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Is Beauty-based Inequality Gendered? A Systematic Review of Gender Differences in Socioeconomic Outcomes of Physical Attractiveness in Labor Markets

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Abstract

During the past decade, academic interest in physical attractiveness-based social inequalities has spread drastically beyond the U.S. to Europe. However, there is no consensus in previous research on the genderedness of the socioeconomic outcomes of physical attractiveness. Thus, we conducted a systematic review to understand to what extent and how the socioeconomic outcomes of physical appearance in labor markets are gendered. After wading through five databases and identifying relevant articles, we included a total of 58 articles for review. The results show that, in general, more attractive individuals are socioeconomically favoured and this applies to both men and women. However, the number of studies that find that attractiveness is more beneficial for women is almost equal to the number of studies that report the ‘effect’ of attractiveness to be stronger for men. Moreover, while the socioeconomic outcomes are somewhat consistent for men, the outcomes for women appear more inconsistent: only women get both rewarded and penalized for being attractive. We interpret the results by reviewing occupation-, culture-, time- and method -specific results in order to elucidate the mechanisms behind attractiveness-based inequalities in labor markets. We conclude that contextual factors matter more than previously considered in attractiveness-related outcomes, especially for women.

Physical appearance shapes social interaction and has significant consequences for social inequality. This is old news, seeing that a vast amount of cross-disciplinary research has shown this to be a social fact for decades: Good looks pay off in working life as well as beyond, whereas not living up to standards of attractiveness is linked to severe social and economic penalties (for a review, see Hamermesh 2011). In the era of an expanding service sector, social media and visual culture, the emphasis put on looking good has increased. Moreover, it has been argued that good looks have become a more crucial requirement for work (van den Berg and Arts 2019; Warhurst and Nickson 2001), which has given rise to discussions about prohibiting appearance discrimination in the labor market (Hamermesh 2011; Mason and Minerva 2020). It seems that social scientists are re-engaging with the timely topic: According to Ashley Mears (2014), “beauty is having a moment in the social sciences” (p. 1130). In particular, there is a rapidly growing body of research focusing on analysing *gendered* consequences of perceived physical attractiveness. Therefore, there is an urgent need for a systematic review of research on socioeconomic outcomes of physical attractiveness among men and women.

Although lay understandings of appearance-related inequality rely on the idea that appearances are more important and consequential for women than for men, there is no scientific consensus on the matter of whether appearance-related socioeconomic inequality is gendered. In fact, much of the scholarship on the topic ignores the question of gender altogether. Hence, it is perhaps not surprising that gender has also been ignored in many previous literature reviews on the physical appearance-related inequality (e.g., Anderson *et al.* 2010; Langlois *et al.* 2000). However, even the literature reviews that have considered that physical appearance could be a gendered source of inequality have come to conflicting conclusions. In a review from 2003, Hosoda *et al.* suggested that physical appearance brings perks and penalties equally to men and women. Maestripieri *et al.* (2017) suggested that

attractiveness is more advantageous for women than men, whereas Morrow (1990) concluded that men more often get the benefits. Previous review articles (e.g., Hosoda *et al.* 2003; Langlois *et al.* 2000; Maestripieri *et al.* 2017) relied on two competing hypotheses, whether (a) both men and women are rather evenly rewarded for being attractive or (b) outcomes of attractiveness are gendered.

In turn, we commenced this systematic review and had two goals: First, to provide an up-to-date summary of the gendered outcomes of physical attractiveness in the labor market; and, second, to analyse the possible logic behind the inconsistent outcomes in terms of gender. By doing this, we are able to fill in the gaps of previous reviews on the topic. In our review, we focus on quantitative studies that include a gender comparison of socioeconomic outcomes for physical attractiveness (including correlative studies and longitudinal studies, as well as experimental studies, both lab- and real-life experiments). We operationally define the outcomes of physical attractiveness as socioeconomic, which includes income, salary, hiring, tips, electoral votes, and career success.

The review is guided by the following question: To what extent and how are the socioeconomic outcomes of physical appearance gendered in working life? We will approach this question by systematically reviewing previous studies that compare working life-related socioeconomic outcomes of physical appearance for men and women. After briefly discussing theoretical approaches to gender and attractiveness and introducing past literature reviews on the topic, we will move on to explaining the selection criteria and data collection of this review. Next, we will give an overall description of the included studies and show how scholarship on the topic has not just increased in number, but has also become more global and arguably come to be based on data that are more realistic and comprehensive. We demonstrate how research on socioeconomic (dis)advantages of attractiveness was heavily concentrated in the U.S. before the 2010s and has dramatically increased in Europe during the

past ten years. We then move on to discussing what these studies can tell us about the genderedness of physical appearance-related inequality in working life. According to our systematic review, attractiveness seems more consistently beneficial for men than women. For women, attractiveness is not a universal asset: according to some studies in our review, attractiveness appears to be detrimental for women in some instances, which is not the case for men. We conclude by proposing several key ways through which future studies on the topic—both quantitative and qualitative—can better grasp the gendered economic outcomes of physical appearance and develop research designs and measurements to better capture the complexities of physical appearance-related inequalities.

Theoretical Approaches to Gendered Outcomes of Attractiveness

Much of the current literature on the topic of physical appearance and socioeconomic inequality assumes that good looks are a universal good, and the mechanisms through which beauty pays (Hamermesh 2011) are thought to be gender blind. Overall, beauty is considered a good thing, the evaluations of which are universally shared and the consequences of which are universally positive (cf. Mears 2014). In economics, the mechanism through which beauty is thought to confer benefits is related to preferences: Employers, customers, and coworkers alike prefer beautiful people (Hamermesh 2011). These preferences for beautiful people add up to beauty premia; social and economic rewards for attractiveness in different fields of life. This *beauty premium* perspective is general and descriptive rather than explanatory, as the source of these preferences is rarely explicated or questioned (cf. Maestripieri *et al.* 2017). Economists have, however, debated to what extent the premia have to do with attractive people having gained more confidence as a result of having been preferred in different situations throughout life (e.g., Mobius & Rosenblat 2006) or attractive people being more intelligent (e.g., Kanazawa 2011; Kanazawa & Still 2018), or whether the

preferences indeed cause employees to be more productive in certain fields of work where, for example, customer preferences are key to productivity (Biddle & Hamermesh 1998; Hamermesh & Biddle 1994). The flipside to the beauty premium is that attractive people gaining socioeconomic perks tends to equal unattractive people facing penalties. Some scholars take a *discrimination* perspective, and explain appearance-based inequalities as a result of people treating others unequally on the basis of physical appearance, i.e. as a result of lookism (e.g., Patacchini *et al.* 2015). In a similar vein, in sociology, physical appearance has recently been considered a *resource* or a *form of capital* (Anderson *et al.* 2010). Scholarship in social psychology has also advanced the idea of physical attractiveness as a genderless asset by proposing that beauty is advantageous because people associate it with other desirable traits. This mechanism is often referred to as the ‘what is beautiful is good’ or *attractiveness stereotype*, sometimes the *halo effect* (e.g., Eagly *et al.* 1991; Langlois *et al.* 2000). These theoretical approaches by and large suggest that attractiveness is a universally appreciated and rewarded property. Latently, these considerations also suggest that unattractiveness—or plainness or homeliness as it is often euphemized in the literature (see e.g., Hamermesh 2011)—is penalized notwithstanding gender.

Other hypothesis on how physical appearance unequalizes individuals suggests that physical appearance might be a property that brings uneven or unequal outcomes to people depending on gender—or sex, as proposed by evolutionary psychologists. Evolutionary psychologists propose that it is the central role of physical appearance as a criterion for mate selection that accounts for the economic and social outcomes of beauty (Buss *et al.* 1990). Thus, according to such *evolution-based explanations*, it is sex that matters, as male and female mating motivation and strategies differ by nature (e.g., Maestripieri *et al.* 2017). A related explanation relies on the idea of *interpersonal competition*, particularly intrasexual competition among women who are thought to be jealous and envious of other women’s

looks and hence seek to undermine attractive women's success (e.g. Ruffle & Schtudiner 2015).

A very different reason as for why the socioeconomic outcomes of attractiveness might be gendered is proposed by social psychologists who draw on *gender stereotypes*, most notably the lack-of-fit model (Heilman 1983), and propose that stereotypes related to physical appearance affect men and women differently because attractiveness enhances perceptions of gender-related attributes. Hence, an attractive woman is considered more feminine, and assumed by employers to be unfit for jobs stereotyped as masculine. Conversely, unattractiveness might increase fit in jobs stereotyped as masculine. This explanation is sometimes referred to as the “beauty is beastly” effect (e.g. Heilman & Saruwatari 1979).

While sociological understandings of physical appearance as a resource or a form of capital are not gendered in themselves, they do invite a consideration of power relationships, including ones related to gender (Kukkonen 2022). Indeed recent research in sociology, social psychology, and organisational studies has explicitly questioned this universal logic related to beauty and its positive outcomes, particularly with regards to socioeconomic outcomes for women. Giseline Kuipers (2015) suggested that beauty standards are not universally shared but are instead multiple tastes based on several repertoires. Importantly, women are more easily evaluated by strictly aesthetic standards than men (Kuipers 2015). Moreover, Ashley Mears has shown how men can use attractive female bodies for their own status projects, whereas for women themselves benefiting from attractiveness may be stigmatized (Mears 2015; 2020). Indeed recent research has found that strict social norms regulate the gaining of socioeconomic advantage of one's physical appearance particularly for women (Kukkonen *et al.* 2018; Sarpila *et al.* 2020). This line of research, too, would suggest that attractiveness may not always straightforwardly benefit women.

The aforementioned studies have also drawn on feminist scholarship, which has considered physical appearance a thoroughly gendered issue. Feminist scholarship has shown how in everyday interactions gender is often presumed, made, and presented on the basis of physical appearance. (e.g., Bartky 1990; Bordo 1993; Elias *et al.* 2017; Wolf 2002). Specifically femininity is done through meticulous labor on the body (Kwan and Trautner 2009). Particular femininities and masculinities are both expected from people at and for work (e.g., Barber 2016; van den Berg 2019).

In sum, recent research in sociology and social psychology has critiqued individualistic explanations for appearance-related inequality which suggest attractiveness is an individual property that has equal value for all people irrespective of context. Instead it has been suggested that the value of physical appearance in social exchange is not universal and straightforward, but instead malleable, relational, and dependent on contexts with particular, gendered power constellations (Pajunen 2022).

Next, we take a look, how previous systematic reviews have taken gender into account in their analysis.

Gaps in the Previous Reviews

Early reviews on psychological research into the physical attractiveness stereotype concluded that people tend to attribute more positive characteristics to attractive individuals, both women and men (Eagly *et al.* 1991; Feingold 1992). In their meta-analysis, Langlois *et al.* (2000) were interested in whether the attractiveness stereotype matters for men and women in more realistic research settings. They claimed that the outcomes of beauty ought to be more severe for women than for men because humans value beauty more in females than males. However, they found no gender differences. The lack of gender differences, they

suggest, may be due to the fact that much extant research did not distinguish between males and females in the data analysis, or analysed only a single gender (Langlois *et al.* 2000).

While Langlois *et al.*'s (2000) research concluded that attractiveness has a strong effect for judgments of occupational competence in actual interactions, Hosoda *et al.* (2003) furthered this knowledge by conducting a meta-analysis concerned with the attractiveness bias in simulated employment contexts. Hosoda *et al.* included results from a larger number of studies (27), and used a broader set of job-related outcomes, including selection, performance evaluation, and hiring decisions in their study. Importantly, the authors focused on examining gender effects. Based on their results, no gendered differences in employment situations were found. They concluded that physical attractiveness is always an asset for both males and females, regardless of the job for which they applied or held. Their review also established that the attractiveness effect varied as a function of research design. The authors disclosed that a potential limitation of their meta-analysis was that they only included experimental studies and were thus unable to infer the outcomes in nonexperimental studies (i.e., calculating the external validity of their research).

One of the most recent reviews on the topic, conducted by Maestripieri *et al.* (2017), scrutinizes the effect of the gender of the raters. With a focus on labor market analyses and laboratory studies with experimental economic games, the authors analysed 17 studies that pay particular attention to the impact of opposite-sex versus same-sex social interactions. The outcomes seem to vary according opposite-sex and same-sex logic: Women are likely to disfavour attractive *women* (same-sex social interaction), whereas men in general are prone to favour attractive *women* (opposite-sex social interaction). The researchers interpreted their review to support an evolutionary psychological understanding, whereby in opposite-sex interactions, attractive individuals are favoured as they are seen as desirable potential mates, whereas in same-sex interactions attractive individuals appear as sexual competitors. Indeed,

the review argues that sexual attraction and mating motives explain the unequal outcomes of attractiveness. The finding that women are more likely to experience attractiveness-related outcomes compared to men is presumed to be due to the overrepresentation of men in positions of power: If a male employee has the opportunity to hire an attractive female, his mating motives are activated despite his will and intentions (Maestripieri *et al.* 2017: 10). This line of thinking appears to exteriorize male sexual corporeality so that a man is regarded to have a carnal “penis-brain,” which operates in contrast to the man’s rational, cerebral thought (see Potts 2001). Overall, it is worth considering whether the setup of Maestripieri *et al.*’s review and their inclusion criteria beg such results.

Beyond these more systematic reviews, certain more narrative literature reviews are also worth noting. Anderson *et al.*’s (2010) narrative review of beauty perks and penalties touches on gender differences. The authors claimed that although women receive demands to pay a high price for beauty, looks may also pay off for women in terms of symbolic, social, and material wealth. Although the authors attempted to discuss the outcomes of physical appearance from a gender perspective, they fall short of actually reviewing the genderedness of outcomes.

Sierminska and Liu (2015) surveyed literature on the effect of physical attractiveness on labor market outcomes, and, apart from discussing potential explanations for the effect, they also discussed gender differences and consistency of the findings across cultures. Instead of taking a systematic approach, the authors relied on selected findings—mostly from economics—and did not explain the selection process. Based on their findings, the authors assumed a larger beauty premium for men than for women. The authors considered these gender differences in the beauty premium to be due to women being less likely, overall, to participate in the labor market and more likely to stay at home. They suggested (based on Hamermesh 2011) that, for women who are less attractive, the disincentives of less-than-

average looks on the labor market may lead them to opt out. Conversely, attractive women self-select into the labor force. Hence, the female labor force is generally more attractive than the male one, which means less variation in attractiveness and, therefore, a smaller beauty premium for women. Due to converging gender roles, the authors hypothesized that the beauty-premium gender gap is decreasing. Alas, the authors did not discuss, let alone test, this hypothesis in conjunction with their comparisons of the (gendered) effect of beauty on wages across various countries. They reported that, apart from Luxembourg, attractiveness is rewarded in almost all of their selected country findings, which consist of nine studies. They found that the beauty premium is highest in Australia and China, especially for women.

Overall, previous literature reviews on the gendered outcomes of physical appearance have come to conflicting conclusions: Some find no gender differences (Eagly *et al.* 1991; Hosoda *et al.* 2003; Feingold 1992; Langlois *et al.* 2000), one suggests that attractiveness is more beneficial for women than men (Maestriperi *et al.* 2017), and one presumes attractiveness is more beneficial for men than for women (Sierminska and Liu 2015). These reviews illustrate their authors' highly variable understandings of gender: Some interpret gender in terms of sex and mating and appear to take hegemonic masculine sexual subjectivity for granted (Maestriperi *et al.* 2017), whereas others refer, somewhat loosely, to gender roles (e.g., Hosoda *et al.* 2003; Sierminska and Liu 2015). Furthermore, previous reviews have included a limited number of studies (the most encompassing being Hosoda *et al.*'s [2003] review of 27 studies), and the studies reviewed mostly lean towards experimental methodologies rather than real-life studies. Whereas Hosoda *et al.* (2003) suggested that the outcomes of attractiveness may vary as a function of research design, previous reviewers have neglected to analyse how results vary by research design. Furthermore, whereas Sierminska and Liu (2015) discussed how the effects of physical appearance might not be the

same everywhere in the world, previous reviews have not analysed how the gendered outcomes of physical attractiveness vary between countries or cultural contexts.

In order to fill in gaps of the previous literature reviews on the topic, we take a gender perspective to systematically analyse significantly more studies (58) than previous reviews, including and comparing both experimental and real-life studies. Furthermore, in contrast to previous reviews, we also analyse how results vary by research design as well as culture and context. As previous literature reviews and theoretical accounts of the topic, we also rely on hypotheses: (a) both men and women are rather evenly rewarded for being attractive or (b) outcomes of attractiveness are gendered.

Methods

Search Strategy, Inclusion Criteria, and Data Extraction

In our systematic review, we employed several search engines: EBSCO, Scopus, ProQuest, Web of Science, and Google Scholar. We conducted the searches in three waves. The first search wave was conducted on October 1 and 2, 2019, on EBSCO, Scopus, and ProQuest. The second wave was conducted on the Web of Science on October 18, 2019. After screening the results of the first and second search waves, we noticed that our searches had not managed to capture certain relevant articles that we were aware of. Thus, the third search wave also included additional searches using Google's related-articles search in some of the search results that matched well with the inclusion criteria and were often referenced (Anderson *et al.* 2010; Hamermesh and Biddle 1993; Harper 2000; Liu and Sierminska 2014; Mobius and Rosenblat 2006).

Our search string (see Appendix A) was separately adjusted for each search engine, but we took great care to maintain the contents of the search consistently. The main obstacle in the searches was to find all of the relevant studies but limiting the results feasible for

screening. Thus, to construct an efficient search string, we consulted an information specialist from the university library. After this appointment, we achieved our goal, except for Google Scholar, which gave us 1,100,000 results. After screening the first 100 results of the Google search, the amount of relevant results dropped dramatically, and we decided to include only 1,000 first results ordered by relevance. We present the details of our initial bibliographic search in Appendix A.

In the first phase of the selection of articles, two of the authors independently screened the search results by reading their titles. In the first round, we selected all titles that even vaguely seemed to touch the subject and potentially match the inclusion criteria (Table 1). The search on the Web of Science was an exception: We included only unique articles that were not found by the other search engines in the first wave of the search. After collecting the titles and removing all of the duplicates, we had a total of 504 articles that passed the first screening phase.

Table 1. Inclusion and exclusion criteria

[Table 1 to be inserted here]

In the second screening, two reviewers independently read the abstracts of the selected 504 articles. Both reviewers were advised to include rather than exclude articles if they were uncertain whether the abstract matched the predetermined inclusion criteria. After both reviewers had screened the abstracts, a third reviewer compared the choices of the two and made a final decision on which articles were accepted for data extraction. At this point, we were left with 101 articles matching the criteria.

Before delving into reading the full texts of the articles, we created a data extraction table to gather the information in a more condensed and easily comparable format. The columns in the extraction table were

- article name;
- country of the data;
- total number of participants (and of men, women, other);
- possible name and year of the data;
- sample characteristics/population;
- short outline of the study;
- what were the methods being used
- how appearance was measured (in five aspects: 1) the measured object [e.g. a photo or face-to-face impression], 2) appearance-traits that were measured, 3) number of ratings per appearance, 4) who were the raters, 5) scale);
- what fields or occupations were studied;
- what was the main outcome that was measured;
- main results;
- theoretical explanations or interpretations (for the background of the study and for its results); and
- other possible remarks.

Independently, two different researchers extracted each article. All the authors participated in the extraction process. The results from the two extractions were compared. Reviewers discussed and resolved mistakes or conflicts together. It has to be noted that not all studies provided information for all columns. For example, the country or year of the data was missing in some cases, and if that information could not be achieved by reasoning, we left blanks in the extraction table.

During the extraction process, some of the studies were found not to meet our inclusion criteria, leading us to discard several studies at this point of the extraction. Some of the discarded studies were clearly unsuitable for our study, such as those that had only either women or men as their subjects. Others, however, revealed ambiguities in our inclusion criteria, which we discuss next.

We weighed the interpretation of our inclusion and exclusion criteria with great care and had lengthy discussions pertaining particularly to two of our inclusion criteria, namely “attractiveness (or beauty) as a measurement of appearance” and “labor market–related socioeconomic outcomes.” First, the manifold and sometimes imaginative ways in which previous research has measured attractiveness posed questions. Initially, we considered including only studies that measured attractiveness from facial photos that were evaluated in terms of attractiveness by several raters. However, this would have resulted in the exclusion of some of the most-cited studies on the subject (e.g., Hamermesh and Biddle 1994), which among many others employed data from a longitudinal study in the United States called Add Health. In Add Health, attractiveness is measured by a single interviewer visiting respondents’ homes (see e.g., Monk *et al.* 2021). Thus, instead of basing evaluations of respondents’ attractiveness on facial photographs, the interviewer establishes their rating on a general, bodily impression of respondents’ appearance. We decided to include all studies that have used attractiveness or beauty as the measured variable, whether the measurement was based on facial impressions or impressions based on more general bodily attractiveness. The ways in which included articles measured attractiveness is discussed in some detail in Appendix B.

Second, the criterion for labor market–related socioeconomic outcomes in our study turned out to be ambiguous when applied to actual research papers. One emergent question was whether to include studies on teaching ratings that students have given to their teachers (e.g., Hamermesh and Parker 2005; Riniolo *et al.* 2006; Wolbring and Riordan 2016). Although some studies (Kaun 1984; Moore *et al.* 1998) have stated that student ratings may have an indirect impact on teachers’ salaries, we decided to exclude these because the causal relation between the two variables seems to be lacking firm evidence. Similarly, we decided to also discard studies that use academic success as an outcome (Gheorghiu *et al.* 2017).

Another question we faced was whether to include experimental laboratory studies that utilize game theoretical designs, ultimatum games, or bargaining tasks (e.g., Deryugina and Shurchkov 2015; Solnick and Schweitzer 1999; Quereshi and Kay 1986). Our concern was whether these research designs would simulate real-life outcomes credibly enough.

Nevertheless, seeing that experimental settings are very common in attractiveness studies, we decided to include all game studies that concerned working life contexts. We also debated the inclusion of the multiple studies that measure the relation between physical attractiveness and electoral success, both in political and corporate elections (e.g., Berggren *et al.* 2010; Geiler *et al.* 2018; Jäckle and Metz 2017). We were pondering whether electoral success should be seen as a socioeconomic outcome and finally decided to include such studies, rationalizing our decision on seeing the positions in politics and corporate management as usually paid jobs, thus comparable to occupational hiring. Even people who are not politicians by occupation tend to receive monetary remuneration, for example for attending meetings. Previous research on electoral outcomes has also related the topic to literature on appearance premiums in the labor market (e.g., Berggren *et al.* 2010). Lastly, we discussed the inclusion of a couple of studies (Duarte *et al.* 2012; Gonzalez and Loureiro 2014; Jenq *et al.* 2015) that used loans as the outcome. Our discussion resulted in a consensus ruling out personal loans but including studies on company loans, as these are not fully private loans but concern working life and are applied for not as a private person but in an occupational role. Finally, we ended up with 58 studies that match our inclusion criteria.

Data Analysis

Descriptive Outlook on the Studies

REUS-2022-0043 [*Figure 1 to be inserted here*]

Figure 1. Overview of included studies by study type, year of publication and continent.

Number labels refer to article ID, see Appendix C.

Figure 1 provides an overview of the studies we included and shows, first, how most of the studies (64%) were published in 2010 or later. This implies that plenty of research on the economic outcomes of physical appearance in working life, which take gender differences into account, have been conducted since the publication of previous literature reviews on the topic. Second, another noteworthy feature is that, until 2010, almost all of the studies on the topic were North American, mainly from the U.S.. Since then, studies from Europe and Asia in particular have increased, and a couple of studies have also been conducted in Australia and South America. Africa was the only continent where we did not find any research matching our inclusion criteria. Third, recent research has employed more nonexperimental designs than earlier studies. These three aspects in the overall trends in our data justify updating our current knowledge on the subject. It is even worth considering whether the data employed in earlier reviews were biased to the U.S. studies employing experimental designs. Studies from the 2010s introduce cultural and methodological diversity to the pool of research, which allowed us to assess the question of the consistency of the logics of beauty in working life.

The studies included in our systematic review are theoretically diverse. To give a rough overview of the theoretical explanations the studies draw on, we extracted for each study (a) the *main theoretical explanation* given for the relation between attractiveness and economic outcomes in general, and (b) the main explanation for gender differences in that relation. The explanation for gender differences (b) was only coded for studies that found some type of gendered outcome (41 studies in total). Many of the articles reviewed understandably draw on multiple different explanations, but we did our best to identify the

key theoretical account underpinning each article. Studies where one main explanation could not be distinguished were categorised as “unclear.” The same codings were applied in extracting both general and gender-specific explanations.

Table 2. Main theoretical explanations of the articles

[Table 2 to be inserted here]

As Table 2 illustrates, out of the 58 studies reviewed, many (16) explain the general relationship between attractiveness and socioeconomic outcomes by referring to discrimination. Other very common theoretical accounts include the somewhat general, descriptive rather than explanatory idea of a ‘beauty premium’ (13 articles), as well as stereotypes related to gender (11 articles) and attractiveness (8 articles). Only single papers draw on interpersonal competition or resource-based explanations, and none of the papers base their main explanation of the relation between attractiveness and socioeconomic outcomes on evolution. Three papers propose no explanation at all. When it comes to the 41 articles that found gendered results explaining the gender differences, the clearly most common explanation appears to be gender stereotypes (16 articles). Eight studies that find gender differences do not attempt to give an explanation for their findings.

Table 3. Measures of socioeconomic outcomes in the studies

[Table 3 to be inserted here]

Table 3 shows the distribution of how different socioeconomic outcomes were measured in the studies. Most often the outcomes were related to recruitment processes (e.g., the likelihood of hiring, giving recommendations for hiring, or rating and ranking the

applicants on their hireability) and different monetary measurements, which included hourly, monthly, and yearly incomes as well as tips in service jobs. Measuring electoral success was also a rather often used measurement, and that included both political (communal and national) and corporal elections, such as elections for a role of corporate director (Geiler et al. 2018) or as an officer for an association (Hamermesh 2006). In addition, a few studies did not fall into these categories. These studies measured, for example, occupational status or standing (Anýžová and Matějů 2018; Sala *et al.* 2013), competence (e.g., evaluations of career progress and capability; Heilman and Stopeck 1985), or speed of getting a loan in different sectors of labor markets (Jenq *et al.* 2015).

Table 4 depicts the array of occupations examined in the articles. The occupations were first classified by the 10-pointed ISCO-08 classification and then further condensed into four categories containing low- and high-skilled white- and blue-collar occupations. As many studies included examination of more than one occupation, the numbers and percentages in the table do not add up to our total *N* of 58 or 100%. Table 4 shows much of the research on the gendered economic outcomes of attractiveness that has taken occupation into account, in the first place, has focused on white-collar jobs. There is a clear imbalance in the occupations studied, marked by the almost total absence of studies on blue-collar jobs.

Table 4. Occupations examined in the studies reviewed, categorized according to the International Standard Classification of Occupations (ISCO-08)

[Table 4 to be inserted here]

Gendered Outcomes

Next, we will answer our research question concerning the distribution of appearance-related socioeconomic outcomes in labor markets between men and women. We begin by

introducing the general results of our analysis. Then we dig deeper into results and seek possible explanations for discrepancies in results. We compare whether the differing results could be explained by research design or cultural differences, either in terms of the occupations examined or the continent where and the time when the research was conducted.

Table 5. Distribution of gendered outcomes of articles (N=58) reviewed

[Table 5 to be inserted here]

In Table 5, we can see the numbers of how various conditions found support in the reviewed studies. In coding the results, we specifically looked at the paper's gender comparisons. If a paper included, for example, stepwise models we looked at the model which was the most comparable to models in other papers. Apart from our interpretations of the models, we also took into account the authors' interpretation. The total number of results is more than the number of studies included because many studies have provided several results that were not mutually exclusive. For example, if attractiveness was found to be generally beneficial for both genders, but more to men than to women, the result was marked in both the second ('attractiveness more beneficial for men') and third columns ('attractiveness beneficial for both'). According to this count of results, there are no clear differences between genders in terms of benefitting from attractiveness. Instead, an almost equal amount of studies have supported the claim that women benefit from attractiveness more than men as there is support for men benefitting more than women. Moreover, most often we find support for the claim that attractiveness is socioeconomically beneficial for both men and women.

We thus find that attractiveness is not solely something that women benefit from but that there is at least as strong of evidence for it being an asset for men. Interestingly, the most

obvious gender difference concerns cases in which attractiveness acts as a detrimental property, often referred to as the ‘beauty is beastly’ effect (Heilman and Saruwatari 1979). Seven studies found this effect for women, but no study detected it for men. As such, it would seem that attractiveness is more coherently an asset for men, whereas the outcomes of attractiveness are more unsystematic for women.

Fewer papers have focused on the effects of being less attractive (often referred to as unattractiveness or plainness) than being attractive. Hence, we can say less about the gender differences of the effect of unattractiveness or plainness. Overall, studies focusing on plainness most often found it to be linked to negative outcomes, either for one gender or both (15 papers in total). Three papers found that plainness may be beneficial either for men or women, and none of the papers reported it to be *generally* rewarded. Heilman and Saruwatari (1979) found unattractiveness to be more beneficial for women in *managerial jobs* in terms of hiring and salary recommendations and qualification evaluations. The same result was replicated in a study by Shahani-Denning *et al.* (2010), but only in their U.S. sample, not in India to which they compared the U.S. results. In contrast, Lee *et al.* (2015) found that unattractiveness may be beneficial for men, instead of women, in situations in which the decision maker expects they need to compete with the evaluated person in the future. In short, all of the studies that found plainness to be beneficial for either gender took into account more situational logics and psychological processes involved, implying that the process with regards to how appearance-related inequalities are established is multidimensional.

As we are interested in analysing the possible patterns behind the inconsistent outcomes in terms of gender, we will next focus on studies’ results that are inconsistent with the general finding that attractiveness most often benefits both men and women.

A Focus on Inconsistent Gendered Outcomes

The most strikingly inconsistent results concern studies that found attractiveness to be a benefit either for men (20 studies) or women (19 studies), as well as the studies that found attractiveness to be detrimental for women (seven studies). What differences and similarities do these studies share? Are there any patterns that could explain these discrepancies?

Table 6. Inconsistent gendered outcomes by country, year, study type, occupational categories, outcomes, basis of rating and pool of raters

[Table 6 to be inserted here]

First, we look at the studies that report findings of attractiveness as more beneficial for women than men ($N = 19$). The majority of them ($N = 11$) were conducted in Northern America i.e. in the U.S., which is also the case for the majority of studies in our sample. The number of European studies in this category is also relatively high ($N = 6$) compared the number of studies in other two categories that utilise European data. They are fairly novel studies, and all but two were published 2000, with their average year of publication being 2009. The studies contained experimental (both lab- and real-life experiments), correlative, and longitudinal data, and no general pattern could be distinguished from them. Most of these studies ($N = 11$) did not elaborate on the occupational context they studied, which would imply that attractiveness seems to be more beneficial for women in more general settings that lump together different fields of working life. However, when the occupational contexts were taken into account, the result appeared most often in the fields of clerical, service, and sales works. When looking at the measured outcomes of these studies, monetary outcomes (i.e., wages, income, salary, earnings or tips) are the most common ones ($N = 8$). Second most often ($N = 6$) these studies used hiring (i.e., employment, callback rates, or hiring recommendations) as their way to measure the socioeconomic benefits. Two studies were

about electoral success, and three measured other kinds of success (i.e., employment status, wage-bidding, and evaluations of future success and performance).

Second, a similar number of studies ($N = 20$) found that attractiveness was a more beneficial characteristic for men than for women. Most of them ($N = 13$) are, again, North American studies (i.e. studies utilising data from the U.S.); however, on average, they are older studies as nearly half of them were published before year 2000. It has to be noted that only a few ($N = 3$) studies under this category utilise European data. In addition, half of the studies which find that attractiveness was a more beneficial feature for men than women use experimental settings (either laboratory or real-life experiments), which was almost at an equal proportion in the studies reporting more benefits for women. Moreover, the number of studies ($N = 10$) that does not explicate which occupational contexts their results concern was almost equal. The studies that contain information on occupation most often concern *professionals* ($N = 5$) and *service and sales workers* ($N = 4$). Most of the studies sharing the result of attractiveness benefitting men more than women measured either monetary ($N = 8$) or hiring-related ($N = 9$) benefits. Two measured electoral success, and one evaluated job applicants' ratings and rankings.

Overall, the closer examination of these studies suggests few patterns that could explain the discrepancies in results. Studies that find attractiveness to be more beneficial for women than men seem on average to be slightly more recent, and where they acknowledge the occupational field, this result appears most often in clerical and service and sales occupations. In contrast, when attractiveness is found to benefit men more than women, professionals and service and sales workers are the most common occupations. The prevalence of professional occupations in the results reporting benefits for men and clerical occupations among women, respectively, could be taken to hint at particular gendered

patterns of attractiveness in working life. However, as Table 6 illustrates, there is definitely no clear indication of systematic variation in results according to occupational category.

Third, the studies that found attractiveness to be *detrimental* property for women in terms of socioeconomic success are also mostly North American utilising data from the U.S. ($N = 5$). One is a comparison between the United States and Israel, one study was European, and one study was Asian. Five of these are fairly novel studies (conducted in 2010 or later), whereas the rest are published in the '90s, '80s' and '70s, respectively. All but one of these studies are based on experimental settings (i.e., five lab settings and two real-life experiments). This raises the question of whether the (laboratory) experimental research design would be able to grasp more detailed interpersonal logics that may have been ignored in nationwide correlative or longitudinal studies. On the other hand, it could be questioned to what extent the results from experimental laboratory studies reflect real-life situations. Another noteworthy feature in these studies, which found a 'beauty is beastly' effect, is that all of them have specified the occupations they are studying, which reinforces the interpretation that more general settings may not grasp the more contextual effects of attractiveness. The occupational categories in which attractiveness was found most often detrimental for women were white-collar occupations, both high- ($N = 6$) and low-skilled ($N = 6$). Six out of seven of these studies measured hiring-related outcomes, which reflects the common design in experimental settings in this area's studies. The data in half of these studies ($N = 4$) are based on student samples, and these studies mainly measured attractiveness from facial photos of real people ($N=6$).

Discussion

Our initial aim in this paper was twofold: First, to provide an up-to-date summary of the gendered socioeconomic outcomes of physical attractiveness in labor markets; and,

second, to analyse possible patterns behind the inconsistent outcomes in terms of gender. Studies on the subject had been published increasingly in last 10 years as researchers in Europe, not just in the U.S., have become enthralled by physical attractiveness-based inequalities. Yet the results have often been scattered in terms of gender. As previous literature reviews on the topic, we too relied on two competing hypotheses: that (a) both men and women are rather universally rewarded for being attractive or (b) outcomes of attractiveness are gendered.

We found, first, that attractiveness is a socioeconomically beneficial feature for both men and women, in general. There seems to be no clear evidence that attractiveness would be more beneficial particularly for women, as lay understandings would suggest. Instead, an almost equal amount of studies have indicated that attractiveness is more beneficial for men than women. However, a common conclusion is that there is no significant difference between genders. Yet attractiveness seems to be more consistently beneficial for men than women. This is because attractiveness appears to be detrimental for women in certain cases, which it is not the case for men. Hence, our review suggests that, for men, attractiveness is a rather universally beneficial feature, whereas for women it appears more context dependent. Thus our results partly support the second hypothesis about the outcomes of attractiveness being gendered. In other words, both genders generally benefit from attractiveness, but it seems only women get penalised for being attractive. Women are expected to constantly engage in aesthetic labor to improve their looks (Elias *et al.* 2017), yet attractiveness comes with risks of not only stigma, but also of socioeconomic penalties on labor markets. The fact that women walk such a tightrope means we can hardly consider attractiveness an individual characteristic or form of capital that universally yields gender blind beauty premia.

We found few patterns that could explain the inconsistent outcomes in terms of gender. It is possible that both the way studies are conducted and the extent to which in-group

differences were taken into account (i.e., whether studies compared, for example, countries, cultures, occupations, or sex type of the jobs) may have contributed to mixing up the results. In terms of cultural differences, an interesting finding is that in European studies, six studies found attractiveness to be more beneficial for women, whereas only three report attractiveness to be more beneficial for men. In addition, the majority of the studies that report the existence of beauty penalties for attractive women are conducted in the U.S. (and only one in Europe) and utilise experimental design. It might be that these types of lab experiments based on first impression and stimulus-reaction schemes reinforce gender stereotypes related to attractive women in particular (cf. Kuwabara and Thébaud 2017).

European countries tend to have higher female labor force participation and be considered more gender equal than the U.S., but a possible European gender gap in the socioeconomic outcomes of attractiveness is hardly something to cheer for. As labor markets in Europe remain gender segregated, one woman's perk is likely to be another woman's penalty and hence gendered socioeconomic outcomes of attractiveness are likely to increase inequalities between women.

Not many of the reviewed articles acknowledged contextual measurements to the extent that systematic patterns or mechanisms could be detected by comparing them. For example, it is striking that blue-collar occupations were barely represented in the studies we reviewed in this paper. This not only causes a middle class bias, but may also distort results, as it can be argued that blue-collar occupations tend to be more sex-typed than white-collar jobs. Generally, more recent studies included into our systematic review had acknowledged in-group differences better than older studies by employing comparative study settings and including more detailed analyses of different statistical interactions.

In all, it would seem that contextual factors matter for attractiveness-related outcomes. It could even be that unequal outcomes relate as much to the context and its

culture as to individual characteristics. Future studies should better acknowledge both the cultural context in which the study has been conducted—for example, by including analyses of the structures of labor markets and consumer culture—and they should include various types of occupations with comparative settings in their analyses. If studies increasingly examine contextual factors, it will in the future be possible to conduct systematic reviews or meta-analyses about the role of various factors that are associated with the outcomes of attractiveness for different social groups. For example, a recent study by Monk *et al.* (2021) found that the returns of attractiveness vary depending on the intersections of race and gender, where Black women get the most advantage and disadvantage from attractiveness. Future studies should not ignore the fundamentally relational and cultural nature of appearance-based inequality, which in other words means including more intersectional thinking and methods of analysis (cf. Monk *et al.* 2021).

Many of the papers we reviewed quite straightforwardly drew from previous very empirical, theoretically void beauty premium research. However, we know that people often make social categorizations of, for example gender, race and age based on physical appearances. Can we study the outcomes of attractiveness without taking into account such social categorizations, as well as the valuations and expectations attached to them? Studying attractiveness in isolation might indeed not be the best and most theoretically rewarding strategy.

While in this systematic review the main focus was on the outcomes of attractiveness rather than unattractiveness, it is worth asking whether this focus allows us to fully grasp appearance-based inequality. With the overwhelming focus on the positive outcomes of attractiveness in previous literature, there is a tendency to contrast 'the attractive' to 'others' rather than studying outcomes of unattractiveness, or making comparisons between different

levels of attractiveness. This undoubtedly limits our understanding of appearance-based inequality (Griffin & Langlois 2006; Kanazawa & Still 2018).

Furthermore, because it appears the outcomes of attractiveness in labor markets are to some extent both gendered and context dependent, we argue that future studies need to develop better tools to measure and analyse physical appearance-related social inequalities in more detail. We underline that attractiveness is only one aspect of physical appearance. In this review, we only included studies that measured attractiveness or beauty because the majority of appearance-related research has approached the outcomes of physical appearance using those measurements. The studies included utilised various methods and scales to measure attractiveness, which in itself may distort the results. More effort should be dedicated to formulating more uniform and robust ways to measure (un)attractiveness, but also to unpacking (un)attractiveness. Current research too often takes the role of attractiveness for granted, thus contributing to naturalizing attractiveness-related inequality. On labor markets, the outcomes of physical appearances may not always be related to attractiveness, and thus there is a need to develop and study the role of complementary measures, which could capture, for example, how styles of clothing, hair, posture, facial expressions, grooming, and living up to field-specific occupational appearance standards produce unequal outcomes. We encourage applying innovative research designs to solve inconsistencies from previous research and to increase our understanding of gendered appearance-related inequalities in working life. It is clear that in an ever more visually oriented social world, these inequalities will rapidly deepen unless they are better recognized and understood.

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Wolf, Naomi (2002[1990]) *The beauty myth: How images of beauty are used against women*.

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Tables

Table 1. Inclusion and exclusion criteria

Included	Excluded
Written in English	Other languages
Peer-reviewed article	Non-peer-reviewed articles, books
Quantitative study	Qualitative study
Attractiveness or beauty as a measurement of appearance	Weight, BMI, height, dress, femininity, or masculinity as a measurement of appearance
Labor market related socioeconomic outcomes (e.g., earnings, recruitment, getting a loan, electoral success, getting tip, and career success)	Other outcomes, such as success in relationships
Both men and women acknowledged and compared in the analysis	Studies concerning solely either men or women, or making no comparisons

Table 2. Main theoretical explanations of the articles

	General theory		Theory for explaining gender differences	
	N	%	N	%
Beauty premium	13	22,41	2	4,88
Lack of fit/gender stereotypes	11	18,97	16	39,02
Halo-effect/attractiveness stereotypes	8	13,79	2	4,88
Discrimination	16	27,59	5	12,2
Interpersonal competition	1	1,72	2	4,88
Evolution-based explanations			1	2,44
Resource or capital-based explanations	1	1,72	1	2,44
Other	2	3,45	1	2,44
Unclear	3	5,17	3	7,32
No explanation	3	5,17	8	19,51
	58	100	41	100

Table 3. Measures of socioeconomic outcomes in the studies

	Studies	%
Money	21	36,21
Hiring	20	34,48
Votes	9	15,52
Other	8	13,79
Total	58	100

Table 4. Occupations examined in the studies reviewed, categorized according to the International Standard Classification of Occupations (ISCO-08)

Categories	ISCO-08	Studies	%
High skilled white collar	Managers	5	8,62
	Professionals	11	18,97
	Technicians and associate professionals	7	12,07
Low skilled white collar	Clerical support workers	9	15,52
	Service and sales workers	13	22,41
High skilled blue collar	Skilled agriculture, forestry and fishery workers	0	0
	Craft and related trades workers	0	0
Low skilled blue collar	Plant and machine operators, and assemblers	2	3,45
	Elementary occupations	1	1,72
N/A	Unknown	33	56,9

Table 5. Distribution of gendered outcomes of articles (N=58) reviewed

Gendered outcome	Number of papers
Attractiveness more beneficial for women	19
Attractiveness more beneficial for men	20
Attractiveness beneficial for both	39
Attractiveness beneficial for neither	9
Attractiveness more detrimental for women	8
Attractiveness more detrimental for men	0
Attractiveness detrimental for both	2
Attractiveness detrimental for neither	1
Plainness more beneficial for women	2
Plainness more beneficial for men	1
Plainness beneficial for both	0
Plainness beneficial for neither	0
Plainness more detrimental for women	4
Plainness more detrimental for men	5
Plainness detrimental for both	6
Plainness detrimental for neither	2

Table 6. Inconsistent gendered outcomes by country, year, study type, occupational categories, outcomes, basis of rating and pool of raters

	Attractiveness more beneficial for women		Attractiveness more beneficial for men		Attractiveness more detrimental for women	
	N	%	N	%	N	%
Country						
North America	11	57,89	13	65	5	62,5
Europe	6	31,58	3	15	1	12,5
Asia	0	0	2	10	1	12,5
Others	2	10,53	2	10	1	12,5
Year						
Median	2012		2007		2010	
Mean	2009		2003		2003	
Study type						
Correlative	9	47,37	10	50,00	1	12,50
Experimental (lab)	7	36,84	8	40,00	5	62,50
Real-life experiment	3	15,79	2	10,00	2	25,00
Occupational categories						
High-skilled white collar	5	26,32	7	35,00	6	75,00
Low-skilled white collar	8	42,11	6	30,00	6	75,00
High-skilled blue collar	0	0,00	0	0,00	0	0,00
Low-skilled blue collar	2	10,53	0	0,00	1	12,50
Unknown	11	57,89	10	50,00	0	0,00
Outcomes						
Monetary	8	42,11	8	40,00	1	12,50
Hiring	6	31,58	9	45,00	6	75,00
Votes	2	10,53	2	10,00		
Others	3	15,79	1	5,00	1	12,50
Basis of rating						
Facial photograph of real person	12	63,16	12	60,00	7	87,50
Digitally generated or edited photo	1	5,26	0	0,00	1	12,50
Real-life encounter	4	21,05	6	30,00	0	0,00
Other or multiple types	2	10,53	2	10,00	0	0,00
Pool of raters						
Students	7	36,84	5	25,00	4	50,00
Interviewer	4	21,05	6	30,00	0	0,00
More diverse sample	4	21,05	6	30,00	4	50,00
Other or multiple	1	5,26	1	5,00	0	0,00
Information unavailable	3	15,79	2	10,00	0	0,00

Figures

Figure 1. Overview of included studies by study type, year of publication and continent. Number labels refer to article ID, see Appendix C.

Appendices

Appendix A: Bibliographic search strategy

Search engine	EBSCO	Scopus	ProQuest	Google Scholar	Web of Science
Search string	(keywords) (DE “Facial Features” OR DE “Physical Attractiveness”) OR ((DE “APPEARANCE discrimination” OR DE “DISCRIMINATION in employment”) OR (DE “PHYSICAL characteristics (Human body)”)) OR (DE “FEMININE beauty (Aesthetics)”) OR lookism OR beauty OR “facial appearance” OR attractiv* AND (abstrakteista) labo*r OR salar* OR financial OR benefit* OR recruit* OR employ* OR tipping OR earning* OR wage OR performance OR occupation* OR lookism OR penalt* OR outcome* OR discrimination OR unequal* OR success* OR wealth AND (mistä tahansa) appearance OR beauty OR attractiveness OR good-looking AND (mistä tahansa) gender NOT (abstract) mating	(keywords) beauty OR “facial appearance” OR “physical appearance” OR appearance OR lookism OR looks OR “physical attractiveness” OR lookism OR attractiv* AND (article title, abstract, keywords) labo*r OR salar* OR financial OR benefit* OR recruit* OR employ* OR tipping OR earning* OR wage OR performance OR occupation* OR lookism OR penalt* OR outcome* OR discrimination OR unequal* OR success* OR wealth AND (all fields) appearance OR beauty OR attractiveness OR good-looking AND (all fields) gender	(All subjects & indexing) MESH.EXACT(“Beauty”) OR MESH.EXACT(“Physical Appearance, Body”) OR MAINSUBJECT.EXACT(“Beauty”) OR MAINSUBJECT.EXACT(“Personal appearance”) OR lookism OR attractiv* AND (anywhere except full texts) noft(labo*r OR salar* OR financial OR benefit* OR recruit* OR employ* OR tipping OR earning* OR wage OR performance OR occupation* OR penalt* OR outcome* OR discrimination OR unequal* OR success* OR wealth) AND (anywhere) appearance OR beauty OR attractiveness OR good-looking AND (anywhere except full texts) gender NOT (abstract) mating OR dating OR marriage	(beauty OR “facial appearance” OR “physical appearance” OR attractiveness OR lookism) AND (labor OR labour OR salar* OR financial OR benefit* OR recruit* OR employ* OR tipping OR earning* OR wage OR performance OR occupation* OR lookism OR penalt* OR outcome* OR discrimination OR unequal* OR success* OR wealth) NOT (mating OR dating OR mental)	(ALL=(beauty OR “facial appearance” OR “physical appearance” OR attractiveness OR lookism) AND ALL=(labor OR labour OR salar* OR financial OR benefit* OR recruit* OR employ* OR tipping OR earning* OR wage OR performance OR occupation* OR lookism OR penalt* OR outcome* OR discrimination OR unequal* OR success* OR wealth) NOT ALL=(mating OR dating OR mental)) AND LANGUAGE: (English) AND DOCUMENT TYPES: (Article)
Databases	PsycINFO, Academic Search Premier, SocINDEX with Full Text, Business Source Complete, Political Science Complete	Social Sciences, Psychology, Business, Management and Accounting, Economics, Econometrics and Finance ja Decision Sciences	ProQuest Central, British Periodicals, Periodicals Archive Online		
Results	467	1376	2977	1100000 (1000 first chosen)	11922
Search date	October 2, 2019	October 1, 2019	October 2, 2019	October 9, 2019	December 18, 2019
Number of included articles	62	189	123	154	64

Appendix B: Measuring attractiveness

Table B1. Measurements of attractiveness in the studies

	Studies	%
Basis of rating		
Facial photograph of real person	34	58,62
Digitally generated or edited photo	7	12,07
Real-life encounter	13	22,41
Other or multiple types	4	6,90
Number of ratings per picture		
1	11	18,97
2-9	14	24,14
10-49	17	29,31
50-99	5	8,62
100-199	4	6,90
200+	2	3,45
Information unavailable	5	8,62
Pool of raters		
Students	18	31,03
Interviewer	11	18,97
More diverse sample	19	32,76
Other or multiple	2	3,45
Information unavailable	8	13,79
Scale		
5-point	18	31,03
7-point	9	15,52
9-point	10	17,24
Other	21	36,21
	58	100,00

There is no established way of measuring attractiveness in research, but instead studies approach it in a myriad of ways. Most studies measured attractiveness by having a panel rate unmanipulated facial photographs of real people by attractiveness, which ensured that each appearance was evaluated several times. Some studies digitally manipulated photographs that were

manipulation checked by a group of raters (e.g., Deng *et al.* 2019; Rooth 2009). A rather substantive amount of studies based their attractiveness ratings on face-to-face encounters. In these cases the evaluation of attractiveness was based on a whole body impression rather than a static two-dimensional facial photograph. Ratings based on real-life encounters were typically based on one rating done by an interviewer. Five studies (Cash and Kilcullen 1985; Lee *et al.* 2018; Lev-On and Waismel-Manor 2016; Maurer-Fazio and Lei 2015; Parrett 2015) did not report how many times each appearance was evaluated. Approximately in one third of the studies the pool of raters consisted of undergraduate university students. Another third used a somewhat more diverse sample of raters, such as a combination of different nationalities (e.g., comparisons between USA and India (Shahani-Denning *et al.* 2010)), different age or occupational groups or more random combinations of people (e.g. restaurant visitors (Parrett 2015)). In twelve studies attractiveness was evaluated by an interviewer whose background or gender was not explicated.

The scales that were used for measuring attractiveness were commonly 5-point scales (31% of studies used some type of 5-point scale), but narrower and wider scales were also used, ranging from scales of 1 to 3 all the way to 11-point scales. Often only the peak numbers were verbally explicated (for example, the terms for lowest attractiveness were 'very unattractive', 'homely' or 'not at all attractive' and the highest attractiveness was called as 'very attractive' or 'strikingly handsome/beautiful'). Moreover, one of the studies determined attractiveness by making the raters to choose the more attractive one out of two pictures (Jäckle & Metz 2017). In most studies only attractiveness was evaluated, but about third of the studies also measured other appearance-related characteristics, such as babyfacedness, trustworthiness or likeability.

Appendix C: Included Articles in Alphabetical Order

Article ID

- 1 Abramowitz, I. A., & O'Grady, K. E. (1991).
- 2 Andreoni, J., & Petrie, R. (2008).
- 3 Anýžová, P., & Matějů, P. (2018).
- 4 Benzeval, M., Green, M. J., & Macintyre, S. (2013).
- 5 Berggren, N., Jordahl, H., & Poutvaara, P. (2010).
- 6 Biddle, J. E., & Hamermesh, D. S. (1998).
- 7 Bóo, F. L., Rossi, M. A., & Urzúa, S. S. (2013).
- 8 Cash, T. F., & Kilcullen, R. N. (1985).
- 9 Cash, T. F., Gillen, B., & Burns, D. S. (1977).
- 10 Chiang, C. I., & Saw, Y. L. (2018).
- 11 Chiao, J. Y., Bowman, N. E., & Gill, H. (2008).
- 12 Deng, W., Li, D., & Zhou, D. (2019).
- 13 Deryugina, T., & Shurchkov, O. (2015).
- 14 Doorley, K., & Sierminska, E. (2015).
- 15 French, M. T. (2002).
- 16 Frieze, I. H., Olson, J. E., & Russell, J. (1991).
- 17 Fruhen, L. S., Watkins, C. D., & Jones, B. C. (2015).
- 18 Gehrsitz, M. (2014).
- 19 Geiler, P., Renneboog, L., & Zhao, Y. (2018).
- 20 Geys, B. (2013).
- 21 Hamermesh, D. S., & Biddle, J. E. (1994).
- 22 Harper, B. (2000).
- 23 Heilman, M. E., & Saruwatari, L. R. (1979).
- 24 Heilman, M. E., & Stopeck, M. H. (1985).
- 25 Jackson, L. A. (1983).
- 26 Jäckle, S., & Metz, T. (2017).
- 27 Jawahar, I. M., & Mattsson, J. (2005).
- 28 Jenq, C., Pan, J., & Theseira, W. (2015).
- 29 Johnson, S. K., Podratz, K. E., Dipboye, R. L., & Gibbons, E. (2010).
- 30 Judge, T. A., Hurst, C., & Simon, L. S. (2009).
- 31 Kanazawa, S., & Still, M. C. (2018).
- 32 King, A., & Leigh, A. (2009).
- 33 Kraft, P. (2012). (Study 1)

- 34 Kraft, P. (2012). (Study 2)
- 35 Lee, M., Pitesa, M., Pillutla, M. M., & Thau, S. (2018).
- 36 Lee, S., Pitesa, M., Pillutla, M., & Thau, S. (2015).
- 37 Lev-On, A., & Waismel-Manor, I. (2016).
- 38 Lutz, G. (2010).
- 39 Lynn, M., & Simons, T. (2000).
- 40 Marlowe, C. M., Schneider, S. L., & Nelson, C. E. (1996).
- 41 Maurer-Fazio, M., & Lei, L. (2015).
- 42 Mavisakalyan, A. (2018).
- 43 Nicklin, J. M., & Roch, S. G. (2008).
- 44 Orefice, S., & Quintana-Domeque, C. (2016).
- 45 Parrett, M. (2015).
- 46 Patacchini, E., Ragusa, G., & Zenou, Y. (2015).
- 47 Patel, P. C., & Wolfe, M. T. (2019).
- 48 Paustian-Underdahl, S. C., & Walker, L. S. (2016).
- 49 Poutvaara, P., Jordahl, H., & Berggren, N. (2009).
- 50 Robins, P. K., Homer, J. F., & French, M. T. (2011).
- 51 Rooth, D. O. (2009).
- 52 Roszell, P., Kennedy, D., & Grabb, E. (1989).
- 53 Ruffle, B. J., & Shtudiner, Z. E. (2014).
- 54 Ryabov, I. (2019).
- 55 Sala, E., Terraneo, M., Lucchini, M., & Knies, G. (2013).
- 56 Shahani-Denning, C., Dudhat, P., Tevet, R., & Andreoli, N. (2010).
- 57 Sigelman, C. K., Sigelman, L., Thomas, D. B., & Ribich, F. D. (1986).
- 58 Wong, J. S., & Penner, A. M. (2016).