

125/06 - "Psychophysiological effects of human pheromones"

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Abstract: Although the existence of human pheromones is widely accepted among layman, scientific evidence is insufficient. The general goal of the project is to test emotional effects of exposure to a putative human pheromone *androstadienone* using psychophysiological measures and verbal affective ratings.

Experiment 1

Aim. The aim of the first experiment was to test effects of *androstadienone* on non-verbal flirt behavior in a controlled social-interaction situation.

Method. Sixty-five male and 65 female were randomly assigned to the experimental group (exposed to *androstadienone*) or the control condition. Pairs of two (one man and one woman) were formed, and instructed by two doubleblind female experimenters to perform collaborative tasks. The videotapes were analyzed on non-verbal signs of flirt behavior. Frequency of specific behaviors and several subjective ratings were measured.

Results. For the female group, the phase in the menstrual cycle was more important than the exposure to *androstadienone*, with more frequent flirt behavior present in the ovulation phase. For the male group no clear pattern was achieved.

Experiment 2

Aim. The aim of the second experiment was to test possible effects of *androstadienone* on psychophysiological measures (heart rate, skin conductance and startle reflex modulation) and mood changes (verbal evaluation) while and after viewing a series of emotional pictures.

Method. Female participants were randomly assigned by two doubleblind male experimenters to the experimental group (exposed to *androstadienone*) or a control condition. After this manipulation participants were exposed to a series of emotional pictures (depicting human social interactions) while their skin conductance, heart rate, and startle (elicited by white noise) were monitored. They also rated their subjective emotional state and mood.

Results: Preliminary results showed a trend for a general inhibition of the startle reflex in the experimental group, which could reflect a more positive mood in this group compared to the control condition. The complete analyses will be presented at the Symposium.

Key words: pheromones, mood, startle reflex