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Original Article

Female Attraction to Appetitive-Aggressive Men is Modulated by Women's Menstrual Cycle and Men's Vulnerability to Traumatic Stress

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Abstract: Many studies have reported that during high fertility points in the menstrual cycle, women demonstrate increased preference for men with masculinized faces and bodies. In this study, we analyzed whether appetitive aggression in men serves as an additional signal for a favored partner choice. Appetitive aggression describes the intrinsic motivation to act violently even when not being threatened. This study evaluated the responses of 1212 women to one of four descriptions regarding a soldier's experience after returning from war. The four vignettes included trauma related symptoms with high or low appetitive aggression, or no trauma related symptoms with high or low appetitive aggression. Participants rated their desirability for the soldier in regards to potential long-term and short-term relationships. Results indicate that women preferred a soldier high in appetitive aggression as a short-term mate but not as a long-term relationship. This preference for the "warrior" was higher for women in their fertile window of the menstrual cycle. We conclude that women in their fertile window prefer men exhibiting higher appetitive aggression as a short-term partner, revealing appetitive aggression in men may serve as a signal for a higher genetic fitness.

Keywords: appetitive aggression, trauma symptoms, mate preferences, menstrual cycle

Introduction

Khitan General: What is best in life?

Khitan Warrior: The open steppe, a fleet horse, falcons at your wrist, and the wind in your hair.

Khitan General: Wrong! Conan, what is best in life?

Conan: To crush your enemies, see them driven before you, and to hear the lamentations of their women!

Khitan General: [*Cheers*]...That is good.

(From the movie: "Conan the Barbarian", 1982)

Evolution may have favored those who go to war (Elbert, Weierstall, and Schauer, 2010; Jones, 2008). If so, it is reasonable to assume that the partner preference of women might have been decisive in this process. Indeed, it has frequently been noted that women can be interested in "bad boys" (Urbaniak and Kilmann, 2006), dominant men (Sadalla, Kenrick, and Vershure, 1987), or self-confident men in uniform (Hewitt and German, 1987). The parental investment of women is significantly higher than the investment of men (Trivers, 1972). Therefore, women need to be selective when choosing a mating partner. Apart from a man's resources, his signals of good gene quality (i.e., heritable fitness) are essential in the selection process. Facial and body symmetry and a variety of masculine physical and behavioral traits constitute male signals of good heritable condition (Thornhill and Gangestad, 2008). For example, women find males with deeper voices (Feinberg, Jones, Little, Burt, and Perrett, 2005), muscular bodies (Frederick and Haselton, 2007) and dominant behavior more attractive (Sadalla et al., 1987). However, the preferences also depend on the time perspective of the relationship: Women maximize their reproductive success if they choose a more masculine man as a short-term mate and a man with a relatively more feminine face and a warmer, more agreeable personality (Fink and Penton-Voak, 2002) as a stable long-term partner (Kruger, 2006). Consequently, men with more masculine faces and bodies (Frederick and Haselton, 2007; Rhodes, Simmons, and Peters, 2005) and more dominant behavior (Snyder, Kirkpatrick, and Barrett, 2008) have greater success in short-term, but not in long-term, mating. Men who are warm, kind and willing to invest considerable resources in their offspring are preferred as long-term mates (Li, Bailey, Kenrick, and Linsenmeier, 2002). Utilization of this worthwhile strategy results in both better genes in terms of assertiveness and more dynamic provision for the offspring. Archer and Thanzami (2009) found in a sample of Indian men that young males who perceive themselves as more attractive to women are more aggressive. Aggressive behavior comes in two different types, a reactive-impulsive form which is thought to counter threat and an appetitive form which results from the intrinsic rewarding properties of cues related to violence, hunting, and combat (Elbert et al., 2010; Weierstall, Schaal, Schalinski, Dusingizemung, and Elbert, 2011). Appetitive aggression is thus "motivated out of itself from hunt and power: it is the aggression of the considerate aggressor, the hunter, the one in power and it is the form of aggression hitherto seldom scientifically examined." (Allwood, Bell-Dolan, and Husain, 2002; Elbert et al., 2010). We predict that appetitive aggressiveness may signal heritable fitness in men. Therefore, we expect for women to prefer men with sizeable scores in appetitive aggression as short-term, but not long-term, mates.

In line with the aspect of reproduction, women's mate preferences change across the menstrual cycle, and they are more selective during estrus than during other points in the menstrual cycle. During their fertile period, women may particularly attend to men with signals of "good genes" and select them as a short-term mate as opposed to a stable, long-term partner (Thornhill and Gangestad, 2008). For example, women in their fertile window

show differences in preferences when compared to women at non-fertile moments in their cycles. Such differences include a preference for the scent of highly dominant men (Havlicek, Roberts, and Flegr, 2005), more masculine male faces (Johnston, Hagel, Franklin, Fink, and Grammer, 2001; Penton-Voak and Perrett, 2000; Penton-Voak et al., 1999), men with lower pitched voices (Puts, 2005), and higher social presence and intrasexual competitiveness as short-term mates (Gangestad, Simpson, Cousins, Garver-Apgar, and Christensen, 2004). If appetitive aggression is a cue for heritable fitness in men, we expect that women in their fertile period, compared to women in their non-fertile phase of their menstrual cycle, will prefer men who experience pleasure in being violent as short-term mates.

However, combatants that go to war or hunt are also exposed to a large number of traumatic stressors that render them vulnerable to developing posttraumatic stress disorder (PTSD; Elbert, Rockstroh, Kolassa, Schauer, and Neuner, 2006) and other forms of psychopathology (Allwood et al., 2002; Elbert et al., 2009; Kolassa and Elbert, 2007; Schaal and Elbert, 2006; Schaal, Jacob, Dusingizemungu, and Elbert, 2010). In line with the hypothesis of an increased fitness of men who have a propensity to behave cruelly, Weierstall and colleagues (2011; 2012) found evidence in various combatant populations that appetitive aggression can be a resilience factor against PTSD. But how appealing are men with trauma-related symptoms to women? Past research revealed an association between PTSD symptoms and intimate relationship problems, such as discord, physical and psychological aggression perpetration (Taft, Watkins, Stafford, Street, and Monson, 2011) as well as partner's distress (Renshaw and Campbell, 2011). For the partners of traumatized individuals, it is hard to deal with the altered behavior of the affected person. Men with untreated and treated PTSD had significantly less sexual functioning in the domains of desire, arousal, orgasm, activity and satisfaction compared to healthy controls (Kotler et al., 2000). A study with 90 male combat veterans revealed that 80% experienced clinically relevant sexual problems, mainly either impotence or premature ejaculation (Letourneau, Schewe, and Frueh, 1997). Patients with PTSD show an elevated tonic level of cortisol compared with traumatized controls without PTSD (McFarlane, Barton, Yehuda, and Wittert, 2011; Steudte et al., 2011). Moore et al. (2011) found evidence that women rated the faces of men having lower levels of cortisol as more attractive than the faces of men with higher cortisol levels. This preference is higher during the fertile window of the menstrual cycle compared to the luteal cycle phase. Persons with PTSD suffer in different areas of their lives due to psychological illness. Because of their sexual difficulties and relationship problems, we predicted that men with trauma symptoms would be less attractive as either stable long-term partners or short-term partners for women.

In this study we examine the effect of fictional descriptions of different single men on women. All single men were soldiers returning from war with different reactions to violent experiences. Female participants had to evaluate the desirability of a soldier as a long-term and short-term mate.

Materials and Methods

Participants

1586 German women completed an online survey. Three control questions at the end of the study checked whether the participant had read, understood and memorized the description in detail. They had to pick one of four possible answers. The correct answer was the exact wording from the text (see appendix). Women who did not correctly answer all three questions were excluded from the data set. One thousand two hundred and twelve women (mean age = 25.54 years, $SD = 8.22$) were in the final sample. Sixty six percent were students, 24.8% employed, 5% in professional training and 3.8% job seeking. Seven hundred thirty four women were in a relationship (e.g., married) and 476 were single. One hundred fifty five women were mothers. Six hundred and six women used oral contraceptives and 598 did not, and 8 did not respond to that question. Participants received no financial compensation. All participants gave informed consent. The ethical review board of the University of Konstanz approved the study.

Stimulus Material

Participants read a fictional scenario with the following content:

Germany becomes a target of a series of terrorist attacks of Al Qaeda II with the consequence of increasing the number of German military troops in Afghanistan. After a long, but successful war, the combatants returned back home. One of the returning soldiers is Wilko.

We chose the name “Wilko,” an uncommon name in Germany, to ensure that participants have no personal connection to this name. The fictional war scenario appeared in this study because war is a situation in which traumatization is societally more accepted, if not even anticipated, and appetitively violent experiences occur without necessarily precipitating moral condemnation. Germany is not currently at war, thus requiring the provision of a fictional scenario. We named the enemy Al Qaida II, because Al Qaida is a well know terrorist group. It is generally agreed that this terrorist group poses a serious danger to civilians and that it would be morally acceptable to use force in order to counter this threat.

A description of Wilko followed (see appendix). Wilko was characterized as either being high (conditions 1 and 2) or low (conditions 3 and 4) in appetitive aggression. According to the descriptions, he would either have (conditions 1 and 3) or not have (conditions 2 and 4) trauma symptoms. The descriptions were validated in a pretest sample of 51 women (Age: $M \pm SD = 29.20 \pm 10.01$). Participants received a written explanation about the disorder PTSD and appetitive aggression. Then they read one of four possible Wilko descriptions. They had to decide if Wilko has PTSD, and if he is appetitively aggressive on a 6-point Likert scale from 1 “not at all” to 6 “most intensive.” The Wilko descriptions were in conformity with the underlying constructs. The two descriptions of Wilko with trauma symptoms were rated higher in PTSD symptoms than the two descriptions of Wilko without trauma symptoms (trauma symptoms: $M \pm SD = 4.69 \pm 1.05$, no trauma symptoms: $M \pm SD = 1.84 \pm 1.17$, $t_{49} = 9.13$, $p < .001$, $d = 2.48$), but had no effect on the perception of Wilko as appetitively aggressive. The two descriptions of Wilko with high appetitive aggression were rated higher in appetitive aggression than the two descriptions of Wilko with low appetitive aggression (high appetitive aggression: $M \pm SD =$

4.07 ± 1.54, low appetitive aggression: $M \pm SD = 1.64 \pm 0.91$, $t_{40.66} = 6.89$, $p < .001$, $d = 1.92$), but had no effect on the PTSD perception of Wilko.

Measures

Attractiveness for different kinds of relationships. Participants had to consider Wilko in terms of different kinds of desired relationships (date, steady boyfriend, life partner, platonic friend, sexual affair, one night stand) on 7-point Likert scale from 0 “not at all” to 6 “most intensive.” For the factor desirability as a long-term mate, we summarized the evaluation for Wilko desirability as a life partner and desirability as a steady boyfriend. We summarized the evaluation for Wilko’s desirability as a sexual affair, desirability as a one-night stand and the evaluation as “sexually attractive” (see next point characterization) into the factor desirability as a short-term mate.

Characterization of the single man. Women rated the soldier along dimensions that corresponded to those identified by Sadalla et al. (1987) using a 7-point semantic differential which consists of the following adjectives: dominant/submissive, sexually attractive/sexually unattractive, soft/hard, feminine/masculine, rugged/delicate, tough/tender, bad/good, warm/cold, nice/awful, pleasant/unpleasant, friendly/aggressive, unintelligent/intelligent, and healthy/ill. We used the rating “healthy/ill” as a manipulation check for trauma symptoms and the mean value of the ratings for “submissive/dominant, feminine/masculine, and friendly/aggressive” as manipulation check for appetitive aggression.

Menstrual Cycle Analysis. To calculate the fertile window of each women, we took into consideration the first day of her last menstrual cycle and the typical cycle length ($M \pm SD = 27.51 \pm 3.64$). We estimated the fertile window of each woman, using an ovulation calculator (<http://www.umrechnung.org/eisprung-bestimmen-berechnen/zyklus-eisprungkalender-fruchtbare-tage.htm>). This calculator, based on medical data reported by Wilcox, Duncan, Weinberg, Trussel, and Beired (2001), assumes a fertile window from day 12-17 in a 28 days cycle (women who have longer cycles tend to ovulate later in cycle). The luteal phase was assumed to be 14 days, but we subtracted 13 days from the usual cycle length to estimate the cycle day of ovulation as 13 days provide a less biased estimate of the mean ovulation day (Trussell, Rodriguez, and Ellertson, 1998). We divided the participants into three groups: fertile group - women who are in the follicular phase of their cycle ($n = 119$), non-fertile group - women who are in other phases of their cycle ($n = 440$) and oral contraceptives group - women who take oral contraceptives ($n = 589$). The frequency distribution of fertile women in the different conditions was the following: 32 women received the description of Wilko with trauma symptoms and high appetitive aggression, 26 women received the description of Wilko without trauma symptoms and high appetitive aggression, 34 women received the trauma symptoms and low appetitive aggression condition and 27 women received the condition without trauma symptoms and low appetitive aggression of Wilko.

Procedure

The online-survey was conducted for five months, using the software Unipark (www.unipark.de). It started with the informed consent, after which demographic variables

were ascertained. Women had to indicate (a) the first day of their last menstruation, (b) the use of birth control pills and (c) their typical cycle length. It was their task first to read the terror attack/war scenario carefully and to try to visualize this situation as vividly as possible. Then they were randomly assigned to one of the four possible characterizations of Wilko and given the task to read and imagine the described veteran ($n_{\text{minimum}} = 287$, $n_{\text{maximum}} = 317$ in every group). After that, they received the task to imagine being single and meeting the single Wilko. Participants rated the desirability of Wilko for different relationships and his characterization. Next, participants were asked to answer three control questions concerning the written description. Four different response options were offered for each question from which only one was the correct response. Participants could not go back to the description of Wilko. Only participants providing three correct answers were included in the final analyses.

Results

Manipulation Check

First we performed a manipulation check to prove whether the Wilko descriptions were in conformity with the underlying constructs. Therefore, we analyzed the rating for the dependent variable “healthy/ ill” for the single man with a 2 (trauma symptoms) x 2 (appetitively aggressive experiences of Wilko) between-groups ANOVA. For the variable “health/illness,” we found a significant main effect for the factor “traumatization of Wilko” ($F_{1,1212} = 130.65$, $p < .001$, $\eta^2 = .098$) but no main effect of the factor “appetitive aggression of Wilko” and no interaction of either factor ($p > .05$). Women rated men presenting with trauma symptoms as more ill than men without trauma symptoms (trauma symptoms: $M \pm SD = 3.4 \pm 1.54$, no trauma symptoms: $M \pm SD = 2.4 \pm 1.45$). Then we analyzed the dependent variable “appetitive aggression” for the single man with a 2 (trauma symptoms) x 2 (appetitively aggressive experiences of Wilko) between-groups ANOVA. For the variable “aggression/masculinity/dominance,” we saw a significant main effect for the factor “appetitive aggression of Wilko” ($F_{1,1212} = 383.27$, $p < .001$, $\eta^2 = .24$), but not a main effect of the factor “traumatization of Wilko” and no significant interaction. Women rated men high in appetitive aggression higher in aggression, masculinity and dominance than men low in appetitive aggression (high appetitive aggression: $M \pm SD = 3.92 \pm 0.83$, low appetitive aggression: $M \pm SD = 3.00 \pm 0.97$).

Results for ratings of long-term mate attractiveness

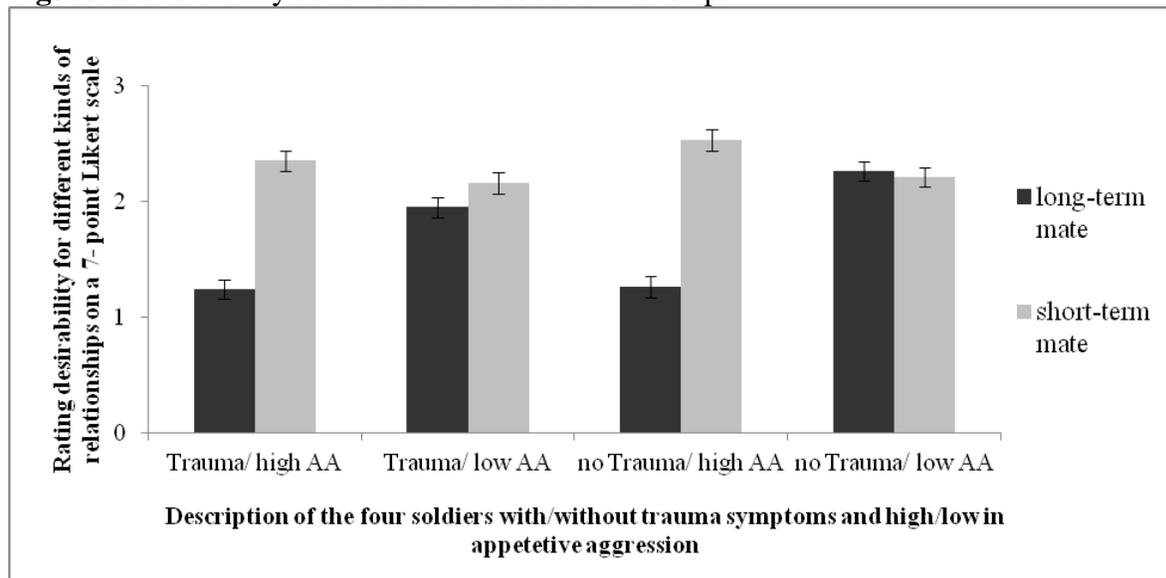
We analyzed the dependent variables “desirable as a long-term mate” for the single man with a 2 (trauma symptoms of Wilko) x 2 (appetitively aggressive experiences of Wilko) between-groups ANOVA. We found a significant main effect for the factor “appetitively aggressive experiences” ($F_{1,1208} = 79.22$, $p < .001$, $\eta^2 = .07$). Women rated a man with fewer appetitively aggressive experiences as more desirable as a long-term mate than a man who enjoys aggressive behavior. We found no significant main effect for the factor “trauma symptoms of Wilko” and no significant interaction of the factors trauma symptoms x appetitively aggressive experiences (see Figure 1). Women judged the desirability of a long-term-mate of a man low in appetitive aggression higher if the man is

not traumatized, compared to a man with trauma symptoms (man with trauma symptoms/low appetitive aggression: $M \pm SD = 1.95 \pm 1.56$, man without trauma symptoms/low appetitive aggression: $M \pm SD = 2.26 \pm 1.74$, $t_{605.03} = 2.26$, $p = .024$, $d = .18$)

Results for ratings of short-term mate attractiveness

We analyzed the dependent variables “desirable as a short-term mate” for the single man with a 2 (trauma symptoms of Wilko) x 2 (appetitively aggressive experiences of Wilko) between-groups ANOVA. For the factor “appetitively aggressive experiences,” we obtained a significant main effect ($F_{1,1208} = 8.67$, $p = .003$, $\eta^2 = .007$). There was no significant main effect for the factor trauma symptoms and no significant interaction of the factors trauma symptoms x appetitively aggressive experiences. Women rated a man high in appetitively aggressive experiences as more desirable as a short-term mate than a man who does not enjoy aggressive behavior, but only if the man has no trauma symptoms ($t_{599} = 2.55$, $p = .011$, $d = .21$). The difference in the desirability of men with trauma symptoms in regard to their appetitive aggression (high/low) is not significant (see Figure 1).

Figure 1. Desirability for different kinds of relationships.



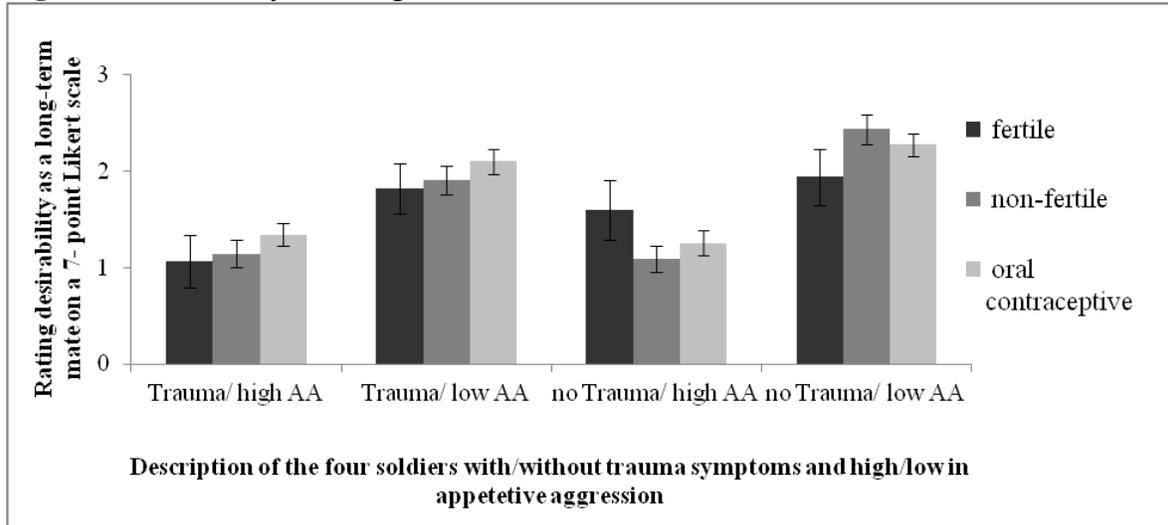
Note: Mean coefficients and standard errors for the men with or without trauma symptoms and with low or high appetitive aggression in regard to their desirability as a long-term mate and short-term mate.

The effect of the menstrual cycle on long-term mate attractiveness rating

To detect whether women in different cycle phases and under artificial hormone influence (oral contraceptives) favor different types of men as long-term mates, we calculated a 2 (appetitive aggression) x 2 (trauma symptoms) x 3 (fertile/not fertile/oral contraceptives) ANOVA with unequal cell frequencies. The type III computation of the sum of squares was chosen. We found a main effect of the factor appetitive aggression ($F_{1,1136} = 52.05$, $p < .001$, $\eta^2 = .044$), but no other significant main effects or interactions (see Figure 2). The difference between women in their fertile window and women not in their fertile window for the man without trauma symptoms and high in appetitive

aggression was not significant ($t = 1.67, p = .097$).

Figure 2. Desirability as a long-term mate.



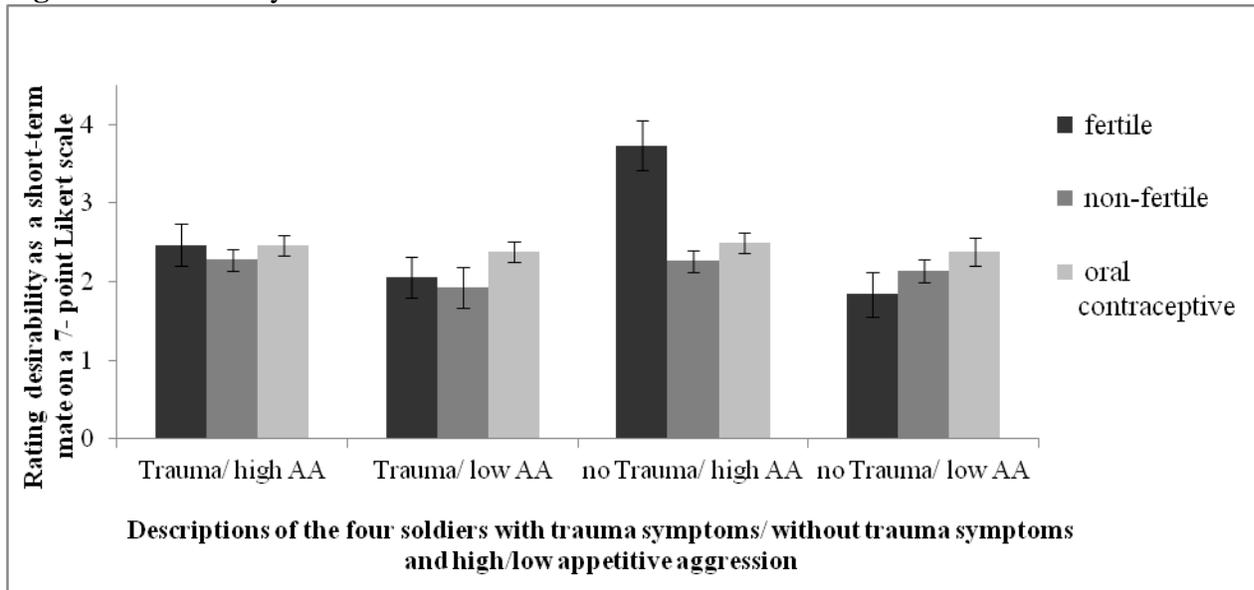
Note: Mean coefficients and standard errors for the different men in regard to their desirability as a long-term mate. Rated by women in their fertile period (dark grey bars), non-fertile phase of their cycle (middle grey bars) and women who take oral contraceptives (light grey bars).

The effect of the menstrual cycle and of oral contraceptives on short-term mate attractiveness rating

To detect whether women in different cycle phases and under artificial hormone influences (oral contraceptives) favor different types of men as short-term mates, we calculated a 2 (appetitive aggression) x 2 (trauma symptoms) x 3 (fertile/no fertile/oral contraceptives) ANOVA with unequal cell frequencies, and the type III computation of the sum of squares was chosen. We found a main effect of the factor appetitive aggression ($F_{1,1135} = 19.03, p < .001, \eta^2 = .016$) and a main effect of the factor fertile ($F_{1,1135} = 5.31, p = .005, \eta^2 = .009$) but no main effect for the factor trauma. We found a significant appetitive aggression x fertile interaction ($F_{2,1135} = 5.71, p = .003, \eta^2 = .010$) and a significant trauma x appetitive aggression x fertile interaction ($F_{2,1135} = 3.53, p = .029, \eta^2 = .006$) but no trauma x fertile nor appetitive aggression x trauma interactions (see Figure 3).

Using a *t*-test for independent samples, we compared women in their fertile period of the cycle to those not in their fertile window on their ratings of the condition no trauma symptoms and high appetitive aggression of Wilko. We found a significant difference. Women in their fertile phase of the menstrual cycle found a man with high appetitive aggression more appealing as a short-term mate than women who are not in their fertile window (fertile group: $M \pm SD = 3.74 \pm 1.60$, non-fertile group: $M \pm SD = 2.27 \pm 1.71, t_{141} = 3.88, p < .001, d = .88$).

Figure 3. Desirability as a short-term mate.



Note: Mean coefficients and standard errors for the different men in regard to their desirability as a short-term mate. Rated by women in their fertile period (dark grey bars), non-fertile phase of their cycle (middle grey bars) and women who take oral contraceptives (light grey bars).

Discussion

Results suggest that men high in appetitive aggression scores are sexually preferred by women as short-term mates over those with a low score, particularly when the selector is in her fertile phase of the menstrual cycle. This result coincides with other studies demonstrating that typical, well-marked male attributes such as dominance and masculine facial features are sexually preferred by women in their fertile window (e.g., Havlicek et al., 2005; Penton-Voak and Perrett, 2000). When ovulating, women seem particularly selective and sensitive for a range of distinct markers of male features (Thornhill and Gangestad, 2008). This study indicates that not only the physical appearance but also behavioral traits – in this case, appetitive aggression in combination with no trauma symptoms – constitute signals for presumed genetic male fitness. Men who seek dominance and find pleasure in aggression are not a profitable option for a stable relationship because they pose a threat to the family, demonstrate less parental investment and engage in extra-pair copulation (Marlowe, 1999). Consequently, as predicted, women in our study prefer men with low appetitive aggression as a long-term mate. Instead of a more aggressive man, a kinder, more sensitive man, might be a better option for a long-term mate (Buss and Barnes, 1986; Li et al., 2002).

While men high in appetitive aggression are deemed the least attractive potential long-term mates, regardless of the presence or absence of trauma symptoms, the presence of trauma symptoms mediates the attractiveness of the men with low appetitive aggression. Trauma symptoms in men with low appetitive aggression are evaluated as less attractive for long-term relationships compared to men lacking trauma symptoms and low in appetitive

aggression. Traumatized men with higher appetitive aggression scores are found to be as attractive as similarly highly appetitively aggressive men lacking trauma symptoms. Men behaving less brutally during war are seemingly perceived as more sensitive and are therefore preferred. Appetitively aggressive men prove to be so strongly unattractive to women for stable long-term relationships that additional trauma symptoms have no further influence on the perception of a soldier. All in all, men without trauma symptoms and low in appetitive aggression are the most preferred options among the ex-combatants as long-term mates.

In this study women were tested once during their menstrual cycle. A within-subjects design, in which the same women are tested multiple times at different points of their cycle, might produce even greater effects owing to the control of inter-individual variations. Another restriction of this study is that we did not ask the women if they cycled regularly. Wilcox et al. (2001) showed that the likelihood of conception differ between women with regular cycles and women with irregular cycles. Therefore it might be useful to validate fertility hormone levels in future studies. Fictional descriptions of the different types of men we presented may limit the information value of our findings. However, the investigation of desirability of real men with/without expression of traumatization and low/high appetitive aggression might be distorted by many confounding variables. The advantage of this study is the standardization of the stimulus material, a large sample size and control questions ensuring participant attention to detail.

Conclusion

The present investigation indicates that appetitive aggression in men may serve as a signal for high genetic fitness. Appetitive aggression enhanced the desirability of a short-term mate especially for women in their fertile window. Men with a combination of high appetitive aggression and lacking trauma symptoms are the most desirable option as short-term mates. However, aggressiveness decreased the desirability as a long-term mate, whereas a partner with a low drive for aggressive behavior may be the better option.

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Appendix

Scenarios:

Wilko, condition 1 (with trauma symptoms, high appetitive aggression):

Wilko is a very friendly, caring and attractive young man. He was trained in close combat and sent to the northeast of Afghanistan. After his return from the war zone, many things are different. Wilko is vigilant and careful. At night he often wakes, bathed in sweat. He becomes frightened when he hears unexpected noises, he is easily irritated and sometimes has trouble concentrating. Wilko only talks to his closest relatives about his war experiences. He fondly remembers the time when he hunted and defeated the enemy in close combat. He wanted to defend his country, his family and future generations. The memory of the bloody injuries and pain that he inflicted on the enemy, confirms him in his self-image of being a good combatant.

Wilko, condition 2 (without trauma symptoms, high appetitive aggression):

Wilko is a very friendly, caring and attractive young man. He was trained in close combat and sent to the northeast of Afghanistan. After his return from the war zone his behavior returns to its normal civilian routine. Wilko has integrated himself back into everyday life very quickly and sets himself new goals for his profession and private life. He is balanced and able to sleep well, despite unpleasant memories. He particularly enjoys spending time with friends and takes pleasure in a range of different activities. Wilko only talks to his closest relatives about his war experiences. He fondly remembers the time when he hunted and defeated the enemy in close combat. He wanted to defend his country, his family and future generations. The memory of the bloody injuries and pain that he inflicted the enemy, confirms him in his self-image of being a good combatant.

Wilko, condition 3 (with trauma symptoms, low appetitive aggression):

Wilko is a very friendly, caring and attractive young man. He was trained in close combat and sent to the northeast of Afghanistan. After his return from the war zone many things were different. Wilko is vigilant and careful. At night he often wakes up bathed in sweat. He becomes frightened when he hears unexpected noises, he is irritated easily and sometimes has trouble concentrating. Wilko only talks to his closest relatives about his war experiences. When he speaks about it, it is obvious that he only fought because that was his job and he had to follow orders. He had to defend his country, his family and future generations, and he had to act in accordance to this duty. He would prefer to erase the memories of the bloody injuries and pain that he inflicted upon the enemy.

Wilko, condition 4 (without trauma symptoms, low appetitive aggression):

Wilko is a very friendly, caring and attractive young man. He was trained in close combat and sent to the northeast of Afghanistan. After his return from the war zone his behavior returns to its normal civilian routine. Wilko has integrated himself back into everyday life very quickly and sets himself new goals for his profession and private life. He is balanced and able to sleep well, despite unpleasant memories. He particularly enjoys

spending time with friends and takes pleasure in a range of different activities. Wilko only talks to his closest relatives about his war experiences. When he speaks about it, it is obvious that he only fought because that was his job and he had to follow orders. He had to defend his country, his family and future generations, and he had act in accordance with his duty. He would prefer to erase the memories of the bloody injuries and pain that he inflicted upon the enemy.

Control questions in the end of the study:

Where was Wilko stationed?

- 1) Iraq
- 2) Afghanistan
- 3) Libya
- 4) Kosovo

Did Wilko change after he returned from war?

- 1) Wilko's behavior changed very little after the war and he sets himself new goals for his profession and private life.
- 2) Wilko is physically injured.
- 3) Wilko is vigilant and careful.
- 4) Wilko's changes very little after returning from battle, and he longs to go on another tour of duty.

How does Wilko deal with his war experiences?

- 1) He handles them by trying to communicate intensively about his experiences with other soldiers.
- 2) He tries to divert himself by enjoying a wild nightlife.
- 3) He fondly remembers the time when he hunted and defeated the enemy in close combat.
- 4) He would prefer to erase the memories of the bloody injuries and pain that he inflicted upon the enemy.