
”If you can spray them, then they are real”: Evidence Construction in Fragrance Chemistry

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Abstract

In this paper I describe the construction of empirical facts in evidence for (or against) two rival theories in olfaction theory, and also the structure of the theoretical development of the two underlying models of the mechanism of primary odour recognition. To do so, I will focus on the investigation of structure-odour relations (SORs) in fragrance research and the diversity of molecular structures that are more or less successfully accommodated within the rival accounts. I will attempt to explain the function that theoretical models such as the two hypothetical molecular recognition mechanisms have for evidence construction and, furthermore, the impact of auxiliary assumptions, instruments and techniques on theory evaluation. The primary aim of this paper is to describe the epistemic relations that hold between different models and to justify my claim that the referential capacity of scientific representations is determined by their relations within a network of different investigative methods, models, experiments and technologies surrounding an experimental system.

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