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Jean-Christophe Rohner, Annika Waldén, Hanna Anlér Blomberg and Pontus Carlsson

Department of Psychology, Lund University, Sweden

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REDUCING PHYSICAL-ATTRACTIVENESS BIAS IN HIRING DECISIONS: AN EXPERIMENTAL

INVESTIGATION

Jean-Christophe Rohner

Annika Waldén

Hanna Anlér Blomberg

Pontus Carlsson

Department of Psychology

Lund University

Corresponding author: Jean-Christophe Rohner, Jean-Christophe.Rohner@psychology.lu.se, +46 46
222 92 81, Department of Psychology, Lund University, BOX213, S - 222 00 Lund, Sweden

ABSTRACT

Attractive individuals are evaluated and treated more positively than unattractive individuals (Eagly, Ashmore, Makhijani, & Longo, 1991; Feingold, 1992; Langlois et al., 2000). In the present research, we try to find ways to reduce attractiveness bias in hiring decisions. Experiment 1 examined the influence of warning participants about bias. Warnings were ineffective, however: Even warned participants evaluated attractive applicants more favorably than they evaluated unattractive applicants. Experiment 2 examined the effects of consistency motivation. Participants either read or rated themselves on items that represented being motivated to respond without prejudice before evaluating job applicants. Participants who only read motivation items still exhibited attractiveness bias. Participants who rated themselves on the same motivation items, however, showed a marked reduction in bias.

Extensive research shows that physically attractive individuals are evaluated and treated more positively than physically unattractive individuals. Such attractiveness biases seems to impact judgments of social competence, intellectual ability and adjustment, as well as various social behaviors such as amount of attention and interaction (Eagly et al., 1991; Feingold, 1992; Langlois et al., 2000). In the present studies, we investigate if attractiveness bias can be reduced when people make hiring decisions. The aim is to find a way to minimize the difference in evaluation between attractive and unattractive applicants when appearance is an irrelevant qualification. Obviously, this issue has important practical implications from an individual, organizational and societal perspective. Rational meritocratic personnel selection for jobs in which attractiveness is not an asset, should simply be immune to attractiveness bias.

Attractiveness bias is thought to be an unfortunate by-product of ordinary social cognition. According to social cognitive theory, perceivers initially categorize a target as belonging to a certain group based on external characteristics, such as sex or appearance. Once categorization has occurred, a stereotype about the group is activated and any traits that are stereotypically associated with the group are ascribed to the target (e.g. Fiske & Taylor, 1991). I.e. when a person is categorized as being physically attractive, he or she might also be perceived as sociable and intelligent. Social categorization and stereotype activation probably come into play in one or more stages of a personnel-selection process, such as the evaluation of CVs or the interview, influencing trait judgments about job applicants (Powell & Goffin, 2009). This prediction is supported by empirical evidence. Hosoda, Stone-Romero, and Coats (2003) conducted a meta-analytic study in which they examined the influence of physical attractiveness on a number of job-related outcomes, such as hiring decisions, predicted job success and perceived employment potential. Attractive individuals fared better than unattractive individuals on a number of such outcomes, the weighted mean effect size being $d = 0.37$. Moderator analyses revealed that physical-attractiveness bias does not depend on the amount of job-relevant information that is available for an applicant, that professional assessors are as susceptible to bias as college students, and that attractiveness is equally important for female and male applicants.

The easiest way to reduce attractiveness bias would of course, be to remove any visual information about job applicants during the selection process. In reality, however, this seems hard to accomplish, given that some form of face-to-face interaction with an applicant is hard to avoid (e.g. in the job interview). Instead, it seems that other methods to reduce bias have to be found. From a theoretical perspective, there are at least 4 ways to change evaluative judgments about a target which could be drawn on in an intervention that aims to minimize bias (e.g. Eagly & Chaiken, 1993; Fiske & Taylor, 1991; Gawronski & Bodenhausen, 2006). (A) Attitude change can occur as a result of evaluative conditioning: Repeatedly pairing a particular target with positive information produces more positive attitudes towards the target (e.g. De Houwer, Baeyens, & Field, 2005). (B) Attitude change can result from mere exposure: The more times a particular target is encountered, the higher the likelihood that the target is evaluated positively (e.g. Zajonc, 2001). (C) Attitude change can occur when people are exposed to information that has positive or negative implications about a target; e.g. when a job applicant is evaluated more positively because it is apparent that he or she possesses several desirable qualifications (e.g. Petty, Wegener, & Fabrigar, 1997). This type of change may be conditional on people having the motivation and capability to process any information about a target carefully, especially if the information is complex (Chaiken, 1980; Petty, Cacioppo, Strathman, & Priester, 2005). (D) Attitude change may also occur as a result of consistency motivation: When people perform counter-attitudinal behaviors, they tend to change their attitudes in the corresponding direction (e.g. Cooper & Fazio, 1984; Festinger, 1957). A person that describes himself as non-prejudiced, for example, should be less likely to favor job applicants based on physical appearance because doing so would be inconsistent with being non-prejudiced. In the present experiments, we focus on the mechanisms described in (C) and (D). It seems that interventions that would rely on evaluative conditioning (A) or mere exposure (B) are less practical. For example, they are likely to be time consuming and might even be perceived as strange or unnatural.

There is a surprising scarcity of experimental studies that have examined how the biasing effects of prejudice can be reduced in hiring decisions. Our search only revealed 4 such studies[1]. These explored various strategies to increase participants' awareness of applicants' job-relevant qualifications; i.e. they focused on route (C) above. Cann, Siegfried, and Pearce (1981) studied whether the biasing effect of facial attractiveness could be reduced by prompting participants to rate attractive and unattractive applicants on job-relevant qualifications *before* making an actual hiring decision (for a job as a department manager). Paying attention to formal qualifications, by rating applicants on them, should presumably reduce bias. However, the results showed that this manipulation was ineffective: Independently of whether job-relevant qualifications were evaluated before or after making the hiring decision, participants were more likely to favor attractive over unattractive applicants. Two studies *did* manage to show a decrease in prejudice in hiring decisions; however, these studies did not concern the biasing effects of facial attractiveness. Hodgins and Kalin (1985) examined sex-bias when rating the suitability of female and male applicants for stereotypically female or male jobs (sex bias was defined as the tendency to recommend female applicants for stereotypically female jobs and to recommend male applicants for stereotypically male jobs). Their results indicated that the provision job-relevant personality information about a candidate could reduce bias. E.g. when female candidates were described as having stereotypical male traits they were as likely as male candidates to be recommended for stereotypically male jobs. Becoming aware of any traits that might be relevant for a position, thus, had the effect of reducing bias. In another study, Kutcher and Bragger (2004) examined if prejudice towards overweight applicants could be reduced by using structured interviews. Participants were presented with video recordings of an average weight or overweight applicant that participated in either a structured or an unstructured interview. Both types of interviews were matched regarding what job-relevant information they revealed about the applicants, but in the structured interview, the applicants' qualifications were made more salient. The use of a structured interview

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[1] Sheppard, Goffin, Lewis, and Olson (2011) examined if attractiveness bias could be reduced by employing a relative rating method (in which candidates were compared to each other) rather than an absolute rating method (in which each candidate is evaluated per se). However, this study did seem to have matched attractive and unattractive targets on personality and mental ability.

reduced bias towards overweight applicants, so that they were as likely to be hired as normal-weight applicants for a position of an insurance sales agent.

Taken together, then, only two studies have found ways to reduce prejudice in hiring decisions; none of the cited studies could show a reduction of prejudice towards physically unattractive applicants. Clearly, however, this is an important issue. In their meta-analysis of physical-attractiveness bias, Langlois et al. (2000) concluded that "…the benefits of attractiveness are large enough to be visible to the naked eye… and are of considerable practical significance" (pp. 404). Evidently, such considerations underscore the importance of finding causal mechanisms for reducing attractiveness bias in personnel selection processes.

In the present experiments, we examine if attractiveness bias can be reduced when evaluating applicants based on their CVs. In doing so, we based our manipulations on the mechanisms that are described in (C) and (D); we explain the theoretical rationale for each manipulation in the introduction to the respective experiment. In Experiment 1, we studied the effects of warning participants about prejudice. In experiment 2, we studied the effects of consistency motivation. In both experiments, participants read a job description for a programmer, in which physical attractiveness was an irrelevant asset. They then read a number of short CVs that contained either a picture of an attractive or an unattractive applicant, in addition to information about his or her present employment, previous employments, educational background and personal facts. In the design, attractive and unattractive applicants had exactly the same qualifications (this factor was counter balanced between subjects). Participants rated each applicant on a number of traits representing competence (intelligent, untalented, conscientious and careless) and warmth (sociable, introverted, kind and unpleasant). These dimensions seem to be central in social cognition as they appear in a number of factor analytic studies (see Fiske, Cuddy, & Glick, 2007). Finally, participants rated whether they would employ each applicant.

Given that our main aim was to find a causal mechanism for reducing prejudice, we used a simulated (rather than actual) personnel selection situation, in which we could maximize internal validity. A

number of important threats to internal validity could be excluded by matching attractive and unattractive applicants, counterbalancing conditions, treating experimental groups equivalently, and by randomly assigning participants to conditions. Establishing that an intervention actually has a causal effect on attractiveness bias obviously is an important first step before the intervention can be evaluated in an applied setting.

EXPERIMENT 1

In experiment 1, we studied the effects warnings on attractiveness bias. Before evaluating CVs, half of the participants were told that physical attractiveness can influence how people are judged, that they should disregard attractiveness and only consider the applicants' suitability for the job. The other half of participants did not receive such information. At the end of the experiment, all participants rated what information they had taken into account when evaluating applicants (in terms of physical attractiveness, present employment, previous experience, educational background, and personal facts). If warnings are effective in reducing bias, this could have important implications. Getting people to respond in an unbiased manner when evaluating job applicants could simply boil down to making sure that they are informed about the risks of prejudice and the importance of only considering job-relevant qualifications.

The potential effect of a warning can be predicted from the Elaboration Likelihood Model (ELM) and the Heuristic Systematic Model (HSM), two common dual-process models (Cacioppo & Petty, 1984; Chaiken, 1980; Petty et al., 2005). Both models postulate that attitude change can occur by means of two modes of information processing: *Systematic processing* (called *central route persuasion* in ELM)*,* involves effortful capacity-demanding cognitive activity, in which any information relevant for a judgment is scrutinized and evaluated carefully. When operating under this mode, individuals are sensitive to the quality of arguments in a message, being influenced more by strong compared to weak arguments. When making evaluations based on complex information, systematic processing thus increases the likelihood that an attitude is consistent with the available evidence (in terms of the actual pros and cons for different alternatives such as the formal qualifications of different job applicants).

Under *heuristic processing* (called *peripheral route persuasion* in ELM) evaluations are instead based on superficial features of the information or simple mental short-cuts. In this mode, people may base their evaluations on such factors as a target's physical attractiveness, the mere *number* of arguments, or on mental-short cuts (such as "experts can be trusted"). Both ELM and HSM predict that individuals are more likely to use systematic processing (central route persuasion) when they are both motivated and able to do so. I.e. people will only engage in a careful scrutiny of the pros and cons of different alternatives, if they are willing to do so, have available cognitive resources and time. If either motivation or capacity is missing, they will instead focus on superficial features of the information, such as a person's attractiveness or the mere number of arguments.

Predictions about the effects of a warning can be deduced from the ELM and HSM, in which the likelihood for systematic processing is conditional on capability and motivation. In the present experiment, all participants had plenty of time and available cognitive resources when evaluating applicants: There were no deadlines and they were not tested under conditions of cognitive load, so that they could devote full attention to performing each evaluation. Participants thus had the opportunity to use systematic processing. Warned participants were alerted to the risks of attractiveness bias, told to disregard attractiveness and told to only consider the applicants' suitability for the job. Non-warned participants did not receive such information. Accordingly, we predicted that the warning should increase the motivation to use systematic over heuristic processing; i.e. to pay careful attention to formal qualifications and to disregard physical attractiveness. The tendency to use systematic over heuristic processing should, in turn, decrease attractiveness bias, so that attractive and unattractive candidates are evaluated equally positively. To examine if the warning actually increased systematic processing and decreased heuristic processing, we asked participants to rate what information they had considered when judging applicants (in terms of physical attractiveness, present employment, previous experience, educational background and personal facts).

In sum, we hypothesized that the warning should decrease attractiveness bias, and that this effect should be mediated by whether participants considered job-relevant qualifications or attractiveness. In experiment 1 we also measured internal and external motivation to respond without prejudice. As a

secondary hypothesis we predicted that higher levels of motivation should be connected with less attractiveness bias (Fazio & Towles-Schwen, 1999; Plant & Devine, 1998).

Method

Participants

Sixty individuals in Sweden participated on a voluntary basis without compensation. The sample consisted of 53% female, 47% male, 58% student, and 40% employed participants (there were 2% missing values in the occupation variable). Mean age was 27.95 years ($SD = 8.47$). Meta-analytic research indicates that the effects of physical attractiveness on job-related outcomes do not vary as a function of whether participants are students or professional assessors (Hosoda et al., 2003).

Materials and procedure

Materials consisted of a paper booklet, which participants completed anonymously. The booklet had the following parts: (1) An instruction manipulation, (2) a job description, (3) 16 CVs with accompanying rating scales, (4) rating scales for what attributes participants considered, (5) a measure of external and internal motivation to respond without prejudice, (6) demographic information. All participants completed the parts in the order that they are listed here. There were no time limits in this task. Typically, participants finished completing the booklet in 15-20 minutes.

(1) Instruction manipulation. All participants were first instructed that they would see a job description and that the task was to rate a number of candidates on different traits as well their suitability for a job. Halve of the participants were randomly allotted to the experimental group ($n = 30$) and halve to the control group ($n = 30$). The experimental group received the following additional information, shown below the instruction: "NOTE: Keep in mind that physically attractive individuals tend to be judged more favorably than physically unattractive individuals, even though both groups have the same abilities and qualifications. Remember that you must evaluate the individuals'

suitability for employment and not consider their physical attractiveness."[2] The control group did not receive this information.

(2) Job description. Participants then read a short job description for a programmer at a company that sold educational materials such as books and DVDs. It stated that the main tasks would be development of internet tools for product information, customer orders and customer payments.

(3) CVs with rating-scales. Participants then viewed 16 distinct short CVs together with rating scales on the same A4 page, one page at a time consecutively. Each CV consisted of a separate picture of a person's face in the upper left corner (measuring about 5 x 7 cm) and a number of attributes that were unique for the person, shown below the picture. The attributes were present employment, previous employments, educational background and short personal facts (e.g. regarding hobbies and family). Thus, each CV varied in terms of the individual shown in the picture and in terms of the person's qualifications and personal facts. The 16 CVs were randomly combined with 8 pictures of physically attractive individuals and 8 pictures of physically unattractive individuals. The combination of CV and type of face was counterbalanced between participants: For halve of the participants (50% of the control group and 50% of the experimental group) all attractive pictures changed place with all unattractive pictures. In the design, attractive and unattractive applicants thus only differed in attractiveness (and not in present employment, previous employments, educational background or personal facts).

We selected the 16 faces for the experiment according to the following procedure. We chose 68 faces that varied in physical attractiveness from a number of databases: The Karolinska Directed Emotional

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[2] To examine if participants would actually read this information, an additional sample of 10 individuals completed a short surprise recognition-memory test for the information after "NOTE". This group received the same booklet as the experimental group (i.e. with the parts 1 to 6), but after the instruction (i.e. after part 1) they were presented with the memory test on a separate page. The instruction stated, "***Without looking at the previous page,*** what were you told to note in the previous instruction? Respond to each of the following statements by marking whether the information was presented in the previous instruction or not". Below the instruction, participants were shown three foil statements and one target statement (in random order). The target statement read, "To evaluate the individuals' suitability for employment and not consider their physical attractiveness". As an example, a foil statement read, "To evaluate the individuals' physical ability on the basis of their age". After completing the memory test, participants handed in the booklet. The results showed that participants responded that the target statement appeared in the previous instruction in 100% of cases; they responded that foil statements appeared in the previous instruction in 3% of cases.

Faces (Lundkvist, Flykt, & Öhman, 1998), the International Affective Picture System (Lang, Bradley, & Cuthbert, 1995), the Ekman Pictures of Facial Affect (Ekman & Friesen, 1976) and the Radboud Face Database (Langner et al., 2010). Each face was then rated for physical attractiveness by 26 judges (14 female, 12 male) on a 5 point scale labeled 1 = very unattractive, 2 = quite unattractive, 3 = neither or, 4 = quite attractive, 5 = very attractive. The 16 faces that received the highest and lowest average attractiveness ratings were used in the experiment. Attractive and unattractive faces received an average attractiveness rating of 3.88 ($SD = 0.48$) and of 1.54 ($SD = 0.18$), respectively. Attractive and unattractive faces were matched on sex and expression: Both categories portrayed 8 female and 8 male individuals, and 5 happy and 11 neutral emotional expressions. All images showed adults.

Below each CV, on the same A4 page, participants rated each candidate on a number of traits using a 7-point scale that ranged from 1 = Disagree to 7 = Agree. Four traits represented competence: Intelligent, untalented, conscientious and careless. Four traits represented warmth: Sociable, introverted, kind and unpleasant. Finally, participants rated whether they would employ the person, on the same page and using the same 7-point scale.

(4) Ratings of what attributes participants considered. After all CVs, participants rated what information they had considered when evaluating applicants. They judged the following attributes: Physical attractiveness, present employment, previous employments, educational background and personal facts. The scale went from *1 = Very unimportant* to *4 = Very important*.

(5) External and internal motivation to respond without prejudice. Participants then completed a measure of external and internal motivation to respond without prejudice (Plant & Devine, 1998). The scale consists of 10 items, which we changed from concerning "Black people" to concerning "unattractive people". Five items measured internal motivation (e.g. "I attempt to act in non-prejudiced ways toward unattractive people because it is personally important to Me.") and five items measured external motivation (e.g. "I try to hide any negative thoughts about unattractive people in order to avoid negative reactions from others.").

(6) Demographic information. Participants finally provided information about sex, age and their main occupation.

Data analysis

Averages were formed for warmth, competence, employability and motivation to control prejudice ratings (after reflecting responses to reversed items). All variables were then inspected for outliers, which were defined as values with $p < 0.001$ in a normal distribution. Outliers were replaced with the raw scores that correspond to p/2 and 1 – p/2 (see Tabachnick & Fidell, 2001). The maximum percent of outliers in a variable was 1.67%.

Results

The first analysis focused on the direct effects of the warning on applicant evaluations. Perceived competence, warmth and employability were analyzed in separate repeated measures ANOVAs, each having attractiveness (2: attractive, unattractive) as a within subjects factor and warning (2: warning, no warning) as a fixed between subjects factor. The results are shown in Table 1 and Figure 1. None of the interactions between warning and attractiveness were significant. Instead, there was a main effect of attractiveness for each dimension: Attractive applicants were rated as more competent, warm and employable than their unattractive counterparts. Note that attractiveness had a strong effect on warmth and employability ratings. Apparently, then, the warning was ineffective in reducing bias. Instead, both groups evaluated attractive applicants more favorably than unattractive applicants.

Table 1.

Effects of attractiveness and warnings on perceived competence, warmth and employability.

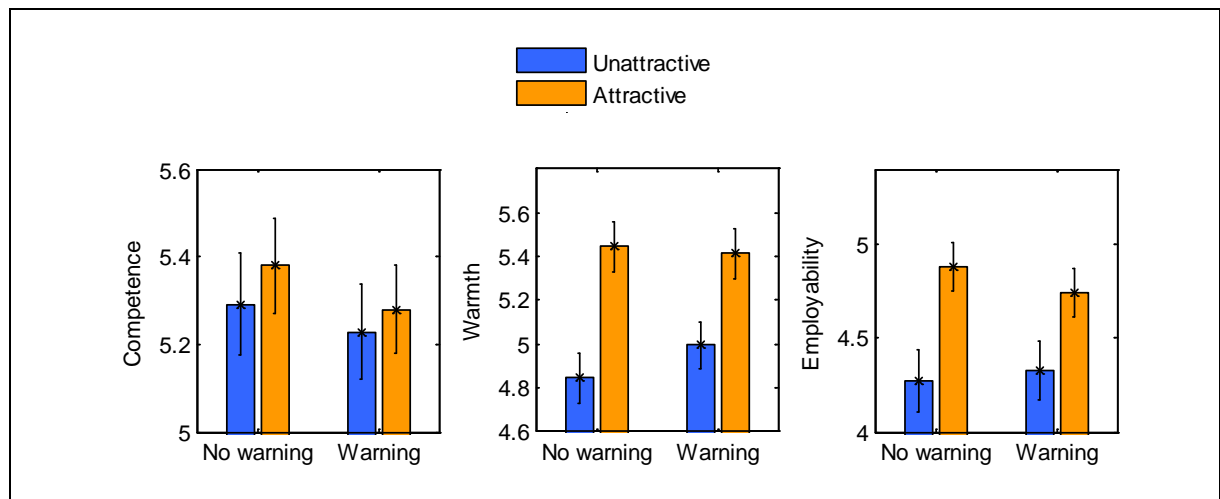| Dependent	Source	F	p	η_p^2
Competence	Attractiveness x warning	0.27	0.60	0.00
	Attractiveness	4.08	<0.05	0.07
Warmth	Attractiveness x warning	1.89	0.17	0.03
	Attractiveness	58.96	<0.05	0.50
Employability	Attractiveness x warning	1.23	0.27	0.02
	Attractiveness	35.28	<0.05	0.38

Figure 1. Effects of attractiveness and warnings on competence, warmth and employability ratings. Error bars represent the standard error.

We hypothesized that effects of the warning on attractiveness bias might be mediated by what attributes participants considered (formal qualifications as opposed to attractiveness). To examine the effects of the warning on attribute evaluations, we computed a set of one-way ANOVAs with warning (2: warning, no warning) as a fixed between subjects factor (one ANOVA for each attribute). As evident in Table 2, there were no significant differences between warned and non-warned participants regarding what information they had taken into account. Apparently, then, the warning was ineffective

in increasing focus on formal qualifications and decreasing focus on attractiveness. The grand mean of each attribute was also compared to the neutral value 2.5, representing that an attribute was neither perceived as important nor unimportant. As evident in Table 3, participants judged attractiveness as less important; instead, they judged educational background, previous experience and personal facts as more important.

Table 2.

Effects of the warning manipulation on what attributes participants considered

Dependent	Source	F	p	η_p^2
Considered attractiveness	Warning	0.58	0.45	0.01
Considered education	Warning	0.24	0.63	0.00
Considered experience	Warning	0.65	0.42	0.01
Considered personal facts	Warning	0.17	0.68	0.00
Considered present employment	Warning	0.85	0.36	0.01

Table 3.

The grand mean of each attribute rating compared to the neutral value 2.5

Dependent	M	SE	t	p	d
Considered attractiveness	2.28	0.11	-1.98	0.05	-0.26
Considered education	3.05	0.10	5.39	<0.05	0.70
Considered experience	3.54	0.09	11.77	<0.05	1.52
Considered personal facts	2.78	0.12	2.33	<0.05	0.30
Considered present employment	2.55	0.09	0.55	0.58	0.07

In the secondary hypothesis, we predicted that motivation to respond without prejudice might co-vary with attractiveness bias. To examine this issue, we calculated a set of General Linear Models with external and internal motivation to respond without prejudice as continuous covariates (one model per covariate). Warning (2: warning, no warning) was as a fixed between subjects factor and attractiveness (2: attractive, unattractive) was a repeated measures factor. To simplify the presentation we used an average of competence, warmth and employability ratings as the dependent variable (referred to as *positivity*). The results are shown in Table 4 and Figure 2. There were no significant effects involving external motivation to respond without prejudice. Internal motivation, however, had a significant main effect on positivity ratings; this effect was independent of warning and attractiveness. As shown in Figure 2, internal motivation to respond without prejudice was connected with a tendency to evaluate unattractive *and* attractive applicants more positively; both warned and non-warned participants showed this pattern.

Table 4.

Continuous effects of external and internal motivation to respond without prejudice on positivity ratings

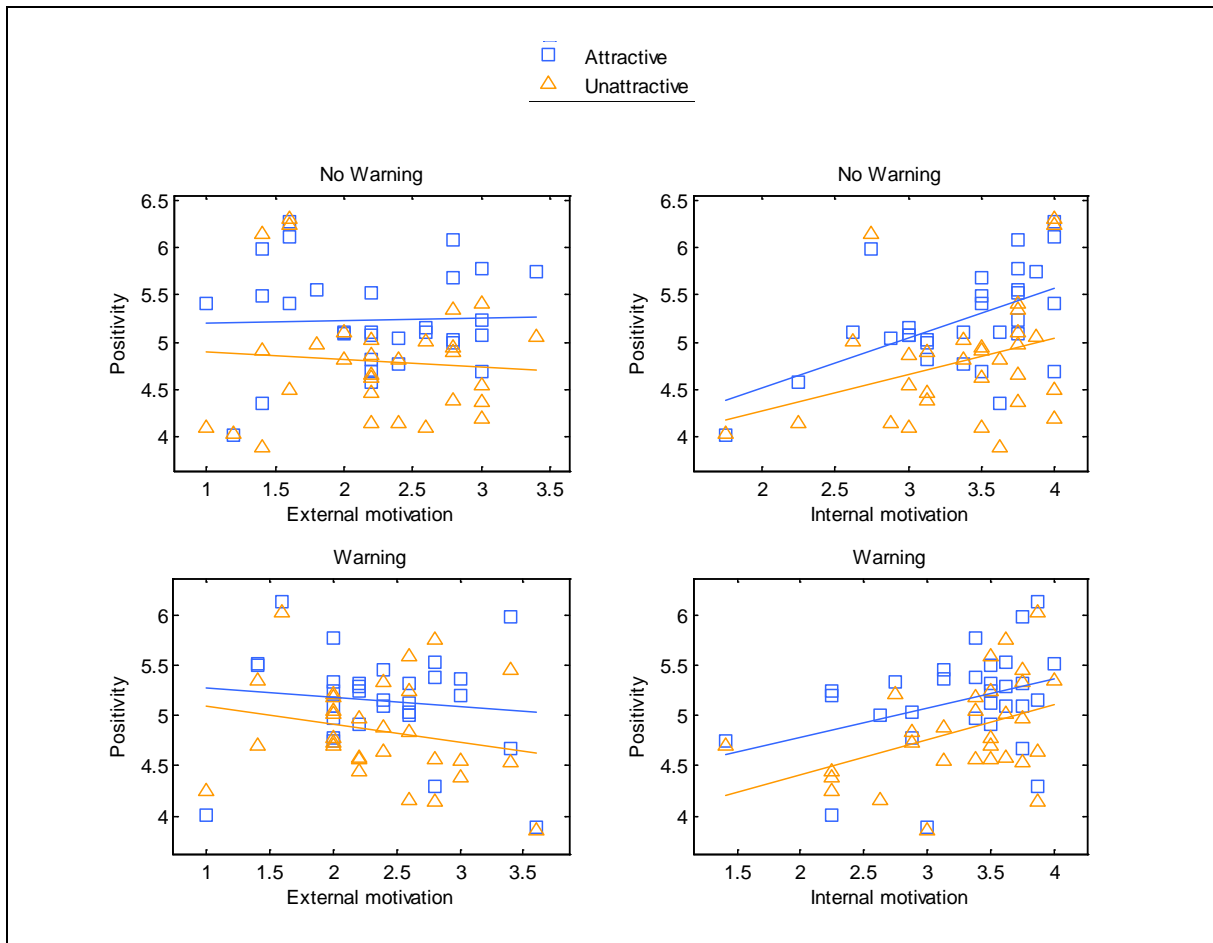| Dependent	Source	F	p	η_p^2
Positivity	Attractiveness x warning x external motivation	0.03	0.87	0.00
	Attractiveness x external motivation	1.36	0.25	0.02
	External motivation	0.53	0.47	0.01
	Attractiveness x warning x internal motivation	1.39	0.24	0.02
	Attractiveness x internal motivation	0.19	0.66	0.00
	Internal motivation	13.49	< 0.05	0.19

Figure 2. Continuous effects of external and internal motivation to respond without prejudice on positivity ratings (the average of competence, warmth and employability). Lines represent a linear least squares fit.

Discussion

Apparently, attractiveness bias was resistant to warnings. Both warned and non-warned participants judged attractive candidates as more competent, warm and employable than their unattractive counterparts. Warnings also did not appear to influence what kind of information participants considered, the factors that were presumed to mediate effects of warnings on bias. In sum, warnings were not effective in reducing bias. Internal motivation to respond without prejudice was connected with more positive ratings of unattractive candidates *and* attractive candidates, the interaction between attractiveness and internal motivation being non-significant. So even if internally motivated participants made more favorable ratings of unattractive applicants, attractiveness bias, i.e. the difference between attractive and unattractive targets, was not reduced. At first glance, it might seem

counterintuitive that motivation was connected with positivity ratings of attractive targets. However, the finding is easy to understand by remembering that internal motivation was a *measured* variable in the study. Probably, internal motivation was confounded with any number of additional variables, which could have had a causal influence even on positivity ratings for attractive targets. Internal motivation to respond without prejudice, for instance, is correlated with humanitarianism (representing kindness, benevolence and sympathy) (Plant & Devine, 1998). Humanitarianism might be connected with liking of both attractive and unattractive individuals.

Note that the results of experiment 1 should not be taken as a falsification of the ELM and HSM models. Our main aim was to evaluate the influence of a warning and not the models per se. Given that the warning manipulation failed to produce a change in strategy regarding what information participants considered, the necessary conditions for attitude change in ELM and HSM were not fulfilled; i.e. warned participants did apparently not engage in more systematic processing than non-warned participants.

EXPERIMENT 2

Given that warnings were ineffective in reducing bias, we started to look for other causal factors. The fact that internal motivation to respond without prejudice was connected with more favorable ratings of unattractive targets in experiment 1, gave us the idea that the act of rating one's internal motivation could have a causal effect on reducing bias.

A well-known mechanism in attitude change is the motivation to avoid cognitive dissonance: When people are induced to perform a particular behavior, their attitudes tend to change in the corresponding direction (Cooper & Fazio, 1984; Festinger, 1957; Gawronski & Bodenhausen, 2006; Gawronski & Strack, 2004). Avoiding dissonance amounts to resolving inconsistencies between propositions that represent important attitudes and behaviors. Two propositions are inconsistent if both are regarded as true and one proposition implies the opposite of the other (Festinger, 1957; Gawronski & Strack, 2004). When faced with such a situation (and the threat of dissonance), a perceiver has to mentally reconstruct one of the propositions or consider additional information that might resolve the

inconsistency. Inducing somebody to state that a boring task was fun, for example, tends to increase positive attitudes towards the same task (Festinger & Carlsmith, 1959). Similar strategies have been used for reducing prejudice. Leippe and Eisenstadt (1994), for example, showed that positive attitudes towards Black people increased after participants had written an essay endorsing pro-black policy.

Given the findings of experiment 1, and the fact that the desire to be consistent has proven to be an important causal factor in attitude change, it seems plausible to hypothesize that attractiveness bias could be reduced by simply getting people to state that they are motivated to be non-prejudiced *before* evaluating job-applicants. I.e. if people initially declare that they are motivated to respond without prejudice, they should show less attractiveness bias when evaluating applicants. Rating attractive applicants more positively than unattractive applicants, when they have the same formal qualifications, would be inconsistent with the act of stating that one is motivated to respond without prejudice (being non-prejudiced implies judging attractive and unattractive applicants equally favorably).

Two factors should increase the likelihood that attractiveness bias will be reduced in this way. First, it is important to realize that counter attitudinal behavior does not invariably produce attitude change: Whether people perceive that a behavior was freely chosen seems to play an important moderating role: The likelihood that an inconsistent behavior will result in attitude change is highest when people feel that they are responsible for choosing the behavior (Cooper & Fazio, 1984). When they perceive that external factors are the cause of an inconsistent action, corresponding attitude change is less likely. To produce the impression of free choice, in Experiment 2 participants could select one of three response alternatives when rating their motivation to respond without prejudice; however, all alternatives represented being motivated.

Secondly, dissonance theory predicts that the magnitude of attitude change should be greatest when the inconsistency between different behaviors is most pronounced. Consider the influence of merely *thinking* about not being prejudiced compared to actually *stating* that one is non-prejudiced. Stating something is not necessarily logically inconsistent with thinking the opposite. Stating something is, however, clearly inconsistent with stating the opposite. Accordingly, dissonance theory predicts that

the reduction in attractiveness bias will be greatest when participants actually state that they are

motivated to be non-prejudiced, compared to when they only think that they are motivated to be non-

prejudiced. In experiment 2, one group of participants stated that they were motivated to respond

without prejudice by rating themselves on internal motivation items. A second group of participants

only thought about being motivated to respond without prejudice by reading the exact same internal

motivation items. We predicted that the rate-group would show the strongest reduction in

attractiveness bias.

<div align="center">Method</div>

Participants

Ninety individuals in Sweden participated on a voluntary basis without compensation. They consisted

of 35% female, 65% male, 2.22% employed, and of 96.67% student participants (1.11% missing

values on occupation variable). Mean age was 23.43 (SD = 3.26).

Materials and procedure

As in Experiment 1 materials consisted of a paper booklet that participants completed anonymously.

The booklet contained the following parts: (1) Manipulation, (2) instruction, (3) job-description, (4) 16

CV's with accompanying rating scales, (5) a rating scale measuring perceived ease to disregard

attractiveness, and (6) demographic information. There were no time limits in this task. As in

experiment 1, completing the booklet typically took 15-20 minutes.

(1) Manipulation. Participants were randomly allotted to one of three groups: The rating group, the

read group and the control group (n = 30 in each). The *rating group* received the following instruction:

"Please consider the following statements by marking the option that best describes how you view

yourself. There are no correct or wrong answers. Mark the alternative that best describes how you

experience yourself". On the same page participants then rated the 5 internal motivation items from

Plant and Devine (1998) on a scale that had the following alternatives: 1 = Partly accurate, 2 = Quite

accurate, 3 = Very accurate. The items were: (1) "I attempt to act in non-prejudiced ways toward

unattractive people because it is personally important to me.", (2) "According to my personal values,

using stereotypes about unattractive people is not OK.", (3) "I am personally motivated by my beliefs to be non-prejudiced toward unattractive people.", (4) "Because of my personal values, I believe that using stereotypes about unattractive people is wrong.", (5) "Being non-prejudiced toward unattractive people is important to my self-concept.". The *read group* received the following instruction: "Please read the following statements carefully". On the same page, below the instruction, they were shown the 5 items from the internal motivation scale (i.e. the same items that participants in the rate-group had rated)[3]. The *control group* did not receive any instruction or manipulation at this stage.

(2) Instruction. All participants were then instructed that they would see a job-description and that they were to judge a number of candidates on different traits as well as their suitability for a job.

(3) Job-description. Participants read the same job-description for a programmer as in Experiment 1.

(4) CVs with rating-scales. Next, they viewed and rated 16 CVs one by one on a separate page. CVs and ratings were identical to those in experiment 1; i.e. they consisted of a picture and of information about the person, together with rating scales for traits relating to competence, warmth and employability. As in experiment 1 the combination of type of face and CV was counterbalanced between participants: For halve of the participants (50% within the rate-, read- and control groups) all attractive faces changed places with all unattractive faces. In the design, attractive and unattractive applicants thus had identical formal qualifications and personal facts.

(5) Perceived ease to disregard attractiveness. All participants then rated 4 items (2 reversed) measuring whether it was easy to disregard physical attractiveness (e.g. "I thought it was easy to

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[3] To examine if participants would actually read the motivation statements, an additional sample of 20 individuals were given a surprise recognition-memory test for the motivation items. Ten individuals received the same booklet as the read group in the main study; 10 other individuals received the same booklet as the rating group in the main study. The manipulation (part 1) was followed by the memory test on the next page. The instruction read, "**Without looking at the previous page,** what statements were shown and what statements were not shown on the previous page? Mark whether each statement below was presented or not on the previous page". Below the instruction, participants were shown the 5 motivation items and 5 foil items (in random order). As an example, a foil statement read, "I am personally motivated by my beliefs to be non-prejudiced toward uneducated people". After having completed the memory test, participants handed in the booklet. In total, participants who rated motivation items correctly stated that they had seen motivation items in 92% of cases; they incorrectly stated that they had seen foil items in 2% of cases. Participants who read motivation items, correctly stated that they had seen motivation items in 92% of cases; they incorrectly stated that they had seen foil statements in 0% of cases.

disregard the individuals' attractiveness when I evaluated them"). Answers were provided on a 4-point scale with the options 1 = Completely false, 2 = Partially false, 3 = Partially true, 4 = Completely true.

(6) Demographic information. Finally, subjects provided information about their sex, age and main occupation.

Data analysis

Averages for warmth, competence and employability were formed separately for attractive and unattractive faces, as well as for ease to disregard attractiveness items (after reflecting responses to reversed items). All variables were then inspected for outliers (defined as values with $p < 0.001$ in a normal distribution). There were no outliers in the sample.

Results

To examine if the manipulation influenced attractiveness bias, we carried out a set of Repeated Measures ANOVAs with group (3: rate, read, control) as a between subjects factor and attractiveness (2: attractive, unattractive) as a within subjects factor. Perceived competence, warmth and employability were the dependent variables (in separate ANOVAs). The results are shown in Table 5 and Figure 3. Apparently, group moderated the effects of attractiveness on competence, warmth and employability. For participants in the rate-group, attractiveness bias was reversed in competence ratings, reduced in warmth ratings and eliminated in employability ratings. Note that participants in the read and control groups, still evaluated attractive applicants more positively than unattractive applicants.

Table 5.

Effects of group and attractiveness on perceived competence, warmth and employability

| Dependent	Source	F	P	η^2
Competence	Attractiveness x Group	7.26	<0.05	0.14
	Attractiveness | Control	6.36	<0.05	0.18
	Attractiveness | Read	6.42	<0.05	0.18
	Attractiveness | Rate	7.36	<0.05	0.20
Warmth	Attractiveness x Group	7.71	<0.05	0.15
	Attractiveness | Control	57.98	<0.05	0.67
	Attractiveness | Read	19.19	<0.05	0.40
	Attractiveness | Rate	8.64	<0.05	0.23
Employability	Attractiveness x Group	3.50	<0.05	0.07
	Attractiveness | Control	13.59	<0.05	0.32
	Attractiveness | Read	19.57	<0.05	0.40
	Attractiveness | Rate	0.77	0.39	0.03
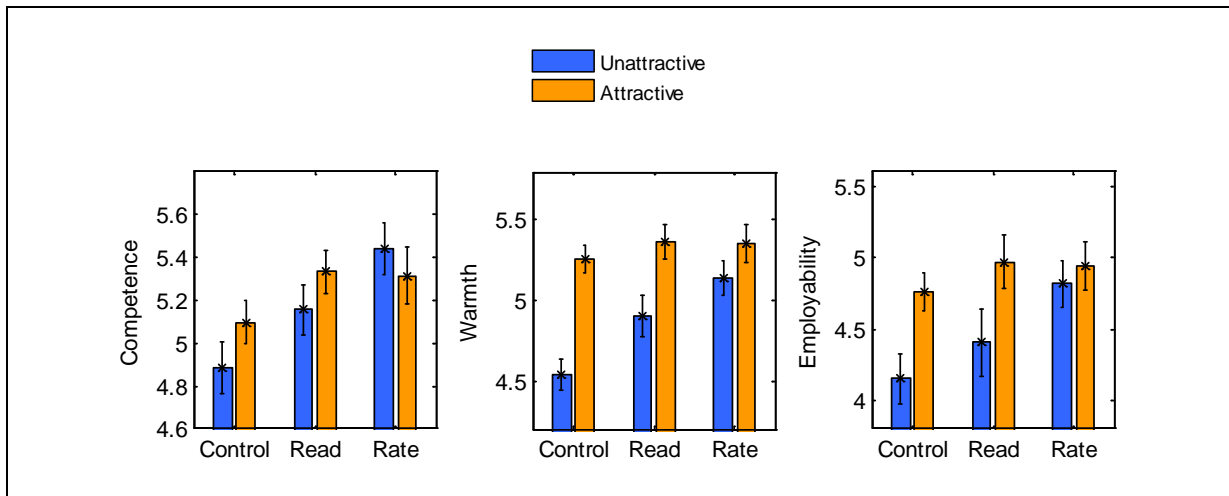
Figure 3. Effects of group and attractiveness on perceived competence, warmth and employability. Error bars show the standard error.

We then compared groups on perceived ease to disregard attractiveness. The mean of perceived ease was not significantly different between groups, $F(2, 87) = 1.88$, $p = 0.16$, $\eta^2 = 0.04$. We also correlated perceived ease with positivity ratings for attractive and unattractive faces (i.e. the average of competence, warmth and employability). Ease to disregard was correlated with more positive ratings of attractive faces, $r(88) = 0.32$, $p < 0.05$, and more positive ratings of unattractive faces, $r(88) = 0.49$, $p < 0.05$.

Discussion

The findings from Experiment 2 showed that declaring one's intentions to avoid prejudice causes a reduction in attractiveness bias. Merely thinking about being motivated to avoid prejudice, by reading internal motivation items, was ineffective. This result is interesting, as it shows that the *act* of stating that one wishes to be free from prejudice seems to play a critical role. The manipulation did not influence participants' perceived ease to disregard attractiveness. Even so, it apparently had an actual effect on bias (as evidenced by the observed changes in perceived competence, warmth and employability).

Experiment 1 examined if warnings were effective in reducing attractiveness bias. The results, however, showed that this was not the case: Both warned and non-warned participants evaluated attractive candidates more positively than unattractive candidates in terms of competence, warmth and employability. Experiment 1 showed that internal motivation to control prejudice was correlated with positive evaluations of unattractive applicants. Given this finding, we hypothesized that consistency motivation might be have a causal effect on bias: If people declare that they are motivated to avoid prejudice, they should evaluate attractive and unattractive applicants more evenly. The findings from Experiment 2 confirmed this prediction: Participants who were induced to rate themselves as motivated to avoid prejudice showed less attractiveness bias than participants who simply read the same motivation items.

Implications

The implications of our findings are potentially important. Being warned of the risks of prejudice or thinking about being non-prejudiced seems to be ineffective for reducing attractiveness bias. Inducing people to state that they are motivated to avoid prejudice before evaluating job applicants, however, seems to diminish bias. That we were able to show a causal effect on prejudice, is an important first step in finding an intervention that could work in an actual personnel selection situation.

Even if we only observed participants in a simulated situation, we are optimistic about the potential of consistency motivation in real life settings, for the following reasons. The intervention was effective even if the costs of showing prejudice were low in the present experiments. Participants provided answers anonymously, they did not have to defend their decisions, and they evaluated applicants that were strangers. The costs of responding in a prejudiced manner should be higher in an actual personnel selection situation: The outcome of a hiring decision is public and choosing the wrong candidate might even be detrimental for an organization. In addition, it seems that being consistent in relation to potentially important work colleagues should be perceived at least as important as being consistent in relation to an unfamiliar experimenter. Given that we found a way to reduce prejudice in

a situation where the costs of showing prejudice were low, it seems that the same strategy should at least be as effective in an actual recruitment situation, where the costs of showing prejudice are higher.

Interventions that aim to reduce attractiveness bias in hiring decisions should be evaluated both in terms of how effective they are and in terms of how likely they are to be implemented in an organization. Strategies that are time consuming, costly, or inconsistent with important organizational or personal values, will probably not be adopted, no matter how well they actually work. Such considerations thus limit the number of ways that are useful for reducing bias. In this context, it seems that interventions that rely on consistency motivation could be promising. First, they seem to be relatively efficient in terms of time and money. It is easy to declare one's intentions to avoid prejudice, and doing so could be integrated as a natural component in one or more stages of personnel selection procedures, e.g. in formal meetings that precede applicant evaluation and selection. Secondly, people generally *want* to be non-prejudiced (e.g. Crandall, Eshleman, & O'Brien, 2002). Reducing prejudice might thus only be a matter of leveraging existing levels of motivation, by inducing people to affirm their motivation before evaluating job applicants.

Unresolved issues

There are a number of unresolved issues that should be examined in future research. In contemporary theory, the attitude concept is usually subdivided into explicit and implicit components (Greenwald & Banaji, 1995). Explicit attitudes are evaluative associations that are or can be made available to awareness, and therefore be described in self-report measures (like the measures used in the present experiments). Greenwald and Banaji (1995) provide a well-known definition of implicit attitudes: "Implicit attitudes are introspectively unidentified (or inaccurately identified) traces of past experience that mediate favorable or unfavorable feeling, thought or action" p. 8. Typically, such attitudes are indicated by different reaction-time measures such as the IAT (Greenwald, McGhee, & Schwartz, 1998). An important issue is whether the consistency manipulation only influences explicit attitudes and not implicit attitudes. If so, we can only claim that the manipulation produces a change in how people consciously construe their attitudes towards attractive and unattractive targets. Such attitudes might or might not correspond to implicit evaluations. It is important to note however, that

consciously constructed attitudes might be what matters in actual personnel selection situations. I.e. typical real-life evaluations of CVs are more likely to involve conscious and deliberate judgments, which are performed with full attention and with enough available time (just as the explicit rating task used in the present experiments).

Another important issue that should be clarified in future research is how long the consistency manipulation has an effect. In the present experiments, participants typically completed the rating of all CVs no later than 30 minutes after rating their motivation to respond without prejudice. It would be interesting to know if the effect persists over longer periods. Of course, this is an important question when it comes to judging whether the intervention is practical in an applied context. It seems that this issue is best resolved by conducting a study that measures effects on real hiring decisions.

Conclusions

To conclude, we found that being warned about the risks of prejudice or thinking about not wanting to be prejudiced was ineffective in reducing attractiveness bias. Declaring the intention to avoid prejudice, however, produced a marked reduction in bias. More research should be conducted to examine if this effect generalizes to real personnel selection.

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