THE VOICE OF TRUSTWORTHINESS

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RESEARCH QUESTIONS

- Affects menstrual cycle phase the perceived trustworthiness of women's voices?
- Are changes in perceived trustworthiness and attractiveness of female voices context-dependent?

INTRODUCTION

- Many studies suggest that women's voices are affected by menstrual cycle1,2,3.
- However, these studies focused on vocal attractiveness only.

METHOD

The voice of 18 female speakers ($M = 22.7$ years, $SD = 3.4$) was recorded around ovulation and in the luteal phase.

Ovulation was determined by means of ovulation tests and the cycle phases will be confirmed by means of hormone assays4.

From each speaker, voice recordings of both cycle phases were paired.

Three sentences were of neutral content and three sentences suggested a mating context.

27 independent participants (22 women, $M = 22.8$ years, $SD = 3.0$) were asked to pick the voice sample of each pair that sounded more trustworthy (Block 1) or more attractive (Block 2) in a two-alternative forced choice paradigm.

DISCUSSION

Women’s voices around ovulation are not only perceived as more attractive but also as more trustworthy than in the luteal phase (limitation: mostly female raters).

Interestingly, the ovulatory voice was only preferred in sentences with mating context, illustrating the importance of speech content.

Women accentuate more around ovulation and seem to speak with increased loudness in the luteal phase.

REFERENCES


CONCLUSION

- Women’s voices seem to sound more trustworthy and more attractive in a mating context when fertile.

RESULTS

- Stimulus voice samples were analyzed for 17 phonetic parameters using Praat software.
- ANOVAs with menstrual cycle phase (ovulation/luteal phase) and sentence content (mating/neutral) as factors revealed:
  - Significantly higher variability in fundamental frequency around ovulation compared to the luteal phase ($F(1,17) = 7.502, p = .014, \eta_p^2 = .306$)
  - Significantly higher mean loudness in the luteal phase compared to around ovulation ($F(1,17) = 4.794, p = .043, \eta_p^2 = .22$).