**Do differences in stimuli contribute to contradictory findings concerning oral contraceptive users and facial masculinity preferences?**

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Hormonal contraceptives are thought to suppress biological processes associated with women’s preferences for partner qualities, which are believed to be reflective of genetic fitness. That is, women may prioritize cues of partner genetic fitness to a lesser extent than those who are non-users. However, more recent evidence suggests that links between reproductive hormones and preferences are more limited than proposed which has subsequently generated controversy in this area. Here we investigated whether the contradictory findings within this research area might be generated by differences in methodology. We compared facial judgments of participants exposed to stimuli sets used in two previous studies that show different results. In addition, participants were also exposed to a third image set collected using an entirely different method and which does not involve facial transforms along the sexual dimorphism continuum. We predicted we would find the same effects between oral contraceptive (OC) users and non-users as the two preceding studies, when judging the corresponding stimuli for masculinity preferences. A replication of these findings would indicate that the differences in the degree of manipulation may indicate different results, even when being judged by the same rater. Analyses showed no significant differences in masculinity preferences between OC users and non-users for any of the three image sets. Based on our findings, we cannot conclude the differences in methods used to generate facial stimuli, account for between-study differences in outcomes. They also further call into question previous findings between hormonal contraceptive use and facial preferences.