

The benefit of pursuing an EPC to obtain genetic benefits for offspring depends on the genetic quality of the primary mate: with a high genetic quality partner, the potential benefits of engaging in an EPC might be small. Accordingly, both primary mate attractiveness and genetic quality and/or compatibility moderate women's shifts in preference across their cycle and desire for EPC.

First, women paired with mates they perceive as unattractive experience a greater shift in their mate preference near ovulation [11,12]

Sexual attractiveness predicts differential ovulatory shifts in female extra-pair attraction and male mate retention

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Changes in women's sexual interests and their partner's retention tactics across the menstrual cycle: evidence for shifting conflicts of interest

S. W. Gangestad, R. Thornhill and C. E. Garver

Proc. R. Soc. Lond. B 2002 **269**, 975-982

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Hypothesis/Predictions:

Gangestad, Thornhill, Garver

- Women's sexual desires for, and fantasies about men other than their primary partner will be greater prior to ovulation than during the luteal phase
- Though some women's desire for primary partners might be expected to increase during fertile phases, it will increase a greater degree about other men.

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- Increases in extra-pair desires at high fertility should be greatest for women who rated their partners as low in sexual versus investment attractiveness
- Desire for primary partner would result from interaction of fertility and partner's sexual attractiveness (ie. Increase in in-pair desires reported by women with partners high in sexual attractiveness)

Participants:

Gangestad, Thornhill, Garver:

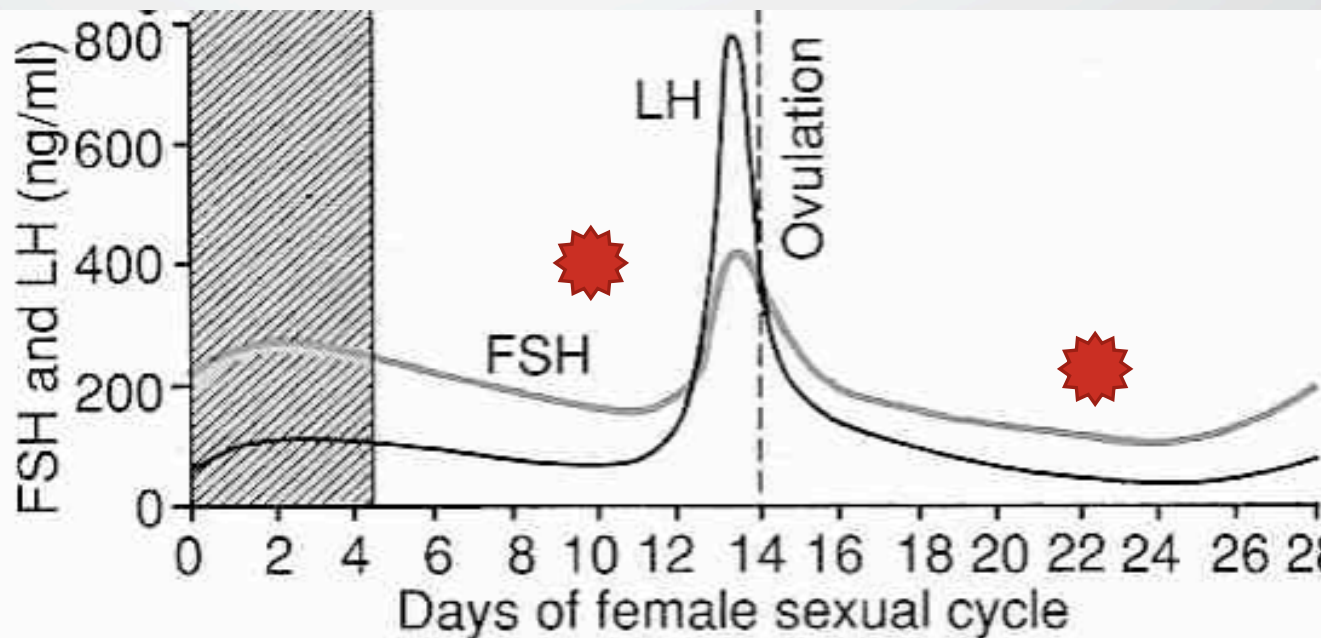
- 51 undergraduate females at the University of New Mexico who did not use a hormone-based contraceptive in the past month
- 24 claimed to have a single, primary relationship, 7 had primary partners but relationship was not exclusive
- Some of the remaining women were dating but had no primary partner

Pillsworth, Haselton:

- 43 women from a large university in the southwestern US who did not use hormone based contraceptive in the past 3 months
- All were currently involved in a romantic relationship

Methods:

1. Initial Session
2. High fertility session
3. Low fertility session



Initial Session: Questionnaire

Gangestad, Thornhill, Garver:

- Basic demographics
- Sexual and relationship history
- Contraceptive use and menstrual cycle

Pillsworth, Haselton:

- Basic demographics
- Health, cycle regularity, cycle length, anticipated next date of menstrual onset
- Sexual and relationship history
- Assessment of relationship and current partner
 - sexual and investment attractiveness (1-9)

Session 2 & 3: Questionnaire (past 48 hours)

Gangestad, Thornhill, Garver:

- Attraction to or fantasies about a person other than current sex partner (0-4)
- Attraction to or fantasies about a current sex partner (0-4)
- Sexual desire in general (0-4)

Pillsworth, Haselton:

- Extra pair desire (-4 - 4)
 - physical attraction to someone who is not the current partner
- In-pair desire (-4 - 4)
- General desire (-4 - 4)

Results: changes in attraction to men other than primary partner

- Fertility status had an effect
 - 65-80% higher extra-pair desire during high-fertility phase
 - effect strengthened when women were assessed closer in time to ovulation
 - women with primary partners also showed greater attraction towards and fantasies about another man during high-fertility phase
- Days to LH surge indicated that overall attraction to and fantasies towards extra-pair partners increased as women were assessed closer to time of ovulation.
- effect of fertility status, exclusive primary relationship, and days to LH surge

Results: changes in attraction to primary partners

- No evidence that women experience greater sexual attraction to, and fantasies about, their primary partners during the days leading to ovulation than during the low-fertility phase
 - 18% increased was not significant
- During the days leading to LH surge, women experienced significantly greater effects of sexual attraction to, and fantasies about other men compared to their primary partner

Results: extra-pair desires for women with less sexually attractive partners

- Women who perceived their primary partner as low sexual attractiveness reported increase in extra-pair desires at high fertility
- No interaction partner's investment attractiveness on extra-pair desires

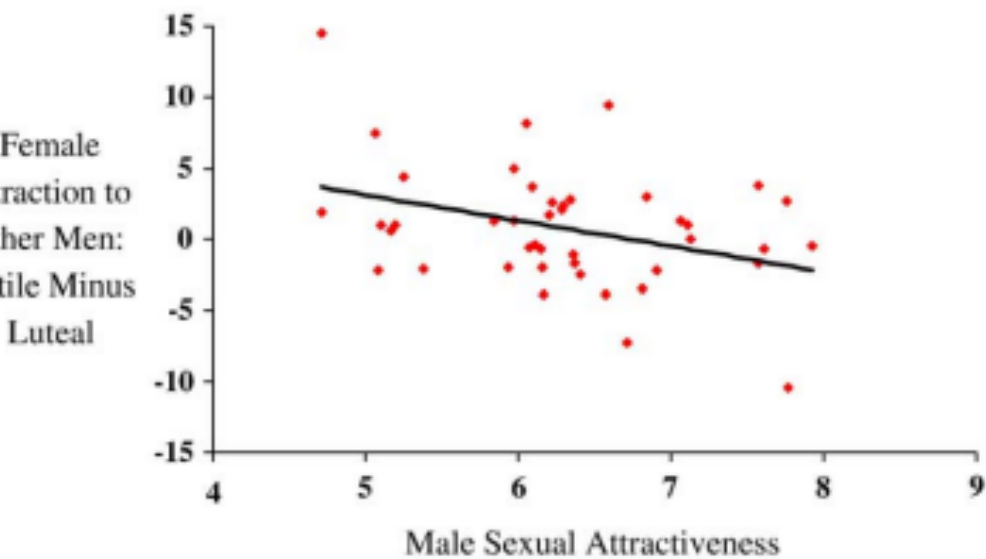
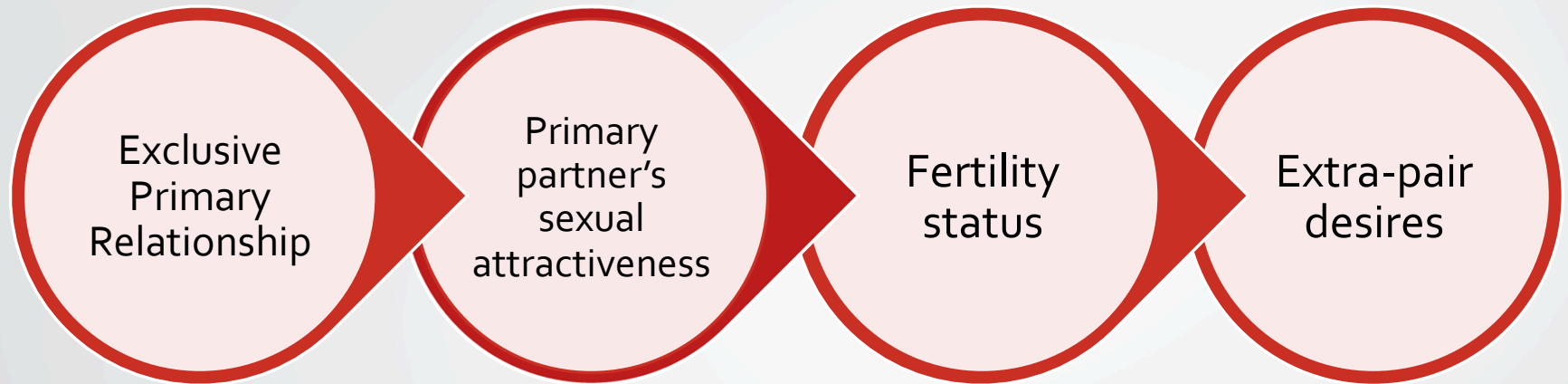


Table 1

Measures in surveys administered at high and low fertility

Measure	Items	α at high fertility	α at low fertility
Extra-pair desire	Been physically attracted to someone you did not know Been physically attracted to an acquaintance Been physically attracted to a friend or coworker	.70	.85
In-pair desire	Felt sexually attracted to your partner	–	–
General desire	Had persistent sexual thoughts Had sexual thoughts Had sexual fantasies Experienced sexual desire	.93	.94

Conclusions:



Overall, these two papers support the claims that women whose primary partners are perceived as having low sexual attractiveness DO experience more extra-pair desires during high fertility.

Limitations/Possible Improvements:

- Had to recall their thoughts and feelings of the past 48 hours
- Questionnaires
- Test against women who use hormone-based contraceptive
- Age group

Similar Study:

, M.G. *et al.* (2007) Ovulatory shifts in human female
tation: near ovulation, women dress to impress. *Horm.*
1, 40-45

K.M. *et al.* (2008) Changes in women's choice of dress across
ovulatory cycle: naturalistic ad laboratory task-based evidence.
Psychol. Bull. 34, 1451-1460

, M.G. and Gangestad, S.W. (2006) Conditional expression of
desires and men's mate guarding across the ovulatory cycle.
Behav. 49, 509-518

W. (1988) Mate guarding in a Caribbean village. *Ethol.*
9, 1-28

. (1994) The evolution of conspicuous oestrous advertisement
world monkeys. *Anim. Behav.* 47, 1333-1341



- Daily questionnaires
 - feelings and menstrual onset/duration
- Supported previous studies