

Examination of Gender-role Portrayals in Television Advertising across Seven Countries

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Abstract This study examined the roles of cultural (Hofstede's Masculinity value dimension—i.e., Gender of Nations), country-level (Gender-related Development Index), and execution-level (product type or gender of the typical user) factors in understanding gender-role portrayals in television advertising. Using content analysis methodology, we compared the gender and occupation of the prominent character and the gender of the voice-over across 2,608 television commercials in Brazil, Canada, China, Germany, South Korea, Thailand, and the United States. Results of regression analyses revealed that cultural and country factors predicted the gender of the voice-over only whereas product type consistently conformed with the gender of the prominent character. Overall, males were featured in prominent visual and auditory roles, while females were still portrayed in stereotypical ways.

Keywords Gender-role portrayals · Advertising · Masculinity (MAS) cultural value dimension · Gender-related Development Index (GDI) · Cross-cultural research

Introduction

Gender-role portrayals in advertising are influential in society because they can perpetuate stereotypes, and they can present behavioral norms for males and females. For instance, the 2007–08 advertising campaign for Canadian Club Whiskey featured “Dad” as a fun-loving “guy’s guy.” One print advertisement’s headline in the campaign read “Your Mom Wasn’t Your Dad’s First” featuring a woman on the lap of the presumed father figure. According to the all-male creative team who made the advertising, the target audience was men ages 30–39 who “were looking for cues of how to behave as a man, but these cues often conflict with each other. It’s a complex world for these guys. They were looking for a strong, simple and personally relevant expression of manhood” (Effie Worldwide 2009). Gender-role portrayals also represent important creative decisions that strongly impact the communication goals of each advertisement (e.g., Morrison and Shaffer 2003) and that affect subsequent audience responses (e.g., Debevec and Iyer 1986). In the Canadian Club case, the male audience presumably responded favorably to the portrayals, as the advertising campaign resulted in sales increases of 4.4% for the brand, and the campaign was featured as the 2009 Gold Effie Winner for its effectiveness.

Due to the significance of the presumed societal and sales impact, studies have looked at gender-role portrayals in advertisements in the United States (e.g., Courtney and

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Whipple 1983) and across countries (Gilly 1988; Milner 2005; Milner and Collins 2000). However, most cross-cultural advertising studies are limited due to the lack of theoretical framework or due to the reliance on a dominant cultural value framework (i.e., Hofstede's Masculinity cultural value dimension, also called "Gender of Nations" by Milner 2005; Milner and Collins 2000). In addition, most of the studies have compared ads from only two or a few countries (with a few exceptions, see Gilly 1988; Milner and Collins 2000), which limits other explanations of cultural differences portrayed in advertising (van de Vijver and Leung 1997).

The purpose of our study is to examine the descriptive and predictive roles of multiple factors in understanding gender-role portrayals in television advertising across a range of countries. To do so, we first tested the leading theoretical framework employed in cross-cultural advertising studies, the Gender of Nations. Based on the measurement of Masculinity (MAS, hereafter) cultural values (Hofstede 1984), this framework contrasts the relative strength of masculine/assertive (or ego) interests with feminine/nurturance (social, relational) interests in a culture to predict the extent of gender-role differentiation. We relate a country's ranking on this cultural dimension to the gender and occupation of the prominent character and the gender of the voice-over. Countries with a lower MAS Score should demonstrate egalitarian gender roles, which means advertisements should feature both male and female characters in prominent roles, in voice-overs, and in similar occupations. We then moved beyond this framework by investigating another country-level factor (the Gender-related Development Index; GDI, hereafter). GDI, reported annually by the United Nations Development Program (UNDP 2002), captures a country's developmental stage particularly related to gender equality. We expected that advertisements in countries that rank high on GDI should demonstrate more egalitarian gender roles than in countries that rank low on GDI.

To see the relationship between gender-role portrayals in advertising and these two factors, we counted the number of males or females featured in prominent roles and in voice-overs and coded the occupation of the prominent character, and then compared such occurrences across countries using their scores on the MAS and GDI factors. Analysis of the data was performed using chi-square statistics. Finally, we examined the role of an execution-level determinant of advertising content in relation to gender roles. Specifically, we focused on the product type according to the gender of the typical product user because it is an important factor to consider, particularly as it relates to the model(s) depicted in the advertisement (Furnham and Bitar 1993). For example, studies have shown that the degree to which the gender image of the product or the "sex

of its most likely user" (Debevec and Iyer 1986, cf. Whipple and McManamon 2002, p. 80) is congruent with the gender of the spokesperson impacts advertising effectiveness (so-called "match-up hypothesis"; see Morrison and Shaffer 2003; Whipple and McManamon 2002). Therefore, we predicted that ads selling products for which the typical user is a female would portray females more frequently than males as prominent characters and in the voice-over and vice versa. Chi-square statistics were used to test this prediction. Lastly, we tested which one of the three factors—cultural (MAS), country-level (GDI), or execution-level (product type)—best predicts gender-role portrayals in advertising. Two multinomial logistic regression models were fitted with prominent character gender and voice-over gender (three categories—male, female, and both) as dependent variables and the three factors as independent variables.

Using content analysis methodology, we examined 2,608 prime-time television commercials in Brazil, Canada, China, Germany, South Korea, Thailand, and the United States to compare the gender and occupation of the prominent character and the gender of the voice-over. Some of these countries are underresearched in cross-advertising studies (i.e., Brazil, China, Germany, and Thailand; Milner and Higgs 2004). In addition, these countries represent a wide array of different cultures, language, geography, advertising spending, and gender equality and roles. For example, MAS, which indicates degree of gender differentiation, is based on rankings from 74 countries as a result of their scores on Hofstede's cultural values surveys (Hofstede 1984, 2003). In our study, each country's MAS Score is as follows: Brazil=49, Canada=53, China=55, Germany=66, South Korea=39, Thailand=34, and the United States=62 (see the Appendix for more details).

We suggest that cross-cultural advertising researchers should consider other country-level characteristics such as GDI and execution-level characteristics such as product type, in addition to cultural differences or similarities. By examining factors beyond MAS, this study may serve as a catalyst to move cross-cultural research on gender-role portrayals from a descriptive level to a more predictive level.

Overview of Research on Gender-role Portrayals in Advertising

Research on gender-role portrayals in advertising is not new, as it has evolved from two seminal works: one by Goffman (1978), who argued for the powerful images created by advertising, and one by McArthur and Resko (1975), which led to subsequent content analysis studies in

this line of research. Based on analysis of visual images in more than 400 print ads in the United States, Goffman (1978) demonstrated how advertising portrays gender roles in a narrower way than in reality. Specifically, he identified which poses and body positioning created or reinforced stereotypes. McArthur and Resko (1975) also conducted a content analysis of television commercials in the United States. They found that men and women were depicted in different ways, according to traditional gender-role stereotypes. For instance, when the authors examined gender behaviors and credentials or qualifications, men appeared more often than women did in ads. Men were also portrayed as authorities, were viewed as independent from others, and were placed in occupation settings. Conversely, women were usually depicted as product users, were portrayed as dependent on others (particularly on family members or the opposite sex), and were featured in the home.

Subsequently, most studies on gender-role portrayals in advertising have examined how often and in what ways women are portrayed (Furnham and Mak 1999, in the United States, United Kingdom, Australia, Denmark, France, Italy, Hong Kong, Indonesia, Kenya, Mexico and Portugal; Gilly 1988, in the United States, Australia, and Mexico). Women have historically been underrepresented in advertising as compared with men (Bretl and Cantor 1988, in the United States). Further, women are often featured in advertisements as subordinate, as dependent on or subservient to men, and as sex objects or decorations (Ferguson et al. 1990, in the United States). When employed, women tend to be depicted in traditional female occupations (Huang 1995, in the United States and Taiwan; Mwangi 1996, in Kenya; Neto and Pinto 1998, in Portugal).

Studies of the depictions of males in advertising have been few in number (e.g., Kolbe and Albanese 1996, in the United States). Men are more often portrayed in advertising and are primarily featured in occupation roles (Furnham and Farragher 2000, in the United Kingdom, and New Zealand; Huang 1995) that feature professional occupations (Kolbe and Albanese 1996). In addition, men are typically the “voice” of broadcast media not only in the United States (Bretl and Cantor 1988), but also in several developed (Austria: Ahlstrand 2007; United Kingdom: Furnham and Bitar 1993; New Zealand: Furnham and Farragher 2000) and developing (Singapore and Malaysia: Wee et al. 1995; Kenya, Ghana and South Africa: Milner 2005) countries. Some cross-cultural research suggests preference for male voice-overs (Furnham and Farragher 2000). There is a lack of (empirical and cross-cultural) research that shows any evaluative results regarding male versus female voice-overs (Debevec and Iyer 1986; Whipple and McManamon 2002). Yet, advertisers believe that male voices are perceived as

more convincing, credible, and authoritarian than are female voices (Furnham and Farragher 2000). Despite the interesting descriptions of gender portrayals in advertising, only a handful of studies have employed any type of theoretical framework to explain differences. We review the most commonly employed theoretical framework next and propose associated hypotheses.

Gender of Nations: Hofstede’s Masculinity (MAS) Cultural Value Dimension

Recent cross-cultural advertising research has introduced the Gender of Nations (Masculinity, MAS) cultural value dimension as a means to explain differences and similarities in advertising spokesperson representations across nations (Milner 2005, in Kenya, Ghana and South Africa; Milner and Collins 2000, in the United States, Japan, Russia and Sweden; Oderkerken-Schröder et al. 2002, in the Netherlands and the United Kingdom; Singh et al. 2005, in the United States, China, India, and Japan).

The MAS cultural dimension derives from Hofstede’s cultural value framework. Based on surveys of international IBM employees in 40 countries in the late 1960s, Hofstede (1984) provided four dimensions for the comparison of cultural values, which were updated and expanded to 74 countries (2003). Among these dimensions, MAS contrasts the relative strength of masculine/assertive (or ego) interests with feminine/nurturance (social, relational) interests in a culture. This dimension is mainly related to gender roles in terms of socialization—the process by which cultural norms and values are transferred from one generation to the next through family, church, school, media, and community in general (Bem 1993). Thus, it is relevant for examining similarities and differences across gender in a culture (de Mooij 2004).

In the advertising literature that examines gender-role portrayals, the MAS dimension has been operationalized in two ways. First, femininity has been equated with modesty, quality of life, and a relationship orientation. Conversely, masculinity has been defined as a productivity orientation according to occupation-related variables depicted by the prominent character in the advertisement, such as achievement, assertiveness and material success (Milner 2005; Milner and Collins 1998). That is, more feminine countries typically feature more relationships and fewer occupation-related depictions in their advertising than do masculine countries. Second, the MAS dimension has been used to examine the extent of social differentiation or gender-role differences that men and women exhibit. For example, feminine cultures typically strive for reduced social differences between men and women. The opposite occurs in

masculine societies, where maximum social-differentiation is expected to permeate institutions (Hofstede 1984; Milner 2005; Milner and Collins 2000).

Empirical studies have adopted the MAS dimension to examine gender-role portrayals in advertisements in cross-cultural settings, but with mixed results. For example, TV advertisements from feminine countries (Sweden, Russia) featured more depictions of relationships for male and female characters than did the ads in masculine countries (United States, Japan) (Milner and Collins 2000). Contrary to predictions, however, the researchers did not find fewer gender differences in feminine countries than in masculine countries or greater depictions of productivity in masculine countries. Milner (2005) compared portrayals in television advertisements across three countries in Africa that vary along the MAS dimension (South Africa as a high masculine country, Kenya as a low masculine country, and Ghana as a midlevel masculine country). She did not find any support for the hypothesis that predicted greater gender-role differences in South African ads as compared with those in the other two countries. In fact, in South African ads, more women were shown in occupation settings than were men, and women were more likely to be depicted in relational roles and men in occupational roles. The voice-overs were significantly more likely to be male in all three countries, with Kenya (predicted to be the most feminine culture) showing the fewest female voice-overs.

Several other studies that compared ads between high masculine countries (e.g., United States, United Kingdom, France) and a medium masculine country (e.g., Taiwan: Huang 1995) or low masculine (thus, high feminine) countries (e.g., the Netherlands, Portugal, Sweden, Denmark) have also reported mixed results of gender-role portrayals. For example, Wiles et al. (1995) reported that there were more gender-role differences depicted in the print ads in the United States (a more masculine country) as compared to those in the Swedish ads, supporting the hypothesis of the MAS value dimension. Similarly, Stein (2004) noted that Danish television ads were more likely to show gender-role equality than were their United States counterparts. By contrast, ads in Portugal (a low masculine country) conformed to the stereotypical picture of males and females (Neto and Pinto 1998), which does not support the MAS prediction.

Despite some mixed findings, the MAS has guided cross-cultural advertising scholars to predict the nature of gender-role portrayals based on countries' scores on the dimension (e.g., Milner 2005; Milner and Collins 2000). That is, ads in low masculine countries should portray gender-role stereotypes and gender-role differences less prominently than those in high masculine countries. In an attempt to replicate the finding by Milner and Collins

(2000) related to the Gender of Nations framework, we formulate the following hypothesis.

H1: Gender-role portrayals in advertising will differ across the seven countries with varying degrees of the MAS Score. That is, ads in countries with higher MAS Scores will demonstrate greater gender differences in terms of the gender of the prominent character, prominent character occupation, and voice-over.

Gender-related Development Index (GDI)

Cross-cultural advertising researchers have yet to find factors beyond Hofstede's cultural value dimension (MAS) to explain gender-role portrayals in cross-cultural advertising (Oderkerken-Schröder et al. 2002). Beyond the MAS cultural value dimension, we invite one important country-level gender equality indicator, the Gender-related Development Index (GDI). The GDI captures a country's developmental stage specifically related to gender equality. To be more specific, the GDI is calculated through three steps. In step one, indices between 0 and 1 are calculated for females and males in each of the three areas of life expectancy, education, and income. In step two, for each area, the pair of gender indices, are combined into an Equally Distributed Index that rewards gender equality and penalizes inequality. In the final step, the GDI is the unweighted average of the three Equally Distributed Indices: equally distributed life expectancy index, equally distributed education index, and equally distributed income index (for more details, see HDR 2009). The GDI measures the social functions that are designated based on gender and that often reflect gender equality or discrimination (González 1999). The methodology of computing the GDI imposes a penalty for inequality such that the GDI Score falls when the disparity between achievements of males versus females increases. Thus, the greater the gender disparity, the lower a country's GDI Score. Few studies have used this index to explain gender-role portrayals, but at least one study notes that the GDI is closely associated with issues of women's roles in a society, including occupation, education, health, and participation in decision-making (Rustagi 2004).

Considering that advertising in society reflects "the way people think, what moves them, how they relate to each other, how they live, eat, relax, and enjoy themselves" (de Mooij 1998, p. 43), it is likely that a society's stage of gender development and equality relate to its advertising content. This is not to say that gender-role portrayals in advertising are directly influenced by gender equality in each country. Through a content analysis of gender-role

portrayals in advertising, however, we may be able to see how a country's norms, ideas, and rules related to equality are exercised. This inquiry is important because if media predominately favor one gender over another, that gender inequality could be detrimental to both genders because it limits the socially accepted roles of men and women depicted (see Chavez 1985). Without a full palette of roles and role models, children may learn only limited gendered identities from the media (Pingree 1978). Further, the perpetuation of limited gender roles may only serve to reinforce stereotypes in a society and impact how people view others. Finally, the research may highlight attention to stereotypes to the advertising industry or to self-regulatory advertising bodies that “strive to provide an equal representation of women and men in roles of authority” (Advertising Standards Canada n.d.).

Our attempt to consider the GDI is also based on existing arguments that gender-role portrayals in advertising may be affected by multiple forces including degrees of political and economic development in each country (Frith and Mueller 2003; Furnham and Mak 1999; Huang 1995). Accordingly, the gender equality development of each country is relevant because each country may have implicit or explicit criteria for gender roles portrayed in advertising, which conform to the sociocultural and political order.

Applying this country-level indicator of gender equality to advertising, it is reasonable to assume that countries with a range of scores on the GDI may portray gender roles in their advertising differently. We believe that advertising that mirrors social and cultural values in a society may reflect such gender equality in presenting certain gender roles. Examining only a cultural value dimension may miss important factors that are associated with differences of gender-role portrayals across countries. Thus, we formulate the following hypothesis in a similar way to Hypothesis 1:

- H2: Gender-role portrayals in advertising will differ across the seven countries with varying degrees of the GDI Score. That is, ads in countries with higher GDI Scores will portray fewer gender differences in terms of the gender of the prominent character, prominent character occupation, and voice-over.

Product Type (Gender of Typical User) and Match-Up Hypothesis

Examining cultural values and country-level gender equality assumes that cultural or country indicators serve as mental programming or a cultural resource for advertising professionals when they create an advertisement. It also assumes that consumers are much comfortable with creative executions that match their cultural values and experiences.

At the execution level, however, advertising professionals may think about how to match creative executions with the product that they advertise. Some research has suggested that products can be associated with a gender image, which typically portrays the gender of the intended target audience or typical end user (Alreck 1994; Whipple and McManamon 2002). Therefore, we believe the gender of the typical product user (hereafter referred to as product type) may be one important consideration of decision making related to gender-role portrayals.

Product type in this way has been categorized as follows: Retail stores, health and beauty aids/pharmacy, and fashion/clothing have been traditionally viewed as women's product categories (Ganahl et al. 2003; Scott 1976), whereas automobiles/automobile supplies, electronics/appliances, insurance, financial, and political commercials are usually associated with men (Ahlstrand 2007; An and Kim 2007; Neto and Pinto 1998; Furnham and Bitar 1993; Furnham and Skae 1997; Mwangi 1996). These product categorizations may be due to the fact that females in the United States have been shown to be more publicly self-conscious than their counterpart males (Gould and Stern 1989). Also, females are associated more often with social approval and/or self-enhancement, which might be related to home and body products. Men are more frequently shown selling cars and sports products than are women (Mueller 2004). It should be noted, however, that “with gendered products, the basic characteristics of the goods are acceptable by either sex, but the visible design features, advertising, promotion, and perhaps distribution of the product are modified to include symbols which identify it mainly or exclusively with one sex” (Alreck 1994, p. 6). Thus, spokespersons may be one way in which products can become or signify their ‘gender.’

In fact, studies in the United States have confirmed the disproportionate use of women in ads for “female” products and men in ads for “male” products (e.g., Ganahl 2003). However, the concept of product type may be bound by culture and historical context (see Solomon 1983, for such a discussion of product symbolism), although research conducted in other cultures has noted consistent perceptions of product type (e.g., South Korea: An and Kim 2007; China: Cheng 1997; Turkey and China: Milner and Fodness 1993, 1996). Further, some studies in a cross-cultural context have noted similar findings with respect to the “match up” of the gender of the prominent character in the advertisement and the product type. For instance, females were significantly more likely to be shown than males in television ads for personal care products across a range of masculine and feminine countries (e.g., in Kenya, Portugal, Malaysia, Japan, Taiwan and the United States: Bresnahan et al. 2001; Mwangi 1996; Neto and Pinto 1998). A review of 14 cross-cultural gender-role studies by Furnham and

Mak (1999) also found that gender-role portrayals vary by the product advertised. Females tended to appear in ads that sell home, food, and body products, whereas males appeared in ads that sell automobiles/sports. Finally, An and Kim (2007) found that women/men in South Korea and the United States were more likely to be shown in “female”/“male” product Web ads. These findings may suggest that the product type category applies fairly well for gender-role portrayals across cultures.

Importantly, the degree to which the product type and the gender of the spokesperson are congruent is thought to impact advertising effectiveness (Whipple and McManamon 2002). The match-up hypothesis suggests that the spokesperson’s image should “fit” the product and selling idea (Kamins and Gupta 1994; Lynch and Schuler 1994). From a persuasion viewpoint, the greater the match-up or congruence between the spokesperson’s image and the product advertised, the more easily the message can be internalized, which helps facilitate attitude change (Osgood and Tannenbaum 1955). In gender-role research contexts, individuals had more positive perceptions when “male” products were advertised by male spokespersons and “female” products were advertised by female spokespersons than vice versa (Kanungo and Pang 1973; Whipple and Courtney 1985). In addition, in an experimental study, more favorable evaluations of the advertised products and greater purchase intentions of those products were realized when the gender-role portrayals in the product ad closely matched the participants’ own gender-role orientations (Morrison and Shaffer 2003). Specifically, participants that conformed to traditional gender-role orientations (i.e., in the United States: Masculine men, feminine women) were more likely to evaluate “male” products more favorably with male spokespersons and “female” products with female spokespersons. The opposite was true of those who scored non-traditional gender-role orientations. Based on this conceptual and empirical support, we predict that the match-up between product type and gender-role portrayals is well practiced in advertising regardless of country.

H3: There will be congruence between product type and gender-role portrayals such that ads for female product types will portray females more frequently than males as a prominent character and as a voice-over and vice versa.

Lastly, beyond descriptive explanations about gender-role portrayals across countries, we explore which factor will play a stronger role in predicting gender-role portrayals in ads. Thus, we ask the following research question:

RQ1: Which factor(s), among cultural-level (MAS), country-level (GDI), and executional-level (product

type) factors, will best predict the gender of the prominent character and voice-over and the occupation of the prominent character?

Method

Sample

TV advertisements shown on major networks during the same day part (i.e., prime-time evening) in 2002 were collected in seven countries (Brazil, Canada, China, Germany, South Korea, Thailand, and the United States). Examining and comparing multiple countries in cross-cultural advertising is beneficial because the number of rival explanations is greatly reduced when the number of cultures involved in evaluating a hypothesis increases (van de Vijver and Leung 1997). The countries represent a wide array of different cultures, language, geography, advertising spending, and gender equality index (GDI) (see the Appendix for detailed information). Each country also offers critical international markets for top global brands (Advertising Age 2005).

The prime-time TV ads were collected during two to six typical weekdays in 2002 (10–18 hr of advertising) from major TV network channels (see the Appendix). Prime-time was defined with an emic approach: Advice was sought from our native coders and varied from 6–11 p.m. Our consecutive-day sampling technique has been considered to be relatively representative in the existing literature (Riffe et al. 1993; 1998) and has been commonly employed in content analytic studies of advertising (e.g., Bretl and Cantor 1988).

Ads in Canada, Germany, and the United States were collected during November, while ads in Brazil, China, South Korea, and Thailand were collected between July and August, when there were no national holidays or special events. As a result, the total sample size was 2,608 ads: Brazil=177, Canada=856, China=434, Germany=182, South Korea=469, Thailand=272, and the United States=218. The different number of ads across the examined countries is not uncommon in cross-cultural studies due to different definitions of prime time, different advertising-to-program ratios, different advertising lengths, and the difficulty of employing the exact same sampling procedure in general.

Coding Procedure

Fourteen bilingual coders were recruited from a large Midwestern university in the United States. Two native coders coded their respective advertisements in order to calculate intercoder reliability within each country, which is

similar to the way other researchers have done multicountry content analysis (e.g., Milner 2005; Moon and Chan 2005; Singh et al. 2005). All of them were graduate students who were proficient in both languages (their native language and English), so that they understood the meaning of the coding instrument written in English. All the coders were trained through multiple sessions and group discussions. If there was disagreement, the two native coders re-examined the ads to come to a consensus agreement. They received a cash reward for their work.

Our coding scheme was developed based on reviews of past studies (Gilly 1988; Milner 2005; Milner and Collins 2000) and was refined based on discussions among our coders. The coding scheme included the number of human models in various role portrayals and the types of products. For the product category, we started from a list of 22 mutually exclusive and exhaustive categories and then classified them further into male, female, and other/neutral products. This classification conforms to past studies (An and Kim 2007; Ganahl et al. 2003; Milner and Fodness 1996; Scott 1976).

For gender-role portrayals, we coded the following: (1) prominent character gender; (2) prominent character occupation; and (3) gender of the voice-over. The operational definitions and intercoder reliability of the variables used in the analyses are reported in Table 1. Although past gender-role advertising studies examined other categories, including

gender traits of human models and level of sexism (see Ford et al. 1998), we mainly focused on the three above-listed categories for two reasons. First, examining gender differences in terms of prominent character and prominent character occupation present appropriate operational definitions that match the conceptual relevance of Hofstede's MAS cultural value dimension for cross-cultural advertising research. Second, we tried to adopt relatively more explicit (e.g., the number of male and female characters depicted in the advertisement) than implicit categories such as level of sexism and gender traits presented in ads, which may have a different nuance across cultures. For all measures, we employed an etic (standard) measure to compare advertisements from different countries along the same objective criteria, which seems to be the appropriate method in cross-cultural research (van de Vijver and Leung 1997).

For intercoder reliability computation, we adopted Perreault and Leigh's (1989) Index (P/L Index). The P/L Index is appropriate when there are only two coders and items with nominal scales, which is the case in this study. In addition, the Index is known to be relatively rigorous and to take chance agreements into account (Rust and Cooil 1994). Overall intercoder agreement within each country ranges from .85 (Canada and South Korea) to .92 (the United States). All reliability coefficients exceeded the rule-of-thumb coefficient size, .70 (Rust and Cooil 1994). Table 1 shows intercoder reliability coefficients of the variables.

Table 1 Operational definitions and intercoder reliability of the variables used in the analyses

<i>Variables</i>	<i>Operational definitions and intercoder reliability</i>
Number of male models	0,1,2,3,4,5, ... More than 12 or crowd- 99 [Brazil = .92, Canada = .84, China = .93, Germany = .93, South Korea = .85, Thailand = .84, United States = .96]
Number of female models	0,1,2,3,4,5, ... More than 12 or crowd- 99 [Brazil = .92, Canada = .82, China = .92, Germany = .90, South Korea = .88, Thailand = .84, United States = .97]
Product type	Product type was classified from the coded 22 product categories into three: 1-Male products: alcohol, office supplies/stationeries, automobile, business/finance/insurance, computer, telecommunication, Internet companies ("com" companies) 2-Female products: food, home/kitchen goods, personal care, cosmetics, clothing/fashion, jewelry/watch 3-Neutral/other: Favorites/hobbies, education/publication, health/medicine, hotel/airlines/travel, electronics/home appliances, home/office furniture, entertainment, miscellaneous [Brazil = .91, Canada = .90, China = .92, Germany = .97, South Korea = .89, Thailand = .88, United States = .96]
<i>Gender-role portrayals</i>	
Prominent character gender	A character who is the most important, shown in the foreground or shown holding the product, or commenting on the product 0-male, 1-female, 2-both [Brazil = .89, Canada = .86, China = .95, Germany = .92, South Korea = .81, Thailand = .84, United States = .96]
Assisting character gender	A character who is assisting the major role. These characters are not spotlighted in the advertisement and do not hold the product 0-male, 1-female, 2-both [Brazil = .84, Canada = .86, China = .84, Germany = .86, South Korea = .81, Thailand = .81, United States = .95]
Prominent character occupation	1-Professionals: e.g., lawyer, doctor, musician, professor 2-Office workers: regular business people, secretary 3-Homemaker: portrayed in home setting or doing house work 4-Other (student, retired, not recognizable) [Brazil = .85, Canada = .83, China = .82, Germany = .84, South Korea = .86, Thailand = .74, United States = .80]
Voice-over gender	The sound of a human voice (or voices) over images shown on the commercial 1-Male 2-female, 3-both/mixed [Brazil = .92, Canada = .87, China = .86, Germany = .93, South Korea = .83, Thailand = .92, United States = .96]

The intercoder reliability was computed using Perreault and Leigh's (1989) Index (P/L Index)

Analytic Strategy

First, we considered the possibility that seasonality might be related to the types of products advertised. Our chi-square test with two (TV ads collected in summer vs. those in autumn) by two (product type: Female vs. male products) cross-tabulations indicated no statistical significance, chi-square (1)=.12, $p=.73$. Similarly, our series of one-way ANOVA tests indicated no statistical difference of prominent character gender, prominent character occupation, or voice-over gender across different lengths of ads or between TV stations within each country.

Next, we examined differences related to gender-role portrayals by country with a series of cross-tabulations (chi-square tests). We analyzed all of the ads that featured human models related to prominent character gender and occupation ($N=2,166$), and we used all the ads with voice-overs ($N=2,608$). We also tested the gender-role differences by product type (male, female, neutral/other) with all the countries' ads combined because this test examines a match-up between product type and gender of the prominent character and voice-over regardless of individual country.

To identify a relatively stronger determinant of gender-role portrayals, we conducted multinomial logistic regression analysis. Multinomial logistic regression seems appropriate for our analysis because it can deal with a categorical dependent variable with more than two categories on a set of categorical and interval independent variables (Menard 2002). This analysis has many similarities with Ordinary Least Squares (OLS) regression including coefficients for effect size and a pseudo R^2 statistic for the strength of the relationship. However, multinomial logistic regression does not make any assumptions of linearity, normal distributions, or homogeneity of variance (Fox 2000).

In our analysis, the prominent character gender and the voice-over gender served as two categorical dependent variables. Among the three classes (male, female, and both), regression analyses were performed for the first two classes with the "both" class as the reference group by default. Product type (male/female/neutral-other), the MAS Score, and the GDI Score for each country (see the Appendix) served as independent variables. In the regression models, product type (a categorical variable) was automatically treated as two dichotomous variables for male product and female product with the third category, neutral product, as a reference group. By contrast, the MAS and GDI Scores (higher scores indicating higher degrees of masculinity and gender equality, respectively) were treated as continuous covariates. These variables were entered simultaneously in the regression models.

Results

H1 and H2 Differences of Gender-role Portrayals by MAS and by the GDI

Hypothesis 1 predicted that ads in countries with higher MAS Scores would portray greater gender-role differences in terms of the prominent character gender, prominent character occupation, and voice-over gender. Similarly, Hypothesis 2 predicted that ads in countries with higher GDI Scores would portray fewer gender-role differences than ads in countries with higher GDI Scores. Table 2 reports descriptive statistics of prominent character gender and voice-over gender. Table 3 reports descriptive statistics of prominent character occupation in the order of the MAS Score ranking (also see the GDI Score ranking in the second column of Tables 2 and 3).

The first main chi-square analysis with prominent character gender by country shows that the frequency of male, female, and both as prominent character is statistically significant across the seven countries, $\chi^2(12)=50.76$, $p<.001$. However, the prominent character gender across the countries does not seem to match the predictions in the order of the MAS or GDI Score ranking (see the percentages in Table 2).

Post-hoc sub-group analyses show the mixed patterns in more detail. For example, South Korea was the most likely country to portray females as a prominent character. A post-hoc chi-square test between Korea and Germany by gender of the prominent character revealed that Korean ads portrayed females significantly more often than did German ads, $\chi^2(1)=4.64$, $p<.05$. Ads in Brazil portrayed the least proportion of females as prominent characters compared with the ads in the other six countries at face value. Indeed, the proportion of female portrayals in prominent roles within Brazilian ads is statistically lower than the proportion of such female portrayals in China, $\chi^2(1)=3.61$, $p=.05$. But post-hoc chi-square tests demonstrate that the proportion of prominent female portrayals in Brazilian ads is not statistically lower than that of the United States or Canada.

The second main chi-square statistic with voice-over gender by country revealed statistical significance, $\chi^2(12)=488.23$, $p<.001$. The pattern of difference seems inconsistent with the MAS and GDI rankings of the countries. For example, South Korea is the only country to employ more female than male voice-overs or both male and female voice-overs simultaneously (see the proportion of voice-over gender in Table 2). Ads in the rest of the six countries predominately employ male voice-overs, and only a small number of ads employ both male and female voice-overs simultaneously.

The third main chi-square test with prominent character occupation by country indicated statistical significance,

Table 2 Prominent character gender and voice-over gender across the seven countries

	GDI Score(ranking)	Gender	Prominent character % (<i>n</i> =2,166) ^a	Assisting character	Voice-over gender % (<i>n</i> =2,608) ^b
Germany (<i>n</i> =182)	.92 (3)	Male	45.9	37.5	78.7
		Female	36.5	19.4	20.2
		Both	17.6	43.1	1.1
United States (<i>n</i> =218)	.94 (1)	Male	38.9	27.8	72.8
		Female	30.2	11.1	27.2
		Both	31.0	61.1	.0
China (<i>n</i> =434)	.74 (7)	Male	41.9	25.0	85.9
		Female	31.9	23.1	12.7
		Both	26.2	51.9	1.4
Canada (<i>n</i> =856)	.94 (1)	Male	47.3	28.9	81.6
		Female	30.3	27.7	18.0
		Both	22.4	43.4	.4
Brazil (<i>n</i> =177)	.77 (5)	Male	51.6	50.0	84.6
		Female	23.8	36.3	11.9
		Both	34.6	13.8	3.5
South Korea (<i>n</i> =469)	.88 (4)	Male	31.7	30.4	35.3
		Female	40.0	24.3	52.8
		Both	28.3	45.3	11.9
Thailand (<i>n</i> =272)	.77 (5)	Male	49.8	26.4	84.9
		Female	34.3	36.2	13.7
		Both	15.9	37.4	1.5

The countries are ordered following the ranking of the MAS Score (the higher rank, the more masculine, hence least egalitarian in terms of gender roles). The GDI Score indicates that, the higher score, the more gender equality

^a The number of ads that employ human models only: Brazil=153, Canada=750, China=284, Germany=150, South Korea=444, Thailand=258, United States=127

^b Within each country, the percentage was compared among male, female, and both

Table 3 Prominent character occupation in advertising by country (*n*=2,166)

	GDI Score (ranking)	Gender	Professional %	Office worker %	House keeper %
Germany (<i>n</i> =150)	.92 (3)	Male	60.9	10.1	.0
		Female	42.6	1.9	13.0
United States (<i>n</i> =127)	.94 (1)	Male	13.9	55.6	1.4
		Female	5.4	45.9	32.4
China (<i>n</i> =284)	.74 (7)	Male	43.0	19.6	.9
		Female	12.0	44.6	9.6
Canada (<i>n</i> =750)	.94 (1)	Male	41.3	30.8	.6
		Female	29.0	22.8	12.1
Brazil (<i>n</i> =153)	.77 (5)	Male	51.7	41.4	.0
		Female	91.7	8.3	.0
South Korea (<i>n</i> =444)	.88 (4)	Male	40.1	46.0	1.5
		Female	8.6	24.1	47.7
Thailand (<i>n</i> =258)	.77 (5)	Male	45.9	37.7	4.9
		Female	20.9	16.3	34.9

The countries are ordered following the ranking of the MAS Score (the higher rank, the more masculine, hence least egalitarian in terms of gender roles). The GDI Score indicates that, the higher score, the more gender equality

The percentages were compared within country across four prominent character occupation categories (the three presented above plus an “other” category that is not reported here)

$\chi^2(18)=97.04, p<.001$ (for male prominent character) and $\chi^2(18)=190.75, p<.001$ (for female prominent character). But the patterns do not clearly support Hypotheses 1 and 2. Table 3 shows the frequency of prominent character occupation in each country. Notably, German and Brazilian ads tend to portray males and females as professional workers more so than any other prominent character occupations (post-hoc within-country chi-square statistics: $\chi^2(2)=5.89, p=.05$ for Brazil; $\chi^2(3)=15.82, p<.001$ for Germany). Despite the fact that China has the lowest GDI, only 9.6% of female models in Chinese ads are portrayed as homemakers, as opposed to the much larger proportion of females portrayed as homemakers in South Korea, in Thailand, and in the United States. Overall, Hypotheses 1 and 2 are not supported.

H3 Differences of Gender-role Portrayals by Product Type

Hypothesis 3 predicted that there would be congruence between product type (gender of the typical user) and gender-role portrayals such that ads for “female” product types would portray females more frequently than males as prominent characters and as voice-overs and vice versa. Table 4 reports our descriptive statistics results with a pooled sample (i.e., all country scores combined).

Chi-square tests indicate that there are statistically significant differences of the associations both with prominent character gender by product type, $\chi^2(4)=106.6, p<.001$, and with voice-over gender by product type, $\chi^2(4)=86.5, p<.001$. For male product ads, male models are featured as prominent characters more often than female models. Ads for male products also use male voice-overs more frequently than female voice-overs. For female products, by contrast, female models seem to play prominent characters more frequently than male models. Male voices are more prevalently used than female voices, even for female products, but this result may be due to the fact that, overall, male voice-over is much more frequently used than female voice-over (Total $N=1,812$ and 585, respectively). When the usage of a female voice-over is

compared between male and female products, a female voice-over tends to appear more often in female product ads (46.7%, $n=273$) than in male product ads (22.9%, $n=134$). Thus, in general, Hypothesis 3 was supported.

RQ1 Predictors of Gender-role Portrayals

After examination of descriptive statistics with regards to gender-role portrayals by the MAS Score, the GDI Score, and product type, it is logical to ask which of the three factors plays the strongest role in predicting gender-role portrayals. Tables 5 and 6 present multinomial logistic regression results for prominent character gender and voice-over gender.

First, our full regression model for prominent character gender indicates that it is statistically well-fitted, $\chi^2(8)=114.65, p<.001$, Nagelkerke $R=.07$. Parameter estimates indicate that product type seems to be the most consistently significant predictor of the gender that is portrayed as a prominent character in the ad. Advertising a male product is significantly related to depicting a male model as the prominent character such that the odds a male product ad will have a male model as the prominent character is 1.53 times the odds that a neutral product ad will have a male model, odds ratio [OR]=1.53, $p<.05$, 95% confidence interval [CI]=(1.17, 2.02). Likewise, female product ads are more likely to show female models as prominent characters as compared to neutral product ads, OR=2.74, $p<.05$, CI=(2.09, 3.59). The predictive roles of the MAS cultural dimension and GDI seem minimal.

Second, our full regression model for voice-over gender also indicates that it is well-fitted, $\chi^2(8)=214.34, p<.001$, Nagelkerke $R=.15$. Parameter estimates show that the MAS Score is significantly related to both males, OR=1.14, $p<.05$, CI=(1.10, 1.18), and females, OR=1.08, $p<.05$, CI=(1.04, 1.12), as voice-overs. The MAS Score increases the odds of using a male voice-over by about 14% and the odds of using a female voice by about 8%. In addition, the odds of using a male voice-over significantly increase as each score of the GDI drops, OR=.00, $p<.05$, CI=(.00, .10).

Table 4 Gender-role portrayals by product type (gender of typical user)

		Male product % (n)	Female product % (n)	Neutral product % (n)
Prominent character gender (n=2,166)	Male	52.8 (265)	33.0 (239)	46.5 (404)
	Female	25.7 (129)	47.0 (340)	25.7 (223)
	Both	21.5 (108)	20.0 (145)	27.8 (242)
Voice-over gender (n=2,608)	Male	73.0 (446)	63.6 (513)	80.9 (853)
	Female	21.9 (134)	33.9 (273)	16.9 (178)
	Both	4.1 (31)	2.5 (20)	2.3 (24)

For prominent character gender, $\chi^2(4)=106.6$; for voice-over gender, $\chi^2(4)=86.5$, both at $p<.001$. Percentage was compared among male, female, and both within each product type

Table 5 Multinomial logistic regression results for prominent character gender

Predictors	Class=Male					Class=Female				
	B	S.E.	Odds ratio [OR]	CI		B	S.E.	Odds ratio [OR]	CI	
				Lower	Upper				Lower	Upper
MAS cultural dimension	.01	.01	1.01	1.00	1.02	−.01	.01	.99	.98	1.00
GDI	−.73	.76	.48	.11	2.13	1.28	.83	3.59	.71	18.23
Product type [Male]	.43	.14	1.53*	1.17	2.02	.29	.16	1.33	.97	1.83
Product type [Female]	−.02	.13	.99	.76	1.28	1.01	.14	2.74*	2.09	3.59
χ^2 (4)	214.34***									
Nagelkerke R ²	.06									

For the dependent variable, Class 3=both male and female serves as a reference group

For “product type” as an independent variable, Class 3=neutral product serves as a reference group

* $p < .05$, ** $p < .01$, *** $p < .001$

Product type also seems to predict the use of male or female voice-over. Female product ads are significantly related to female voice-overs so that the odds that female product ads use a female voice-over are 2.44 times the odds of neutral product ads, $OR=2.44$, $p < .05$, $CI=(1.26, 4.65)$.

Discussion

We examined male and female role portrayals across the seven countries by testing the descriptive *and* predictive roles of country-level (GDI) and execution-level (product type) factors, beyond Hofstede’s MAS cultural value dimension. Our results show that the Gender of Nations (Hofstede’s MAS) cultural value dimension, as predicted in Hypothesis 1, explains a few of the different gender-role portrayals in some countries, but none at all in others. These results are in line with previous studies that have found some inconsistent results when using this cultural dimension (e.g., Milner 2005; Milner and Collins 2000;

Oderkerken-Schröder et al. 2002). The little explanatory value of the MAS dimension seems more pronounced because we compared multiple countries. For instance, if our research had presented a typical two-country comparison between a high masculine country (e.g., the United States) and a more feminine country (e.g., South Korea), as the most popular pairs in cross-cultural advertising research, we might have concluded that the MAS framework worked (as did in the study by An and Kim 2007). This conclusion would have been based on a Gender of Nations framework (Milner and Collins 2000). However, when ads in Thailand, as the least masculine (and more feminine country than South Korea) were examined together, the prediction by the MAS does not work anymore. Also, despite the fact that Germany and Thailand vary greatly in MAS Scores, their television advertisements showed similar levels of gender inequality with males featured more often in prominent and professional roles than females. Accordingly, a more complex picture is introduced when ads in the other countries are compared together.

Table 6 Multinomial logistic regression results for voice-over gender

Predictors	Class 1=Male					Class 2=Female				
	B	S.E.	Odds ratio	CI		B	S.E.	Odds ratio	CI	
				Lower	Upper				Lower	Upper
MAS cultural dimension	.13	.02	1.14*	1.10	1.18	.08	.02	1.08*	1.04	1.12
GDI	−6.67	2.20	.00*	.00	.10	−.10	2.27	.91	.01	77.77
Product type [Male]	−.53	.29	.59	.33	1.04	−.22	.31	.81	.44	1.46
Product type [Female]	−.14	.32	.87	.46	1.63	.89	.33	2.44*	1.28	4.65
χ^2 (4)	214.34***									
Nagelkerke R ²	.15									

For the dependent variable, Class 3=both male and female serves as a reference group

For “product type” as an independent variable, Class 3=neutral product serves as a reference group

* $p < .05$, ** $p < .01$, *** $p < .001$

To move beyond the MAS cultural value dimension, we introduced the Gender-related Development Index (GDI). As we discussed earlier, cross-cultural advertising scholars have argued that a society's stage of gender development and equality, as well as political and economic development, may be related to the values and representations that advertising reflect in that society (de Mooij 2004; Frith and Mueller 2003; Furnham and Mak 1999; Huang 1995). Our inclusion of the GDI is a small step to acknowledge the complex roles of advertising as a societal mirror as the GDI played a partial role in predicting gender-role portrayals, at least for voice-overs. Future studies should invite other factors that are closely related to individuals' lifestyles and perceptions of gender-role portrayals in advertising across cultures.

However, the relatively small predictive value of the cultural-value and country-level factors may imply that, even though advertising across cultures may vary by their cultural values and norms to some extent, some advertising characteristics and executions might be universal (Dallmann 2001). For example, one common practice of advertising includes a match-up between portrayals of male and female models and product type (gender of the typical user) (Nelson and Paek 2008). Then, it makes sense to examine product type as another important predictor of gender-role representations across countries.

Indeed, in our regression analyses, product type was found to be the most consistent predictor of prominent character gender and voice-over gender among cultural, country-level, and execution-level factors. Consistent with previous research (Allison et al. 1980; Alreck 1994; Whipple and McManamon 2002), our findings indicate that the match up or congruence between gender-role portrayal and product type matters. Advertisers across countries seem to practice widely consistent role portrayals of human models in their advertising to match the advertised products. Thus, the same systematic patterns may surface regarding stereotypical images of gender representations across types of products (e.g., Ford et al. 2004). The broader cultural significance of this finding relates to the overreliance on gendered product use stereotypes in the advertising industry regardless of cultural values or changing gender-role identities within or across countries. These depictions are likely to limit the consumption roles that females or males initiate (e.g., women learning about automobiles) and likely also limit the target audiences that marketers reach. Put another way, it makes sense for marketers to depict a wider range of gender roles in their advertising for social responsibility and for profit. For instance, despite the recent downward sales trends related to body spray (Neff 2008), the typically "female" beauty product category had extended their profit potential by expanding to male audiences. Similarly, in the United

States, feminine-domestic icon Martha Stewart has joined a usually "male" product category, the home improvement store chain *The Home Depot Inc.*, on a joint marketing venture in order to reach women (Anderson 2009).

Our findings also reveal that men are still predominately featured in advertising. However, while males are featured to a greater extent as prominent characters than are females across most of the countries examined here, the case of South Korean ads is interesting. In this country, females were more likely than males to be featured as prominent characters and in voice-overs. Such findings are consistent with previous studies of advertising content in South Korea (e.g., An and Kim 2007; Kim and Lowry 2005) and may reflect the economic and employment advances among Korean women. These portrayals in South Korean ads may also be due to the fact that, as a low-masculine country, Koreans highly value harmonious gender relations and regard female voices as conveying a "softer touch" (Lin 1993, p. 46; also see de Mooij 2004). However, Korean women still tend to be featured as traditional homemakers, which implies that, although women may be seen and heard just as frequently or more frequently than men in the South Korean TV ads, the ways in which they are portrayed mainly adhere to traditional roles.

Interestingly, Chinese women do not appear as homemakers nearly as frequently as women do in South Korean and Thai ads. Although traditionally influenced by Confucianism, where gender roles are strictly divided, China has formed its unique gender role norms under the Communist influence. The Communist-led government in China made an effort to use the women's workforce and expand women's roles outside the family to become economically productive (Lindsey 2005). Further, Milner and Fodness (1996) note that the Cultural Revolution (1966–1976) with its antimaterialism ethos, minimized visual differences between men and women by requiring that everyone wore generic 'worker' clothes or 'Mao' suits and forbidding women to use make-up. Our findings relate to this claim of women's roles outside the family in that Chinese ads were more likely to portray women as workers rather than as homemakers, which is different from the other Asian countries.

Although space limitations preclude a complete discussion of the advertising in each of the remaining five countries, a few observations are noteworthy. Namely, our results for Germany are quite consistent with past research findings, especially with respect to gender-role depictions in the workplace (e.g., Dallmann 2001). Also, in line with our results, Döring and Pöschl (2006) showed that German print ads for a 'male' product of mobile communications revealed evidence of gender-role stereotypes. That is, men were more likely to be depicted in occupation settings, whereas women played a more decorative role. However,

presentation of gender-role portrayals in Brazil was not consistent with recent findings. Acevedo et al. (2006) examined female portrayals in a content analysis of Brazilian television advertisements. Although their findings revealed that some specific images have changed lately (e.g., “ritualization of subordination” declined), in general, women in ads are still idealized and stereotyped as being dependent on men, physically beautiful and perfect, and unintelligent or irrational. Thus, regardless of some gains for women, the depictions in advertising do not support those trends.

Limitations and Future Research

Despite the significant positive relationships between product type and gender-role portrayal, the product type gender classification used in this study should be investigated more closely. In addition, by taking an etic approach to examining gender-role portrayals across the seven countries, we followed the assumption that some products are gender dominant over others (Allison et al. 1980; Alreck et al. 1982; Bellizzi and Milner 1991). That is, although some products are no longer gender exclusive, they are perceived as more masculine while others are perceived as more feminine. Gender is still a key positioning variable when some ads portray a particular gender as the typical user of specific products (Debevec and Iyer 1986). But some different views may surface as to what constitutes product type (e.g., Worth et al. 1992). For instance, Grubb and Grathwohl (1967) referred to a product’s “symbolic image” to establish consumer behavior (e.g., the purchase of products with a symbolic image that emphasizes how individuals and others perceive them). Further, Schenk and Holman (1980) discussed the purchase of products as related to how individuals express their self-image (i.e., an ideal or possible self). Second, our etic measures to compare classifications such as prominent character gender and prominent character occupation across countries may have missed nuanced meanings within each country. For example, an emic approach of the role of occupation or of additional gender roles could offer other ways of understanding gender roles including homosexual roles within occupation, home, and leisure settings (Kates 2002). Future content analyses should capture more nuanced categories and seek out evidence for the intended target audience.

Third, while we examined seven countries that range in cultural values and gender-equality development, they do not capture the entire range of the Masculinity cultural value dimension. Despite the extreme difficulty of comparing multiple countries, future research might employ additional countries that score very low in Masculinity (e.g., Norway) and those that scored very high on this index (e.g., Japan) to

test our findings. In addition, cross-cultural research has employed the Gender of Nations framework (or the Masculinity cultural value dimension) to understand cultural differences presented in advertising. With rapid changes in the global advertising environment, the expansion of international markets and the interconnectivity among nations, advertising across cultures may have presented *transnational*, thus *similar*, values and norms. Future research could explore the extent to which advertising in a given country has changed over time using longitudinal data. In addition, research could examine whether the gender-role portrayals or other kinds of advertising presentations differ by product nationality (see Nelson and Paek 2007).

Fourth, the total variance explained in our regression models is rather small (15% for voice-over gender and 7% for prominent character gender). Low R^2 values do not necessarily mean that the predictors examined are not important because “effects explaining as little as 5 percent (perhaps even 1%) of variance may well be considered either theoretically or practically important” (Green et al. 1988, p. 489). Future studies should invite additional factors that are related to decision making behind gender-role portrayals, which may include socioeconomic, cultural, and execution-related factors.

Fifth, our sample ads in Canada, Germany, and the United States were collected in November, which is often a ratings sweeps month when the Nielsen ratings company assesses viewing audiences. Thus, samples collected from this month may be different from those from other months, which may reduce the generalizability and the comparability of our findings within and across the countries. Future research should strive for a more rigorous sampling procedure to overcome our limitation.

Lastly, while content analysis offers an overview of the frequencies of gender-role presentations and shows us what is currently being practiced, it cannot illuminate the intent of the advertiser or the effectiveness of role portrayals in communicating with their target audiences. A few studies tested how gender portrayals in ads affected audience evaluations of the ads (Hoy et al. 2000, for Thai ads; Whipple and McManamon 2002 for United States ads) or how advertisements altered audience perceptions of gender images (Debevec and Iyer 1986 for United States). While cross-cultural empirical research is lacking (see Ford et al. 1994 for one exception), one relevant question would be to unveil whether individuals’ perceptions of gender portrayals in ads also correspond to a more “realistic” and “non-offensive” role played by women and men in different cultures (Hoy et al. 2000, p. 61). Audience response studies across countries would also help researchers to understand whether presentations observed in the content-analytic studies indeed lead people to think and behave similarly regarding gender roles.

Appendix: Overview of the seven countries

Location	Brazil South America	Canada North America	China East Asia	Germany Western Europe	South Korea East Asia	Thailand Southeast Asia	United States North America
Total advertising spending (2004, unit: million) ^a	4,761	6,381	9,036	18,309	6,386	2,050	161,487
Gender-related Development Index (GDI) ^b	0.768	0.941	0.741	0.921	0.882	0.766	0.941
Hofstede Masculinity (MAS) Score ^c	49	52	55	66	39	34	62
TV stations where commercials were collected	CH12 (Globo), 7 (Bandeirantes), 5 (SBT), 2 (Record)	CBC, CTV, CFCN, GlobalTV, A Channel	CCTV-1, 2, 5	Montag, ZDF, RTL, SAT1	MBC, KBS2, SBS	Thai 2,3,4,5,9	ABC, FOX
Sampling time frame & hours/day	July for 4 days (3-hour prime-time/day = 12 hours total)	November for 5 days (5-hour prime-time/day = 25 hours total)	July for 4 days (3-hour prime-time/day = 12 hours total)	November for 4 days (3-hour prime-time/day = 12 hours total)	July for 6 days (3-hour prime-time/day = 18 hours total)	July for 6 days (3-hour prime-time/day = 18 hours total)	November for 2 days (5-hour prime-time/day = 10 hours total)

^a Jeon, S. (Ed.) (2006). Business Dictionary by the Economist (pp. 85–86). Seoul, Korea: Window for the Future

^b United Nations Development Program (UNDP 2002). *Human development report*. New York, NY: Oxford University Press

^c Mueller, B. (2004). *Dynamics of international advertising: Theoretical and practical perspectives*. Peter Lang, New York, NY. This Score is based on the 74 country rankings and indicates a degree of gender differentiation of roles. Thus, it is expected that ads in the countries with a relatively high MAS Score may show greater gender differentiation than ads in those with a relatively low MAS Score

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