

# THE ATTRACTIVENESS OF HUMOUR TYPES IN PERSONAL ADVERTISEMENTS: AFFILIATIVE AND AGGRESSIVE HUMOUR ARE DIFFERENTIALLY PREFERRED IN LONG-TERM VERSUS SHORT-TERM PARTNERS

M. L. COWAN<sup>\*1</sup> and A. C. LITTLE<sup>2</sup>

<sup>1</sup>University of Stirling (Corresponding author),

<sup>2</sup>University of Stirling, Psychology School of Natural Sciences,  
University of Stirling, Stirling, FK9 4LA, Scotland, UK

**Abstract:** A good sense of humour is commonly offered in written dating advertisements demonstrating that humour is an important quality to have when attracting a mate, but not all humour is the same. This study used vignettes in the style of a personal advertisement to measure the attractiveness of affiliative and aggressive humour in different relationship contexts. The results demonstrated that affiliative humour was more attractive than aggressive humour in both relationship contexts but especially for long-term relationships. The results follow the pattern expected of affiliative humour styles being more attractive for long-term relationships due to being linked to qualities that may be important in long-term relationships such as likelihood of cooperation, and aggressive humour styles not being favoured for long-term relationships due to being linked to qualities that may be detrimental in long-term relationships. A follow-up study confirmed that different humour styles were associated with different perceived personality traits. Together these findings suggest that humour may be used to indicate an individual's personality and that the attractiveness of a good sense of humour depends on both the type of humour and the type of relationship being sought.

**Keywords:** humour style, context, sex differences, personal advertisements, status

## INTRODUCTION

A good sense of humour (GSOH) is commonly offered in written personal advertisements suggesting that humour is an important quality to have when attracting a mate (BUSS, 1988). Generally, the presence of a 'good sense of humour' is associated with positive personality traits (CANN and CALHOUN 2001), and is suggested to be an honest signal of gene quality (MILLER 2000; GREENGROSS and MILLER 2011). GREENGROSS and MILLER (2011), in testing this theory, found humour ability in men to be positively associated with intelligence and their mating success,

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\*Address for correspondence: M. L. COWAN, University of Stirling, Psychology School of Natural Sciences, University of Stirling, Stirling, FK9 4LA Scotland, UK, e-mail: m.l.cowan@stir.ac.uk

providing support for the sexual selection theory of humour. Whilst humour may indeed be an honest signal of gene quality, this is not the only function it has as evidence demonstrates that producing humour is an effective way of indicating interest to a potential mate (LI et al. 2009). This may be due to the similarity between humour and flirtatiousness (COWAN and LITTLE 2013), which may in turn increase how attractive the humour production is perceived to be. However, humour can be expressed in different ways and most theories concerning the sexual selection of humour or the interest indicator theory do not specify what type of humour is most attractive in different relationship contexts or whether different types of humour are more or less related to the advertisement of gene quality. GREENGROSS and MILLER (2008) have suggested that self-deprecating humour may be more attractive than other-deprecating humour because it allows high quality individuals to display their desirable attributes as well as their modesty. However, referring only to deprecating humour may be too narrow a distinction; indeed, other types of humour may be more pertinent to the discussion of the attractiveness of humour styles.

In the Humour Styles Questionnaire (MARTIN et al. 2003), there are four main humour styles which are frequently referred to and evidenced in humour literature (KUIPER and LEITE 2010), two of which are directed at the self; self-enhancing and self-defeating, and two of which are directed at others; aggressive and affiliative. In the current study, we focussed on other-directed humour due to the deliberate influence aggressive and affiliative humour have on interpersonal relations, although perhaps in contrasting ways. Despite evidence demonstrating the link between a 'good sense of humour' and positive personality traits, individuals who use aggressive or affiliative humour are perceived quite differently (KUIPER and LEITE 2010; ZEIGLER-HILL, BESSER and JETT 2013) and have largely differing personality traits (MARTIN et al. 2003), which may impact on the type of relationships they are most attractive for.

Aggressive humour is characterised by sarcasm, teasing, or directing ridicule at others with the intention of putting them down (MARTIN et al. 2003). Through questionnaire studies, MARTIN et al. (2003) found that individuals high in aggressive humour are more neurotic, serious, and higher in unmitigated agency and masculinity, with other studies demonstrating a link between aggressive humour and psychopathy (VESELKA et al. 2010; MARTIN et al. 2012; MASUI, FUJIWARA and URA 2013). Demonstrably, aggressive humour is associated with less socially desirable traits (KUIPER and LEITE 2010) and ZEIGLER-HILL, BESSER and JETT (2013) have found that people who use aggressive humour are considered to be lower in attractiveness than those who use affiliative humour. Crucially, however, ZEIGLER-HILL, BESSER and JETT's (2013) study did not examine whether relationship type impacted on attractiveness ratings. Previous research has demonstrated the importance of temporal context when rating attractiveness (LITTLE et al. 2002; LITTLE et al. 2011), as different qualities may be more attractive for short-term than long-term relationships. It could therefore be

speculated that aggressive humour may be attractive in some contexts but that this may have been overlooked by not differentiating between short- and long-term relationships.

Aggressive humour could aid a user in intrasexual competition by allowing them to protect their reputation and self-image (GALLOWAY 2010) and could be considered a less risky strategy than physically aggressing against a competitor (BJÖRKQVIST 1994). In enabling users to derogate competition, whilst attempting to conceal their intentions under the guise of humour, aggressive humour could be considered an effective instrument of indirect aggression and may serve as an important signal of status and dominance (GREENGROSS and MILLER 2008). Dominance is a path to high status in humans which is characterised by relatively undesirable personality traits, such as intimidation and forcefulness (HENRICH and GIL-WHITE 2001), which could potentially manifest itself in direct (physical) aggression or indirect (verbal) aggression (FISHER 2013). However, there may be important fitness benefits in partnering with a dominant man. Mating with a man who could offer status and a degree of protection to a potential mate (TRIVERS 1972) may make dominance, and therefore aggressive humour, more appealing to women; although this is more likely to be true for short-term relationships. When seeking a mate to reproduce with, a woman should consider how good a partner and parent he would make (LITTLE et al. 2002; LITTLE et al. 2011), meaning that those who use aggressive humour and appear more dominant may not make ideal long-term partners (SNYDER, KIRKPATRICK and BARRETT 2008).

Preference questionnaires demonstrate support for this notion. KRUGER and FITZGERALD (2011) found that dominant personality traits (not including sense of humour) are mainly attractive for short-term relationships. The same study also found that men high in prestigiousness were more attractive for long-term relationships, suggesting men higher in socially desirable traits, such as affiliation and cooperativeness, are considered better partners. This corresponds with ZEIGLER-HILL, BESSER and JETT's (2013) finding that those who use affiliative humour are more attractive than those who use aggressive humour. Affiliative humour is markedly different from aggressive humour because, rather than being at the expense of individuals, it is inclusive and brings groups together (MARTIN et al. 2003). Affiliative humour also has more desirable associations than aggressive humour as it relates positively to cheerfulness, high self-esteem, and extraversion (MARTIN et al. 2003) and is not related to dominance the way aggressive humour is. By contrast, affiliative humour may demonstrate cooperativeness and help to strengthen relationships, which will not help a user to gain status the way aggressive humour might, but it may help individuals reinforce the status they already have (KELTNER et al. 1998; GALLOWAY 2010). In such a way, humour and status may be related and, in the case of aggressive humour, humour may be a means by which one exerts status over others, although it is unclear if this may be the case for both men and women. As status and humour are differentially preferred in men and women, it is likely there

would be sex differences in how attractive these humour types are perceived as being.

Research on both status and humour tends to focus on men as producers and women as appreciators, and it follows that there is some evidence to suggest that both status and humour production are more important qualities in a mate to women than they are to men (BROWN and LEWIS 2004; BRESSLER, MARTIN and BALSHINE 2006). Whilst women seek men who are higher in status (TRIVERS 1972), and a partner who can produce humour well (BRESSLER, MARTIN and BALSHINE 2006), men place greater importance on appearance, tending to seek out cues for attractiveness and youth (BUSS 1989). As such, a potential partner producing humour well, or producing a particular type of humour, may be generally less appealing to men than it is to women. In addition to this, if humour is a way of exerting status, funnier women may be relatively less attractive to men because non-dominance is more attractive than dominance in women (BROWN and LEWIS 2004), further demonstrating the potential for sex differences in appreciating affiliative and aggressive humour.

#### **The current study**

Study 1 used vignettes in the style of a personal advertisement in order to measure how attractive two types of humour are in different relationship contexts. This novel methodology, created to maximize the ecological validity of the study, allowed the manipulation of humour style alone. Advertisements were created following the template of advertisements available on *mysinglefriend.com*; a website designed for people to write dating advertisements for their friends, which removes any possible misinterpretation that may be caused by actual use of humour as humour style was described. In Study 1, we hypothesised that the advertisements describing affiliative humour would be more attractive for long-term relationships than aggressive humour for both men and women. It was also hypothesised that for men rating women's advertisements, affiliative humour would be preferred over aggressive humour for short-term and long-term relationships, due to the association between dominance and aggressive humour. In contrast, due to the same association, we hypothesised that aggressive humour would be preferred for short-term relationship over affiliative humour, compared to long-term relationship preferences, for women rating men's advertisements.

In order to help interpret the findings of Study 1, in Study 2, the advertisements were rated by a new set of participants for dominance and cooperativeness to determine if the humour used in the advertisements was indicating particular associated personality traits. We predicted that advertisements describing aggressive humour would be rated higher in dominance than cooperativeness and that advertisements describing affiliative humour would be rated higher in cooperativeness than dominance.

## Study 1

### MATERIALS AND METHODS

#### Creating the stimuli

Prior to stimuli creation, approximately 50 online dating adverts were studied by the researchers, paying specific attention to how humour was described, in order to ensure that the advertisements created were naturalistic and contained similar content and structure to genuine adverts (following STRASSBERG and HOLTY 2003). In order to ensure homogeneity (aside from the humour manipulation), all advertisements were of equal length and content, consistently referencing only neutral hobbies and descriptions which provided no further clues about wealth, intelligence, education, or physical appearance. Twenty adverts describing men were initially created and the pronouns were then adapted to create twenty adverts describing women, ensuring that male and female adverts were identical. Out of the twenty created, ten were designed to describe someone with an aggressive humour style, meaning someone who puts other people down with humour, e.g. Her sense of humour is cutting, scathing, deadpan, and hilarious-you'll enjoy it as long as you don't take yourself too seriously. Ten additional adverts then described a person with an affiliative humour style: someone whose humour was not aimed at others, e.g. ...and he's got a great sense of humour; he'll have you and all your friends laughing at his witty observations on life: This manipulation only concerned the sense of humour; therefore, personality was not described in the advertisements.

#### Rating the stimuli: Participants

The protocol for this study was approved by the University of Stirling Psychology Ethics Committee. There were 68 participants (33 female, age  $M = 21.3$ ,  $S.D. = 3.6$ , range = 17–33) in total who were all undergraduates at the University of Stirling, participating to fulfil a course requirement.

#### Procedure

Advertisements were presented sequentially in an online self-paced questionnaire, with each participant rating 20 adverts describing members of the opposite sex. Participants were told they were rating genuine advertisements taken from an online dating website and were asked to rate each advertisement for how attractive it was for short-term and long-term relationships on a Likert (1–7/low–high) scale. Participants were provided with a brief definition of what each relationship entailed to ensure the definitions used were consistent. The relationship descriptors highlighted that the relationship types differed in terms of the level of commitment they required, therefore a short-term relationship may only involve a single date, or one-

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night stand, whereas a long-term relationship may lead to moving in together or getting married (see LITTLE et al. 2011). These definitions were onscreen throughout the study though the advertisements were presented in a random order. Participants were debriefed following completion of the study.

## RESULTS

Data were analysed by participant, therefore, for each participant, a mean score based on ratings given to each advert was calculated separately for the affiliative humour and aggressive humour advertisements both for short-term and long-term attractiveness. This produced four scores for each participant: affiliative humour long-term attractiveness, affiliative humour short-term attractiveness, aggressive humour long-term attractiveness, and aggressive humour short-term attractiveness. A repeated measures Analysis of Variance (ANOVA) was conducted with type of relationship (short-term/long-term) and type of humour (affiliative/aggressive) as the within-participants factors and sex as the between-participants factor. This revealed a significant interaction between relationship, type of humour, and sex ( $F_{1,66} = 4.20, p = .044, \eta^2 = .06$ ) prompting the next analysis.

Data were split by sex and a second repeated measures ANOVA was conducted with type of relationship (short-term/long-term) and type of humour (affiliative/aggressive) used as within-participants factors. In women rating men's advertisements, this revealed a significant interaction between the type of advertisement and relationship ( $F_{1,32} = 11.87, p = .002, \eta^2 = .27$ ). It was also demonstrated that there was a main effect for type of humour ( $F_{1,32} = 11.66, p = .002, \eta^2 = .27$ ), such that affiliative humour was the preferred humour type across both relationship types (see *Table 1*). In men, the interaction between relationship and humour type was not significant ( $F_{1,34} = 3.01, p = .092, \eta^2 = .08$ ), although the pattern was in the same direction as for women. There was also a main effect for type of humour ( $F_{1,34} = 6.09, p = .019, \eta^2 = .15$ ) such that affiliative humour was preferred across both relationship types.

*Table 1.* Mean attractiveness ratings of affiliative and aggressive humour style and comparisons between men and women's rating.

Relation- ship	Affiliative humour			Aggressive humour		
	Male M (SD)	Female M (SD)	$t_{66}(d)$	Male M (SD)	Female M (SD)	$t_{66}(d)$
Short-term	3.89 (1.23)	3.86 (0.98)	0.11 (0.03)	3.77 (1.22)	3.80 (0.94)	-0.10 (-0.02)
Long-term	4.03 (1.16)	4.22 (1.12)	-0.69 (-0.17)	3.68 (1.16)	3.42 (0.69)	1.12 (0.28)

Paired Samples *t*-tests were used to test the relative difference in preference between relationship type within each humour type. This demonstrated no significant differences in the advertisements rated by men for the attractiveness of aggressive humour between short-term and long-term relationships ( $t_{34} = 0.86$ ,  $p = .396$ ,  $d = 0.08$ ) or affiliative humour ( $t_{34} = -1.04$ ,  $p = .305$ ,  $d = -0.12$ ). In the advertisements rated by women, however, Paired Samples *t*-tests demonstrated that aggressive humour was significantly more attractive for short-term relationships than long-term relationships ( $t_{32} = 2.85$ ,  $p = .008$ ,  $d = 0.47$ ) and affiliative humour was marginally significantly more attractive for long-term relationships than short-term relationships ( $t_{32} = -2.02$ ,  $p = .052$ ,  $d = -0.35$ ).

Lastly, Independent Samples *t*-tests were used to test if advertisements describing men were rated as being more attractive than advertisements describing women. This revealed that there were no significant differences between men and women's ratings in all four conditions (see *Table 1*).

## Study 2

In order to help interpret the results from Study 1, a follow-up study was conducted in which the advertisements were rated again for cooperativeness and dominance. This study was carried out to test the manipulation and to examine if different perceived personality traits were related to the different humour styles in the advertisements.

## MATERIALS AND METHOD

### Stimuli

The stimuli used were the same stimuli presented in Study 1.

### Rating the stimuli: Participants

There were 33 participants (17 female, age  $M = 22.2$  S.D. = 5.5 range = 18–37) in total. This sample was comprised of undergraduates at the University of Stirling, participating to fulfil a course requirement, and individuals contacted through social media sites.

### Procedure

The procedure follows the previous study. Advertisements were presented sequentially in an online self-paced questionnaire and the order of presentation of the advertisements was randomised. Participants were told they were rating personality traits in 20 genuine opposite-sex advertisements taken from an online dating website. Participants were asked to rate each advertisement for how “dominant” and

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“cooperative” the person being described seemed using a Likert scale (1–7/low-high). Following completion of the study, participants were debriefed.

## RESULTS

A repeated measures Analysis of Variance (ANOVA) was conducted with type of humour (affiliative/aggressive) and quality (dominant/cooperative) as the within-participants factors and sex as the between-participants factor. This revealed a significant main effect of quality ( $F_{1, 31} = 6.87, p = .013, \eta^2 = .18$ ) which was qualified by a significant interaction between quality and type of humour ( $F_{1, 31} = 91.94, p < .001, \eta^2 = .75$ ).

Paired Samples *t*-tests were used to test the relative difference between dominant and cooperative ratings in the affiliative and the aggressive advertisements. In comparing dominance and cooperativeness ratings in the affiliative advertisements, a Paired Samples *t*-test demonstrated that affiliative advertisements were rated as being significantly more cooperative ( $M = 5.16, S.D. = 0.51$ ) than dominant ( $M = 3.55, S.D. = 0.80$ ) ( $t_{32} = -9.43, p < .001, d = 2.44$ ). A second Paired Samples *t*-test demonstrated that, when comparing the dominance and cooperativeness ratings for the aggressive advertisements, aggressive advertisements were rated as being significantly more dominant ( $M = 4.73, S.D. = 0.61$ ) than cooperative ( $M = 3.84, S.D. = 0.78$ ) ( $t_{32} = 4.34, p < .001, d = 1.29$ ).

## General Discussion

The current studies investigated the impact of aggressive and affiliative humour styles on short-term and long-term attractiveness for men and women (Study 1) and their associated personality attributions (Study 2). Comparing the two humour types, women found affiliative humour to be more attractive than aggressive humour in both relationship contexts. It was hypothesised that the fitness benefits of partnering with a dominant man may make aggressive humour more attractive than affiliative humour for short-term relationships. Whilst aggressive humour was not found more attractive than affiliative humour for short-term relationships, there was a relative shift in preference indicated by an interaction. Affiliative humour was more attractive than aggressive humour for long-term relationships while the two humour types were almost equally attractive for short-term relationships demonstrating that aggressive humour is a relatively more attractive humour when women rate men for short-term relationships. This pattern suggests that affiliative humour may be a cue to good long-term partner characteristics, as we hypothesised, and Study 2 demonstrated that affiliative humour was associated with cooperativeness. The results therefore support the assertion that the attractiveness of humour styles

may follow the same pattern established by KRUGER and FITZGERALD (2011) that dominance and cooperativeness (or potentially prestige) are differentially preferred.

In men rating women's advertisements, a pattern emerged which supported the hypothesis that affiliative humour was more attractive than aggressive humour in both relationship contexts. This was the same pattern which was found in women rating men's advertisements, though the overall effect of relationship type was not as strong, nor was it significant in men rating women's advertisements ( $p = .092$ ). As Study 2 demonstrated that aggressive humour is associated with dominance, a quality which men do not find attractive in women (BROWN and LEWIS 2004), the main effect for humour type and the preference for affiliative humour supports the pattern hypothesised. Humour style evidently mattered more to men's ratings of women's advertisements than relationship type. This is in contrast with women's ratings of men's advertisements, where relationship type interacted with humour style, and this difference may reflect the fact that it is more important for a woman to ensure that she picks a cooperative partner for long-term relationships. A woman potentially faces greater costs than a man by picking an unsuitable mate due to the greater costs of reproduction faced by women (TRIVERS 1972), therefore it could be speculated that this is why we observed a significant difference according to relationship type in women only.

On a similar note, as men tend not to find funniness as attractive as women do (BRESSLER, MARTIN and BALSHINE 2006; COWAN and LITTLE 2013), we may have expected men to find descriptions of funny women generally less appealing than women found descriptions of funny men. Therefore, it is interesting to note that there were no overall significant differences in the attractiveness ratings between men and women across the advertisements. As men did not find the advertisements less attractive than women found them, it could be speculated that funniness was signalling another quality that is attractive to men, such as flirtatiousness. Previous research has demonstrated the similarity between funniness and flirtatiousness (KELTNER et al. 2001; COWAN and LITTLE 2013) and, to consider the manifestation of aggressive humour as teasing directed at one individual, it could be that aggressive humour appears to be flirtatious. Humour use may be a signal to men or women rating the advertisement that the subject is proceptive to advances, which may make them sound more appealing.

WILBUR and CAMPBELL (2011) suggest humour style itself is not the important consideration but rather traits associated with that humour style. Indeed, our results do suggest that raters were using humour style as a cue to personality. Judging someone's attractiveness from something as brief as a personal advertisement may mean raters rely more on humour style to garner information about personality, though this corresponds more broadly with the sexual selection theory of humour (MILLER 2000) and the Encryption Model of humour (FLAMSON and BARRETT 2008). Producing humour requires many important cognitive skills, such as theory of mind, abstract thinking, and highly advanced language skills (POLEMINI and REISS 2006), common knowledge and problem-solving abilities (FLAMSON and

BARRETT 2008), as well as creativity and intelligence (GREENGROSS and MILLER 2011), therefore producing humour is potentially an honest signal and a shortcut to demonstrating these valuable traits. The current study has shown that a humorous partner can be attractive to both men and women, perhaps for different reasons, but that the style of humour used is important as it communicates different personality traits. To further our understanding of how humour style interacts with attractiveness, the association between humour and high status could be explored in greater depth because understanding the association between the two factors could explain the sex differences in appreciating a humorous partner, which are found in a number of studies (BRESSLER, MARTIN and BALSHINE 2006; WILBUR and CAMPBELL 2011; COWAN and LITTLE 2013). In addition to this, future work could investigate how men and women perceive these humour types when they are being produced by same-sex individuals, providing insight into the role humour may play in intrasexual competition.

In summary, our data are consistent with the idea that sense of humour is perceived as an indicator of personality and, if considered a conduit of either dominance or cooperativeness, may play an important role in communicating mate value to the opposite sex. Different humour styles were found differently attractive across relationship context, at least in women. The proposed relationship between humorousness and high status, in terms of either dominance and prestige, and their different impact on attractiveness across relationship context warrants further testing as this could be an additional aspect of humour being a 'good genes' or 'good personality' indicator which has yet to be explored. These associations may help us to further our understanding of the sex difference we find in the attractiveness of humour.

## REFERENCES

- BJÖRKQVIST, K. (1994): Sex differences in physical, verbal, and indirect aggression: a review of recent research. *Sex Roles*, 30, 177–188.
- BRESSLER, E. R., MARTIN, R. A. and BALSHINE, S. (2006): Production and appreciation of humor as sexually selected traits. *Evolution and Human Behaviour*, 27, 121–130.
- BROWN, S. L. and LEWIS, B. P. (2004): Relational dominance and mate-selection criteria: evidence that males attend to female dominance. *Evolution and Human Behavior*, 25, 406–415.
- BUSS, D. M. (1988): The evolution of intrasexual competition: Tactics of mate attraction. *Journal of Personality and Social Psychology*, 54, 616–628.
- BUSS, D. M. (1989): Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioural and Brain Sciences*, 12, 1–49.
- CANN, A. and CALHOUN, L. G. (2001): Perceived personality associations with differences in sense of humor: stereotypes of hypothetical others with high or low senses of humor. *Humor*, 14, 117–130.
- COWAN, M. L. and LITTLE, A. C. (2013): The effects of relationship context and modality on ratings of funniness. *Personality and Individual Differences*, 56, 496–500.

- FISHER, M. L. (2013): Women's Intrasexual Competition for Mates. In Fisher, M. L., Garcia, J. R., Chang, R. S. (eds): *Evolution's Empress: Darwinian Perspectives on the Nature of Women*. New York: Oxford University Press, pp. 19–42.
- FLAMSON, T. and BARRETT, H. C. (2008): The encryption theory of humor: A knowledge-based mechanism of honest signalling. *Journal of Evolutionary Psychology*, 6, 261–281.
- GALLOWAY, G. (2010): Individual differences in personal humor styles: identification of prominent patterns and their associates. *Personality and Individual Differences*, 48, 563–567.
- GREENGROSS, G. and MILLER, G. (2008): Dissing oneself versus dissing rivals: Effects of status, personality, and sex on the short-term and long-term attractiveness of self-deprecating and other-deprecating humor. *Evolutionary Psychology*, 6, 393–408.
- GREENGROSS, G. and MILLER, G. (2011): Humor ability reveals intelligence, predicts mating success, and is higher in males. *Intelligence*, 39, 188–192.
- HENRICH, J. and GIL-WHITE, F. J. (2001): The evolution of prestige; Freely conferred deference as a mechanism for enhancing the benefits of cultural transmission. *Evolution and Human Behaviour*, 22, 165–196.
- KELTNER, D., CAPPS, L., KRING, A. M., YOUNG, R. C. and HEEREY, E. A. (2001): Just teasing: A conceptual analysis and empirical review. *Psychological Bulletin*, 127, 229–248.
- KELTNER, D., YOUNG, R. C., HEEREY, E. A., OEMIG, C. and MONARCH, N. D. (1998): Teasing in hierarchical and intimate relations. *Journal of Personality and Social Psychology*, 75, 1231–1247.
- KRUGER, D. J. and FITZGERALD, C. J. (2011): Reproductive strategies and relationship preferences associated with prestigious and dominant men. *Personality and Individual Differences*, 50, 365–369.
- KUIPER, N. A. and LEITE, C. (2010): Personality impressions associated with four distinct humor styles. *Scandinavian Journal of Psychology*, 51, 115–122.
- LI, N. P., GRISKEVICIUS, V., DURANTE, K. M., JONASON, P. K., PASISZ, D. J. and AUMER, K. (2009): An evolutionary perspective on humor: Sexual selection or interest indicator? *Personality and Social Psychology Bulletin*, 35, 923–936.
- LITTLE, A. C., CONNELLY, J., FEINBERG, D. R., JONES, B. C. and ROBERTS, S. C. (2011): Human preferences for masculinity differs according to context in faces, bodies, voices, and smell. *Behavioral Ecology*, 22, 862–868.
- LITTLE, A. C., JONES, B. C., PENTON-VOAK, I. S., BURT, D. M. and PERRETT, D. I. (2002): Partnership status and the temporal context of relationships influence human female preferences for sexual dimorphism in male face shape. *Proceedings of the Royal Society of London: B. Biological Sciences*, 269, 1095–1100.
- MARTIN, R. A., LASTUK, J. M., JEFFREY, J., VERNON, P. A. and VESELKA, L. (2012): Relationships between the Dark Triad and humor styles: A replication and extension. *Personality and Individual Differences*, 52, 178–182.
- MARTIN, R. A., PUHLIK-DORIS, P., LARSEN, G., GRAY, J. and WEIR, K. (2003): Individual differences in uses of humor and their relation to psychological well-being: Development of the Humor Styles Questionnaire. *Journal of Research in Personality*, 37, 48–75.
- MASUI, K., FUJIWARA, H. and URA, M. (2013): Social exclusion mediates the relationship between psychopathy and aggressive humor style in noninstitutionalized young adults. *Personality and Individual Differences*, 55, 180–184.
- MILLER, G. (2000): *The Mating Mind*. London: Random House.
- POLEMINI, J. and REISS, J. P. (2006): The first joke: Exploring the evolutionary origins of humour. *Evolutionary Psychology*, 4, 347–366.
- SNYDER, J. K., KIRKPATRICK, L. A. and BARRETT, C. H. (2008): The dominance dilemma; Do women really prefer dominant males? *Personal Relationships*, 15, 425–444.

- STRASSBERG, D. S. and HOLTY, S. (2003): An experimental study of women's internet personal ads. *Archives of Sexual Behaviour*, 32, 252–260.
- TRIVERS. (1972): Parental Investment and Sexual Selection. In Campbell, B. (ed.): *Sexual Selection and the Descent of Man*. London: Heinemann Books, pp. 136–179.
- VESELKA, L., SCHERMER, J. A., MARTIN, R. A. and VERNON, P. A. (2010): Relations between humor styles and the Dark Triad traits of personality. *Personality and Individual Differences*, 48, 772–774.
- WILBUR, C. J. and CAMPBELL, L. (2011): Humour in romantic contexts; Do men participate and women evaluate? *Personality and Social Psychology Bulletin*, 37, 918–929.
- ZEIGLER-HILL, V., BESSER, A. and JETT, S. E. (2013): Laughing at the looking glass: Does humor style serve as an interpersonal signal? *Evolutionary Psychology*, 11, 201–226.