## Brief research report

# Women's bust size and men's courtship solicitation 

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#### Abstract

Previous studies have found that women with larger breasts than the average were considered to be more physically attractive. In these studies attractiveness was measured with the help of silhouette figures or photographs and the effect of breast size on men's behaviour was not considered. In this study two experiments were carried out in order to test the effect of a woman's breast size on approaches made by males. We hypothesized that an increase in breast size would be associated with an increase in approaches by men. A young female confederate was instructed to wear a bra that permitted her to artificially vary her breast size. In the first experiment the female confederate was instructed to sit in a nightclub for one hour whereas in the second experiment she was instructed to take a seat in a pavement area of a bar. It was found that increasing the breast size of the female confederate was associated with an increasing number of approaches by men.


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## Introduction

A host of previous studies routinely show that men and women differ in several mate preferences across cultures. Men, more than women, value physical attractiveness in a mate, whereas women, more than men, value good financial prospects and higher status (Buss, 1989; Kenrick, Groth, Trost, \& Sadalla, 1993; Shackelford, Schmitt, \& Buss, 2005). Furthermore, physical attractiveness is not the only variable in mate preference and men also value on maturity, dependable character, pleasing disposition (Amador, Charles, Tait, \& Helm, 2005). This importance of physical attractiveness for men, therefore, leads them to react promptly to various differences in the physical appearance of women.

Many studies have found that different morphological features of women are associated with different

[^0]levels of attractiveness. Furnham, Lavancy, and McClelland (2001), Henss (2000), Singh (1993) and Singh and Luis (1995) found that lower Waist-to-Hip ratio (WHR) of women was associated with greater level in physical attractiveness when evaluated by men. A WHR of 0.70 seems to be the best value for high attractiveness (Singh, 2002). Another important morphological factor associated with female attractiveness is breast size. Millsted and Frith (2003) consider that large breasts have become over-sexualised as highly prized objects of sexual desire. Previous studies found that females with large breasts are highly valued. Beck, Ward-Hull, and McLear (1976) found that males of the United States rate a female's figure with breasts larger than the average female breast size more favourably than others. Wildman and Wildman (1976) found that the bust was the most sexually stimulating female body part for males and that men preferred larger busts than women typically possess on average. With male students from two universities in the United States and Israel, Gitter, Lomranz, Saxe, and Bar-Tal (1983) found that female figures with large breasts were
preferred by males whereas there were no differences in women's preferences when it came to breast size. Furnham, Hester, and Weir (1990) also found through men's evaluation of female silhouettes with three varying levels of breast size that males displayed a preference for large breasts. Even if numerous studies found that greater attractiveness is associated with large breasts in women, some exceptions do exist. Kleinke and Staneski (1980) found that medium rather than small or large bust sizes corresponded more to men's preferences. Furthermore, in this experiment the target was presented with the help of written descriptions instead of with photographs or silhouettes as is the case in previous research. In a recent study, Furnham and Swani (2007) found that greater attractiveness was associated with a small breasted shape. In this experiment, targets were presented with silhouettes in profile and not face on as in previous studies.

When considering men's behaviour according to women's breast size only one experiment was found in the literature. Morgan, Lockard, Fahrenbruch, and Smith (1975) have tested the effect of a female hitchhiker's bust size and found that male motorists offered rides more frequently to a female confederate with an accentuated bust compared to a normal bust. Furthermore, in this experiment bust size was combined with eye contact (a female confederate with eye contact and an accentuated bust compared to another female confederate with normal bust but no eye contact) and offering a ride is not really a courtship solicitation. Thus the effect of bust size alone on men's courtship behaviour still remains undetermined. Given the fact that a high majority of studies testing the effect of a woman's breast size on attractiveness were conducted in a laboratory setting and only with the evaluation of silhouettes, photographs or written descriptions, it has became important to conduct an experimental study on the effect of breast size in a field setting, with more ecological validity and with behavioural measures. The experiment of Morgan et al. (1975) was conducted in a field setting and used behavioural measurements but some methodological problems persisted in the evaluation of the role of breast size alone. As we have stated, offering a ride to a woman is not really a type of behaviour that could be assimilated to a male courtship approach. For this reason we have decided to conduct an experiment where the male approach could be considered as nonambiguous courtship behaviour toward a woman.

Two experiments were conducted in field settings where the bust size of a female confederate was
experimentally manipulated and where clearly men's courtship behaviour was measured. Given the results of previous research we hypothesized that experimentally increasing female bust size would be associated with an increase in men's courtship solicitation (defined here as approach behaviour).

## Method

## Participants

In the first experiment the participants were 76 young men (approximate age of 20 to 26 ) present in a nightclub of a medium-sized town (more than 70000 inhabitants) located in the west of France on the Atlantic coast of Brittany and which draws a young tourist crowd. In the second experiment, conducted right in the centre of the same town the participants were 30 young men (approximate age of 18 to 26) present in a bar or walking along the pavement area of the bar.

## Procedure

A 20-year-old woman was used as confederate in this experiment (height 5.48 feet, weight 123.45 pounds, $\mathrm{BMI}=20.1$, $\mathrm{WHR}=.71$ ). She was selected among members of a group of female students who volunteered for this experiment. She was selected because she was rated by 15 male students to have an average physical attractiveness and because she had a bust size smaller than young women of her age typically possess on the average. She usually wore a bra with an "A" cup which is, in France, the smallest cup size. With the help of latex leaf it was possible to increase the size of the cup in order to simulate a " B " cup (the average cup in France) and a "C" cup (the size bigger than the average cup size of young women in France). In the three experimental conditions, three different bras were used but they only varied according to the size of the cup: the same model was used. Except for the type of bra used according to the different experimental conditions the same clothes were worn: a pair of neat jeans, lightcoloured sneakers and a white figure-hugging sweatshirt that highlighted the confederate's bust.

## Experiment 1

In the first experiment, carried out in a night club, the female confederate was instructed to sit down and wait one hour. The confederate was asked to look at people dancing on the dance floor. She was instructed not to look on the side of the dance floor and not to look a man
in the eyes. An observer was instructed to watch the female confederate and to note the number of men who approached her during the one hour. In this experiment a solicitation to dance or to interact coming from a man to the female confederate was considered as an approach by the male because previous studies conducted in France found that most men in nightclubs think that the acceptance of a woman to dance or to interact is associated, for the woman, to high attractiveness and interest in the male solicitor (Bozon \& Héran, 2006).

When a man made contact with the female confederate, she was instructed to say to him that she was waiting for her boyfriend. During the pre-test men were found to immediately stop the social interaction with the female confederate upon this verbal sentence. When one hour passed, then the female confederate and the observer left the nightclub. The experiment was carried out during 12 different nights in a three-week period. The confederate was instructed to wear the same clothes and the type of bust size displayed during one of the 12 observational periods varied according to a random distribution.

## Experiment 2

In the second experiment, the same female confederate wearing the same clothes and bra as in the first experiment was instructed to sit down with a drink at a table outside a bar on the pavement area and to stay in the same place for one hour. Again, an unobtrusive observer was seated on a public bench near the bar and noted the number of men who approached the female confederate. If a man approached, the female confederate was instructed to say the same sentence as in the first experiment. Verbal interaction was considered as an approach made by a man because in France men considered that the type of reaction a woman had after a slight verbal interaction with a man conveys the real interest she has for the man (Lemoine, 2004). After one hour, the confederate left the bar. The experiment was conducted during 21 one-hour periods from 10 to 11 p.m. during summer holidays. In France summer holidays are from July 1st to August 20th. Our experiment was conducted from July 20th to August 9th because traditionally people in France take their vacation in July or in August but not between these two months. Therefore, by conducting our experiment between the two months it was possible to break up some of the habitual presence of the same males in the bar throughout the experiment. The type of bust size displayed by the confederate varied for the 21 observational periods according to a random distribution.

Table 1
Number of men's approaches according to the experimental bust-size conditions

|  | Bra cup size |  |  |
| :--- | :--- | :--- | :--- |
|  | A | B | C |
| Experiment 1 - Nightclub (3 one-hour <br> observation periods in each <br> experimental condition) | 13 | 19 | 44 |
| Experiment 2 - Pavement area of a bar <br> $(7$ one-hour observation periods in <br> each experimental condition) | 5 | 9 | 16 |

## Results

In both experiments the number of men who approached the female confederate was the only dependant variable measured. The data are presented in Table 1.

A chi-square "Goodness of Fit" Test was used to analyse our data. In the first experiment, a significant difference between the frequencies of male approaches was found ( $\left.\chi^{2}(2, N=76)=21.34, p<.001\right)$. The different bust sizes were associated with differences in the frequencies of male approaches. With the second experiment, a slight but significant difference between the three frequencies was also found $\left(\chi^{2}(2\right.$, $N=30)=6.21, p<.05)$. Again it was found that the differences in the bust-size conditions were associated with different frequencies of male approaches.

## Discussion

Our hypothesis was confirmed in these two experiments: an increase in the bust size of a young woman of average attractiveness is associated with an increase in the number of men who approach her. In this experiment the number of male approaches was higher in the nightclub than in the bar most probably because a nightclub is favourable for courtship solicitation but the differences according to the bust sizes still remain the same in both areas. This behavioural measurement is congruent with the evaluation of female attractiveness according to their bust size found in previous studies (Beck et al., 1976; Furnham et al., 1990; Gitter et al., 1983; Wildman \& Wildman, 1976). In these latter studies, it was found that female figures with large breasts were preferred by males. Our results seem to show that large breasts are also associated with more male approaches.

Why did this effect of large breasts occur in both our field experiments? One possible explanation is related to the previous studies cited above that found that
increasing the woman's bust size increases her physical attractiveness (Furnham, Dias, \& McClelland, 1998; Furnham, McClelland \& Omer, 2003). This greater attractiveness would then in turn lead more men to addressed courtship solicitation to a woman who is perceived as more attractive.

Our behavioural results could also be interpreted as a male's interpretation of woman sexual intent according to her breast size. Abbey (1987) and Abbey, Cozzarelli, McLaughlin, and Harnish (1987) found that female targets who wore revealing clothing and with large breasts were rated by men as sexier and more seductive. Kleinke and Staneski (1980) found that large breasts were associated with perceived immorality of the target. Perhaps, large breasts led men to misinterpret the sexual intent of a woman with large breasts and we know that men are prompt to react to such sexual intent of a woman (Clark, 1990). Of course this interpretation was speculative here because sexual intent was not measured because research shows that men's observers attribute more sexual intent of a woman according to her physical appearance (Koukounas \& Letch, 2001).

Our results could also be interpreted in terms of socio-evolutionary perspective. Cross-cultural studies found that men value physical attractiveness in a mate whereas women value good financial prospects and higher status (Shackelford et al., 2005). It seems that large breasts are perceived as more physically attractive perhaps because large breasts are considered as a highly feminine trait and symbolically associated with females’ abilities to have children (Millsted \& Frith, 2003). Yet, from an evolutionary perspective, the male is under the pressure to disseminate his genes. Then, perhaps, large breasts are perceived by men as a sign of fertility and males seek women perceived to be highly fertile to increase the probability of gene transmission (Manning, Scutt, Whitehouse, \& Leinster, 1997).

Given the behavioural intentions of our experiment, it was not possible to test these various theoretical interpretations. Furthermore, social implications are associated with such results. In this experiment, it was found that the higher number of approaches made by men was associated with larger breasts. For Millsted and Frith (2003) the feelings that men prefer females with larger breasts would create some body dissatisfaction in women who have a small or an average breast size. To be more attractive for men, a woman would need to have a larger breast-size. The increase of plastic surgery to increase breast-size is perhaps related to such breast-size dissatisfaction.

Of course this experiment has some limitations. Only one female confederate was used and it is possible that
she acted differently in subtle ways in the three experimental conditions that lead males, in return, to perceive her differently. Moore and Butler (1989) found that male approaches in singles bar were affected by nonverbal cues expressed by females. In our experiment, the female confederate was instructed not to gaze or to smile at a man in the nightclub or in the bar. She was also observed by the observer who noticed no difference in the confederate's behaviour during the three experiments. We can, therefore, suppose that the amount of contact made by men in the experimental conditions is only explained by the bra padding wore by our female confederate.

In this experiment, it was found that a woman's breast size was associated with different frequencies of male approaches. Furthermore, this effect is only based on a behavioural measurement. Further experimentation in field settings would be necessary to evaluate why this effect occurs. Perhaps the breast size of our female confederate is associated with a greater level of physical attractiveness, sexiness or sexual intent that lead men to consider the female confederate as more approachable in one experimental condition that in another. Our intent was only to test the behavioural effect of a woman's breast size on male approaches but the factor mediating this behavioural effect still remains in question. With such evaluation it would be possible to test the various theoretical explanations presented above.

## References

Abbey, A. (1987). Misperception of friendly behavior as sexual interest: A survey of naturally occurring incidents. Psychology of Women Quaterly, 11, 173-194.
Abbey, A., Cozzarelli, C., McLaughlin, K., \& Harnish, R. J. (1987). The effects of clothing and dyad sex composition on perceptions of sexual intent: Do women and men evaluate these cues differently. Journal of Applied Social Psychology, 12, 108-126.
Amador, J., Charles, T., Tait, J., \& Helm, H. (2005). Sex and generational differences in desired characteristics in mate selection. Psychological Reports, 96, 19-25.
Beck, S. B., Ward-Hull, C. I., \& McLear, P. M. (1976). Variables related to women's somatic preferences of the male and female body. Journal of Personality and Social Psychology, 34, 12001210.

Bozon, M., \& Héran, F. (2006). La formation du couple. Paris: La Découverte.
Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. Behavioral and Brain Sciences, 12, 1-49.
Clark, R. D. (1990). The impact of AIDS on gender differences in willingness to engage in casual sex. Journal of Applied Social Psychology, 20, 771-782.
Furnham, A., Dias, M., \& McClelland, A. (1998). The role of body weight, waist-to-hip ratio, and breast size in judgments of female attractiveness. Sex Roles, 39, 311-326.

Furnham, A., Hester, C., \& Weir, C. (1990). Sex differences in the preferences for specific female body shapes. Sex Roles, 22, 743-754.
Furnham, A., Lavancy, M., \& McClelland, A. (2001). Waist to hip ratio and facial attractiveness: A pilot study. Personality and Individual Differences, 30, 491-502.
Furnham, A., McClelland, A., \& Omer, L. (2003). A cross-cultural comparison of ratings of perceived fecundity and sexual attractiveness as a function of body-weight and waist-to-hip ratio. Psychology, Health and Medicine, 8, 219-220.
Furnham, A., \& Swani, V. (2007). Perception of female buttocks and breast size in profile. Social Behavior and Personality, 35, 1-8.
Gitter, G. A., Lomranz, J., Saxe, L., \& Bar-Tal, Y. (1983). Perceptions of female physique characteristics by American and Israeli students. The Journal of Social Psychology, 121, 7-13.
Henss, R. (2000). Waist-to-hip ratio and female attractiveness: Evidence from photographic stimuli and methodological considerations. Personality and Individual Differences, 28, 501-513.
Kenrick, D. T., Groth, G. E., Trost, M. R., \& Sadalla, E. K. (1993). Integrating evolutionary and social exchange perspectives on relationships: Effects of gender, self-appraisal, and involvement level on mate selection criteria. Journal of Personality and Social Psychology, 64, 951-969.
Kleinke, C. L., \& Staneski, R. A. (1980). First impressions of female bust size. The Journal of Social Psychology, 110, 123-134.
Koukounas, E., \& Letch, N. M. (2001). Psychological correlates of perception of sexual intent in woman. The Journal of Social Psychology, 141, 443-456.

Lemoine, P. (2004). Comment l'amour vient aux humains. Paris: Robert Laffont.
Manning, J. T., Scutt, D., Whitehouse, G. H., \& Leinster, S. J. (1997). Breast asymmetry and phenotypic quality in women. Evolution and Human Behavior, 18, 223-236.
Millsted, R., \& Frith, H. (2003). Being large-breasted: Women negotiating embodiment. Women's Studies International Forum, 26, 455-465.
Moore, M. M., \& Butler, D. L. (1989). Predictive aspects on nonverbal courtship behavior in women. Semiotica, 3, 201-214.
Morgan, C., Lockard, J., Fahrenbruch, C., \& Smith, J. (1975). Hitchhiking: Social signals at a distance. Bulletin of the Psychonomic Society, 5, 459-461.
Shackelford, T. K., Schmitt, D. P., \& Buss, D. M. (2005). Universal dimensions of human mate preferences. Personality and Individual Differences, 39, 447-458.
Singh, D. (1993). Adaptive significance of female physical attractiveness: Role of the waist-to-hip ratio. Journal of Personality and Social Psychology, 65, 293-307.
Singh, D. (2002). Female mate value at a glance: Relationship of waist-to-hip ratio to health, fecundity and attractiveness. Human Ethology and Evolutionary Psychology, 23, 81-91.
Singh, D., \& Luis, S. (1995). Ethnic and gender consensus for the effect of waist-to-hip ratio on judgements of women's attractiveness. Human Nature, 6, 51-65.
Wildman, R. W., \& Wildman, R. W. (1976). Note on males' and females' preferences for opposite-sex body parts, bust sizes, and bust-revealing clothing. Psychological Reports, 38, 485-486.


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