Chapter 3

The Metrosexual Who Never Visited Finland – The Eternal Gender Gap in Appearance-related Consumption

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Introduction

Over two decades ago, we were introduced to a new form of masculinity, ‘the metrosexual’. Originally, the term was coined by journalist Mark Simpson in 1994. However, it was not until 2002 that the term gained global publicity as Simpson published his essay remarks online (Coad, 2016). Simpson’s original term referred to young single men living or working in the city, who were not only interested in but also had monetary possibilities to invest in their looks (Simpson, 1996).

The journalist welcomed the new word echoing all around the Western, that masculinities were under a huge change. In Finland, different reports were made: ‘Men’s cosmetic industry is booming in Finland’ (Markkinointi ja mainonta [Marketing and advertising], 1999) and ‘Men got enthusiastic about their looks’ (Talouselämä [Economy], 2004). Only few wanted to ruin the party by claiming that the change, in the example of the sale of men’s cosmetic products, was rather imperceptible, or ‘cosmetic’, as noted in Markkinointi ja mainonta (a trade journal in the field of media and marketing) in 2005. In Finland, metrosexuality got media attention partly because the practices related to metrosexuals felt distinctly different from the ones associated with Finnish men in particular. In other words, the metrosexuality was seen to challenge the conventional gender norms of appearance-related consumption.

However, little academic effort was made to empirically analyse the ‘real nature’ of these possible normative changes. Instead it seems that the metrosexual phenomenon has always generated more popularity than academic interest. This means that academic research on metrosexuality is and has been scant. Hall
argues in his book *Metrosexual Masculinities* (2014) that the lacking interest among academics stems from the popular connotations that the term ‘metrosexual’ has. Originally ‘metrosexual’ was a popular term, not an academic concept, and has thus been avoided by the academics. The small body of academic research that has taken up the challenge and dealt with metrosexuality has mainly been done in the field of cultural studies and concentrated on analysing metrosexual representations in popular culture (Coad, 2008; Miller, 2006; Shugart, 2008). More recently, research on the topic has expanded to encompass the study of men’s own perceptions of metrosexuality, receiving the attention of a growing number of sociologists and psychologists as well (Casanova et al., 2016; Hall & Gough, 2011; Kaplan et al., 2017). The scant interest in the topic seems surprising considering that discussion about metrosexuality is, first and foremost, a discussion of the changing norms of masculinities. In terms of this book, the topic is relevant as it directly relates to gender norms of accumulation of aesthetic capital.

The main idea behind ‘the metrosexual phenomenon’ is indeed change or even ‘crisis’ in masculinity, which is manifested in changing consumption practices and self-presentations of men (e.g., Shugart, 2008). However, both affirmative and critical discussions about the metrosexual phenomenon have revolved around sales figures of men’s fashion, accessories, grooming products, body/fitness goods and plastic surgery operations (Miller, 2006); the story is limited. What if it is not just male consumers who have adopted more ‘feminine’ consumption practices as ‘masculinity hypothesis’ suggests? In the realm of contemporary consumer and the emphasis put on good looks and accumulating it, shouldn’t we expect to see an increase in interest in physical appearance both among men and women?

To the best of my knowledge, there has not been a previous study that analysed changes from both attitudinal and monetary-spending perspectives using gender comparisons. In this chapter, the analysis’s time frame is 20 years. The aim is not to reject or support some kind of ‘metrosexual hypothesis’. However, this chapter sets the discussion on ‘the metrosexual phenomenon’ into a wider context.

This chapter analyses the hypothetical change in men’s consumption practices from the attitudinal and monetary expenditure perspectives. In my analysis, I compare men and women to see whether the possible changes in men’s attitudes and monetary spending are in line with changes in women’s attitudes and spending. I argue that this type of examination is important to see whether physical appearance -related attitudes and spending has actually changed in a way that is peculiar to men. Simpson (2014) himself has argued that there is no need to talk about metrosexuality anymore since it has ‘died’ in a sense now that it has become a norm. However, my analysis shows that, despite all the talk, nothing has really changed dramatically during the past 20 years. Metrosexuality has certainly not become a norm. I ask: Can something die if it never lived?

The chapter proceeds as follows. First, I introduce previous literature on the metrosexuals. After that, I introduce the data and methods used in this chapter. Then I present the results and make some concluding remarks.
Who Is or Was a Metrosexual?

First and foremost, metrosexuality has been related to fashion and grooming consumption. Compared to other types of masculinities, metrosexuality is associated with a more open interest in physical appearance and consumption, which involves conspicuous elements (e.g., Hall, 2014; Casanova et al., 2016). These types of ‘definitions’ or descriptions are typically the ones presented in the popular media. For example, Wickman (2011) has noted that in addition to this ‘aesthetic’ aspect (i.e., appearance-related consumption), there is also an ‘erotic’ aspect of metrosexuality. The latter one refers to the erotisation of the male body in popular media and certain open-mindedness to the ‘male-on-male’ gaze (Wickman, 2011). Thus, in the realm of metrosexuality, men are themselves the objects of and for consumption (Schugart, 2008). Although scholars have debated whether the term applies only to heterosexual men (for discussion, see Wickman, 2011), research on metrosexuals has concentrated more on the aesthetic, not what Wickman (2011) called the ‘erotic’ aspects of metrosexuality.

In regard to this aesthetic aspect, Schugart (2008, p. 283) has argued that there was nothing new about metrosexuality. Instead metrosexuality was just one ‘manifestation of commercial masculinity’, a descendant of the 1980s ‘yuppie’. In the most critical discussion, both have been considered marketing devices aimed at manipulating young men’s consumption desires (for a discussion, see Schugart, 2008).

More broadly speaking, several scholars in masculinity studies have analysed how the 1980s was a time for reconstructing masculinities (at least in Anglo-Saxon countries) (e.g., Edwards, 1997; Nixon, 1996). According to Beynon’s (2002) summary of the era, the commercial masculinity was a second strand in this reconstruction; the first strand offered men a new role as nurturers, and the second strand as narcissistic conspicuous consumers. The ‘new man’ was born. Although through the history of consumer culture, men have participated in consumption practices conventionally associated with femininity, especially from the 1980s onwards, new male aesthetics were presented in the media. Men’s glossy lifestyle magazines in particular gave the so-called new man a boost in the United Kingdom and the United States (Edwards, 1997; Nixon, 1996).

That being said, men have been actually offered various, even conflicting roles under the concept of the ‘new man’, i.e., a narcissist and a nurturer. In the same vein, Kaplan, Rosenmann, and Shuhedler (2017) stated that, on one hand, there has been the new man discourse rising from the therapeutic cultural discourses of authenticity and holistic self-awareness. On the other hand, popular media in particular promotes the consumerist discourse of masculinity, underlining the importance of consumption practices related to physical appearance in constructing self-identity. Although there is no consensus on what constitutes the ‘new man’, there seems to be an agreement on how the new man conflicts with the so-called ‘traditional man’ or ‘traditional masculinity’ (Kaplan et al., 2017). Unlike the traditional man, the new man is argued to be connected with his ‘feminine side’ either through his emotions or by appearance-related consumption practices (see Harrison, 2008 for a review). Thus, in the early 2000s, the new man
was presented as someone not only willing to attend to his appearance but also ready to adopt more gender and sexual egalitarian views (Clarkson, 2005).

Although some marketing scholars have been inclined to argue that metrosexuality can be interpreted as a sign of increasing gender equality (cf. Mitchel & Lodhia, 2017; Salzman et al., 2005), within sociology and gender studies this has not been the case. On the contrary, neither the metrosexual representations of masculinity in the media (Alexander, 2003; Harrison, 2008; Shugart, 2008) nor the practices and attitudes of self-identified metrosexuals challenge, but rather they maintain the traditional gender order (Anderson, 2005; Casanova et al., 2016; Kaplan et al., 2017). The metrosexual representations and consumption practices can broaden the normatively accepted ways to perform masculinity. However, metrosexuality has its roots in the rejection of femininity and homosexuality, and thus both practices and representations of metrosexuality first and foremost privilege straight men over gay men and women (e.g., Anderson, 2005; Casanova et al., 2016; Kaplan et al., 2017; Shugart, 2008).

Although for decades media and marketing industries have striven to socialise both men and women to become full members of the appearance-centred society, in regard to men, the task has been much more difficult to complete. In Rosenmann and Kaplan’s (2014) analysis on masculine body ideologies, the so-called metrosexual consumerist body ideology appears in sharp contrast to the unattended, functional body ideology associated with traditional masculinity (Rosenmann & Kaplan, 2014). However, in the media representations, using grooming products has been ‘masculinised’, underlining the ‘corrective’ instead of the ‘beautifying’ nature of cosmetics as well as the ‘scientific’ and ‘technical’ background of these products (Harrison, 2008). Several products and services have also been reinvented with a masculine label on them as Hall (2014, p. 16) pointed out:

Indeed, even traditional feminine activities and items now have male counterparts and labels. For example: Brazilian bikini waxing becomes a boyzillian or manzillian; eyeliner becomes guyliner; handbag becomes manbag; makeup is mankup; non-head body hair removal is termed manscaping; mascara changes to manscara; pantyhose become mantyhose; panties are reworked to manties and there are many more.

The changing aesthetic codes of masculinity fit even more uneasily with the notions of the traditional Finnish man, at least in the beginning of the 2000s when the debate on metrosexuals was at its height. At the same time, as men’s lifestyle magazines where booming in the United Kingdom, the magazines launched in Finland and in Finnish (e.g., Cosmos, Men’s Health, Miesten Gloria, Slitz) struggled to find their Finnish audience. The lifespan was short and all the magazines were buried only a couple of years after they were launched. Afterwards, the target group was considered to be too small in Finland, and buying these types of magazines fit relatively uneasily with the idea of traditional Finnish men’s consumption habits (Jokinen, 2003). For example, according to Hakala’s
comparative study on representations of men in advertising in Finland and in the United States, the objectification of men had surprisingly not increased in neither of the two countries between 1973 and 2003. In a similar vein, Sarpavaara (2004) concludes in his study on the presentations of embodiment in TV advertisement by saying that ‘most of the representations repeat the notions of the traditional gender system’. Although men were represented as objects to be looked at and also subjects who look after their physical appearance, these types of roles were assigned to women in the great majority of cases. Similarly, in the Finnish edition of Slitz, the young men’s lifestyle magazine, the impression and representation of the male-to-male gaze was strictly avoided. Instead, the ideal man in Slitz was a playboy who took care of his physical appearance to appeal (i.e., to be good looking) to women and for whom the good-looking women were merely status symbols (Jokinen, 2003).

More recently, several masculinity scholars in Finland have argued that masculinities have become more hybrid in the sense that such elements as bodily strength, emotional restraint and orientation towards paid work have been supplemented with features typically related to femininity and marginalised masculinities (for a discussion see Hyvönen, 2019). This type of hybridisation can be seen, for example, in how Finnish men legitimise a non-traditional masculine practice with traditional masculine reasoning. In Ojala et al.’s (2016) study of men’s anti-ageing practices, men wanted to distance themselves from femininity and women by rationalising these practices as something that promotes health and performance (see also Ojala & Pietilä, Chapter 4).

In sum, the previous literature on metrosexuals and changing masculinities suggests that men would have adopted more ‘feminine’ consumption practices. Next, I move on to analyse whether there is support for these claims when looking at national-level consumption expenditures and attitudinal data from Finland.

**Data and Methods**

*Data*

In this chapter, the main interest lies in analysing the gendered changes in physical appearance-related attitudes and consumption. My attitudinal examination is based on nationally representative survey data collected every 5 years between 1999 and 2019. I study the possible changes in monetary consumption by analysing Statistics Finland’s Household Budget Survey data from 1998 to 2016. The data collection frequency of the Household Budget Surveys has fluctuated during the years. However, I have chosen five cross-sectional data points that, to some extent, match data collection points of attitudinal surveys. In my analysis, I adopt a gender-comparative perspective to assess whether men’s consumption practices, i.e., attitudes and consumption expenditure, have actually changed and how the possible changes are comparable.

To analyse attitudinal changes, I use Finland 1999, Finland 2004, Finland 2009, Finland 2014 and Finland 2019 consumption and lifestyle surveys. The Sociology/Economic Sociology unit at the University of Turku conducts the
surveys on a 5-year basis. All samples were random and drawn from the Central Register of Population. The data represent the Finnish-speaking 18–74-years-old population in Finland. The data for 1999 and 2004 were solely collected via postal questionnaires. From 2009 onwards, the respondents were also given the opportunity to complete the survey online. The sample sizes have fluctuated from 2,500 to 6,000 and, according to the general trend, response rates have declined (For more information, see data collection reports Saari et al., 2019; Koivula et al., 2015; Sarpila et al., 2010). The number of respondents and response rates for each survey year is shown in Table 3.1.

The five Finnish Household Budget Surveys I analyse in this chapter were conducted by Statistics Finland in 1998, 2001, 2006, 2012 and 2016. The surveys concentrated on a household’s expenditure on goods and services. The data sets are comparable over time and are nationally representative. The surveys are sample surveys of Finnish households, the consumption expenditure of which is collected by telephone interviews and consumption diaries kept by the households, and from purchase receipts and administrative registers. Table 3.1 shows the number of households in the final original data and their response rates. In addition, it shows the exact number of cases used in the analysis. In the surveys, the unit of analysis is household. This means that to analyse differences between men and women, I have to restrict my analysis to single households. In other household types, it is not possible to examine consumption expenditure at an individual level (for more detailed description, see Statistics Finland, 2020).

Table 3.1. Survey Data Analysed in This Chapter. Number of Respondents (Response Rates in Parentheses).

<table>
<thead>
<tr>
<th>Attitudinal Data</th>
<th>Finland 1999</th>
<th>Finland 2004</th>
<th>Finland 2009</th>
<th>Finland 2014</th>
<th>Finland 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original data</td>
<td>2,417 (60%)</td>
<td>3,574 (60%)</td>
<td>1,202 (49%)</td>
<td>1,354 (46%)</td>
<td>1,742 (44%)</td>
</tr>
<tr>
<td>Number of households analysed</td>
<td>1,907</td>
<td>2,856</td>
<td>801</td>
<td>960</td>
<td>1,249</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Original data</td>
<td>4,359 (63%)</td>
<td>5,495 (63%)</td>
<td>4,007 (52%)</td>
<td>3,551 (43%)</td>
<td>3,673 (46%)</td>
</tr>
<tr>
<td>Number of households analysed</td>
<td>642</td>
<td>828</td>
<td>588</td>
<td>546</td>
<td>723</td>
</tr>
</tbody>
</table>
**Measures**

To analyse changes in men’s consumption practices from the gender-comparative perspective, I analyse two different dependent variables. The attitudinal changes is examined using an attitudinal variable called ‘perceived care of one’s physical appearance’. The respondents were asked to what extent they agreed with the statement: ‘I take good care of my physical appearance’. The answers were given on a 5-point Likert scale that ranged from ‘Definitely agree’ = 1 to ‘Definitely disagree’ = 5. Note that the original scale can be considered ‘reversed’ (a smaller number indicating agreement and not vice versa) and in that sense it is atypical. However, I decided not to further revise the scale, which is a typical procedure in these types of cases to help interpretation. I consider this solution to be in line with using generalised ordered logit where operationalisations are taken less for granted. More particularly, it could be argued that people would answer differently to the question if it would be indicated that ‘Definitely agree’ equals a value of 1 when compared to the situation where it is indicated that ‘Definitely agree’ equals a value of 5. Thus, the scale cannot be revised autocratically (see Williams, 2016). Independent variables include gender (female/male) and research year (1999/2004/2009/2014/2019). I restrict my analysis to under 65-year-old household respondents to make the age range correspond to one I am obligated to use with the Household Budget Survey data.

In my analysis on appearance-related consumption expenditure, I analyse one dependent variable: the proportional share of yearly consumption expenditure on ‘personal hygiene and beauty care’ of the total consumption expenditure. As stated, I restrict my analysis to single households with an under 65-year-old household reference person. Again, my independent variables include gender (female/male) and research year (1998/2001/2006/2012/2016). My control variables include education (academic/non-academic), age as a continuous variable and place of residence (Helsinki metropolitan area/other). Furthermore, I must note that income is certainly associated with consumption expenditure. However, as I analyse proportional shares, there is no need to control for income. A descriptive overview of the variables applied is shown in the supplementary appendix.

**Methods**

The analysis on both attitudinal and consumption expenditure data starts with a descriptive overview on changes in the gender gap. After that, I will conduct a multivariate analysis of each dependent variable. For attitudinal data, I use ordinal regression analysis. I use linear regression (OLS) for the Household Budget Survey data. As I am interested in the changes in men’s consumption expenditure and the possible peculiarities compared to women’s consumption expenditure, I test interactions between gender and research year.

In terms of attitudinal data, the models are estimated with the gologit2 software in Stata (Williams, 2006). The generalised ordered logit is suitable method for analysing ordinal outcomes, if the so-called parallel regression assumption
(also known as proportional odds assumption) is not met (Hardin & Hilbe, 2012). However, this is not the only reason for using generalised ordered logit. As Williams (2016) has pointed out, using generalised ordered logit should be theoretically reasoned as well. Here, I leave space for the possibility that men and women may use different thresholds in classifying their attitudes towards attending to their physical appearance.

**Results**

In the first stage of my analysis, I use Finland Consumption and Lifestyle Surveys to examine the gender gap in attitudes between the years 1999 and 2019. The respondents were asked to evaluate to what extent they agreed or disagreed with the statement, ‘I take good care of my physical appearance’ (on a scale from 1 to 5). Fig. 3.1 shows the proportions of responses for each response category for men and women by research year. It indicates that the distributions of responses to five response categories seem to be quite stable over time. Neither men’s nor women’s attitudes towards taking care of their looks seem to have changed dramatically. The figure shows how approximately half – varying from 47% to 55% – of the women have either strongly or slightly agreed with the statement that they take good care of their looks (values ‘1’ and ‘2’). The rate of male respondents who agree with statement is clearly lower, varying from 27% to 36% during 1999–2019.

Next, I used generalised ordered logit models to examine the possible interactions between gender and survey year. The idea is to examine whether association between response year and the ‘perceived attendance of physical appearance’ is different for men and women. On the basis of discussion on metrosexuals, presumably men’s attitudinal changes are somewhat different compared to changes among women. For these analyses, I combined the categories ‘4’ and ‘5’ as the number of cases in the category ‘5’ was small, particularly for women. Table 3.2 presents the results for partial proportional odds model. As neither of the explanatory variables meet the proportional odds assumption, there are three coefficients for each explanatory variable. Results are presented as average marginal effects.

The table shows that gender differences in all outcome levels are significant (7–10% points difference between men and women). Attitudinal changes are rather modest and show no clear pattern. The analyses shows there is no significant interaction between gender and survey year. This indicates that the modest attitudinal changes have been similar among men and women.

Finally, I turn to examine gender differences in appearance-related consumption with Household Budget Surveys. The figure shows the predicted probabilities for the share of personal hygiene and beauty care out of total consumption. The predicted probabilities are presented separately for men and women. I compared the OLS models with and without the interaction term. With regard to consumption expenditure on ‘personal hygiene and beauty care’, the interaction between gender and survey year was significant. However, the
predicted probabilities with 95% confidence intervals presented in Fig. 3.2 show only slightly different trends for men and women. Thus, the assumption that men’s consumption behaviour has gone through a dramatic change is not supported by the Household Budget Survey data either.
Table 3.2. ‘I Take Good Care of My Physical Appearance’, Average Marginal Effects.

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Outcome 1</th>
<th>Outcome 2</th>
<th>Outcome 3</th>
<th>Outcome 4 + 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AME</td>
<td>P-value</td>
<td>95% CI</td>
<td>AME</td>
</tr>
<tr>
<td><strong>Year (ref 1999)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>-0.031</td>
<td>0.001</td>
<td>-0.050</td>
<td>-0.013</td>
</tr>
<tr>
<td>2009</td>
<td>-0.050</td>
<td>0.000</td>
<td>-0.075</td>
<td>-0.026</td>
</tr>
<tr>
<td>2014</td>
<td>-0.044</td>
<td>0.000</td>
<td>-0.068</td>
<td>-0.020</td>
</tr>
<tr>
<td>2019</td>
<td>-0.042</td>
<td>0.000</td>
<td>-0.066</td>
<td>-0.019</td>
</tr>
<tr>
<td><strong>Gender (ref female)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>-0.079</td>
<td>0.000</td>
<td>-0.093</td>
<td>-0.066</td>
</tr>
<tr>
<td><strong>Age categories (ref older)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young</td>
<td>0.019</td>
<td>0.028</td>
<td>0.002</td>
<td>0.037</td>
</tr>
</tbody>
</table>

*Note:* controls; age*gender.
Conclusions

In this chapter, I reviewed academic discussions on the metrosexuality. The discussion relates directly to understanding gendered norms concerning accumulation of aesthetic capital in contemporary consumer culture. Some scholars have perceived metrosexual as an embodiment of commercial masculinity, which takes different forms and is given different names in different times (Shugart, 2008). However, metrosexuality is associated with a change in men’s appearance-related consumption practices and norms. Previous research has analysed critically the pervasiveness of metrosexuality among different population groups of men and gender-egalitarian views related to the phenomenon (Casanova et al., 2016). However, previous studies are mainly conducted in Anglo-Saxon countries, where change in the men’s consumer practices per se has been taken for granted more easily, although the reasons behind change towards metrosexuality have remained debatable. In this chapter, I have shown that even the change in consumption practices cannot be taken for granted. At least not in Finland.

In the introductory part of this chapter, I asked: Can something die if it never lived? As a cultural discourse, the metrosexual seems to be nearly dead; its heyday was clearly in the early 2000s (Casanova et al., 2016). However, the empirical ‘proofs’ of the existence of ‘metrosexuals’ can only be collected and

![Fig. 3.2. Predicted Probabilities of ‘Personal Hygiene and Beauty Care’ Consumption Share of Total Consumption Expenditure. For men and women under 65 years of age, single households, years 1998, 2001, 2006, 2012 and 2016. With 95% confidence intervals. Note: controls; age, education, place of residence.](image)
analysed now, i.e., 20 years after the term was introduced. Simpson (2014), who introduced the term, has claimed that the metrosexual is dead, as grooming practices typical of certain groups of men have become a general norm among all men. According to Simpsons, this logic, i.e., all men have become metrosexuals, the metrosexual cannot be referred to as its own species anymore. Although this might be an idea not only Simpson adopted but, for example, also US white-collar men (Casanova et al., 2016), it is not supported by population-level data collected in Finland and covering the past 20 years. Either men’s attitudes have not changed or there has been no change in the proportional share of the yearly consumption expenditure on ‘personal hygiene and beauty care’ of total consumption expenditure. Furthermore, the gender gap seems to be extremely stable. It might very well be that David Beckham is the only metrosexual who has ever visited Finland (he had knee surgery in Finland in 2010).

As I write this, the Finnish lifestyle magazine Image drops through my letterbox. The magazine is covered with a rustling plastic, which hides inside a sample of men’s facial cream. The package is black and silver. A perfect free gift for a magazine’s target group of a 28–50-years-olds working and having an urban and consumerist lifestyle. It feels that, during the past 20 years, I have seen this same ‘masculine-coloured’ men’s cosmetic product several times before. It seems that nothing has really changed in this respect either. Although there is no talk about metrosexuals in the media anymore, the metrosexual or his inheritor is still expected to take human form sooner or later. From consumer capitalism’s point of view, this is understandable, as the potential market is huge. In light of the current figures, it appears more profitable to tap into women’s appearance-related insecurities (see also Kukkonen, Chapter 2).

Moreover, very recent studies (e.g., Hakim, 2018) suggest that appearance as a form of capital can be particularly important among men who lack other forms of capital. Unlike in metrosexuality, it is thus the most subordinated men for whom the very traditional masculine bodywork techniques, i.e., not those connected with metrosexuality, provide a way of creating value (Hakim, 2018). This, combined with my analysis in this chapter, tells a story of men and their relationship to their physical appearance. It seems that this story cannot be easily rewritten despite all the black and silver facial cream packages mailed 20 years from now.

Notes

1. Thus, the model allows the explanatory variable to have a different effect on the odds at the different levels of the outcome variable (Hardin & Hilbe, 2012). I used the Wald test to test the parallel regression assumption. It showed that the assumption does not hold for my data.

2. For simplicity of interpretation, the results are presented without logarithm transformations. I, however, run the models with logarithm transformation which did not change the results.
References


