig. 11.3. The cross ratios are higher than in Aaker's model, which means that the coherence of the items within the factors is much stronger. It can be expected that the items will strongly load on their respective factor in an EFA. Whether this holds will be analyzed in an empirical study.

		MBP (n = 6)						FBP (n = 6)					
Items (N = 12)		adventurous	aggressive	brave	daring	dominant	sturdy	expresses tender feelings	fragile	graceful	sensitive	sweet	tender
MBP	adventurous		2	5	11								2
	aggressive	2		1	2	4	2						
	brave	5	1		11								
	daring	11	2	11									
	dominant		4										
	sturdy		2										
FBP	expresses tender feelings										6	3	18
	fragile									4	4	1	8
	graceful								4		1	2	
	sensitive							6	4	1		3	16
	sweet							3	1	2	3		5
	tender	2						18	8		16	5	
# of cells within factor [$n \times (n - 1)$]		30						30					
# of cells outside factor [$n \times (N - n)$]		36						36					
# of common synonyms within factor		76						142					
# of common synonyms outside factor		2,0						2,0					
Avg # of synonyms within factor		2,5						4,7					
Avg # of synonyms outside factor		0,1						0,1					
Cross Ratio		46						85					

Fig. 11.3 Number of common synonyms for Grohmann's model (2009)

Empirical Study

Twelve famous brands were chosen (BMW, L'Oreal, Sony, Apple, Dove, Coca-Cola, Visa, Nike, Google, Hilton, Febrèze, and Kellogg's). They cover a large portion of product and service groups. Respondents were invited by e-mail to participate in an online study from an internationally renowned service provider for survey sampling and data collection. The logos of the 12 brands were randomly shown, and participants could choose those brands they were willing to rate (only one, several, or all

brands). Respondents then rated the respective traits on 7-point scales from 1 = “does not apply at all” to 7 = “fully applies.” Two surveys were conducted: one for the Aaker model and another for the Grohmann model.

In the Aaker survey, 210 respondents participated (52.8% female, $M_{Age} = 42.5$ years, $SD_{Age} = 11.8$ years). In the Grohmann study, 401 respondents participated (52.3% female, $M_{Age} = 41.6$ years, $SD_{Age} = 13.9$ years). Results in each group were analyzed by an EFA with the principal component method and a varimax rotation. Confirmatory factor analyses were also conducted using the AMOS platform. The EFA solution for the Grohmann model can be found in Table 11.1. The items load clearly on the predicted factors; the average variance that could be extracted was 63% in the masculine brand personality (MBP) and 60% in the feminine brand personality (FBP), and thus is greater than the required minimum of 50% (Fornell and Larcker 1981).

This does not hold for the Aaker model. The EFA shows various low loadings and high cross-loadings, which do not deliver a clear result (Table 11.2). Only the factor *ruggedness* was extracted clearly, a result that could have been anticipated a priori from the common synonyms table with a high cross ratio of 32.8 (Fig. 11.2). Initially, with eigen-vectors required to be greater than 1, a three-factor solution emerged. Thus, the solution had to be constrained to have five factors, which

Table 11.1 EFA solution of the Grohmann model

		1	2
Masculine brand personality (MBP)	Adventurous	0.821	
	Aggressive	0.730	
	Brave	0.819	
	Daring	0.815	
	Dominant	0.800	
	Sturdy	0.776	
Feminine brand personality (FBP)	Expresses tender feelings		0.858
	Fragile		0.599
	Graceful		0.703
	Sensitive		0.799
	Sweet		0.779
	Tender		0.870

Table 11.2 EFA solution of the Aaker model

		1	2	3	4	5
Sincerity	Down to earth	0.693				
	Family oriented	0.710				
	Small town					0.800
	Honest	0.775				
	Sincere	0.751				
	Real	0.773				
	Wholesome	0.623				
	Original		0.574			
	Cheerful	0.690				
	Sentimental	0.547				
Excitement	Friendly	0.773				
	Daring	0.537				
	Trendy		0.647			
	Exciting	0.644				
	Spirited	0.603				
	Cool	0.613				
	Young					
	Imaginative	0.647				
	Unique	0.665				
	Up-to-date		0.753			
Competence	Independent	0.698				
	Contemporary		0.669			
	Reliable	0.757				
	Hardworking	0.702				
	secure	0.714				
	Intelligent	0.719				
	Technical			0.549		
	Corporate		0.674			
	Successful		0.737			
	Leader		0.732			
Sophistication	Confident	0.681				
	Upper class					0.510
	Glamorous				0.548	
	Good-looking	0.566				
	Charming	0.626				
Ruggedness	Feminine					0.570
	Smooth	0.595				
	Outdoorsy					0.781
	Masculine					0.761
	Western					0.713
	Tough					0.685
	Rugged					0.817

provides some evidence that the model does not have a good fit. This was further supported by confirmatory factor analysis. The comparative fit index (CFI), which should be close to 1, was only 0.878 in the Aaker model, whereas this value was much higher in the Grohmann model with 0.949. Thus, there is evidence that the Aaker model does not have sufficient fit, whereas the Grohmann mode does. This insight could have been obtained from the theoretical lexical analysis by assessing the number of common synonyms between traits.

Discussion

This chapter questioned the traditional method of personality scale construction. The discussion originates from an example of whether a model is generalizable when the two items *honest* and *reliable* do not load on the same factor, as in the Aaker model, although they are direct synonyms and have several other synonyms in common (Fig. 11.1). This is what causes the traits *reliable* and *honest* to occur simultaneously in a judgment of a sincere person. Consequently, survey participants' ratings will correlate for these two traits depending on high or low sincerity. According to Knapp (1978), all classical statistical analyses are correlational in nature, and the correlation matrix is the basis for any EFA. The correlation between traits X_1 and X_2 then determines the product of their respective factor loadings, which can be seen as bivariate correlations between the factor and its respective indicator variables, that is, the trait. To load on a specific factor, trait loadings must be sufficiently high. Thus, the correlations between these factors must be high, as well. Because the correlations stem from the implicit knowledge of persons who are rating the personality traits, those traits that possess a high number of common synonyms will load higher on a common factor than those traits that have no common synonyms with these characteristics. As a result, traits having a high number of common synonyms belong to a factor, and simultaneously, they have only a few common synonyms with traits outside this factor.

With the extension of the psycho-lexical approach demonstrated in this chapter, it becomes much easier to collect adequate items for a

personality model. Because the factor structure can be assessed a priori, subsequent EFAs are no longer exploratory: They become confirmatory in the demonstrated method. The outlined method is able to support practitioners and academics when new personality scales have to be created. Instead of post hoc elimination of traits, the new method provides a priori inclusion. It may not replace necessary deliberations when dealing with malleable entities such as language; however, it contributes a great deal of knowledge to the creation process of such scales and may assist experts in choosing the optimum characteristics to form generalizable constructs. The reason why such an obvious and beneficial procedure has not been implemented previously may be the past difficulty of producing the synonym connections among thousands of pairwise comparisons. However, this is no longer an issue with today's computational capabilities.²

Notes

1. Most of the contemporary literature overlooks the fact Galton's article was the birth of the lexical hypothesis (cf., Caprara and Cervone 2000, 68). In light of Galton's introduction of the concept of correlations (1888) and the deployment of factor analysis by Spearman (1904), who was influenced by Galton, the background of and motivation for this chapter should become more apparent.
2. The respective software algorithms are available from the author.

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12

The Effect of Brand Gender on Brand Equity—A Simple Fallacy?

This chapter will address arguments that the brand gender–brand equity model described in this book is a misapprehension. This could be for several reasons, such as missing invariance, particularly in cross-cultural research. Caprara et al. (2001) claim that resulting brand personality factors should also emerge for human personality will be addressed, as well.

The Perils of Statistic Procedures

Contemporary methods for examining coherences implement statistical software packages that always provide an output so long as they receive some input. The technical procedure itself is meaningless and insensitive to fallacies that could result in “garbage in, garbage out” results (Churchill 1979). Misleading inputs could stem from survey data with extreme response styles (ERS) or acquiescence response styles (ARS), which can often be found in cross-cultural research (Cheung and Rensvold 2000). Another threat is the possible dependence of assessed

data derived from a common method or source. It could be argued that brand gender and equity scores correlate because survey participants tend to be consistent in their scoring, which means that when they rate gender items high they will also rate equity items high. Finally, assigning human personality traits to brands could itself be a questionable procedure. Azoulay and Kapferer (2003) concluded “that the current scale of brand personality, which is gaining popularity in academic marketing circles, does not in fact measure brand personality, but merges a number of dimensions of a brand identity which need to be kept separate both on theoretical grounds and for practical use” (144). Freling and Forbes (2005) argued that the Aaker’s (1997) definition of brand personality as “the set of human characteristics associated to a brand” (347) was vague and indistinguishable from brand image or brand identity. Caprara et al. (2001) presented the most stringent constraint, claiming that “personality descriptors [should] load under the same factor when used to describe human personality and brand personalities” (381).

In this chapter, we will address these three matters. First, the cross-cultural generalizability of the brand equity model will be examined; thereafter, a possible threat from common method bias is considered. Finally, whether the model complies with Caprara et al. (2001) claim will be analyzed. We used data from the global branding surveys with 20 brands in 10 countries (Chap. 3). In these studies, Grohmann’s (2009) masculinity items (MBP: *adventurous, aggressive, brave, daring, dominant, and sturdy*) and femininity items (FBP: *expresses tender feelings, fragile, graceful, sensitive, sweet, and tender*) were assessed not only for the brands but also for humans described by four portraits in each country.

Cross-Border/Cross-Cultural Measurement Invariances

Cross-border/cross-cultural studies involve comparisons. Because of different response styles, such comparisons may not be appropriate (de Jong et al. 2008) as the results are not equivalent and, thus, are not invariant across countries. Missing measurement invariance, however, renders

brand personality models useless and, as Stewart (1981) stated, “when different factors emerge analysis must stop” (52). Measurements have to be invariant across cultures. That is, all cultures must have the same perception that the measurement scale is a grid of longitudes and latitudes on a globe (Burt 1940), and that inferences can be made regarding the effect of brand gender on brand equity across different countries. It is only in this manner that we can imagine a global brand manager relying on results based on the brand gender–brand equity construct.

A rich body of literature exists on the detection and calibration of invariances (Baumgartner and Steenkamp 2001; Cheung and Rensvold 2000; de Jong et al. 2008; Steenkamp and Baumgartner 1998). ERS and ARS are associated with measurement invariances across cultures. To detect ERS or ARS in this study, the procedure of Cheung and Rensvold (2000) was applied. ERS and ARS differences result in invariant factor loadings and intercepts (Cheung and Rensvold 2000). The test procedure used a structural equation model (SEM) and proceeded in three steps with data from 10 countries (Chap. 3). First, form invariance was tested by the fit indices of a model with all 10 countries as groups. Second, metric invariance was tested by constraining the factor loadings to be equal across all 10 countries. Third, scalar invariance was tested by also constraining the intercepts to be equal across all countries. The form invariance hypothesis had to be rejected in the first test due to poor fit indices. The metric and scalar invariance hypotheses had to be rejected when the differences in the fit indices were significant. The χ^2 -differences were regularly examined (Byrne 2004). However, the sample size of the worldwide brand data in this study was 16,934 cases, and it is rare to find an insignificant χ^2 with such a large number (Brannick 1995). The χ^2 -difference tests are sensitive not only to sample size but also to violation of the normality assumption (Bollen 1989; Tucker and Lewis 1973). Thus, following Cheung and Rensvold (2000), three cutoff criteria were examined. The invariance assumptions had to be rejected if $\Delta\text{TLI} > 0.05$, ΔRMSEA significance, and $p_{\text{close}} < 0.05$.

The invariance tests were first executed with the raw data and then executed a second time with per-country centralized scores as they were examined in Chap. 3. For the raw data, the fit indices were good

(SRMR = 0.0610, TLI = 0.939, RMSEA = 0.024 and had a probability of close fit $p_{\text{close}} = 1.000$). The differences in the fit indices with constrained factor loadings were $\Delta\text{TLI} = 0.006$, $\Delta\text{RMSEA} = 0.001$, and a $p_{\text{close}} = 1.000$. Consequently, the assumption of form and metric invariance could not be rejected. For the intercepts, however, one difference exceeded the cutoff value ($\Delta\text{TLI} = 0.061$). Thus, the hypothesis of scalar invariance had to be rejected. Consequently, the means of latent variables such as MBP, FBP, and equity could not be compared across countries using the raw survey data, possibly because of ARS.

The three tests above were again applied to the per-country centralized data. Tests 1 and 2 again showed sufficient support for the hypotheses of form and metric invariance. Additionally, the differences in the fit indices in test 3 for scalar invariance were no longer significant ($\Delta\text{TLI} = 0.046$, $\Delta\text{RMSEA} = 0.007$, and a $p_{\text{close}} = 1.000$). The results support the appropriateness of comparative analyses across countries with centralized data. Thus, the first hurdle was overcome. As was demonstrated in Chap. 3, reasonable results could be achieved in all 10 countries, and we now know these are valid findings based on the structure of the gender equity model depicted in Fig. 3.2 in Chap. 3.

Common Method Variance

The constructs described in detail above supported the model's reliability, validity, and worldwide generalizability. Nevertheless, there may be concerns of possible bias due to this study's data collection method. The scores for the gender items and for equity were both assessed in a single survey completed by the same respondents. Thus, there is a risk of common method variance (CMV), which is a "variance that is attributable to the measurement method rather than to the constructs the measures represent" (Podsakoff et al. 2003, 879). Such a variance could have led to higher (positive) correlations between gender and equity ratings (Organ and Ryan 1995) and thereby caused the researcher to believe in a positive causal effect of brand gender on brand equity. There are several possible reasons for such a spurious inflation. In organizational behavior, either social desirability or acquiescence could encourage

respondents to adapt their answers to fit social norms. In this context, however, it is unlikely that either of these influences applied because it is not a point of social desirability or of acquiescence to give equity scores similarly high ratings as gender items. However, the threat of pattern answering remains particularly relevant for studies that use online questionnaires, and occurs when respondents tend to follow a pattern in clicking boxes (Brace 2008). Fatigue or even the perseverance of mouse movements can result in similar scores for all items.

In this study, the *ex ante* measure that sought to prevent pattern answering was the separation of gender and equity questions into two blocks on the questionnaire. Within these blocks, the items were randomly rotated (Chang et al. 2010). The scales all ranged from 1 (“does not apply at all”) to 9 (“fully applies”). Although this method is not well accepted as a strategy to prevent pattern answering, it allowed for an *ex post* test to examine whether the scores for the brand items were similar or equal to the equity scores. To this end, all 12 brand items were compared with all five equity scores in 60 pairwise *t*-tests. The hypothesis of the equality of ratings had to be rejected in 58 of 60 cases ($57 \times ps < 0.001$, $1 \times p < 0.050$). In general, the ratings were significantly higher for equity than they were for gender items. A common pattern between gender and equity thus could not be detected.

Another *ex post* analysis used to detect CMV is Harman’s (1976) single factor test. This test uses exploratory factor analysis to examine whether (a) all items load under a single factor or (b) if the solution is constrained to result in only one factor, this factor explains the majority of the variance. The relevant tests were conducted for the worldwide data sample and each country, and the solutions were constrained to eigenvalues at or above 1, which led to three-factor solutions in all cases. When a varimax rotation was implemented, the solutions reflected MBP, FBP, and equity with one minor exception. In China, the trait *dominant* did not load clearly under MBP, which was also reflected in the low loading of 0.21 in the covariance model (see Table 3.2 in Chap. 3). Constraining the solutions to only one factor revealed that, in China, 52.4% of the variance was explained and, in India, 50.5% was explained. However, in India, the varimax rotation showed a clear three-factor

solution for MBP, FBP, and equity, and in China, only *dominant* could not be assigned to MBP.

Harman's test, however, is not sufficient to rule out CMV (Podsakoff et al. 2003). Therefore, another more stringent test for common method bias was performed (Williams et al. 2010). Respondents' age served as a marker variable because it seemed unrelated to the predictor and criterion items (correlations between the 17 items and age ranged from -0.05 to $+0.06$, with an average of $r = 0$). For the entire sample, the average variance explained by the common latent marker variable was less than 3%. In the individual countries, this average was also low, except in China (15%) and Russia (28%). Whereas the results from China were not problematic, in Russia, the inclusion of the common latent marker variable altered the path coefficients of the baseline model. However, constraining these coefficients to be equal to the baseline model in the common marker factor model resulted in an average variance of only 12%. Consequently, based on all the ex post tests, there was no strong evidence for a common method bias. In association with the findings for construct validity, the assumption of unbiased data should hold. Furthermore, the significant positive correlation with the EquiTrend (2013) scores for 17 of the 20 brands (Gillette, Dove, and Nivea were not included in the 2013 poll) with $r = 0.62$, $p < 0.01$ provides credible support for the validity of the gender equity relation in this book since the EquiTrend data stem from completely different studies, and there are no suspicions of any common source bias. The same holds for the model in Chap. 7 in which genders and equities for 64 brands were assessed in a separate survey and where the positive effect of brand gender on brand equity was confirmed without a risk of a common source bias.

Appropriateness of Assigning of Human Personality Traits to Brands

According to Caprara et al. (2001), the assignment of human personality traits to brands is appropriate only if the personality traits load under the same factors for both humans and brands. The creation of personality

scales is based on the psycho-lexical approach, which suggests that all characteristics describing humans are rooted in language. These traits must be associated with invariant measurements, regardless of whether the characteristic describes a human or a brand.

To test this requirement, the survey in 10 countries (Chap. 3) included not only 20 brands but also four portraits in each country with two female and two male humans. The photos were selected according to cultural particularities. Pictures were obtained from a photo service provider. Four doctoral students from three continents (North America, Asia, and Europe), including two females and two males, evaluated preselected photographs for six cultural groups and chose two female and two male portraits for each group (Fig. 12.1). After the completion of the brand ratings, the participants were randomly shown two of the four portraits, one female and one male. With respect to these two selected photographs, the respondents then rated the 12 gender items (Grohmann 2009). In addition to the 16,934 brand gender ratings (see Chap. 3), 6045 scores for the gender of human portraits were achieved.

The ratings for these portraits were not analyzed for different perceptions of gender across different cultures. However, these ratings served as a group in the analyses of metric invariance across humans and brands (Caprara et al. 2001).

To be certain that the Grohmann model was actually invariant across humans and brands, measurements for both the brands and the humans required comparison. For human scores, the data for the gender items regarding the four portraits were used. A two-group design (one group of humans and one group of brands) was calculated once in a confirmatory factor analysis with unconstrained factor loadings and once with the factor loadings constrained to be equal for both brands and humans to test for metric invariance. The differences in SRMR, TLI, and RMSEA did not exceed the cutoff values (Cheung and Rensvold 2000). Consequently, the findings provide evidence of the model's form and metric invariance between brands and humans, and that the procedure described in this book complies with Caprara et al. (2001) claim that the solutions of the brand gender model should be equivalent to those of a respective human gender model.

Australia
France
Germany
Russia
Sweden
U.S.A.



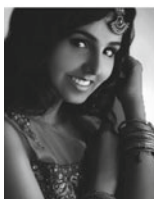
Brazil



China



India



Japan



Fig. 12.1 Portraits to assess gender perceptions for different cultures (© *First row from left to right:* iStock.com/Global Stock, iStock.com/Stigur Karlsson, iStock.com/Global Stock, iStock.com/pink_cotton_candy; *Second row:* iStock.com/Alina Solovyova-Vincent, iStock.com/EricVega, iStock.com/Alina Solovyova-Vincent, iStock.com/Alina Solovyova-Vincent; *Third row:* iStock.com/Image Source, fotosearch.com/sjenner13, fotosearch.com/jade, fotosearch.com/Ydur; *Fourth row:* iStock.com/11133558, iStock.com/Vikram Raghuvanshi, iStock.com/Morten Olsen/Photoevent, iStock.com/Tono Balaguer/LUNAMARINA; and *Fifth row:* iStock.com/Teh Young Sun/eyedear, iStock.com/Ron Chapple Stock, iStock.com/stockstudioX, iStock.com/Christine Glade)

Conclusion

The results of the three tests above signify a big step forward. They support confidence in the brand gender–brand equity model and provide evidence that this model is a reliable and valid construct for measuring brand equity in a global marketing environment.

Two additional tests in this book provide further evidence of the model's validity. In Chap. 7, brand equity was assessed separately from gender, and thus, common source biases were preempted. Nevertheless, brand equity positively related to gender perceptions. In Chap. 3, equities supplied by EquiTrend (2013) were compared with those that had been assessed together with brand genders, and our equities showed a significant correlation with those from EquiTrend. It could be argued that it would be better to use equities from external sources. In this case, however, examinations on the individual level were no longer feasible, and gender data had to be aggregated across brands, which would make it difficult to apply them in structural equation models. Furthermore, aggregated data have to be treated with caution. The resulting so-called ecological correlations—in which the statistical objects are groups—cannot be validly used as substitutes for individual correlations (Robinson 1950; Gove and Hughes 1980). For brand personality models, Austin et al. (2003) criticized the use of aggregated data because it could lead to the non-generalizability of factor structures. However, the problem with such a so-called ecological fallacy is much worse. Aggregation can result in reversed correlation coefficients. For example, raw data of a fictitious sample present a positive correlation of $r = +0.258$. Aggregation based on 10 brands reverses this into a negative $r = -0.402$. Because the correlation matrix is the point of departure in any factor analysis (Bollen 1989), aggregation must be carefully addressed. That is why, in this book, raw data on an individual basis are preferred. The risks associated with such an approach have been carefully addressed in this chapter, and the assumption that the brand gender model is a valid construct for measuring brand equity was supported.

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13

Summary, Discussion, and Conclusion

Summary

At first sight, assigning human gender traits to brands appears somewhat odd. When we submitted our related research to some journals, our articles were rejected several times due to an obviously fundamentalist point of view that, at a time when gender differences have no place in the modern world, they have even less place in marketing. In this book, however, we found evidence that brand gender and its positive effect on brand equity are easily assessed. We performed experiments with people off the street who could estimate the genders of products such as cars and fragrances. Most respondents could do so effortlessly. Whoever does not believe it should try it themselves.

Discovering coherence with brand equity arose by coincidence. It took us about 5 years of repeatedly finding a positive effect of brand gender on brand equity. While, during our first studies, we thought either no androgyny existed or it had a negative effect, we later discovered the superiority of androgynous brands when we categorized brand genders into four quadrants following the suggestion of Bem (1974). The findings on androgyny should appease opponents of brand gender theory

since androgyny describes equally high values of femininity and masculinity and refutes the superiority of one or the other.

In Chap. 1, the approach to assigning human personality traits such as gender to brands was explained by anthropomorphism and animism. In all times, humankind has tried to explain inanimate phenomena through human characteristics such as the *majestic* mountain, the *spirited* engine, or the *sensitive* fragrance. However, not only single traits can be allocated to personalities but complete constructs can also be created by applying several human factors, such as extroversion, agreeableness, conscientiousness, emotional stability, and openness. As a particular property of the development of personality scales, the procedure starts with looking in the dictionary, a step that should be kept in mind by all researchers and practitioners involved in personality analysis. This so-called psycho-lexical approach proceeds on the assumption that, according to the sedimentation hypothesis, “those individual differences that are of most significance in the daily transactions of persons with each other will eventually become encoded into their language” (Goldberg 1981, 141). A particular brand personality model was created and evaluated by J. L. Aaker (1997) with 42 traits loading on five factors. This model did not evolve to be generalizable, particularly on a cross-cultural basis. This, however, is a basic requirement for a system that measures brand equity in terms of brand personality (D. A. Aaker and Joachimsthaler 1999). We thus turned to Grohmann’s (2009) brand gender model with 12 traits loading on two obvious factors: femininity and masculinity. Furthermore, this two-dimensional structure enabled categorization into four genders: androgynous, feminine, masculine, and undifferentiated. The positive influence of gender on positive evaluations is justified by the physical attractiveness bias bolstering the prejudice that “what is beautiful is good” (Dion, Berscheid, and Walster 1972). Although not exclusively, beauty is connected to sex, as Freud and others have noted. As a result, through the simple causal chain of sex–beauty–excellence, this intriguing approach enables marketers to measure and manage brands by assigning them gendered personalities.

Chapter 2 provides evidence that the intriguing positive effect of brand gender on brand equity is supported by the ease of gendered classification and its strong and favorable associations. Since most people belong to

one or the other gender, it is easy to determine and classify gender-related features. In an experiment with four portraits of stronger and weaker sex-typed males and females, the highly masculine and feminine photographs were endowed with significantly more associations than the weaker sex-typed portraits. These associations were mostly positive, such as attractive, beautiful, friendly, likeable, nice, pretty, and smiling. In a subsequent experiment, participants were asked to assign one of the four portraits to each of 20 brands, with brand gender and equity determined from the way respondents matched each brand to the portrait that best represented it. Although participants did not know anything about brand gender, feminine portraits were assigned to feminine brands and vice versa. Moreover, highly feminine and highly masculine brands were most likely to be classified with highly sex-typed images. When respondents were asked to choose their favorite brand from among the 20, the outcome was 156 selections for the highly sex-typed brand (both feminine and masculine) and a mere 64 selections for the less gender-typed brands. This supported the finding that brand gender positively affects brand equity. Furthermore, categorizing the four gender quadrants provided evidence that androgynous brands have significantly higher brand equity than feminine or masculine brands. Undifferentiated brands (i.e., those scoring low on both femininity and masculinity) had the lowest equities.

Chapter 3 demonstrated the brand gender–brand equity approach in a global setting through studies in 10 countries on four continents. It thus followed David A. Aaker and Joachimsthaler's (1999) suggestion that global firms assess brand equity by assessing brand personality. The rationale behind the implementation of brand gender is the universality of gender perceptions. Psychologists sometimes assume that all cultures perceive gender similarly. The duality of femininity and masculinity extends beyond the dichotomy of a male or female sex and is also found between fathers and mothers, characterizing protection and care (Hofstede 1980). Surveys were conducted in the Americas (Brazil and the USA), Asia (China, India, and Japan), Australia, and Europe (France, Germany, Russia, and Sweden). Thus, the sample included countries comprising more than 50% of the worldwide population. Confirmatory factor analyses supported the assumption that the model was valid and reliable in all countries. Gender and equity scores differed obviously due

to culturally dependent response styles. However, when the data were mean centered, brand genders were similarly perceived for 20 famous brands in all countries—not in absolute terms, but relatively. Cosmetics brands such as Dove, Nivea, Olay, L’Oreal, and Maybelline were perceived as somewhat feminine, while Google, Nike, and Coca-Cola were perceived as somewhat masculine (cross-cultural androgyny is discussed in Chap. 4). Equities showed some variation; however, Apple, Disney, and Google were among the stronger brands worldwide with high equity rankings in nearly all countries. In contrast, American Express and Hilton, both service brands, had lower equities and ranked lower in many countries.

In Chap. 4, the data assessed in Chap. 3 were analyzed in more detail. First, the 20 brands in 10 countries were categorized into androgynous, feminine, masculine, and undifferentiated brands. Katz (1986) confirmed that a correlation with androgyny has numerous benefits, such as increased adaptability to ambiguous settings. Likewise, a study by Bem (1974) concerning the inventory of sex roles explained that a non-androgynous sex role limits an individual’s array of traits as he or she shifts from one condition to another. Since androgynous brands had superior brand equity in all countries, there was evidence that brand androgyny follows this assumption. Furthermore, the effects of respondents’ sex were evaluated. Various studies have revealed an impact identified as “identical sex bias,” that is, an efficient identification and processing of stimuli symbolizing an individual’s own sex. Consistent with this assumption, the outcome supported the theory of a brand gender–congruency impact based on consumers’ biological sex. Male consumers discerned higher brand equity in masculine brands than feminine ones and vice versa for females. Another important topic regarding cultural difference was also analyzed. Implementing Hofstede’s (1980) individualism versus collectivism index showed differences in brand equity perceptions between somewhat collectivistic (Eastern) and individualistic (Western) countries, in that masculine brands were perceived as stronger in individualistic cultures and feminine brands were perceived stronger in collectivistic cultures. The rationale behind this is that the values of assertiveness and independence are highly associated

with masculinity, while interdependence and cordiality are highly correlated with femininity.

Chapter 5 explains in detail why brands are perceived as feminine or masculine. Because this was assessed independently from the product, primarily brand design elements such as logo, brand name, type font, and color were analyzed. Evidence of the impact of masculine or feminine names, shapes, and colors can be found in evolutionary psychology. Brand names were found to impact perceived brand femininity and masculinity in that front vowels (i.e., *e*, *i*) enhance perceived brand femininity while back vowels (i.e., *o*, *u*) increase perceived brand masculinity. Furthermore, type font affects perceived brand femininity/masculinity, in that a type font that is slender and round will increase femininity, while a type font that is bold and highly angular will increase masculinity. Color also affects perceived femininity/masculinity in that lighter (i.e., pink or red) colors increase perceived femininity and darker colors increase perceived masculinity. The logo shape impacts perceived brand femininity/masculinity in that heavy and highly angular logos increase perceived masculinity while slender and round logos increase perceived femininity. Brand masculinity and femininity positively relate to brand preferences. As expected, this relation was stronger when brand and product category masculinity or femininity were more congruent. A simultaneous least-squares regression model replicated these findings. Brand logos having slender, round-type fonts and brand names inclusive of front vowels enhanced brand femininity, while brand names with bold, angular-type fonts comprising back vowels heightened brand masculinity perceptions. Utilization of constant cues led to highly pronounced perceptions of femininity and masculinity, thereby increasing brand preference. Considering product category and brand femininity/masculinity similarity suggests that enhanced similarity between brand and product category femininity/masculinity escalates preferences.

In Chap. 6, a sports shoe brand was created applying the design rules from Chap. 5. A name with a back vowel (“Bloyt”) served as the masculine brand while “Edely,” which has two front vowels, represented the feminine brand. A bold-type font was used for the masculine brand while Edely was written in a slender, round font. The masculine brand’s color

was blue, and the feminine brand's color was bright pink. To demonstrate that only the simultaneous application of congruent gender cues results in the most positive effect on brand gender and brand equity, the shoe brand was depicted in a print ad using the respective design elements for feminine and masculine brands. In an online survey, these stimuli were accompanied by radio advertising using a male speaker with a pronounced low voice (F_0 -Top at 180 Hz) for the masculine brand and a female speaker with a high voice (F_0 -Top at 540 Hz) for the feminine brand. The simultaneous application of distinctively masculine or feminine attributes for brand names, font, and color, along with the voice and outward appearance of the sales representative, resulted in a higher perception of each respective brand gender and a higher brand valuation of these brands than those to which only moderately effective masculine or feminine attributes had been applied.

Whether brand gender is an obvious consequence of product gender was discussed in Chap. 7. The brand gender concept could be obsolete if it directly follows the gender of a specific product category. As an example, because cars "are men's own thing," it could be trivial to argue that a car brand is masculine. However, it has been argued that even within a masculine product category, brand gender can vary (e.g., the French Citroen DS was perceived as somewhat feminine). In Chap. 7, fictitious brands were created with different brand names and logos and then assigned to 16 product groups. The logos, product categories, and brand genders were assessed separately and then compared. Both logo and product gender determined brand gender. The results of this study supported the assumption that brands have a gender and that this gender is not predetermined solely by product category. Although product categories contribute to perceived gender by building gender classes, brand genders themselves vary significantly within these classes, such that a brand within a masculine product category may be perceived as more feminine than a brand within a feminine product category. The equities of the fictitious brands were assessed in a later study. The results provide evidence that equity can be directly derived from a brand's logo gender and product gender. This chapter provided evidence of the prominent role of gender in the brand management process. However, all brand

aspects contribute to brand gender independently, reinforcing each other. The superiority of androgyny could be demonstrated, as well.

Chapter 8 examined the role of product shape, form, color, and material on the perception of product gender. Based on insights from evolutionary psychology, it was assumed that products with a slim proportion, round shape, or curvy lines would enhance the perception of a product's femininity while products with a bulky proportion, angular shape, or straight lines would enhance the perception of a product's masculinity. Regarding color, products with lighter tones, more colors, or a shiny reflectiveness were expected to enhance the perception of a product's femininity while products with darker tones, fewer colors, or a matte reflectiveness would enhance the perception of a product's masculinity. Regarding material, it was assumed that when products appear to have a smooth texture or soft surface or to be light weight, this would enhance the perception of a product's femininity, and when products appear to have a rough texture structure, hard surface, or a heavy weight, it would enhance the perception of a product's masculinity. Furthermore, it could be demonstrated that products that are more strongly gendered (more masculine or feminine) will elicit a more positive affective attitude and a higher aesthetic value, will be perceived as more functional, and will receive higher purchase-intent ratings than those that are less gendered. In particular, the characteristics of affective attitude, aesthetic value, and functionality fully mediated the positive relationship between more strongly gendered products and higher purchase intent. The assumption of the superiority of androgynous products—that is, those that simultaneously have strong masculine and feminine genders—could also be supported for products.

Chapter 9 answered the question of whether brand gender not only emerges from human personality characteristics but also is determined from the way a salesperson's (SP) gender follows brand gender. The theory of behavioral branding postulates congruence between employees and brands to maximize positive brand perception. This assumption was tested in several studies. One used fictitious brands to avoid bias effects from famous and well-known brands. It became apparent that females SPs were chosen more frequently for feminine products and male SPs

were chosen more often for masculine products. Four portraits, each with two females and males, were rated for their physical, task, and social attractiveness. For 64 well-known brands, brand genders were assessed and survey participants had to choose the one SP portrait they thought would best match the brand. The assumption was supported that the more brands are masculine or feminine, the more male or female SPs, respectively, are chosen. Categorizing the brands as androgynous, feminine, masculine, or undifferentiated genders resulted in respondents' choosing the most attractive SP for the androgynous brands. Female participants showed balanced choice behavior across task and social attractiveness. Male participants, however, preferred male SPs who were task but not socially attractive, and they preferred female SPs who were socially but not task attractive. Male participants were oriented toward female SPs with high physical attractiveness, particularly when task attractiveness was low. When physical attractiveness was low, male participants preferred male SPs, particularly when task attractiveness was high.

In Chap. 10, the effect of gender congruence was analyzed with regard to brand alliances, which are a useful strategy for strengthening brand images. Gender-congruent brands make more harmonious alliances and are processed more fluently than brands that differ in gender. Moreover, brand fit is effective if two allying brands have the same gender. This relies on congruence theory, which suggests that humans prefer harmony among objects, as well as fluency theory, which suggests that fluently processed objects are associated with positive impressions. In several pre-tests, fictitious brands were created. Their genders and the extent to which respondents liked the brands were assessed. Strongly gendered brands were more appreciated, which supported the findings from previous chapters. Another study revealed that consumers tended to match brands with similar genders. Furthermore, calculating the distances between two brands in a pair resulted in dissimilarities, and comparison among several outcomes revealed that dissimilarity negatively affected alliance fit and had negative effects on brand fit. Brand dissimilarity negatively affected visual appeal, perceived unity, and purchase intention. By implication, the findings supported the assumptions that greater

similarity in brand gender between two brands would be associated with greater perceived brand alliance fit and brand fit, greater perceived visual unity and visual appeal, and greater purchase intention.

In Chap. 11, a general discussion challenged the way in which personality scales are commonly created, and an extended psycho-lexical approach was proposed. The standard procedures use statistical methods, such as factor analysis, at a very early stage, while the final composition of the scale is determined *ex post* by eliminating traits that do not “behave” well. The widespread practice of *post hoc* reduction of traits is frequently criticized. Exploratory factor analyses are primarily a mathematical approach that is “largely blind to any substantive theory.” The extended approach tries to close the theoretical gap with more intensive use of the dictionary. The rationale behind the demonstrated method is the insight that the factor loadings that determine the scale structure are based on a correlation among personality traits that can only occur when these traits are synonyms or near-synonyms in a dictionary. The chapter was divided into a theoretical part in which the factor structures were determined *a priori* by maximizing the cross ratio between the average number of items’ common synonyms within a factor and the average number of common synonyms outside this factor. This procedure is a translation of the rules of convergent and discriminant validity into rules for semantic factor analysis in this extended lexical approach. In the empirical part of the chapter, the theoretically developed scales were analyzed in factor analyses using Aaker’s (1997) and Grohmann’s (2009) personality models. As could have been expected from the *a priori* scales, the Grohmann model had a much better fit than Aaker’s.

In Chap. 12, the important question of whether the brand gender–brand equity model is a simple fallacy was discussed. This could be true for several reasons, such as missing invariance, particularly in cross-cultural studies, and common method or common source biases. Respective tests supported the assumption that the global data were form, metric, and scalar invariant, which provides evidence that the model measured gender and equity consistently in all countries. The data presented in this book were assessed for brand genders and equities in only one common survey. This means that the same people rated gender and

equity items. Since individuals have their own response styles, it could be that those who tend to rate high on scales do so simultaneously for both gender and equity items. The same could hold for respondents who rate low on scales. As a result, genders and equities could correlate positively which, however, would be an invalid artifact. Several sophisticated tests provided evidence that such a common source bias could be widely excluded. Finally, for the first time, the claim was tested that the assignment of human personality traits to brands is appropriate only if the personality traits load under the same factors for both humans and brands. Thus, the gender scores were assessed not only for brands but also for several human portraits. In a multigroup analysis, it could be demonstrated that the same factors emerged and that measurements of brands and persons were invariant, which supported the overall validity of the brand gender–brand equity approach.

Discussion

Particularly the findings in Chap. 12 should convince readers who are skeptical about the brand gender–brand equity model and its implications for global branding. The book has employed several theories to explain why these effects emerge. One is the phenomenon that beauty, which is often related to sex, increases positive perceptions. The chain sex–beauty–excellence is the rationale behind the demonstrated approach. In addition, enhanced fluency and ease of categorization support the increase in brand equity. Finally, insights from evolutionary psychology help understand the mechanism behind why brand names, brand logos, or products are perceived to be sex typed. In the present age, such sex typing may be seen as unacceptable because sex differences should have been extinguished. One of the great advantages of this approach, however, is the ability to detect a property that is not often found within humans: androgyny. The theory of a superior androgyny (Bem 1974) could be fully verified for brands throughout this book. This should help the skeptics and, if they are not convinced, they should at least be appeased.

Conclusion

The model's practicability is the strongest argument for the brand gender–brand equity approach. Grohmann's (2009) gender model is simple and easy to implement in local or global research, but perhaps it should be slightly revised. As the results in Chap. 3 show, the traits *aggressive*, *dominant*, and *fragile* have low factor loadings, so they should be replaced by other traits that could easily be found using the procedure demonstrated in Chap. 11 (i.e., the extended lexical approach). D. A. Aaker and Joachimsthaler (1999) suggested that international corporations manage their brand equities using brand personality, and Kapferer (2013) postulated a simple and not too expensive method: Well, here is the answer to both. Brand gender has strong promise as a successful global marketing strategy.

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