

In previous years, researches have found significant increase of the female attractiveness around the time of ovulation. Among changes, that have been identified, were for example changes in olfactory, vocal, facial and body attractiveness. However, it has not been examined so far, whether this perception is also reflected in non-verbal expressions of women and men interacting with women. We also examined if attractiveness of men influences women nonverbal behavior depending on menstrual cycle phase. The study used a speed-dating paradigm (each person meets several people of the opposite sex for 3 minutes) and interactions were videotaped. We analyzed 391 videotapes of 92 men interacting with women who were in the follicular (187 interactions) or luteal (204 interactions) cycle phase and 391 videotapes of 34 women (18 in the follicular and 16 in luteal cycle phase). We recorded specific behavioural acts and states and these behavioural components loaded into two factors: (i) expressions of interest and (ii) expressions of disinterest. We found no significant differences in overall score of interest or disinterest in relation to the women's menstrual cycle. However, men communicating with women in the fertile phase spoke significantly longer than those communicating with women in the luteal phase of the cycle ($p=0,004$) and women in fertile phase spoke significantly shorter than those in luteal phase ($p=0,041$). Women in follicular cycle phase were looking longer to men who were rated as more attractive, than women in luteal cycle phase. This indicates that women's menstrual cycle affects women and men's behaviour in a relatively specific manner.