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# Gender role portrayals in television advertisements: Do channel characteristics matter?

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**Abstract:** In the present study we investigated the role of channel characteristics with regard to gender role portrayals in television advertisements. Drawing on cultivation theory and social cognitive theory, we investigated six key variables in this line of research. We sampled a total of N = 1022 advertisements from four Austrian television channels: a public service channel, a commercial channel, and one commercial special interest channel for men and for women, respectively. Our results replicate well-known stereotypic gender role portrayals prevalent in television advertisements. The public service channel and the private channel did not differentiate from each other with regards to gender stereotyping. We found that a channel with a female target group aired advertisements containing the same or even amplified stereotypes compared to a male channel. The potential negative effects of stereotypic gender role portrayals in television advertisements are discussed.

**Keywords:** gender roles, stereotypes, TV advertisements, content analysis

## Introduction

Numerous findings from content analyses indicate that stereotypic gender role portrayals are prevalent in mass media and, specifically, in television advertisements (Collins, 2011). In fact, gender stereotyping in television advertisements has been found around the globe (e. g., Matthes, Prieler, and Adam, 2016). Despite extensive research on gender roles and gender stereotypes in advertisements, at least two research gaps can be identified. First, although public service television

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channels cover a crucial part of Europeans' daily media diet, content analytical studies either have focused on commercial (i. e., private) television channels or did not compare public channels with commercial channels. Although in some European countries (i. e., in the UK, Denmark, Norway) public service broadcasters are not permitted to generate commercial funds (or their capacity to do so is highly restricted), in many other European countries, public service broadcasters very much depend on advertising activities (e. g., in Austria, Ireland, Spain, and Switzerland). Yet only one study compared advertisements between public service and private television (Knoll, Eisend, and Steinhagen, 2011). It is important to study potential differences, because, compared to private broadcasters, public service broadcasters need to follow several regulations with regards to aired content, appearance, and advertising (Berg and Lund, 2012). Also, public channels typically have a different audience structure than private channels (Krüger, 2016; Zubayr and Gerhard, 2016). Together, these contextual factors might determine the advertising content.

Second, research on television advertisements specifically targeted at women or men is entirely missing. This question is important because it can be assumed that gender role stereotypes vary on channels specifically targeted at women or men. As a result of the switchover to digital television, more channels have emerged on the television market (Iosifidis, 2011). Collins (2011) argues that the increased number of channels provides additional opportunities for women to be represented. In a similar vein, Verhellen, Dens, and de Pelsmacker (2014) specify that "it would be very interesting to see whether gender stereotyping varies over commercials broadcast across different types of commercial television" (p. 16). Research on print advertisements in women's and men's magazines is well-established (e. g., Zotos and Tschla, 2014). However, no study so far has examined television. Thus, the analysis of special interest channels for men and for women may deliver insightful results on how gender roles are reflected.

The present study aims to address these research gaps by analyzing gender role portrayals in advertisements from public, private, men's and women's television channels in Austria. Thus, we react to the call for more research on within-country channel differences (e. g., Verhellen et al., 2014).

## Gender role portrayals in television advertisements

As in most European countries, television is—even in a digital age—very popular in Austria. Almost 100 percent (98.0 %) of all households possess a television set, and Austrians spend about 178 minutes per day watching television (Media-research ORF 2016, 2018). Given the popularity of television, advertisements are ascribed an important impact on the socialization of gender roles. From the perspective of cultivation theory, television portrayals contribute to the perception of social reality (Gerbner, 1998). It is assumed that cultivation effects depend on the extent to which recipients rely on television as a source of information. Accordingly, frequent viewing of television programs may lead consumers to believe that the real world presents the characteristics of the television world. Empirical data support the cultivation hypothesis showing that television use has a small to moderate positive effect on viewer's gender role attitudes (Herrett-Skjellum and Alien, 1996; Morgan and Shanahan, 1997; Oppliger, 2007). Furthermore, referring to social cognitive theory, advertisements provide a framework on how gender roles are defined and perceived (Bussey and Bandura, 1999), and affect viewers' perceptions about what is desirable and normal (Bandura, 2009). Men and women appearing in advertisements may serve to viewers as role models. As a consequence, viewers model their behavior according to their observations and learn what it means to behave as “female” and “male”. It is further assumed that same-sex media models and similarity to media models increase the likelihood of the behavior shown being emulated (Bussey and Bandura, 1999). Empirical research provides support for the theoretical framework suggesting that exposure to stereotypical and sexist television content increases viewers' conformity to existing gender role norms (e. g., Galdi, Maass, and Cadinu, 2014; Rollero, 2013; Rudman and Borgida, 1995; Trekels, Karsay, Eggermont, and Vandenbosch, 2018).

### The Austrian context

All EU member states, including Austria, and most of the other European States run a dual broadcasting system, which is marked by the coexistence of public service and commercial broadcasters (Berka and Tretter, 2013). The Austrian public service channels from the ORF dominate the television market, having a market share of 35.3 %. Because foreign (i. e., German) channels are very popular, the commercial Austrian channels register 3.0 % market share or less (Horizont, 2016). Similar to many other public broadcasters in Europe (e. g., in

France, Germany, Ireland, Italy, Spain, and Switzerland), the ORF relies on two sources of financing: license fees/public funds and commercial revenues such as advertising and sponsoring activities (Berg and Lund, 2012). When it comes to advertising, the Austrian public service channel has to meet stricter regulations compared to private television channels. The ORF is limited to a maximum of 42 minutes of advertisements per day and channel (ORF-G, 2010), whereas private channels are restricted to a maximum of 12 minutes of advertisements per hour (AMD-G, 2010).

According to Hofstede's (1984, 2001) cultural assessment, Austria scores high in masculinity (i. e., score 79; index ranging from 0 to 100) on the masculinity-femininity-dimension. The masculinity-femininity-dimension addresses how a "society allocates social (as opposed to biological) roles to the sexes" (Hofstede, 1984, p. 84). Masculine societies are described as societies in which traditional gender roles are commonly present, and where men tend to have outgoing and assertive roles, whereas women occupy caring and nurturing roles (Hofstede, 1984). Various domains of political, economic, and social power reflect Hofstede's culture classification of Austria. For instance, women are poorly represented in the parliament, with only 30.6 % of the parliamentary seats held by women (Parliament, 2016). The Gender Pay Gap Report ranked Austria 26<sup>th</sup> among the 28 EU member states, indicating that women earn considerably less money than men (Eurostat, 2016). In addition, the Gender Equality Index showed that between 2005 and 2012, Austrian women spent 38 % more time than men on childcare and domestic activities, but 5 % less time on social activities than men (Humbert, Ivaškaitė-Tamošiūnė, Oetke, and Paats, 2015).

Together, the literature suggests that Austria faces several issues with regards to gender equality, which might be reflected in stereotypical gender role portrayals in advertisements. Thus, in order to derive hypotheses about gender role portrayals in Austrian advertisements, we relied on Hofstede's (1984, 2001) assessment of Austria on the masculinity-femininity-dimension as well as on research findings of countries from the same cultural region, that is, Western and Central Europe (e. g., Furnham, Babitzkow, and Uguccioni, 2000; Knoll et al., 2011; Matthes et al., 2016; Nassif and Gunter, 2008; Paek, Nelson, and Vilela, 2011; Verhellen et al., 2014). For our study, we included the key variables that are operationalized in this line of research: Gender representation of the primary character, voiceover, product category, the dominant setting, age, and clothing (see for this selection, Collins, 2011; Matthes et al., 2016).

## Gender differences for primary character and voiceover

According to cultivation theory, the frequency and prominence of the representation of social groups in the media serve as an indicator of the group's importance and dominance in a society (Gerbner, 1998). A representation bias of a certain gender in advertisements might foster the audience's perception that, for instance, women are less valued and less important in a society. Against that background, gender distribution of the primary character in advertisements has been examined in many studies (e. g., Matthes et al., 2016). Yet for Western Europe, current results are inconclusive. In some countries, the gender distribution was balanced, as in Belgium (Verhellen et al., 2014), the UK (e. g., Nassif and Gunter, 2008), Denmark (Furnham et al., 2000), or France (Furnham et al., 2000). However, in Germany (Knoll et al., 2011; Paek et al., 2011) or in an earlier study from the UK (Furnham and Saar, 2005), more male than female characters were shown. Drawing on Hofstede's (2001) framework of the masculinity-femininity-dimension, Austria represents a masculine society which favors traditional gender roles. Thus, we formulate the following hypothesis:

H1: More male than female primary characters will be shown in Austrian television advertisements.

When it comes to voiceover, again, cultivation theory (Gerbner, 1998) can be applied. A disproportional use of male voiceovers in advertisements might cultivate the impression among viewers that men are supposed to have greater value than women. An imbalance in favor of men is a consistent finding for many European countries. A gender bias was shown in Denmark (Furnham et al., 2000), France (Furnham et al., 2000), Germany (Matthes et al., 2016; Paek et al., 2011), and the UK (e. g., Nassif and Gunter, 2008). Given these straightforward empirical findings and the fact that Austria is marked by a masculine society (Hofstede, 2001), we postulate the following hypothesis:

H2: There will be more male voiceovers than female voiceovers in Austrian television advertisements.

## Gender differences for product categories and setting

We expect that female characters, in contrast to male characters, will be more often associated with domestic products, such as products for body care, toiletries, cleaning products, and kitchenware. Men will be associated with telecommunications, technological products, and cars. Gender differences for product

categories have been shown for almost all European countries analyzed (e.g., Furnham et al., 2000; Knoll et al., 2011; Matthes et al., 2016; Verhellen et al., 2014). However, no associations between product category and primary character were found in Denmark (Furnham et al., 2000) or in the UK (Nassif and Gunter, 2008). Yet according to the Gender Equality Index, women in Austria spend more time on child care, cooking, and housework than men. Men are more likely to spend time on sports, cultural activities or leisure activities (Humbert et al., 2015).

H3a: Female characters are more likely to be seen in advertisements for beauty products and cleaning products compared to male characters.

H3b: Male characters are more likely to be seen in advertisements for technology products and cars compared to female characters.

What is more, findings from previous content analyses consistently showed that women are overrepresented in domestic/home settings, although professional roles for women in Western societies have broadly expanded (e.g., Collins, 2011). According to Hofstede (1984), in masculine societies, like Austria, women are given caring and nurturing roles. Therefore, we expected women to be shown more often in a home setting, and men to be shown more often in a workplace setting, as full gender equality in work-related domains is lacking in Austria (Humbert et al., 2015). Furthermore, Austrian men spend slightly more time (5%) on leisure activities than women (Humbert et al., 2015), which might be reflected in the dominant setting of advertisements. Previous content analyses of British advertisements (e.g., Aronovsky and Furnham, 2008; Nassif and Gunter, 2008) indicate that men are more commonly depicted in outdoor settings than women. We postulate the following three hypotheses with regard to the dominant setting:

H4a: More women than men will be shown in a home setting.

H4b: More men than women will be shown in a workplace setting.

H4c: More men than women will be shown in an outdoor setting.

## Gender differences for age and clothing

When it comes to aspects of physicality and outward appearance (i.e., clothing), previous results from content analyses in Western Europe are unmistakable. Women are younger and expose more skin than men (Collins, 2011). Because of the persisting results in that direction, we did not expect deviating results for Austria. Hence, we formulated the following hypotheses:

H5: Female characters will more likely be younger than male characters.

H6: Female characters will expose more skin than male characters.

## Public and private television

Several regulatory levels characterize the European broadcasting market. They include EU directives (e. g., European Parliament 2005, 2010a), federal acts (e. g., for Austria: Austrian Broadcasting Corporation Act [ORF-G, 2010], Audio-visual Media Services Act [AMD-G, 2010]), and European as well as national self-regulatory advertising standards (e. g., European Advertising Standard Alliance, 2016; European Group of Television Advertising, 2016). Public service broadcasters are bound to several specific directives. They are expected to deliver “high-quality programming and journalism regardless of commercial considerations or political influence” (European Parliament, 2010b, section 10). For instance, in Austria public service television is legally bound to inform and educate the public – in an unbiased manner. The high-quality content and appearance should underline its distinctiveness from commercial television channels (ORF-G, 2010). Additionally, all members of the European Broadcasting Union (including the ORF) signed a declaration on several core values of public service media. The declaration includes the principle of universality which subsumes the aim for “inclusion and social cohesion” (EBU, 2012, p. 4) of all citizens. In consequence, public service channels show more information-related content than private channels, whereas private channels tend to focus on entertainment (Krüger, 2016), which also applies for the Austrian channels under investigation (Woelke, 2012). Directly linked to the program content is the audience structure: Usually, public service channels attract an older audience than commercial channels; commercial channels are interesting for younger television viewers (Zubayr and Gerhard, 2016). Although in Austria information on the audience structure for television channels is not publicly available, it can be assumed from other European countries that the audience structure differs between the information-orientated public channels and the entertainment-focused commercial channels.

Based on the regulations for public broadcasters outlined above, the self-commitment of public broadcasters in Europe and the different audience structure to commercial channels, it is important to ask whether public television channels differ from private ones when it comes to gender roles in television advertisements.

There may be several reasons for such a difference. First, one could assume that program directors at commercial channels might not attach particular importance to the specific advertising content that is shown. Directors at public service channels, by contrast, are bound to the core values of public service media. They may thus, at least in theory, choose not to broadcast commercials with offensive or inadequate content (i. e., very strongly stereotypical depictions). Second, as explained above, public channels are subject to restrictions with regards to the amount of advertising they are allowed to show. Typically, public channels have less advertising airtime to offer compared to commercial channels. The regulations might place public channels in a situation which allows them to choose those advertisements that fit most according to their values. Third, private channels have a different audience than public service ones (Zubayr and Gerhard, 2016). Hence, advertisers may choose to target those groups with specific content. Since we lack systematic research about differences between the two channel types, this line of reasoning is mere speculation.

In contrast, it could be argued that both public and private channels do not have a strong impact on the content of advertisements aired unless they provide an ethical charter that obliges companies to live by the rules in order to buy airtime. Presumably, in most countries such charters do not exist. According to our investigation, in Austria such an ethical charter does not exist for the public channel – at least it is not publicly available. However, it cannot be excluded that such a guideline is available internally. Furthermore, from a business-logic point of view the advertising industry aims to reduce production costs, and thus it is rather unlikely that companies adapt and differentiate their advertisements for different channels. Most of the existing content analyses on gender stereotypes in advertisements in Europe have focused on private channels (e. g., Furnham and Spencer-Bowdage, 2002; Verhellen et al., 2014). Only a few studies have included private channels as well as public service channels (e. g., Ibroscheva, 2007; Matthes et al., 2016; Neto and Pinto, 1998). Without any knowledge of potential differences between private and public service channels, we may not be able to generalize previous findings.

To our knowledge, only one study systematically examined the differences between public service television and private television in Germany. Knoll et al. (2011) found that stereotyping is prevalent on both kinds of channel, but on different levels. The public service channel depicted more pronounced stereotypes with regard to occupational status compared to the private channel. That is, the significant changes of the occupational status of women in Western societies were disregarded in advertisements from public service channels (Knoll et al., 2011). Stereotyping on the private channel relied more on role behav-

ior and physical characteristics. Because of the scarce empirical evidence, we refrained from formulating a hypothesis and posed a first research question instead:

RQ1: Do gender role portrayals and advertisements differ between public service and private television channels?

## Special interest programs for women and for men

As the media industry faces increasing differentiation of commercial programs, television channels focusing only on men or on women as a target group have surfaced. The analysis of these channels is important, because special interest channels provide additional opportunity for women and men to be represented. However, previous qualitative research informs us that stereotypic gender roles are perpetuated on special interest channels for men and for women. For example, in the U.S., Walton and Potvin (2009) warned that the men's channel Spike TV "replicates and normalizes dominant social narratives of masculinity that endorse sexism, control, and dominance and it does so for a mass, contemporary audience" (p. 11).

Nevertheless, we do not know how gender roles are portrayed in advertisements on special interest channels for men and for women. One could assume that the advertising industry reacts to the attitudes and preferences with regard to advertising content of men and women (Putrevu, 2008). On the one hand, the distribution of gender portrayals might be more balanced on a women's channel in order to be more appealing to the target group. On the other hand, it cannot be ruled out that a women's channel reinforces existing gender stereotypes. In fact, results from content analyses of magazine advertisements show that stereotypic portrayals tend to persist in women's *and* men's media (e.g., Stankiewicz and Rosselli, 2008). It remains unclear if and how these findings can be generalized to television, and more research is needed. Because previous research is uninformative about such differences, we formulated a second research question:

RQ2: Do gender role portrayals and advertisements differ between special interest channels for men and special interest channels for women?

## Method

### Sample

The first and the biggest public channel *ORF eins*, and the first Austrian commercial channel *ATV* were chosen for analysis. In March 2015, *ORF eins* had an average market share of 12.9%, and *ATV* had a market share of 2.7% (Arbeitsgemeinschaft Teletest, 2016).<sup>1</sup> Furthermore, we selected advertisements from the commercial women's interest channel, *sixx Austria*, and from the commercial men's interest channel, *ProSieben Maxx*. *Sixx Austria* was the only Austrian women's channel and had a market share of 0.9%, and *ProSieben Maxx* had recently been established (July 2014) and had an average market share of 0.5% (Arbeitsgemeinschaft Teletest, 2016).

We recorded advertisements which aired during prime time, which we defined as the time span between 6:00 p.m. and 11:00 p.m. (Matthes et al., 2016). Advertisements during prime time are designed to be more influential, as they reach a bigger audience than other time periods. We sampled advertisements from three days in March 2015. To achieve a bigger sample size (especially for the special interest channels), we additionally sampled three days in February/March 2016. For practical reasons, we drew a sample of three days (Tuesday, Thursday, and Sunday) issued in consecutive order (for a similar procedure, see Paek et al., 2011; Prieler, 2016). In sum we analyzed  $N = 1022$  unduplicated advertisements (*ORF eins*:  $n = 236$ ; *ATV*:  $n = 326$ ; *sixx Austria*:  $n = 280$ ; *ProSieben Maxx*:  $n = 180$ ). We included two levels of analysis. First, two variables for the advertisement were coded: voiceover and product category. Second, for the primary character, we coded the following variables: gender, setting, age, and clothing. A short description of all variables is presented in the Appendix.

We conducted two separate reliability tests. First, the primary coder and a person unrelated to the coding procedure (= student) performed a reliability test on  $n = 20$  randomly chosen advertisements from 2015. Krippendorff's Alpha (Hayes and Krippendorff, 2007) was as follows: primary character:  $\alpha = 1.00$ , voiceover:  $\alpha = .84$ , product category:  $\alpha = 1.00$ , setting:  $\alpha = .93$ , age:  $\alpha = .91$ , and clothing:  $\alpha = 1.00$ . Since we later included additional coding material from 2016, we introduced a second coder. The primary coder and the second coder performed an additional reliability test using  $n = 27$  randomly chosen advertisements (primary

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<sup>1</sup> The biggest Austrian commercial channel (*Puls 4*) had a market share of 3.0%. We chose *ATV* for practical reasons. However, the societal impact of both commercial channels with regards to the market share was comparable.

character:  $\alpha = 1.00$ , voiceover:  $\alpha = .92$ , product category:  $\alpha = .95$ , setting:  $\alpha = .81$ , age:  $\alpha = .75$ , and clothing:  $\alpha = .71$ ). Although we acknowledge that we based our reliability tests on rather small samples of advertisements, it is important to note that the included variables were fairly straightforward leaving very little room for ambiguity (see Appendix).

## Results

From the  $N = 1022$  Austrian television advertisements,  $n = 860$  contained a primary character. We conducted chi-squared tests to test our hypotheses. As we were also interested in the differences between the subcategories, we examined the results using the adjusted standardized residuals (ASRs) for post-hoc tests (Prieler, 2016). We first executed an overall analysis, and afterwards, we separately compared the public service channel with the private channel and the women's channel with the men's channel.

### Primary character and voiceover

Of the  $n = 860$  coded main characters, 46.7% ( $n = 402$ ) were female and 53.3% ( $n = 458$ ) were male (see Table 1). Though close to statistical significance, a chi-square goodness-of-fit test indicated a balanced gender representation in Austrian television advertisements,  $\chi^2(1, N = 860) = 3.65, p = .056$ . Thus, H1, where we expected more male than female primary characters, was not supported. Gender distribution did not differ between the public service broadcaster and the private channel,  $\chi^2(1, N = 395) = .93, p = .336$ . We identified a significant difference regarding gender representation between the men's channel and the women's channel,  $\chi^2(1, N = 465) = 19.01, p = .001$ . The men's channel depicted more male primary characters (70.1% vs. 46.2%) and fewer female characters (29.9% vs. 53.8%) compared to the women's channel. The men's channel also depicted more male characters compared to the public service channel (54.9%),  $\chi^2(1, N = 331) = 7.56, p = .006$ , and the private channel, 50.5%,  $\chi^2(1, N = 418) = 13.77, p = .001$ . The women's channel, however, did not differ from the public service,  $\chi^2(1, N = 442) = 3.31, p = .069$ , and the private channel,  $\chi^2(1, N = 529) = .97, p = .325$ .

Consistent with hypothesis H2, there were more male (58.6%,  $n = 599$ ) than female (30.8%,  $n = 315$ ) voiceovers in Austrian television advertisements,  $\chi^2(3, N = 1022) = 793.99, p = .001$ . Besides, 4.5% ( $n = 46$ ) used both female and male voiceovers, and 6.1% ( $n = 62$ ) used no voiceover at all (see Table 1). We also

Table 1: Primary character, voiceover, and product category by channel, n (%).

	Public service channel	Private channel	Men's channel	Women's channel	Overall	$\chi^2$
Primary character (n = 860)						
Male	112 (54.9)	147 (50.5)	89 (70.1)	110 (46.2)	458 (53.3%)	
Female	92 (45.1)	144 (49.5)	38 (29.9)	128 (53.8)	402 (46.7%)	3.65
Voiceover (n = 1022)						
None	15 (6.4)	22 (6.7)	4 (2.2)	21 (7.5)*	62 (6.1)***	
Male	146 (61.9)	187 (57.4)	132 (73.3)	134 (47.9)***	599 (58.6)***	
Female	67 (28.4)	99 (30.4)	36 (20.0)	113 (40.4)***	315 (30.8)***	793.99***
Both	8 (3.4)	18 (5.5)	8 (4.4)	12 (4.3)	46 (4.5)***	
Product category (n = 306)						
Body products and cleaning products	33 (50.0)	63 (61.2)	10 (16.1)	55 (73.3)	161 (52.6)	
Technological products and cars	33 (50.0)	40 (38.8)	52 (83.9)	20 (26.7)	145 (47.4)	44.54***

Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; Percentages add up column-by-column; the significance levels for differences between sub-categories are based on post-hoc tests using adjusted standardized residuals. If the value of a residual lies outside  $\pm 1.96$ , then it is significant at  $p < 0.05$ ; if outside  $\pm 2.58$ , then  $p < 0.01$ ; if outside  $\pm 3.29$ , then  $p < 0.001$ .

found a significant and very robust relationship between primary character and voiceover,  $\chi^2(3, N = 860) = 129.18, p = .001$ , Cramer's  $V = .388$ . Male characters appeared more frequently with male voiceovers than did female characters (71.6 % vs. 37.6 %,  $ASR = \pm 10.0$ ). By the same token, female characters were more often associated with female voiceovers than male characters (51.5 % vs. 16.2 %,  $ASR = \pm 11.0$ ). A separate chi-square test showed that voiceovers were equally distributed between the public service channel and the private channel,  $\chi^2(3, N = 562) = 2.03, p = .567$ . However, there was an imbalance between the two special interest channels,  $\chi^2(3, N = 460) = 31.94, p = .001$ , Cramer's  $V = .263$ . Whereas the women's channel used more female voiceovers (40.4 % vs. 20.0 %,  $ASR = \pm 4.6$ ) and fewer male voiceovers than the men's channel, the men's channel clearly used more male voiceovers (73.3 % vs. 47.9 %,  $ASR = \pm 5.4$ ) than female voiceovers compared to the women's channel. The overrepresentation of female or male voiceovers within the special interest channels was not significant when separately compared to the two other channels. Furthermore, the men's channel aired fewer advertisements without voiceover only when compared to the women's channel (2.2 % vs. 7.5 %,  $ASR = \pm 2.4$ ).

## Product category and setting

With regard to product category, no differences were found between the public and the private channel,  $\chi^2(1, N = 169) = 2.04, p = .153$ . The women's channel depicted more 'female' products, such as body products and cleaning products, than the men's channel (73.3 % vs. 16.1 %). The men's channel, on the other hand, showed more 'male' products, such as technological products and cars, than the women's channel (83.9 % vs. 26.7 %),  $\chi^2(1, N = 137) = 44.54, p = .001$ . Additionally, we tested whether a difference occurred only in comparison with the two special interest channels or whether it is a general pattern. Thus, we compared the special interest channels separately with the two other remaining channels. The men's channel also depicted more 'male' products when compared to the public (50.5 %),  $\chi^2(1, N = 128) = 16.44, p = .001$ , and the private channels (38.8 %),  $\chi^2(1, N = 165) = 31.82, p = .001$ . The women's channel depicted more 'female' products in comparison to the public channel (50.0 %),  $\chi^2(1, N = 141) = 8.15, p = .004$ , but not when compared to the private channel (61.2 %),  $\chi^2(1, N = 178) = 2.88, p = .090$ .

A chi-square test indicated a significant and very robust relation between the product categories and primary character's gender,  $\chi^2(1, N = 249) = 104.20, p = .001$ , Cramer's  $V = .647$  (see Table 2). Consistent to the hypotheses, women were strongly associated with advertisements for body products and cleaning products (H3a, 80.4 %,  $n = 115$  vs. 19.6 %,  $n = 28$ ), while men were associated with

technology products and cars (H3b, 84.9%,  $n = 90$  vs. 15.1%,  $n = 16$ ). The public channel and the private channel did not differ from each other with respect to the relation of gender and product category. But there was a difference between the two special interest channels,  $\chi^2(1, N = 57) = 8.33, p = .004$ , indicating that the men's channel depicted more men with body products and cleaning products than did the women's channel (62.5% vs. 16.3%). Moreover, the men's channel showed more men with beauty products and cleaning products when compared to the public,  $\chi^2(1, N = 37) = 8.08, p = .004$ , or the private channel,  $\chi^2(1, N = 65) = 7.06, p = .008$ .

Overall, there were significant differences for male and female characters with regard to the dominant setting,  $\chi^2(4, N = 860) = 27.65, p = .001$ , Cramer's  $V = .179$ . H4a stated that women are more likely to be seen in a home setting than men. Indeed, in our sample, slightly more women than men were shown at home (54.1%,  $n = 173$  vs. 45.9%,  $n = 147$ ,  $ASR = \pm 3.3$ ). The workplace setting was significantly related to the primary character's gender (H4b). In the workplace setting, more men than women were shown (73.3%,  $n = 77$  vs. 26.7%,  $n = 28$ ,  $ASR = \pm 4.4$ ). Contrasting hypothesis H4c, no differences were found between men and women being shown outdoors. No differences were found for the public channel and the private channel. The women's channel depicted more women outdoors, compared to the men's channel (59.6% vs. 29.4%), whereas the men's channel depicted more men outdoors than the women's channel (70.6% vs. 40.4%),  $\chi^2(1, N = 69) = 4.68, p = .030$ . Also, the category "other" differed within the special interest channels,  $\chi^2(1, N = 75) = 12.55, p = .001$ . The men's channel showed more men in other settings (83.3% vs. 42.2%), and the women's channel showed more women in other settings (57.8% vs. 16.7%). The men's channel also depicted more men in the "other" category compared to the public,  $\chi^2(1, N = 74) = 7.55, p = .006$ , and the private channel,  $\chi^2(1, N = 80) = 6.27, p = .012$ . Settings that fell in the "other" category included virtual spaces, settings where the characters were in motion (i. e., in a train, on a boat) or unidentifiable settings. There were no significant differences when comparing the women's channel with the other channels.

## Age and clothing

There was a clear gender difference with regard to age (H5),  $\chi^2(2, N = 860) = 96.87, p = .001$ , Cramer's  $V = .336$ . More women were in the youngest age group compared to men (62.0%,  $n = 287$  vs. 38.0%,  $n = 176$ ,  $ASR = \pm 9.7$ ). And male characters were more often between 35 and 49 years old (68.7%,  $n = 215$  vs. 31.3%,  $n = 98$ ,  $ASR = \pm 6.9$ ) and 50 years or older (79.8%,  $n = 67$  vs. 20.2%,  $n = 17$ ,  $ASR = \pm 5.1$ ) than female characters. The public channel and the private channel did not differ from

Table 2: Product category and dominant setting by channel and primary character, n (%)

Product category	Public service channel						Private channel						Men's Channel						Women's Channel						Overall <sup>a</sup>		χ <sup>2</sup>
	Men		Women		Men		Women		Men		Women		Men		Women		Men		Women		Men	Women					
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)					
<b>Product category</b> (n = 249)																											
Body products and cleaning products	4	25	11	46	.41	5	3	8	41	8.33**	28	115	104.20***														
Technical products and cars	18	6	30	3	2.65	30	5	12	2	.00	90	16															
<b>Dominant setting<sup>b</sup></b> (n = 860)																											
Workplace	19	8	29	10	.13	11	3	18	7	.20	77 <sup>c</sup>	28 <sup>d</sup>															
Home	32	30	49	70	1.80	27	21	39	52	2.26	147 <sup>c</sup>	173 <sup>d</sup>															
Indoors	13	8	17	15	.40	14	4	13	12	2.98	57 <sup>c</sup>	39 <sup>d</sup>															
Outdoors	25	25	24	27	.09	12	5	21	31	4.68*	82 <sup>c</sup>	88 <sup>c</sup>															
Other	23	21	28	22	.13	25	5	19	26	12.55***	95 <sup>c</sup>	74 <sup>c</sup>															

Note: \* p<.05; \*\* p<.01; \*\*\* p<.001; percentages add up line-by-line. <sup>a</sup>For the overall chi-square tests, the significance levels for differences between sub-categories are based on post-hoc tests, using adjusted standardized residuals. If the value of a residual lies outside ±1.96, then it is significant at p<.05; if outside ±2.58, then p<.01; if outside ±3.29, then p<.001. Percentages in one row with differing superscript (c, d) are significantly different (p<.001) from each other. <sup>b</sup>We collapsed the categories in motion and virtual space into the "other" category due to low cell counts.

each other. The men's channel showed significantly more young men from 18 to 34 years than the women's channel (59.1 % vs. 31.6 %),  $\chi^2(1, N = 202) = 13.91, p = .001$ . The overrepresentation of young men was also prevalent when compared to the public,  $\chi^2(1, N = 168) = 7.70, p = .006$ , and the private channel,  $\chi^2(1, N = 225) = 10.89, p = .001$ . Also, men were more often between 35 and 49 years on the men's channel than on the women's channel (81.3 % vs. 63.4 %),  $\chi^2(1, N = 130) = 4.60, p = .032$ . No differences occurred comparing the men's channel to the public channel and the private channel.

A chi-square test indicated a significant difference with respect to gender and clothing,  $\chi^2(1, N = 860) = 175.99, p = .001$ . As there were only few cases with nude or mostly undressed characters, we collapsed the three categories naked, mostly undressed, and partially dressed into one category. As a result, women were less frequently fully dressed (32.2 %,  $n = 197$  vs. 67.7 %,  $n = 413$ ) and more frequently partially dressed/mostly undressed/naked (82.0 %,  $n = 205$  vs. 18.0 %,  $n = 45$ ) compared to men. Therefore, the results support H5, stating that women expose more skin than men. Clothing was equally distributed between the public channel and the private channel. A chi-square test for clothing between the men's channel and the women's channel indicated a difference for fully dressed primary characters,  $\chi^2(1, N = 255) = 5.43, p = .020$ . The women's channel depicted more partially dressed female primary characters than the men's channel (90.0 % vs. 56.7 %),  $\chi^2(1, N = 110) = 15.70, p = .001$ . The women's channel did not differ from the private and the public channel with regard to clothing.

## Discussion

Overall, the results of our study indicate that stereotypic gender role portrayals are prevalent in Austrian television. Although the gender distribution of the primary characters was balanced, almost all female characters promoted body products and cleaning products, whereas men were strongly associated with technology products and cars. Likewise, stereotypes with regard to the setting were found as expected: Women were more often shown in a home/domestic setting than men, and men were more likely than women to be shown in a workplace setting. However, men and women were equally often seen outdoors. Our result contrasts previous findings from Nassif and Gunter (2008) in the UK, where 78 % of the male characters were depicted outdoors, compared to 22 % of the female characters.

When it comes to physical traits and outward appearance, we observed well-known stereotypes. Compared to men, women were more likely to be portrayed in the youngest age group. Moreover, women over 50 years are hardly existent

Table 3: Age and clothing by primary character, n (%).

	Public service channel				Private channel				Men's Channel				Women's Channel				Overall <sup>a</sup>		χ <sup>2</sup>			
	Men		Women		Men		Women		Men		Women		Men		Women		Men	Women				
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)						
Age																						
18–34 years	38	(37.3)	64	(62.7)	56	(35.2)	103	(64.8)	.11	39	(59.1)	27	(40.9)	43	(31.6)	93	(68.4)	13.91***	176 <sup>c</sup>	287 <sup>d</sup>	(62.0)	
35–49 years	56	(70.0)	24	(30.0)	68	(66.0)	35	(34.0)	.33	39	(81.3)	9	(18.8)	52	(63.4)	30	(36.6)	4.60*	215 <sup>c</sup>	98 <sup>d</sup>	96.87***	
50 years and older	18	(81.8)	4	(18.2)	23	(79.3)	6	(20.7)	.05	11	(84.6)	2	(15.4)	15	(75.0)	5	(25.0)	.44	67 <sup>c</sup>	17 <sup>d</sup>	(20.2)	
Clothing <sup>b</sup>																						
Fully dressed	102	(70.8)	42	(29.2)	133	(63.0)	78	(37.0)	2.33	76	(78.4)	21	(21.6)	102	(64.6)	56	(35.4)	5.43*	413	197	(32.3)	
Partially dressed	10	(16.7)	50	(83.3)	14	(17.5)	66	(82.5)	.02	13	(43.3)	17	(56.7)	8	(10.0)	72	(90.0)	15.70***	45	205	(82.0)	175.99***

Note: \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ ; percentages add up line-by-line. <sup>a</sup>For the overall chi-square tests, the significance levels for differences between sub-categories are based on post-hoc tests using adjusted standardized residuals. If the value of a residual lies outside  $\pm 1.96$ , then it is significant at  $p < .05$ ; if outside  $\pm 2.58$ , then  $p < .01$ ; if outside  $\pm 3.29$ , then  $p < .001$ . Percentages in one row with differing superscript c and d are significantly different ( $p < .001$ ) from each other. Other superscripts (e, f) indicate a significant difference at the level of  $p < .01$ . <sup>b</sup> Due to small cell counts, we collapsed the three categories partially dressed, mostly undressed, and naked into one category.

in Austrian television advertisements. Furthermore, women exposed more skin compared to men, as they were more often partially dressed, mostly undressed, or naked compared to men. Hence, our findings mirror previous results (e. g., Collins, 2011; Matthes et al., 2016).

More importantly, unlike Knoll et al. (2011), we found no differences with regard to gender role portrayals between the public service channel and the private channel. In fact, our findings suggest that gender stereotypes are strongly prevalent on both channels. In spite of the regulatory steps from the European Parliament (2010b), the national regulations and the self-commitment to diversity, public service television did not deviate from the prevalent stereotypical portrayals of men and women. Our results indicate that gender stereotypes are present in advertisements independent from the specific target groups of private and public service channels. Advertisers do not seem to care much about their target groups' potential disapproval of gender stereotypes. The finding also suggests that public service channels — which promise to work toward public value and are partly paid by mandatory fees on the side of the audience — do not have an eye on gender stereotypes when selecting the advertisements that finance their programs. Thus, for the advertising directors and media planners at the Austrian public service television, gender role concerns do not seem to be a guiding principle.

We observed key differences between the two special interest channels. The women's channel depicted more 'female' products, like body or cleaning products. The men's channel, on the other hand, showed more 'male' products, such as technological products and cars. Consequently, clear differences in respect to the target group in both channels can be identified. Interestingly, the women's channel even showed *stronger* gender stereotypes compared to the male channel with respect to two key variables. First, the general tendency to show younger women and older men (i. e., older than 49 years) was *more pronounced* for the women's channel compared to the men's channel. Second, when it comes to clothing, the women's channel showed more women in suggestive dress than the men's channel. In sum, even though gender distribution was more balanced in the women's channel, the classic gender stereotypes remained.

In explaining that surprising finding, there are grounds to theorize that advertisers want to appeal to the female audience of women's channels. They may expect that the female audience accepts and mirrors those stereotypes. That is, by presenting women as young, attractive as well as sexually arousing in television advertisements, advertisers expect that the female audience consider those advertisements appealing. The reason is that products transport the promise of stereotypical traits (i. e., look young), and this evoked desire may make the campaigns successful. Independently of the validity of our interpretation, it is safe to

say that the media perpetuate and amplify existing gender role portrayals (Galdi et al., 2014; Rollero, 2013; Rudman and Borgida, 1995; Walton and Potvin, 2009), yielding substantial effects on the side of the audience. Indeed, it is very likely to be the case for the audience of women's channels.

## Limitations and future research directions

There are some limitations. To begin with, we analyzed only an extract of television advertisements, following key studies in the research area (e. g., Knoll et al., 2011; Matthes et al., 2016; Paek et al., 2011). No conclusions on the over-time development of gender role portrayals in commercials can be drawn. Future research may consider longitudinal samples to demonstrate the development of gender role portrayals in television advertisements. Although our sampling followed the standard practice of many studies (e. g., Paek et al., 2011), we cannot determine the influence of seasonality on the likelihood of televised gender stereotyping (i. e., clothing in summer versus winter). Future content-analytical studies should sample advertisements over the entire year, and over different times of the day (Aronovsky and Furnham, 2008; Furnham and Imadzu, 2002). Finally, only one television channel per genre was sampled. Thus, no final statements on the characteristics of private, public, women's or men's channel can be made. Future research could compare, for example, several public channels and private channels to each other. Although the market shares of the two biggest commercial channels in Austria were close to each other (*Puls 4*: 3.0%; *ATV*: 2.7%) and thus, the impact of the two channels is comparable, we decided to investigate *ATV*. We recommend that the biggest commercial channel(s) should be investigated in the future.

## Practice implications

Decision makers from media companies, like media planners, gender mainstreaming representatives, or public value representatives may learn from the results of our study. They could function as multipliers working toward increased sensitivity regarding this topic. In particular, public service television, which is largely financed by mandatory fees, is called to reflect on its public responsibility when airing highly stereotypical advertisements. Our findings demonstrate that women's channels may be missing the opportunity to act on behalf of women's interests by presenting less stereotypic portrayals of women. The current (self-) regulatory efforts to ensure unbiased representation of men and women in televi-

sion advertisements should be discussed on the basis of our findings. Advertising professionals should work toward clearly defined recommendations about how men and women should be presented, because previous research has shown that non-stereotypical gender role advertising can shape and change existing gender role stereotypes and can lead to a positive attitude towards advertising (e. g., Chu, Lee, and Kim, 2016). Beyond that, social workers and teachers may include our results in workshops on gender equality. This is an important task, as not only adults but also children and adolescents spend a lot of time watching television. Our findings can be used to sensitize children and adolescents about society's understanding of being 'male' or 'female'.

## Conclusion

Having analyzed an unprecedented large-scale sample of  $N = 1022$  advertisements, we found that gender role portrayals are generally prevalent in Austrian television advertisements. While our result may not be surprising given the abundance of research on other countries in Europe and across the globe, we found that there is no difference in gender stereotyping when it comes to private versus public broadcasting. Since strong gender stereotypes were found on both channels, our findings suggest that the Austrian public broadcaster is not fully aware of this particular issue. We found that a channel with a female target group aired advertisements containing the same or even amplified stereotypes compared to a male channel. It follows that program planners for women's television as well as advertisers pay limited attention to gender stereotypes, despite the relevance and potential consequences of such stereotypes for their very own target group. Drawing on cultivation theory as well as social cognitive theory, it can be argued that stereotypic gender role portrayals may influence viewers' perceptions of what is real, desirable, and normal (Bandura, 2009; Gerbner, 1998). Our findings from the analysis of gender role portrayals in Austrian advertisements suggest that men are given greater value (through male voiceovers) compared to women. Furthermore, exposure to advertisements in Austria teach that women presumably spend most of their time at home and that women (should) care about beauty products, whereas men are presented at work being interested in technological products and cars. Also, they convey that women should appear as seductive beauties – young and less clad compared to men. Thus, Austrian advertisements foster stereotypical gender roles in many regards.

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## Appendix

### Variables and coding applied.

Variable	Codes	Short description
Gender of primary character	1 = Man 2 = Women	All conditions must apply to assess the primary character: 1) the primary character appears for at least three seconds (with a speaking part or in an important take); 2) the primary character must be clearly visible in order to identify age and gender; 3) the primary character must (appear to) be older than 18 years and must not be a child; 4) only humans can be primary characters; 5) there is only one primary character per advertisement.
Voiceover	0 = None 1 = Male 2 = Female 3 = Both	A voiceover is defined as an audio message from a narrator that is not seen in the advertisement.
Product category	Body products and cleaning 1 = yes / 0 = no  Technological products and cars 1 = yes / 0 = no	Product category refers to the advertised product, not the advertised brand or company. <i>Body products and cleaning:</i> Body care / toiletries / cosmetics / beauty products; cleaning products; kitchenware. <i>Technological products and cars:</i> Home entertainment; mobile phones / providers; computer / information / communications; automotive / vehicles / transportation / accessories.
Dominant setting	1 = Workplace 2 = Home setting 3 = Other indoor setting (not home) 4 = Outdoors 5 = In motion/transport (car, bus, etc.) 6 = Virtual space 7 = Other	The dominant setting is defined as the location where the character is shown. If several locations appear in the advertisement, the most prominent location will be coded. The location will be based on the character's perspective: a waiter in a restaurant = workplace; guest sitting in the restaurant (= other indoor setting).
Age	1 = 18–34 years 2 = 35–49 years 3 = 50 years or older	Based on following criteria, the age of the primary character is estimated: 1) age of the character is publicly known (e. g., primary character is a celebrity); 2) the content of the advertisement points toward the age of the character; 3) the character's physical appearance indicates the age (e. g., grey/ sparse hair, wrinkles).

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Variable	Codes	Short description
Clothing	1 = Fully dressed	If the primary character is shown with different clothes, the clothing with the highest degree of nudity will be coded. <i>Fully dressed</i> : clothing that covers shoulders, thighs, and knees. <i>Suggestively dressed</i> : clothing that reveals knees, upper thighs, shoulders, or cleavage. <i>Mostly undressed</i> : underwear, swimwear. <i>Naked</i> : undressed, naked; also includes suggested nudity (e. g., only wearing a towel, covered in bed sheets).
	2 = Partially dressed	
	3 = Mostly undressed	
	4 = Naked	

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*Note*: The full codebook including all coding criteria may be obtained from the authors.