

Nice talk! How Physical Attractiveness Affects the Impact of Company Presentations

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ABSTRACT

To determine whether perceived physical attractiveness has an impact on the appraisal of presentations, a file containing a charts presentation by one out of two fictional female presenters (attractive vs. unattractive), was introduced to a sample of N = 181 participants. Participants were instructed to imagine visiting a job fair and to watch the presentation attentively in order to report about it to their colleague not being able to attend. Subsequently, appraisals of the presentation, the company and its representative, as well as recognition performance of the content were assessed. Physical attractiveness significantly enhanced assessments of the presenter and of the presentation itself. Positive effects on ratings of the company represented were only marginally significant, and recognition performance did not differ between experimental conditions. Both, conceptual and practical implications of these findings are discussed.

Key Words: attractiveness, presentation, PowerPoint, corporate communication

1 Introduction

With their study What is beautiful is good, Dion and Walster (1972) provided seminal knowledge on the influence of perceived physical attractiveness on the traits attributed to a person, showing that attractive individuals are stereotypically perceived as being more affectionate, intelligent, and creative in comparison to unattractive ones. These results have been replicated since in numerous studies (Eagly, Ashmor, Makhijani, & Longo, 1991; Feingold, 1992; Langlois et al., 2000; Wheeler & Kim, 1997). A large number of studies examined physical attractiveness as a potential biasing factor in several fields of human interaction. With regard to private contexts, studies assessed the influence of attractiveness on mate choice (Eastwick, Eagly, Finkel, & Johnson, 2011; Urbaniak & Kilmann, 2003) or on human interaction (Davies, Goetz, & Shackelford, 2008; Dion, 1974; Hoss & Langlois, 2003; Langlois, Ritter, Casey, & Sawin, 1995). Focussing on vocational contexts, studies often examine hiring decisions (Aghte, Spörrle, & Maner, 2011; Desrumaux, De Bosscher, & Léoni, 2009; Marlowe, 1996; Ruffle & Shtudiner, 2010), salary (French, 2002; Heilman & Stopeck, 1985; Judge, Hurst, & Simon, 2009), or processes of election (Klein & Rosar, 2005; Rosar, 2009; Verhulst, Lodge, & Lavine, 2010). According to Debevec and Kernan (1984), other organizational variables are potentially sensitive to effects of physical attractiveness. Debevec and Kernan show that attractive presenters are evaluated more positively, yielding more positive ratings concerning trust and credibility, and generating more favourable reactions.

Thus, attractiveness has the potential to bias and deteriorate objective assessments in numerous contexts relevant to organizational psychology. Understanding and sensitiz-

ing people towards these effects seems thus of high practical impact for improving human decision making. The aim of the present work is to focus particularly on halo effects of presenters' level of attractiveness in the more contemporary setting of digital software-based presentations, as are frequently used for corporate communication, for example on the internet or at a job fair. Before discussing further findings and assumptions underlying the present experiment in more detail, we wish to clarify on what it is that makes some people more attractive than others. Is beauty a matter of taste, or are there some general, timeless "laws of attraction" over and above arbitrary individual or cultural preferences?

2 Physical Attractiveness and Facial Attractiveness

As stated by Rosar and Klein (2009), five mechanisms describe the effect of beauty. These are Attractiveness Consensus, Attractiveness Attention Boost, Attractiveness Stereotype, Attractiveness Glamour Effect, and Attractiveness Treatment Advantage. The Attractiveness Consensus represents a relatively high consent across western cultures (Brichacek & Moreland, 2011; Grammer, Fink, Møller, & Thornhill, 2003; Langlois et al., 2000, Sorokowski & Kościński, 2013; Wheeler & Kim, 1997) that, contrary to former belief, beauty is not in the eye of the beholder. Attractiveness rather results from certain facial characteristics of the eyed person (Cunningham, 1986; Jones & Hill, 1993; Rosar, 2009). The Attractiveness Stereotype describes the phenomenon that more positive traits are ascribed to attractive individuals (Dion et al., 1972; Eagly et al., 1991).

But what is it that makes us perceive a face as attractive? According to Fink and Penton-Voack (2002) the brain's

reward circuitry is stimulated when beholding an attractive female face. The verdict, whether an individual's face is perceived as appealing can be decided within a very short period of time. In about 100 milliseconds, not only appraisals of a person's attractiveness occur (Locher, Unger, Sociedade, & Wahl, 1993), but also stereotype attributions are taking place (Olson & Marshuetz, 2005). Following former empirical findings, the features averageness, symmetry, and sexual dimorphism (Cunningham, 1986; Grammer et al., 2003; Rhodes, 2006; Thornhill & Gangestad, 1999) most notably determine perceived facial attractiveness.

Empirical findings on the influence of averageness on perceived facial attractiveness show that human beings tend to have a preference for averageness in general, as stated by Fink and Penton-Voack (2002). Following the *Averageness-Hypothesis*, facial attractiveness prevails in principle, when a face's features match the calculated intersection of a population (Langlois & Roggman, 1990; Rubenstein, Langlois, & Roggman, 2002; see also Rhodes, 2006 for an overview). To test this hypothesis, Langlois and Roggman formed so called *composites* by overlaying photographs of faces, revealing that those *composites* including a larger number of single images were assessed as more attractive.

Grammer and Thornhill (1994) argue that symmetry rather than averageness determines perceived facial attractiveness. They state that overlaying single frames of faces not only rises the resulting face's averageness but also its axial symmetry. Similar findings are reported by Mealey, Bridgstock, and Townsend (1999), who revealed that when assessing the attractiveness of a monozygotic twin pair, the twin with a higher degree of symmetry was rated higher in attractiveness. Symmetry potentially indicates an individual's health and evolutionary resistance (Shackelford & Larsen, 1997, 1999). This effect becomes apparent in the animal world as well as in mankind and therefore likely explains why more symmetrical faces are preferred over less symmetrical ones.

3 Effects of beauty on (social) judgement

In sum, numerous powerful effects of perceived beauty have been demonstrated in the past years (Eagly et al., 1991; Langlois et al., 2006; Langlois & Roggman, 1990). In line with the classic what-is-beautiful-is-goodstereotype first shown by Dion et al. (1972, see above), Landy and Sigall (1974) as well as Kaplan (1978) found that even assessments of a written essay were affected by the attractiveness of the presumable female authors, as indicated by a photo attached to the essay in question. In particular, bad writing was devaluated less strictly, if the author was attractive rather than unattractive. Following this line of research, the present study sought to explore if similar halo effects arise within the context of a software-based slide presentation, whether these carry over to assessment of the whole company represented, and whether a seemingly more convincing presentation may even result in better memory for the content presented.

Research in personnel and organisational psychology has shown that physical attractiveness has major impact on

recruiting and career success. For instance, Marlowe, Schneider and Nelson (1996) asked a sample of experienced personnel managers to assess four written applications (two male, two female, of each one attractive and one less attractive) in terms of general qualification to participate in elite training, in terms of the likelihood to proceed to the position of vice president within three years, and to generally rank order the four candidates. Regardless of raters' gender, attractive candidates received higher ratings in all three dependent measures, although bias decreased with increasing hr experience. Shannon and Stark (2003) report similar effects, although here, the attractiveness bias only affected preliminary preferences, but not to final hiring decision. However, attractiveness obviously not only affects traits attributed to the person at hand, but also judgements of his or her performance outputs (Landy & Sigall, 1974) and job suit-

In the present experiment, we wish to go beyond these findings by testing whether similar effects arise in the context of software based slide presentations. In the past years, powerpoint presentations have gained in importance in classrooms, lectures, and in vocational context, and replaced classical overhead projector based presentations (Dinkler, Thielsch, Förster, & Meuter, 2007; Thielsch & Förster, 2007). In his article "absolute powerpoint" Parker (2001) quotes the number of powerpoint installations on computers worldwide by over 250 million, and later findings by Gaskins (2012) report on incredible one billion installations. But despite powerpoint's popularity and a vast number of specific guides and handbooks, research studies on slideshow presentations are rare (Farkas, 2006). Hence, schnettler, Knoblauch and Pötzsch (2007, p. 9) converse on a "noticeable academic lack of interest".

The aim of the present work is to replicate former findings on the influence of the attractiveness stereotype on presentations as demonstrated by Debevec and Kernan (1984), and to go beyond their work in several respects. First, we wish to not only test the effects of physical attractiveness on the appraisal of the person presenting and the presentation itself, but also on the appraisal of the represented company as a whole. Thus, we seek to explore how far the attractiveness halo effect reaches in spreading overall positivity on judgments. Moreover, we sought to explore if and how presenter's attractiveness may affect recognition of the content presented. Given that an attractive presenter should induce an overall more positive perception of the presentation as a whole, including higher vividness and convincingness, positive effects may arise. On the other hand, according to findings by Langlois and Roggmann (1990), and Light, Hollander, and Fortunee (1981), unattractive individuals are remembered better than attractive ones, and this may spread upon the content presented. Thus, it seemed at least worthwhile to explore whether memory for the content is affected by presenter's level of attractiveness.

4 Method

4.1 Overview

The present study was conducted to test the following hypotheses: According to the *What-is-beautiful-is-good*-stereotype (Dion et al., 1972), the more attractive presenter should be ascribed positive traits to a stronger degree than the less attractive one. Second, the presentation authored by the more attractive presenter should be assessed as more entertaining and persuasive compared to an identical presentation authored by a less attractive person. Furthermore, we assumed that the attractiveness stereotype leads to an uprating of the represented company. Finally, we sought to explore whether a high level of presenter attractiveness also promotes memory for content in a forced-choice recognition test. Such an effect might be a consequence of enhanced perceived vividness and / or convincingness.

To test these hypotheses, we decided to showcase the experiment as an online survey. This procedure has the advantage that the presentations could easily be integrated into the questionnaires, and that potential irritation is minimized as to why the presentation is not actually held, but provided as a file, which in turn allowed us to keep all kinds of confounding variables constant. To determine the proposed differences concerning appraisals of the presentations, the presenter, the represented company, and memory performance, we chose a between subjects design, where participants are randomly assigned to one of two experimental conditions.

4.2 Materials

Two different experimental conditions were realised for the present work. Participants were randomly assigned to watch a slide-show-presentation of a rather attractive vs. a less attractive female presenter. Presentations were perfectly identic, the presenter's portrait photo as embedded in brief curriculum vitae being the only difference.

Given that gender-specific differences were sufficiently tested in former studies on physical attractiveness (see e.g. Deblieck & Zaidel, 2003; Nedelec & Beaver, 2011), we chose to keep the gender of the stimulus person constant in the present study. In order to determine portraits of attractive vs. less attractive female presenters, a set of seven single images was collected for each experimental condition. The images of the fictional representatives were intended to match application photographs, showing only face and shoulders, which corresponds with the type of images commonly used in attractiveness research (Rosar, 2009). A study by Klein and Rosar (2009) illustrates that smiling individuals are rated as more attractive. Consequently, only images of smiling females were selected. To ensure posture and line of vision of all images resembled each other, images were edited and vertically mirrored when necessary, following an approach by Potter, Cornelle, Rhuys, and Rhodes (2007). Interestingly, the colour of an image can result in inferior ratings of attractiveness (San Pedro & Siersdorfer, 2009), hence the images were turned into grey scales and brought to an equal size of 140 x 185 pixels.

First, we invited N=20 participants (10 male, 10 female) to assess attractiveness of the resulting 14 images in a pre-test. The 14 images were presented via an online questionnaire in random order. Participants were instructed to rate the physical attractiveness of each image by means of a 7-point Likert Scale, reaching from 1=highly unattractive to 7=highly attractive. Subsequently, the mean over all photos was calculated for every single picture to create a descending order. Thereby an attractive (M=5.45, SD=1.28) and a comparatively less attractive (M=2.70, SD=1.34) portrait photo were selected to represent the two realizations of the independent variable attractiveness for later use in the main study.

4.2.1 Slide-show Presentations

Presentations started with an introductory slide, where test persons were instructed to imagine they were visiting a job fair and had to tell their absent colleague about the content. Therefore, they were asked to watch the upcoming presentation attentively. Business presentations were identical in both conditions and portrayed a fictional globally active company in the laundry and homecare industry presumably located in Cologne, Germany. The presentations consisted of six slides each, starting off with an introductory slide providing the representative's short curriculum vitae and portrait photo as differing across experimental conditions. The remaining five slides contained brief information about the company's locations, product portfolio, turnover figures, sustainability strategy, vision, and trainee programme. Thus, the resulting company presentation can be considered somewhat realistic and typical of those used in job-fair context. A pre-test with N = 15 participants (seven female, eight male) on the presentations' content, not including the portrait stimulus, ensured an adequate perceived length of the presentation and adequate difficulty of the recognition test items. Each slide was displayed for 60 seconds (as indicated to participants by a timer) before pages turned automatically. Afterwards, recognition was assessed.

4.2.2 Dependent measures

First of all, a manipulation check was conducted to ensure that the appraisal of the stimulus material corresponds to the findings of our pre-test. Participants rated the perceived attractiveness of the depicted presenter on a 7point Likert Scale, reaching from 'highly unattractive' to 'highly attractive' (see e. g. Dion et al., 1972; Rosar & Klein, 2009; Swami et al., 2012). Second, and following the approach by Braun, Gründel, Marberger, and Scherber (2003), as well as Klein and Rosar (2005), we decided to capture traits attributed to the person authoring the presentation on a 5-level, bipolar scale. The adjectives pairs chosen were based on the Big Five-Theory by McCrae and Costa (1987), for example creative - unimaginative (for the complete set of adjective pairs used, see Table 1). McCrae's and Costa's model has proven to be valid and reliable regarding the evaluation of an individual's traits (McCrae & Costa, 2003; Ostendorf & Angleitner, 2004). Trait pairs of adjectives were presented in random order to avoid order bias. To determine the internal consistency of the ten trait variables, Cronbach's alpha was

determined and found to be sufficient in order to summarize them in a mean index (a = .84).

Table 1: Adjective pairs for measuring trait variables

-	discontent
-	unimaginative
-	lazy
-	dishonest
-	unpersuative
-	insociable
-	unsuccessful
-	unlikeable
-	exciting
-	intelligent
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The appraisal of the presentation was measured next, and again on a 5-point scale, reaching from 'applicable' to 'not applicable'. Items used were *enjoyable*, *persuasive*, and *boring*, and also presented in random order to avoid order bias. In order to compute a mean scale index reflecting overall evaluation of the presentation, responses to the item *boring* were recoded, and the three items were found to form a sufficiently homogenous scale (Cronbach's alpha = .76).

According to findings by Langlois as Roggmann (1990), and Light, Hollander, and Fortunee (1981), unattractive individuals are remembered better than attractive ones. To determine whether this effect can also be found when content is presented by unattractive individuals, we aimed for testing the participants' recognition memory of presentational content. To test recognition performance, we chose a direct method where participants are aware their memory is being tested, over an indirect one. Direct methods include aided or unaided reproduction tests or, alternatively, forced choice or yes/no recognition tests (Vaterrodt-Plünnecke & Bredenkamp, 2006). For the present work we mixed statements correctly representing the information presented and false distractor statements to equal proportions (five each). Participants were instructed to read all ten statements carefully and to determine whether they were true or false. As already stated above, a pre-test on N = 15 participants had been conducted in order to avoid extreme a priori difficulty or ease. A score was calculated for each participant, simply reflecting the total sum of correct true-false-classifications.

In order to finally assess the overall appraisal of the company, three statements were constructed ('I believe the company is successful', 'I would recommend (to my friends) working for this company', 'I would like to work for the represented company'). Statement order was again randomly determined for each participant anew to avoid serial effects. Subjects were asked to rate on a 5-point scale ($1 = not \ applicable, 5 = applicable$). Moreover, participants were offered the response option prefer not to respond. The internal consistency of the company's appraisal was tested by totalizing the three items to a single index representing the mean evaluation of the company, resulting in a Cronbachs alpha of $\alpha = .77$, which can be considered internally consistent and reliable (Cronbach, 1951).

Finally, demographic data were assessed. In a free text field, test persons were given chance to speculate on the purpose of the present study, before being thanked and debriefed.

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4.3 Subjects and procedure

Questionnaires were promoted online by distributing the links via facebook profiles and by sharing the link in student groups. In order to depict further age and education levels, we spread the link via Xing. In addition, employees of two companies were asked to take part in the questionnaire by mail. Taking into account that social media platforms are oftentimes visited through mobile phones and tablets, questionnaires were designed to conform to the according device standards.

A sample of N=181 experimental subjects was recruited online, via social networking platforms facebook, Xing, and e-mails. Dropout rate was 55%. The sample consisted n=124 females and n=56 males, one subject did not state any demographic data. The age of the participants ranged from 17 to 75 years; M=28.24 (SD=9.83). 44% had completed higher education entrance qualification, 34% had obtained a university degree, two test persons reported doctorate as highest education level, and 15% had completed vocational training. Participants were randomly assigned to one of the two experimental conditions, as defined by the portrait photo of the female presenter. Experimental groups did not differ significantly with regard to any of the sociodemographic data assessed.

5 Results

5.1 Manipulation check

Mean attractiveness ratings in the experimental condition attractive was M=5.65 (SD=1.10), mean for experimental condition unattractive M=3.00 (SD=1.13). Results thus show a highly significant disparity between both groups (t(179)=15.97, p<.01), which corresponds with the findings of our pre-test.

5.2 Effects of Perceived Physical Attractiveness on Attribution of Traits

To determine the internal consistency of the ten trait variables, Cronbach's alpha was determined and found to be sufficient in order to summarize them in a mean index (a = .84).

Comparison of means via MANOVA yields a highly significant effect of physical attractiveness (F(10, 160) = 10.36, eta² = .39, p < .01).

The investigation was made for every single item and as overall value. Effects of perceived attractiveness on contentment, creativity, diligence, intelligence, persuasiveness, success, and sympathy are all highly significant (see Table 2). Summarizing, more positive traits are attributed to the more attractive presenter, which replicates numerous former empirical findings. Regarding honesty, the less attractive presenter is rated more positively in comparison to the more appealing one.

Table 2: Means and standard deviations of trait variables

	Condition Attractive <i>M (SD)</i>	Condition Unattractive <i>M (SD)</i>	F
Contentment	4.00 (0.86)	3.62 (0.89)	F(1,169)=7.91**
Creativity	3.18 (0.95)	2.73 (0.98)	F(1,169)=9.08**
Diligence	4.07 (0.75)	3.49 (0.98)	F(1,169)=18.58**
Honesty	3.46 (0.82)	3.78 (0.81)	F(1,169)=6.44*
Intelligence	3.94 (0.95)	3.33 (0.82)	F(1,169)=25.33**
Interestingness	2.41 (1.28)	2.14 (1.29)	F(1,169)=1.87
Persuasiveness	3.62 (0.99)	2.60 (1.00)	F(1,169)=44.96**
Sociability	3.65 (0.88)	3.39 (0.94)	F(1,169)=3.43
Success	3.94 (0.96)	2.98 (0.86)	F(1,169)=47.92**
Sympathy	4.11 (0.89)	3.44 (0.92)	F(1,169)=23.45**

Note: N = 181, ** = p < .01, * = p < .05

5.3 Effects of Perceived Physical Attractiveness on Appraisal of Presentation

To evaluate the impact of physical attractiveness on the appraisal of presentations, a t-test was conducted in order to expose the disparity between the two experimental groups. The overall evaluation of the presentation shows a statistically significant effect of attractiveness (t(175) = 2.38, p < .05). As predicted, the presentation of an attractive presenter is appraised more positively compared to that by a less attractive presenter (see Table 3). For the judgment dimension entertainment, data show a tendency in the expected direction, but fail to reach statistical significance. For judged persuasiveness, the disparity between groups can be considered as highly significant. An attractive presenter was perceived as more persuasive compared to an unattractive one.

Table 3: Means and standard deviations of appraisal of presentations variables in both experimental groups

	Condition Attractive <i>M (SD)</i>	Condition Unattractive <i>M (SD)</i>	t-Test
Overall evaluation	3.34 (0.92)	2.97 (1.00)	t(175) = 2.38*
Entertainment	2.10 (0.99)	1.90 (0.94)	t(178) = 1.46
Persuasiveness	3.41 (1.15)	2.88 (1.30)	t(178) = 2.92**
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Note: N = 181, ** = p < .01, * = p < .05

5.4 Effects of Perceived Physical Attractiveness on Recognition

We conducted a t-test to determine potential differences between both experimental groups. Results show that the recognition performance of participants exposed to the experimental condition attractive presenter (M = 6.14, SD = 1.62) does not differ from the recognition performance of the other experimental group (M = 5.97, SD = 1.73; t(179) = .71, p = .48).

5.5 Beautiful Presenter – Beautiful Company? Effects of Perceived Physical Attractiveness on the Appraisal of the Company

With a mean of M = 3.35 (SD = .96) for the attractive presenter and M = 3.12 (SD = 1.04) for the other experimental condition, difference between conditions is only marginally significant (t(169) = 1.50 p = .07, one-tailed). In other words, the company represented by an attractive presenter is appraised in a slightly, though not significantly better way than the company represented by a physically less attractive one. Similarly, testing the hypothesis that a company represented by an attractive presenter is evaluated as being more successful, also yields only a marginally significant result (t(177) = 1.52 p = .07, onetailed). Furthermore, it is revealed that participants tended to more likely want to work for the company represented by the attractive presenter t(177) = 1.52, p = .06, one-tailed). The effect of physical attractiveness on the recommendation of the company also fails to reach statistical significance, although there is a very slight tendency in the expected direction (t(170) = .94, p = .18, onetailed). All means and standard deviations are provided in Table 4.

Table 4: Means and standard deviations of appraisal of company variables

	Condition Attractive <i>M (SD)</i>	Condition Unattractive <i>M (SD)</i>	t-Test
Overall evaluation	3.35 (0.96)	3.12 (1.04)	t(169) = 1.50†
Assumed Success	4.02 (1.10)	3.77 (1.15)	$t(177) = 1.52^{+}$
Desired Employer	2.83 (1.30)	2.53 (1.23)	$t(177) = 1.52^{+}$
Recommendation	3.22 (1.21)	3.05 (1.26)	t(170) = 0.94

Note: N = 181, + = p < .10 (one-tailed)

6 Discussion

The aim of the present experiment was to determine how a presenter's perceived physical attractiveness affects the impact of company slideshow presentations as are typically held, for instance, in the context of job fairs. Building on prior research on halo effects of physical attractiveness on judgments of personality traits as well as performance (Dion et al., 1972; Landy & Sigall, 1974; Debevec & Kernan, 1984), we sought to replicate these findings in the somewhat more modern context of software-based and purely digital impression formation. Moreover, we sought to go beyond prior findings in testing whether positive effects of attractiveness spread out to assessments of the company as a whole (e.g. in terms of employer attractiveness), and in exploring potential effects on recognition memory for presentation content.

By showcasing two identical presentations by either an attractive vs. a physically less attractive female referent, we were able to test effects on person perception, assessment of the presentation in terms of vividness and persuasiveness, as well as assessment of the company as a whole in terms of employer attractiveness, recommendation and the like. Further, participants were provided with five correct and five incorrect statements on presen-

tation content in order to explore potential effects of presenter's attractiveness on recognition memory. We decided to realize the experiment online, thus being able to hold constant all kinds of confounding variables associated with face-to-face presentations (e.g., paraverbal and nonverbal cues), and at the same time providing a setting that is still close to real life, as company presentations are frequently retrieved from company websites and watched on a personal computer. Moreover, of course, collecting data online allowed for a comparatively economical recruiting of a sufficiently large and diverse sample.

Replicating prior findings (e. g. Braun et al., 2003; Chaiken, 1979; Dion et al., 1972; Eagly et al., 1991; Feingold, 1992), we found that the more attractive presenter was ascribed positive traits to considerably stronger degree as shown by an overall MANOVA and in single tests: Physically attractive individuals were perceived as being more intelligent, diligent, creative, content, sympathetic, and even as more successful and persuasive. On the other hand, they were attributed significantly less honesty compared to the less attractive presenter. The only judgment dimensions that did not yield significant differences on a single item level were interestingness and sociability. Moreover, data analyses showed a significant effect of perceived physical attractiveness on the appraisal of presentations in terms of its persuasiveness, although the presentation was not perceived as more entertaining. This result contradicts Maddux and Rogers (1980), who claimed that physical attractiveness had no influence on presentations. In the fully medialized context implemented in the present experiment, it obviously does, thus supporting prior findings by Braun, Peus and Frey (2012), as well as elder work by Chaiken (1979), Eagly and Chaiken (1975), and Debevec and Kernan (1984).

The data collected on appraisal of the company show marginally significant effects for three out of four comparisons: The company represented by an attractive presenter was in tendency judged as more positive in total, as more successful, and as being the more desirable employer in comparison to the company represented by a less attractive presenter. These results do, however, fail to reach the conventional level of significance and should thus be interpreted with care. On a descriptive base, the likelihood to recommend the company as employer was also positively affected by presenter's attractiveness, but to a still lesser degree. Taken together, the halo effect resulting from the What-is-beautiful-is-good-stereotype seems to increasingly fade out with increasing distance of the to-be-judged target: Immediate trait ascriptions to the presenter herself showed strong effects in eight out of ten ratings, the assessment of her presentation still yielded a clear difference in terms of persuasiveness (though not entertainment), whereas effects of physical attractiveness on ratings of the company as a more remote, though associated issue, were considerably weaker.

Finally, recognition memory did not differ between experimental conditions. Thus, higher persuasiveness did not enhance memory, nor do results indicate that prior findings of better memory for less attractive persons (Langlois & Roggmann, 1990; Light, Hollander, & Fortunee, 1981) might spread onto memory for the content presented.

This null-finding may, however, well go back to a lack of proper operationalization. We chose recognition rather than free recall in order to keep the procedure simple and easy to control for in the setting realized. In hindsight, and despite of the pre-test conducted, ten statements simply do not seem to provide a sufficiently large item pool to properly determine differences between groups. We still consider this aspect of the issue as of high practical impact, and thus, future research could focus on finding better measures to assess attractiveness effects on memory.

Another weakness of the present work bearing limitations results from the online scenario. As already stated in the method section, with 379 clicks on the landing-page but only 181 full length participants, our completion rate of 45% must be considered relatively low. Apparently, initial interest or curiosity were given, but did not motivate all persons sufficiently to go through the material until the end. Thus, the results reported here bear the risk of being based on a systematic sampling bias, as full data sets are those of the more motivated "audience". Nevertheless, although this must be considered a problem for generalizability or external validity of the present findings, it does not threaten their internal validity. None of the participants was aware of our experimental manipulation, and all potential confounding variables were thoroughly controlled for (i.e., randomized or kept constant, respectively), so that differences between the two attractiveness conditions can safely be interpreted as internally valid (cf. Campbell, 1957).

In sum, the present study further contributes to the body of evidence on the attractiveness stereotype in work and organizational settings (cf. Marlowe et al., 1996; Shannon & Stark, 2003) and demonstrates that these effects also emerge in the fully digitalized context of software-based slideshow presentations. With regard to our findings on persuasiveness of the presentation, future research may focus on halo effects of presenters' level of attractiveness on the perception of and trust in products or brands, on their potential preconditions and their limits.

We do, however, clearly not wish in any way to recommend attractiveness as a major criterion for hiring in order to yield more positive ratings in whatever area a company is active in. Rather, we see the results reported here as a further call for enhanced sensitivity to biases in all kinds of judgment, be it personnel selection, employer image, or consumer decisions. Given that a static attractiveness cue such as the photograph used here unfolds substantial halo effects on proximal as well as more distal ratings, it might be a good idea to simply refrain from providing it. With regard to application documents, it is already becoming more and more common to do so in order to yield more objective assessments of a candidates qualification profile. Similarly, within the context of presentations, one might want to close his or her eyes and concentrate on the content presented in order to avoid biased impression formation. This simple trick might also provide a useful tool in sensitization trainings for different target groups. Using heuristics such as the What-isbeautiful-is-good-stereotype may be a very efficient and economical way of judgment and decision making in everyday life, and this is why our social mind is so extremely prone and ready to use them (Kahneman, 2011; Tversky & Kahneman, 1974). However, when it comes to important issues such as personnel selection and career promotion, or – on the other side of the medal – to a serious assessment of a company as potential employer, a more thorough elaboration of information is required in order to reach a fair, sound and durable judgment. A better understanding of the mechanisms underlying the use of heuristics, as well as of their reach and limits, may contribute to encourage and train such more elaborate processing.

7 References

- Agthe, M., Spörrle, M., & Maner, J. K. (2011). Does being attractive always help? Positive and negative effects of attractiveness on social decision making. *Personality and Social Psychology Bulletin*, *37*, 1042-1054.
- Bartsch, R. A., & Cobern, K. M. (2003). Effectiveness of PowerPoint presentations in lectures. *Computers & Education*, *41*, 77-86.
- Braun, C., Gründl, M., Marberger, C., & Scherber, C. (2003). *Beautycheck Ursachen und Folgen von Attraktivität*. Regensburg: Universität Regensburg, Psychologisches Institut.
- Braun, S., Preus, C., & Frey, D. (2012). Is beauty beastly? Gender-specific effects of leader attractiveness and leadership style on followers' trust and loyalty. *Zeitschrift für Psychologie*, 220, 98.
- Brichacek, M., & Moreland, R. (2011). "Is Beauty Truly in the Eye of the Beholder?" –The Universal Nature of Facial Beauty. *University of Western Ontario Medical Journal*, 80, 14-15.
- Campbell, D. T. (1957). Factors relevant to the validity of experiments in social settings. *Psychological bulletin*, *54*(4), 297.
- Chaiken, S. (1979). Communicator Physical Attractiveness and Persuasion. *Journal of Personality and Social Psychology*, *3* (8), 1387-1397.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika* , 16, 297-334.
- Cunningham, M. R. (1986). Measuring the Physical in Physical Attractiveness: Quasi-Experiments on the Sociobiology of Female Facial Beauty. *Journal of Personality and Social Psychology*, *5* (5), 925-935.
- Davies, A. P., Goetz, T. A., & Shackelford, T. K. (2008). Exploiting the beauty in the eye of the beholder: The use of physical attractiveness as a persuasive tactic. *Personality and Individual Differences, 45*, 302–306.
- Debevec, K., & Kernan, J. B. (1984). More Evidence on the Effects of a Presenter's Attractiveness Some Cognitive, Affective, and Behavioral Consequences. In T. C. Kinnear (Ed.), *NA - Advances in Consumer Research Volume 11* (pp. 127-132). Provo, UT: Association for Consumer Research.
- Deblieck, C., & Zaidel, D. W. (2003). Hemi-field memory for attractiveness. *International Journal of Neuroscience*, 113, 931-941.

- Desrumaux, P., De Bosscher, S., & Léoni, V. (2009). Effects of Facial Attractiveness, Gender, and Competence of Applicants on Job Recruitment. *Swiss Journal of Psychology*, 68, 33–42.
- Dinkler, T., Thielsch, M. T., Förster, N., & Meuter, A. (2007). Content-Management für Präsentationen. In T. Gross (Hrsg.), *Mensch & Computer 2007: Interaktion im Plural* (pp. 227-232). München: Oldenbourg.
- Dion, K. K. (1974). Children's Physical Attractiveness and Sex as Determinants of Adult Punitiveness1. *Developmental Psychology*, 10, 772-778.
- Dion, K. K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, 24, 285-290.
- Eagly, A. H., & Chaiken, S. (1975). An Attribution Analysis of the Effect of Communicator Characteristics on Opinion Change: The Case of Communicator Attractiveness. *Journal of Personality and Social Psychology*, 32, 136-144.
- Eagly, A. H., Ashmor, A. D., Makhijani, M. G., & Longo, M. C. (1991). What Is Beautiful Is Good, But. . .: A Meta-Anatytic Review of Research on the Physical Attractiveness Stereotype. *Psychological Bulletin, 10,* 109-128.
- Eastwick, P. W., Eagly, A. H., Finkel, E. J., & Johnson, S. E. (2011). Implicit and Explicit Preferences for Physical Attractiveness in a Romantic Partner: A Double Dissociation in Predictive Validity. *Journal of Personality and Social Psychology*, 101, 993–1011.
- Farkas, D. K. (2006). Toward a better understanding of PowerPoint deck design. *Information Design Journal + Document Design, 14,* 162-172.
- Feingold, A. (1992). Good-looking people are not what we think. *Psychological Bulletin*, 111, 304-341.
- Fink, B., & Penton-Voack, I. (2002). Evolutionary Psychology of Facial Attractiveness. *Current Directions* in *Psychological Science*, 11, 154-158.
- French, T. M. (2002). Physical Appearance and Earnings: Further Evidence. *Applied Economics*, *34*, 569-572.
- Gaskins, R. (2012). Sweating Bullets. Notes about Inventing PowerPoint. San Francisco und London: Vinland Books.
- Grammer, K., & Thornhill, R. (1994). Human (Homo sapiens) Facial Attractiveness and Sexual Selection: The Role of Symmetry and Averageness. *Journal of Comparative Psychology*, 108, 233-242.
- Grammer, K., Fink, B., Møller, A. P., & Thornhill, R. (2003). Darwinian aesthetics: sexual selection and the biology of beauty. *Biological Reviews, 78*, 385-407.
- Heilman, M. E., & Stopeck, M. H. (1985). Attractiveness and Corporate Success: Different Causal Attributions for Males and Females. *Journal of Applied Psychology*, 70, 379-388.
- Hoss, R. A., & Langlois, J. H. (2003). Infants prefer attractive faces. In O. Pascalis, & A. Slater (Eds.), *The development of face processing in infancy and early*

- *childhood: Current perspectives* (pp. 27-38). New York: Nova Publishers.
- Jones, D., & Hill, K. (1993). Criteria of facial attractiveness in five populations. *Human Nature*, 4, 271-296.
- Judge, T. A., Hurst, C., & Simon, L. S. (2009). Does it pay to be smart, attractive, or confident (or all three)? Relationships among general mental ability, physical attractiveness, core self-evaluations, and income. *Journal of Applied Psychology*, 94, 742.
- Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Strauss, and Giroux.
- Kaplan, R. M. (1978). Is beauty talent? Sex interaction in the attractiveness halo effect. Sex Roles, 4, 195-204.
- Klein, M., & Rosar, U. (2006). Das Auge hört mit! Der Einfluss der physischen Attraktivität des Lehrpersonals auf die studentische Evaluation. Zeitschrift für Soziologie, 305–316.
- Klein, M., & Rosar, U. (2005). Physische Attraktivität und Wahlerfolg. Eine empirische Analyse am Beispiel der Wahlkreiskandidaten bei der Bundestagswahl 2002. *Politische Vierteljahresschrift, 46*, 263–287.
- Landy, D., & Sigall, H. (1974). Beauty is talent: Task evaluation as a function of the performers' physical attractiveness. *Journal of Personality and Social Psychology*, 29, 299-304.
- Langlois, J. H., & Roggman, L. A. (1990). Attractive Faces Are Only Average. *Psychological Science*, *1*, 115-121.
- Langlois, J. H., Kalakanis, L., Rubenstein, A. J., Larson, A., Hallam, M., & Smoot, M. (2000). Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychological Bulletin, 126*, 390–423.
- Light, L. L., Hollander, S., & Kayra-Stuart, F. (1981). Why Attractive People are Harder to Remember. *Personality and Social Psychology Bulletin*, 7, 269-276.
- Likert, R. (1932). A Technique for the Measurement of Attitudes. *Archives of Psychology*, 140, 1-55.
- Locher, P., Unger, R., Sociedade, P., & Wahl, J. (1993). At First Glance: Accessibility of the Physical Attractiveness Stereotype. *Sex Roles*, *28*, 729-743.
- Maddux, J. E., & Rogers, R. W. (1980). Effects of Source Expertness, Physical Attractiveness, and Supporting Arguments on Persuasion: A Case of Brains Over Beauty. *Journal of Personality and Social Psychology*, 39, 235-244.
- Maner, J. K. (2003). Sexually selective cognition: beauty captures the mind of the beholder. *Journal of Personality and Social Psychology*, *8*, 1107–1120.
- Marlowe, C. M., Schneider, S. L., & Nelson, C. E. (1996). Gender and attractiveness biases in hiring decisions: Are more experienced managers less biased?. *Journal of applied psychology*, 81, 11.
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81-90.

Mealey, L., Bridgstock, R., & Townsend, G. C. (1999).
Symmetry and Perceived Facial Attractiveness: A Monozygotic Co-Twin Comparison. *Journal of Personality and Social Psychology*, 76, 151-158.

- Nedelec, J. L., & Beaver, K. M. (2011). Beauty is in the sex of the beholder: An examination of the effects of interviewer characteristics on assessments of respondent attractiveness. *Personality and Individual Differences*, *51*, 930–934.
- Olson, I. R., & Marshuetz, C. (2005). Facial Attractiveness Is Appraised in a Glance. *Emotion*, *5*, 498–502.
- Parker, I. (2001). Absolute PowerPoint. The New Yorker, (vom 28. Mai 2001), pp. 76-87.
- Potter, T., Corneille, O., Ruys, K. I., & Rhodes, G. (2007). "Just another pretty face": A multidimentional scaling approach to face attractiveness and variability. *Psychonomic Bulletin & Review*, 14, 368-372.
- Reips, U.-D. (2002). Standards for Internet-Based Experimenting. *Experimental Psychology*, 49, 243-256.
- Rhodes, G. (2006). The evolutionary psychology of facial beauty. *Annual Review of Psychology*, *57*, 199-226.
- Rosar, U. (2009). Fabulous Front-Runners. Eine empirische Untersuchung zur Bedeutung der physischen Attraktivität von Spitzenkandidaten für den Wahlerfolg ihrer Parteien. *Politische Vierteljahresschrift*, 50, 754-773.
- Rosar, U., & Klein, M. (2009). Mein(schöner)Prof.de. Die physische Attraktivität des akademischen Lehrpersonals und ihr Einfluss auf die Ergebnisse studentischer Lehrevaluationen. Kölner Zeitschrift für Soziogie und Sozialpsychologie, 61, 621–645.
- Rubenstein, A. J., Langlois, J. H., & Roggman, L. (2002). What makes a face attractive and why: The role of averageness in defining facial beauty. In G. Rhodes, & L. A. Zebrowitz (Eds.), Facial attractiveness: Evolutionary, cognitive, and social perspective. Westport, CT: Ablex.
- Ruffle, B. J., & Shtudiner, Z. (2014). *Are Good-Looking People More Employable?* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1705244 (26.04.2014)
- San Pedro, J., & Siersdorfer, S. (2009). Ranking and Classifying Attractiveness of Photos in Folksonomies. *Proceedings of the 18th international conference on world wide web* (pp. 771-780). ACM.
- Schnettler, B., Knoblauch, H., & Pötzsch, F. S. (2007). Powerpoint-Präsentationen. Neue Formen der gesellschaftlichen Kommunikation von Wissen. Koblenz: IJVK.
- Shackelford, T. K. (1997). Facial asymmetry as an indicator of psychological, emotional, and physiological distress. *Journal of personality and social psychology* 72(2)), 456.
- Shackelford, T. K. (1999). Facial attractiveness and physical health. *Evolution and Human Behavior*, 20, 71-76.

- Shannon, M. L., & Stark, C. P. (2003). The influence of physical appearance on personnel selection. Social Behavior and Personality: an international journal, 31, 613-623.
- Sorokowski, P., & Kościński, K. (2013). Is Beauty in the Eye of the Beholder but Ugliness Culturally Universal? Facial Preferences of Polish and Yali (Papua) People. *Evolutionary Psychology*, 1, 907-925.
- Swami, V., Stieger, S., Pietschnig, J., Voracek, M., Furnham, A., & Tovée, M. (2012). The Influence of Facial Piercings and Observer Personality on Perceptions of Physical Attractiveness and Intelligence. *European Psychologist*, 17, 213–221.
- Thielsch, M. T., & Förster, N. (2007). Präsentationssoftware: Nutzung und funktionale Anforderungen. In K. Röse, & H. Brau, *Usability Professionals 2007* (pp. S. 49-56). Stuttgart: German Chapter der Usability Professionals' Association.
- Thornhill, R., & Gangestad, S. W. (1999). Facial attractiveness. *Trends in Cognitive Sciences*, *3*, 452-459.
- Tversky, A. & Kahneman, D. (1974). Judgment under uncerntainty: Heuristics and biases. *Science*, *158*, 1124-1131.
- Urbaniak, G. C., & Kilmann, P. R. (2003). Physical Attractiveness and the "Nice Guy Paradox": Do Nice Guys Really Finish Last? *Sex Roles*, 49 (9/10), 413-426.
- Vaterrodt-Plünnecke, B., & Bredenkamp, J. (2006). Gedächtnis, Definitionen, Konzeptionen, Methoden. In J. Funke, & P. Frensch (Eds.), *Handbuch der Allgemeinen Psychologie Kognition* (Vol. IV, pp. 297-306). Göttingen: Hogrefe.
- Verhulst, B., Lodge, M., & Lavine, H. (2010). The Attractiveness Halo: Why Some Candidates are Perceived More Favorably than Others. *Journal of Nonverbal Behavior*, 34, 111–117.
- Wheeler, L., & Kim, Y. (1997). What is Beautiful is Culturally Good: The Physical Attractiveness Stereotype has Different Content in Collectivistic Cultures. *Personality and Social Psychology Bulletin, 23*, 795.

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