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published in

Archives of Sexual Behavior
2010

DOI (link to publisher)

[10.1007/s10508-009-9482-x](https://doi.org/10.1007/s10508-009-9482-x)

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

van Straaten, I., Holland, R., Finkenauer, C., Hollenstein, T., & Engels, R. C. M. E. (2010). Does beauty catch the eye?: Sex differences in gazing at attractive opposite-sex targets. *Archives of Sexual Behavior*, 39, 1055-1062. <https://doi.org/10.1007/s10508-009-9482-x>

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Gazing Behavior During Mixed-Sex Interactions: Sex and Attractiveness Effects

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Received: 14 August 2008 / Revised: 21 January 2009 / Accepted: 21 January 2009 / Published online: 5 March 2009
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Abstract We investigated to what extent the length of people's gazes during conversations with opposite-sex persons is affected by the physical attractiveness of the partner. Single participants ($N = 115$) conversed for 5 min with confederates who were rated either as low or high on physical attractiveness. From a mating strategy perspective, we hypothesized that men's increased dating desire towards highly attractive confederates would lead to longer periods of gazing, whereas women's gazing would be less influenced by their dating desire towards highly attractive confederates. Results confirmed our hypothesis, with significantly increased gazing for men in the high attractiveness condition but no significant differences in women in the two attractiveness conditions. Contrary to past research findings, there was no significant sex difference in the size of the effect of physical attractiveness on dating desire. The results were discussed in terms of preference for physically attractive partners and communication strategies during courtship.

Keywords Physical attractiveness · Gazing · Sex differences · Dyadic interaction

Introduction

Our eyes constantly guide our attention to objects that are important in terms of safety and necessities of life, to objects that have aesthetic value, and objects that are a combination of both. An interesting phenomenon with regard to visual attention is that attention strongly varies as a function of physical attractiveness of persons. For example, infants gaze longer at physically attractive people (Langlois et al., 1987). However, adults are sex-specific in this respect: Both men and women gaze longer at pictures of attractive (vs. unattractive) opposite-sex faces (Maner et al., 2003; Shimojo, Simion, Shimojo, & Scheier, 2003). This gazing bias appears functional. Facial physical attractiveness signals mate quality (e.g., genetic quality and fertility), which ultimately increases offspring viability (Rhodes, 2006). Accordingly, humans in general tend to look for physically attractive mates. Research on preferences for partner characteristics shows that both men and women prefer attractive over unattractive partners (Feingold, 1990). Thus, physical attractiveness serves as an indicator to identify genetically viable mates (Thornhill & Gangestad, 1999). Visual attention to this feature in opposite-sex persons will then improve a person's success in doing so.

Neurocognitive research provides further evidence for the evolutionary advantages of physical attractiveness. fMRI-scans showed neural activation of the "reward circuitry" when men and women were shown a picture of a preferred-sex face (Aharon et al., 2001; Kranz & Ishai, 2006) and when they were directly "gazed at" by a picture of an attractive person (Kampe, Frith, Dolan, & Frith, 2001). Recent research in support of this positive appraisal of physical attractiveness suggests that target attractiveness influences the desirability of objects that are visually associated with the target (Strick, Holland, & van Knippenberg, 2008). While findings concerning the relation between attractive mate preferences and

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gazing responses are relatively clear, these results are based on two-dimensional, fictive, and non-responsive targets (e.g., photos). Such paradigms using pictures might be efficient in order to identify mate preferences or to investigate the presence of evolutionary adaptive cognitive attunements (Cosmides & Tooby, 1992). However, cognitive attunements might operate differently in social contexts. In the case of mixed-sex interactions, mating strategies might come into play and direct interpersonal behaviors, that is, attraction communication. In the current study, we investigated this idea with regard to gazing as a function of physical attractiveness.

First, it is important to consider to what extent gazing relates to the exchange of attraction information. Research on aspects of gazing related to attraction communication suggests that the amount of gazing in interactions is related to positive interpersonal sentiments (Breed & Porter, 1972; Burgoon, Manusov, Mineo, & Hale, 1985; Exline & Winters, 1965; Harper, Wiens, & Matarazzo, 1978; but see also Grammer, Honda, Juette, & Schmitt, 1999; Kleinke, 1972, 1986) and is perceived by recipients and observers as signs of attraction (for a review, see Kleinke, 1986) and sexual interest (Thayer & Schiff, 1977). In addition, an increase in gazing seems related to affiliation motives (Pellegrini, Hicks, & Gordon, 1970). Accordingly, an attraction-related communicative function of gazing appears to exist in mixed-sex dyads.

There are several reasons why men and women might differ in the extent to which they gaze at more or less attractive unacquainted interaction partners. First, research suggests that men value physical attractiveness in other-sex partners more than women (Buss & Schmitt, 1993; Townsend & Wasserman, 1998). Second, women display mating desire less quickly and more ambiguously than men, possibly because it is more advantageous to them to first test men for wrong intentions and select the one with long-term motives (Grammer, 1990; Trivers, 1972). Third, research on perceptions of the other sex's intentions strongly suggests that men tend to overestimate nonverbal cues signaling sexual interest (Abbey & Melby, 1986; Haselton & Buss, 2000). So, to prevent interacting partners from interpreting even subtle cues as indications of sexual interest, women would benefit from a cautious strategy, requiring carefully measured communication of interest (e.g. through gazing).

Few studies have investigated whether beauty catches the eye in real-life mixed-sex interactions. Two studies demonstrated that male participants spent more time gazing at female confederates in face-to-face conversations, if the confederates had been made more attractive by changes in clothing and make-up (Fugita, Agle, Newman, & Walfish, 1977; Kleck & Rubenstein, 1975). In addition, Kleinke, Staneski, and Berger (1975a; see also Kleinke, Staneski, & Pipp, 1975b) compared men gazing at female confederates who varied in natural physical attractiveness, but did not find significant effects. It is difficult to draw conclusions from

these studies on sex differences in gazing, because they examined male gazing only. In addition, the studies by Fugita et al. and Kleck and Rubenstein involved confederates who were aware of their manipulated appearances, which might have accounted for artificial attractiveness-effects. Finally, except for the study by Fugita et al., the gazing measures might have limited validity because coders observed the participants from a (horizontal) angle, which might have obscured the exact gaze direction. The coders also saw the confederate while coding the participant. To determine a person's gazing direction, the coder's perception of the targets might have influenced his interpretation of the target.

The goal of the current study was to examine gazing at more or less physically attractive opposite-sex partners and, importantly, compare men and women in this regard. This way we could investigate how gazing as a mating-related cognitive attunement functions in mixed-sex interactions. Hypotheses based on assumed sex differences in mating strategies (i.e., attraction communication) were tested. Because of the differences in mating strategies between men and women, we expected that sex and physical attractiveness would interact in affecting gazing behavior during interactions. More specifically, we predicted that opposite-sex attractiveness would increase men's, but not women's, gazing. Important improvements with regard to the design and methods of our study compared to previous investigations of the attraction-gazing link were the inclusion of female participants, confederates that were unaware of physical attractiveness manipulations, and reliable and valid gazing measurement procedures.

Method

Participants

Undergraduate students ($N = 115$; M age = 20.65 years, $SD = 1.91$; 57 female) were recruited on the campus of the Radboud University Nijmegen to participate in this study, allegedly about the lifestyle of present-day university students. Relational status and sexual preferences were assessed 1 week prior to the experiment with a questionnaire. Only single, heterosexual participants were invited, but they were unaware of these criteria.

Procedure

The experiment consisted of a 2 (Sex) \times 2 (Attractiveness: Low vs. High) between-subjects design. Participants interacted with opposite-sex confederates. The experiment took place in a room that looked like a bar. This naturalistic setting has proved fruitful in several previous investigations of social interactions, including mixed-sex dyads (van Straaten, Engels, Finkenauer, & Holland, 2008). Confederates were

already present. Participant and confederate were introduced and seated face-to-face with a six-foot distance between their two chairs. Two lamps containing hidden cameras were positioned behind the chairs. Each camera recorded the face of the opposite person from a somewhat higher perspective than the eyes of the actual perceiver, thus providing a clear image of gazing directions (for measurement issues concerning gazing, see Argyle & Cook, 1976). The experimenter explained that this study examined the habits and preferences of the current student population and instructed each couple to talk about one of two topics (either specific movies or nightlife in the city) for 5 min. After the conversation participants were led to a different room, where they rated the confederate's attractiveness and their own dating desire. Participants were thanked and, after all data were collected, debriefed.

For our study we recruited eleven confederates of the same age as the participants from a larger group. For this goal, we took pictures of the faces of the confederates while having a neutral expression. A group of students from a different university were asked to rate each picture on physical attractiveness on a scale that ranged from 1 (*not attractive*) to 9 (*very attractive*). Confederates with mean ratings on the relative extremes of the attractiveness dimension were invited to cooperate, in order to create the low ($M = 2.62$, $SD = 1.67$) and high ($M = 5.53$, $SD = 1.12$) attractiveness conditions. In each of the groups of our 2 (Sex) \times 2 (Attractiveness) design, there were either two or three confederates. All confederates were unaware of our research goal, conditions, and hypotheses. The confederates were trained to act equally interested and friendly. Furthermore, they received instructions to act the same with all participants. No specific instructions were given about gazing.

Measures

Gazing of the participants and confederates was coded using Noldus Observer 5.0 software. Gazing was time-coded by two trained coders as *gaze* or *no-gaze* (i.e., gaze directed outside the facial region) with high reliability ($\kappa = .81$). Individual recordings of participants and confederates were coded separately, so no visual information of the conversation partner (e.g., behavior or appearance) was available. Thus, codings of participants and confederates had a high degree of independence, particularly in contrast to studies where both interaction partners were coded from one video (Kleck & Rubenstein, 1975; Kleinke et al., 1975a, b). Individual measures (mean gaze duration and total gaze duration, both in seconds)¹ and dyadic mean duration measures (four

variables representing the combinations of participants' and confederates' gazing code, all in seconds) were computed. All (individual and dyadic) gazing measures were log transformed, due to skewed data. For raw means, see Table 2. Finally, since gazing in interactions is partially related to a person's conversational behavior (people tend to gaze more while listening than while talking), the coders also time-coded whether the participants and confederates were talking or listening. These codes were combined with the gazing codes in order to create separate gaze duration measures for talking and listening episodes.

Participants' evaluations of the confederates' *physical attractiveness* were assessed with eight items from McCroskey and McCain's (1974) attractiveness measure on Likert-scales that ranged from 1 (*not at all*) to 9 (*very much*) ($\alpha = .93$). *Dating desire* was assessed by asking participants to rate their desire to go on a date with the confederate (van Straaten et al., 2008) with responses ranging from 1 (*absolutely not*) to 9 (*absolutely*).

Results

Preliminary Analyses

Manipulation Check

For the participants' ratings of the confederate's physical attractiveness, a 2 (Sex) \times 2 (Attractiveness) ANOVA yielded main effects of Sex and Attractiveness (see Table 1 for means). The male participants were slightly more positive in terms of attractiveness evaluations than female participants, $F(1, 111) = 5.78$, $p = .018$, $\eta_p^2 = .05$. Participants in the high (vs. low) attractiveness condition rated the confederate as more physically attractive, $F(1, 111) = 116.27$, $p < .001$, $\eta_p^2 = .51$. Hence, our manipulation of physical attractiveness appeared successful.

For reported dating desire the same analysis was conducted and yielded a main effect of Attractiveness. In the high attractiveness condition, the participants reported a stronger desire to date the confederate than in the low attractiveness condition, $F(1, 111) = 42.05$, $p < .001$, $\eta_p^2 = .28$. The attractiveness of the confederate was closely related to the degree of desire as dating partner, as indicated by the correlation between the two variables, $r(115) = .67$, $p < .001$.

Footnote 1 continued

true for the number of gazes, which did not give any information about the time actually spent gazing. Since mean gaze duration is the product of both total gaze duration and number of gazes, it contains information about both. However, in order to compare our results to gazing studies that used total gaze duration, we included and analyzed this as well.

¹ In the analyses, we focused on *mean* gaze duration, for *total* gaze duration did not allow any interpretation of what constitutes its length, that is, short glances or long gazes (Grammer et al., 1999). The same is

Table 1 Means (*SD*) of physical attractiveness evaluations and reported dating desire as a function of sex (of participant) and attractiveness condition

Attractiveness condition	Physical attractiveness						Dating desire					
	Men		Women		Combined		Men		Women		Combined	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Low	4.20	1.08	3.78	1.17	3.99	1.14	4.00	2.20	3.48	1.99	3.74	2.10
High	6.49	.92	5.92	1.20	6.21*	1.10	6.38	1.35	5.61	1.79	6.00*	1.61
Combined	5.34 ^a	1.52	4.83 ^b	1.59	5.09	1.57	5.19	2.17	4.53	2.16	4.86	2.18

Note: Evaluations on 9-point scales. Attractiveness condition refers to the attractiveness level of the confederate. Different superscripts indicate a within-row difference at $p < .05$

* $p < .001$ (within column)

Table 2 Mean duration (in sec) for gazing measures as a function of participant's sex and attractiveness condition

Participant's gazing	Confederate's gazing											
	Low attractiveness condition						High attractiveness condition					
	Gaze		Non-gaze		Both		Gaze		Non-gaze		Both	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Male participants</i>												
Gaze	2.64	.98	1.77	.71	4.51	2.54	3.21	1.56	1.74	.52	8.20	5.32
Non-gaze	2.00	.77	.78	.53	2.23	.97	1.48	.54	.68	.43	1.66	.66
Both	12.65	6.57	2.27	.83			7.45	2.66	1.95	.62		
<i>Female participants</i>												
Gaze	4.04	1.77	1.45	.49	7.54	5.50	2.95	1.55	1.45	.48	7.31	5.11
Non-gaze	2.04	.64	.75	.58	2.22	.71	1.44	.46	.76	.29	1.65	.56
Both	14.35	5.19	1.61	.46			7.06	3.51	1.75	.49		

Note: Italic numbers represent dyadic measures (concurrent behavior of both the participant and the confederate). "Both"-cells represent the individual measures of gazing, regardless of the other person's gazing state. Analyses in the text were conducted on log-transformed measures

Effects of Participants' Attractiveness

We tested the possibility whether confederates' gazing would also vary as a function of the physical attractiveness of the participants. Independent opposite-sex observers rated the physical attractiveness of the participants on a 9-point scale, ranging from 1 (*not attractive*) to 9 (*very attractive*), $M = 4.37$, $SD = 1.51$. However, regression analyses revealed no main or interaction effects for participant attractiveness on confederates' gazing (all F s < 1). This finding indicated that our confederates followed the instructions about the attitudes they had to take toward the participants.

Gaze Duration by the Participants

We first considered the individual gazing measures. A 2 (Sex) \times 2 (Attractiveness) ANOVA for mean gaze duration of the participant yielded a main effect for Attractiveness, $F(1, 111) = 5.28$, $p = .023$, $\eta_p^2 = .05$, and a Sex \times Attractiveness interaction, $F(1, 111) = 7.47$, $p = .007$, $\eta_p^2 = .06$ (for means, see Table 2). Contrast analyses indicated that

men in the low attractiveness condition gazed less than men in the high attractiveness condition, $F(1, 111) = 12.77$, $p = .001$, $\eta_p^2 = .10$, and shorter than women in the low attractiveness condition, $F(1, 111) = 8.07$, $p = .005$, $\eta_p^2 = .07$.

Separate ANOVAs for each Sex \times Attractiveness group showed that participant's mean gaze duration did not differ between the individual confederates (all F 's < 1). Hence, the interaction effect was not caused by the specific confederate with whom the participant interacted. We also conducted a similar analysis for *total* gaze duration of participants. This analysis revealed a significant Sex \times Attractiveness, $F(1, 111) = 5.12$, $p = .026$, $\eta_p^2 = .04$. Men in the high attractiveness condition gazed longer at their interaction partner than men in the low attractiveness condition. There were no significant differences in women's total gaze durations as a function of attractiveness.

Furthermore, the correlations between dating desire and mean gaze duration were positive and significant for men, $r(58) = .28$, $p < .05$, but not for women, $r(57) = -.06$, *ns*, suggesting that men's, as opposed to women's, gazing to some extent was functionally related to attraction.

Gaze Duration by the Confederates

The means in Table 2 also suggested that confederate's gazing behaviors differed between attractiveness conditions. An ANOVA of confederate's mean gaze duration with Sex and Attractiveness as independent variables showed that the main effect of Attractiveness was only marginally significant, $F(1, 111) = 3.31$, $p = .072$, $\eta_p^2 = .03$. Second, mean no-gaze duration of confederates differed between men and women, $F(1, 111) = 14.17$, $p < .001$, $\eta_p^2 = .11$, with female confederates *not* gazing to the participants' face for longer periods than male confederates. Next, we tested whether these differences affected the gazing behavior of the participants. Although participants' gazing was not significantly related to confederates' gaze and no-gaze durations (respectively, $r = .06$ and $r = .13$, $ps > .10$), we controlled for confederates' mean gaze and no-gaze durations in an ANCOVA. The Sex \times Attractiveness interaction remained significant, $F(1, 109) = 8.57$, $p = .004$, $\eta_p^2 = .07$. The effect of the covariate confederate's mean gaze duration was not significant ($F < 1$), contrary to the effect of the confederate's mean no-gaze duration, $F(1, 109) = 6.46$, $p = .012$. Therefore, the effects of confederate's attractiveness cannot be explained by corresponding differences in their gaze or no-gaze durations.

Dyadic Measures

We tested whether dyadic gazing measures could give us more insight into the sex differences in the gazing process. For example, participant's gazing direction could depend on the gazing state of the confederate. Table 2 displays the four variables that represent mutual gazing states. For pooled within-group correlations between the durations of the mutual states, see Table 3. We conducted a MANOVA with Sex and Attractiveness as independent variables. Table 4 depicts the multivariate and univariate follow-up results. In the low (vs. high) attractiveness condition, the mean duration of the participants not gazing while the confederates were gazing, was longer. In addition, for male (vs. female) participants there were longer instances during which the participants

were gazing when the confederates were not. More interesting, however, was the Sex \times Attractiveness interaction effect for *mutual gaze*. Contrast analyses indicated that women in the low attractiveness condition had longer instances of mutual gaze than men in the low attractiveness condition, $F(1, 111) = 10.99$, $p = .001$, and than women in the high attractiveness condition, $F(1, 111) = 8.93$, $p = .003$. No sex differences emerged for the high attractiveness condition ($F = 1.28$, $p = .26$) and for men no effects of Attractiveness emerged, $F = 2.04$, $p = .16$.

Additional Analyses

In order to identify the effects of conversational roles on the gazing pattern, we performed a 2 (Sex) \times 2 (Attractiveness) \times 2 (role: talking vs. listening) repeated measures MANOVA. A main effect for role indicated that participants' gazes lasted longer during listening (vs. talking) episodes, $F(1, 111) = 164.98$, $p < .001$, $\eta_p^2 = .60$. No interactions between Sex or Attractiveness with role emerged (p 's $> .20$), which indicates that the Sex \times Attractiveness interactions on mean gaze duration were not linked to either talking or listening.

Discussion

This study examined gazing in mixed-sex interactions as a function of physical attractiveness. Our findings are the first to suggest that the expression of attraction through gazing in real-life interactions varies between men and women. Men gazed longer at physically attractive women than at less attractive women—a finding that replicates past results (Fugita et al., 1977; Kleck & Rubenstein, 1975)—whereas women's gazing was unaffected by the target's attractiveness. Interestingly, past research found attractiveness effects for gazing of women in studies in which pictures were employed. Apparently, this effect does not generalize to interactions with men.

We explained the sex differences in gazing at physically attractive targets by linking them to sex differentiated attraction communication. We want to emphasize that we did not directly test mating strategies, but taken together, the pattern of results fits nicely with the suggestion that men engage in overt, proactive, mating strategies while women engage in more covert, cautious strategies. With regard to the male mating strategy, this would mean that male ancestors who acted upon the visual identification of fertile, healthy, women, were more successful in attaining them as mates. Due to the sex differences in parental investment (Trivers, 1972) and the physical risks, the potential consequences of engaging in intimate relationships are more profound for women. Therefore, strategies of cautiousness seem beneficial to women (Grammer, 1990; Grammer, Kruck, Juetten, & Fink, 2000). If this is the case, our findings suggest that cognitive

Table 3 Pooled within-group correlation matrix of log-transformed dyadic gazing measures (mean durations)

		1	2	3	4
1.	Mutual gaze	–	.21*	.51***	.07
2.	Mutual non-gaze		–	.21*	.30**
3.	P gaze/C non-gaze			–	.09
4.	P non-gaze/C gaze				–

Note: P = Participant, C = Confederate. Because of some empty cells N was reduced to 106. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4 Multivariate and univariate ANOVA of dyadic gazing measures as a function of sex (of participant) and attractiveness condition

Source	Multivariate <i>F</i> (4, 99)	Univariate <i>df</i>	Mutual gaze		Mutual non-gaze		P gaze/C non-gaze		P non-gaze/C gaze	
			<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
S	5.15***	1	3.57	.06	.11	ns	6.84**	.010	.01	ns
AC	5.38***	1	.71	ns	.89	ns	.50	ns	19.16***	<.001
S × AC	2.56*	1	7.13**	.009	.58	ns	.09	ns	.16	ns
Error		102	(.19)		(.32)		(.10)		(.14)	

Note: Values enclosed in parentheses represent within-group mean square errors. S = Sex, AC = (Confederate's) Attractiveness Condition, P = Participant, C = Confederate. Because of some empty cells, *N* was reduced to 106. * $p < .05$, ** $p < .01$, *** $p < .001$

attunements (to attractive opposite-sex people) may not result in concordant behavior when the interpersonal aspects of the situation are more pronounced. That is, the bias of gazing at physically attractive others may be inhibited to prevent undesired outcomes. Interestingly, people are generally not very aware (Kleinke, 1986) or in control (Ellyson & Dovidio, 1985) of their gazing. Then, the question arises whether the inhibitions of gazing at attractive targets by women result from conscious self-monitoring or self-control. A potential test of this inhibition idea would be to put participants under high cognitive load or decrease their levels of self-control and investigate changes in the attraction-gazing relations in mixed-sex contexts.

Additionally, it would be interesting to identify turning points in this female communication strategy. For example, it is possible to test thresholds in terms of time spent together, valued characteristics, or personal information that need to be exchanged, before clear signals of attraction will be sent from a woman to a man. Further, effects of mating-related individual differences might be expected (Penke & Asendorpf, 2008; Simpson & Gangestad, 1991). For example, less restricted women might also gaze longer at physically attractive men, since they pursue mating strategies in which short-term mating might be advantageous.

The dyadic measures showed results that can be explained by the effects on individual measures of gazing. We found longer instances of eye contact (i.e., mutual gaze) in the low attractiveness condition, but only for female participants. However, eye contact is a consequence of two people gazing, and its duration can be predicted by these individual measures (Lazzerini, Stephenson, & Neave, 1978; Rutter, Pennington, Dewey, & Swain, 1984). Therefore, we can argue that this gazing pattern is a result of both (a) longer gazes by confederates in the low attractiveness condition and (b) differences in gaze duration between male participants in the low and high attractiveness conditions. The same reasoning applies to the two main effects of sex and attractiveness.²

² That is, shorter mean no-gaze durations by the male confederates lead to shorter female participant gaze durations during these instances (for

Our study revealed that the effects of sex and of physical attractiveness on gazing seemed to be rather robust. That is, conversational roles and gazing behaviors of the confederate did not moderate the interaction effects between sex and physical attractiveness of the confederate on participants' gazing. We want to emphasize that it is unlikely that the frequently reported sex differences in the importance of physical attractiveness in mates (e.g., Buss, 1989; Li, Bailey, Kenrick, & Linsenmeier, 2002) are the cause of the sex differences in gazing as a function of physical attractiveness. First, the reported dating desire in the current study indicated that physical attractiveness is as important to women as to men. Second, studies on gazing at pictures of attractive opposite-sex targets show no sex differences in the gazing duration (e.g., Maner et al., 2003, Study 4).

Our conclusions are put in terms of effects of high attractiveness in comparison to low attractiveness, where we assume the low attractiveness condition represents a control condition. More specifically, we conclude that our findings are most straightforwardly interpreted as evidence for increased gazing of men toward highly attractive women (as opposed to men averting gaze from low attractive women). This interpretation is supported by the mean gazing durations in mixed-sex interactions in Bente, Donaghy, and Suwelack (1998), which were, on average, lower for men ($M = 3.78$, $SD = 2.05$) than for women ($M = 6.73$, $SD = 4.92$). Compared to the means of this study, the data of our study suggest that only the gazing of men in the highly attractive condition deviated. In further support of this idea, correlations suggested that men's gazing behavior, as opposed to women's, is functionally related to attraction. However, a design with additional attractiveness conditions (e.g., "medium") or continuous (instead of categorical) variations in confederates' attractiveness would be necessary to confirm our conclusion. An additional alternative explanation for men's longer gazes

Footnote 2 continued
the maximum time spent gazing is determined by the gazing state of the other individual). Because confederates in the low attractiveness condition gazed longer, the durations of participants not gazing during these gazes are longer as well.

at highly attractive women is that men misinterpret all gazes of highly attractive women as signs of attraction, which then would lead to an increase in their own gaze durations. However, there would then have to be a positive correlation of participants' and confederates' gaze durations within the men/high attractiveness condition, which was not the case, $r(29) = .20, p > .20$.

Our study had several methodological improvements over earlier studies. For instance, we used confederates who were unaware of attractiveness conditions and we employed a more valid gazing measure. This might explain why our findings differed from null findings reputed by Kleinke et al. (1975b), who used cosmetic manipulations of attractiveness. Nevertheless, some caution is appropriate in drawing conclusions from the results. Confederates' behavior was never entirely under control of the experimenter. We chose not to give instructions concerning their gazing behavior, since this might have created less natural interactions. To minimize differences in general interactive behaviors (e.g., interest, openness, and warmth), we trained the confederates to reach a high degree of similarity. Although several statistical tests were used that controlled for confederate's gazing, the possibility exists that other, unregistered, behaviors of the confederates might have affected participants' gazing.

We interpreted gazing behavior as signaling interest. However, gazing has more functions than communicating interest alone. For example, direct gaze may signal dominance (Dovidio & Ellyson, 1982). Also, gazing at attractive others may be an intrinsically pleasant activity, but not necessarily a behavior that communicates interest. Although we fully acknowledge the multifunctional nature of gazing behavior, we do think that communication of interest is the most plausible explanation for our data. First, if gazing would be related to dominance in our data, it is not clear why men would only show such dominance towards the attractive confederates. Second, if gazing would be merely a fun activity, it could be predicted that women would also show increased gazing in the high attractiveness condition. Their cautious behavioral strategy underscores our assumption that gazing is more than that. It would be interesting however, to further investigate the function of gazing behavior in mixed sex interactions by linking this measure to other behavioral indicators of interest.

In conclusion, although beauty catches the eye in contexts with minimal social character, when a man and a woman meet, an additional process seems to moderate the visual attention that is initially attracted by physical aesthetics. This conclusion emphasizes the importance of including real-life interactions and behavioral observations when investigating human mating-related behavior. In this study, we were able to demonstrate sex differences in gazing at real-life attractive mates, that is, that during social interactions opposite-sex beauty catches the male eye longer than the female's.

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