**Influence of Intrahippocampal D1-type Antagonist, SCH23390, on Olfactory Discrimination Abilities in Male and Female Mice**

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The neurotransmitter dopamine has been implicated in various behaviours, including reward and motivational learning, social interactions (e.g. affiliation, aggression), and feeding. In 2011, Choleris et al. showed that dopamine plays a role in the social transmission of food preferences. Systemic injections of the D1-type dopamine receptor antagonist, SCH23390, blocked social learning in mice without affecting their feeding behaviour. Dopaminergic neurons in the ventral tegmental area project to various brain structures within the limbic system, such as nucleus accumbens, the amygdala, and the hippocampus. The latter plays a crucial role in various types of learning and memory, including social learning. Recently, we found that infusing SCH23390 (6 μg/μL) directly into the CA1 region of the hippocampus also blocked social learning without affecting feeding behaviour, suggesting an involvement of the hippocampus in dopaminergic mediation of social learning. However, an alternative explanation of these results is that influence of dopamine on social learning may be indirect, via effects on orosensory processing. Thus, we examined the effect of 6 μg/μL intrahippocampal infusions of SCH23390 in male (n=23) and female (n=21) mice on flavour recognition abilities. Using a discrimination task where SCH23390- and control-treated mice received a 5 min choice between two flavoured diets, we found that all mice were able to effectively discriminate between the two, and preferentially investigated a novel over a familiar flavour. The flavoured diets used were the same employed in the social transmission of food preferences test. Hence, the results of the present study allow us to rule out indirect effects of SCH23390 and support the notion that the DA1-type dopamine receptor in the hippocampus is directly involved in the mediation of social learning.