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Olfactory Perception and Kansei

– Unravelling Effect of Odors on Psycho-Physiological Index Evoked Unconsciously –

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Abstract: Olfactory information elicits more emotional and evocative memories than other cues, creating different emotional behaviors [1, 2]. Olfactory perception is induced by airborne volatile molecules which reach the olfactory bulb and the olfactory information is further processed in the amygdala, the orbitofrontal cortex and the hippocampus where the olfactory information plays a role in emotion, memory and learning [3]. Here we tried to understand the impact of smell of cosmetic products on emotion and feeling by using neuroscience approach.

In many hair salons, a pungent odor is frequently smelt, that is caused mainly by ammonia used in hair coloration. We have investigated the effect of ammonia malodor emitted in the process of hair coloration on the mental state by analyzing neural activity through EEG (Electro-EncephaloGram). The imaging of the neural activity in the α and β wave regions was able to detect differences in 1) emotion (stress level), and 2) feeling (comfort/discomfort) upon exposure to differing levels of ammonia odor. The results suggest that the neuro-science based approach is able to visualize unconscious mental states, which are not able to be clearly evaluated by a subjective way of approach such as questionnaire [4].

Keywords: *Olfactory, Cosmetic, EEG, Hair Color, Ammonia Odor*

References

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