Hypnagogic states are quite common: Evidence from a prevalence study with young adults

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Abstract

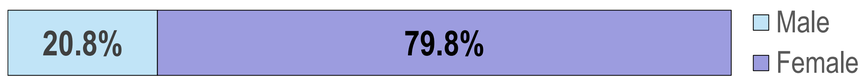
The hypnagogic state refers to the transitional phase between wakefulness and sleep during which vivid experiences occur. There is, however, great ambiguity in the reported prevalences of this phenomenon (Ghibellini & Meier, 2022).

In this study, **we assessed the prevalence of hypnagogic states and the frequency of experiences in different modalities** (visual, auditory, tactile, kinaesthetic, olfactory and gustatory) in three adult samples of a total of *N* = 4451 participants. We also assessed the emotional quality, the perceived irritation, and the vividness of the experiences. Moreover, we compared hypnagogic states to other states of consciousness, such as dreams, sleep paralysis, imagination, and extra-sensory perception.

Hypnagogic states occurred in 80.2% of participants and prevalence was comparable across samples. Experiences were most often kinaesthetic (90.3%) and visual (70.9%), and less often auditory (43.1%), tactile (38.3%), and olfactory or gustatory (24.6%). Hypnagogic states were less prevalent than dreams and were characterized by a different profile of modalities. However, they were comparable in their emotional quality, the irritation they caused, and their vividness. In conclusion, hypnagogic states are quite common.

Samples

Sample 1: *N* = 682 undergraduate psychology students between the age of 18 and 39 years. (M_{age} = 21.88, SD_{age} = 2.61)

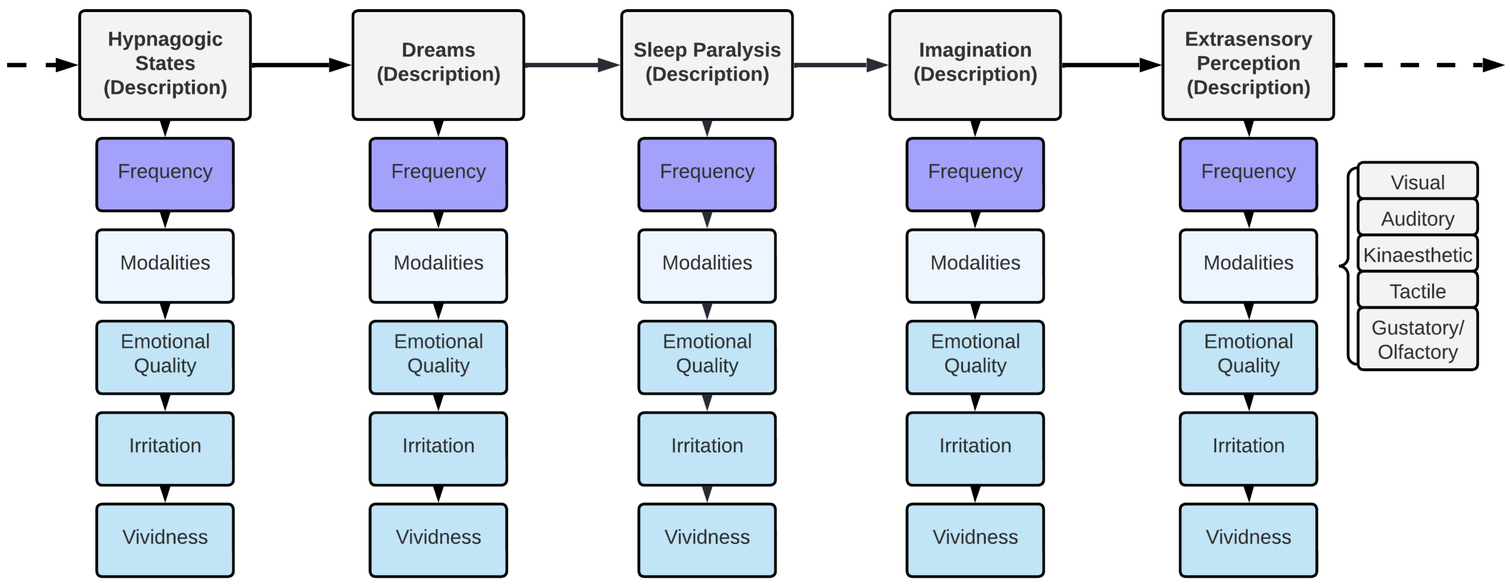


Sample 2: *N* = 2420 Swiss participants between the age of 18 and 30 years. (M_{age} = 22.22, SD_{age} = 2.61)

Sample 3: *N* = 1349 Swiss participants between the age of 18 and 30 years. (M_{age} = 22.28, SD_{age} = 3.08)

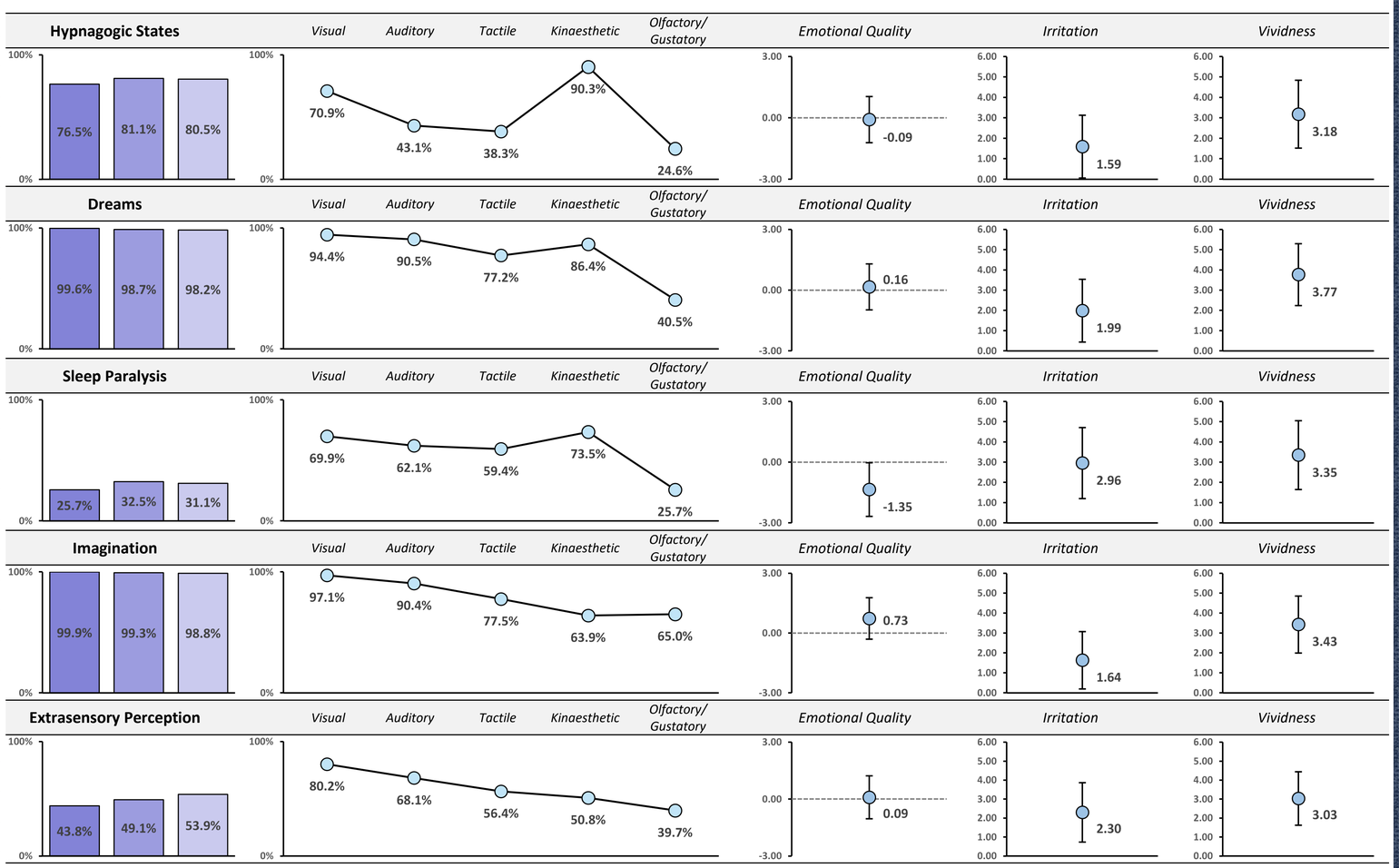
Method

Questionnaire-Structure. Graphical description of the questionnaire-structure used in this study.



Main Results

Prevalence-Profiles and Characteristics. For prevalences, the left bar corresponds to sample 1, the middle bar to sample 2, and the right bar to sample 3. The modalities were analyzed over the three samples collectively. Percentages are rounded to the first decimal place. Emotional quality ranged from -3 (negative) to +3 (positive). Irritation and vividness ranged from 0 (not at all) to 6 (very much).



Take Home Message

Hypnagogic states are…

(1) … quite common and occur in around 80% of people .

(2) … most often kinaesthetic and visual, and less often auditory, tactile, and olfactory or gustatory.

(3) … characterized by a different profile in modalities than dreams but share similar qualities.

Ghibellini, R., & Meier, B. (2022). The hypnagogic state: A brief update. *Journal of Sleep Research*, e13719. https://doi.org/10.1111/jsr.13719

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