

Recent (2023) Scientific Articles Exploring Autonomous Sensory Meridian Response (ASMR)

The effects of Autonomous Sensory Meridian Response (ASMR) videos versus walking tour videos on ASMR experience, positive affect and state relaxation

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Published: January 4, 2023

<https://doi.org/10.1371/journal.pone.0277990>

Abstract

Objective

Autonomous Sensory Meridian Response (ASMR), the experience of a pleasant tingling on the neck and scalp, is known to be triggered by a characteristic type of videos (ASMR videos). The present study examines whether this experience is indeed specific to these ASMR videos, or whether it can also be triggered by other types of videos, e.g. walking tour videos. A further goal was to investigate differences between ASMR-responders and ASMR-non-responders regarding their ASMR sensation and to compare ASMR and walking tour videos with regard to the elicitation of positive affect and state relaxation.

Method

Two online assessments were carried out in two different predominantly student samples, one involving ASMR videos (n = 205) and the other one walking tour videos (n = 96). In both groups, ASMR experience, positive affect and state relaxation were assessed.

Results

Compared to the walking tour video group, the ASMR-responders in the ASMR video group reported a pronounced ASMR sensation, higher state relaxation and higher positive affect scores. For ASMR-non-responders, lower scores in ASMR sensation, state relaxation and positive affect were revealed compared to the walking tour group. Without differentiating ASMR responder types, the ASMR group showed higher ASMR scores and lower positive affect scores compared to the walking tour group.

Conclusions

Watching ASMR videos induced significantly more characteristic ASMR sensations compared to walking tour videos. Since ASMR videos typically include a simulated interaction of the video protagonist with the viewer and walking tour videos do not, the simulated interaction with the viewer might be one important factor for triggering ASMR. As the ASMR observer type (responder or non-responder) is crucial for benefitting from ASMR videos, future scientific evaluation of ASMR needs to consider this differentiation when evaluating effects of ASMR on mental health associated domains.

Autonomous sensory meridian response is associated with a larger heartbeat-evoked potential amplitude without differences in interoceptive awareness

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Published: 25 February 2023

<https://doi.org/10.1111/psyp.14277>

Autonomous sensory meridian response (ASMR) describes the experience of a pleasant body sensation accompanied by a feeling of well-being and relaxation in response to specific audiovisual stimuli, such as whispers and personal attention. Previous work suggests a relationship between this experience with the processing of affective and body states; however, no research has explored differences in interoception between people experiencing ASMR and those who do not. We hypothesized that the ASMR experience is based on interoception processing. To test this, we assessed group differences across different dimensions of interoception: Interoceptive sensibility (IS), measured using the multidimensional assessment of interoceptive

awareness (MAIA); Interoceptive accuracy score (IAS), measured by calculating performance in a heartbeat counting task (HCT), and the electrophysiological index of interoception, the heartbeat evoked potential (HEP), which was calculated during the HCT and an ASMR tingle reporting task (ASMR-TRT). Our results showed that IS and IAS, dimensions requiring conscious awareness, showed no differences between groups. However, HEP amplitude was larger in the ASMR group in both tasks. We concluded that the ASMR experience is based on an unconscious interoceptive mechanism, reflected by HEP, where exteroceptive social-affective stimuli are integrated to represent a body state of positive affective feelings and relaxation, as has been described for affective touch. The relevance of this finding relies on that interoceptive function, body regulation, and emotional/affective experiences are fundamental for well-being, and the relationship between ASMR and interoception opens the way to future research exploring the causal relationship between them and their potential clinical applications.

Brain function effects of autonomous sensory meridian response (ASMR) video viewing

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Published 2023 Jan 26

doi: [10.3389/fnins.2023.1025745](https://doi.org/10.3389/fnins.2023.1025745)

Abstract

Background

Autonomous sensory meridian response (ASMR) is the sensation of tingling from audiovisual stimuli that leads to positive emotions. ASMR is used among young people to relax, induce sleep, reduce stress, and alleviate anxiety. However, even without experiencing tingling, ASMR is used by many young people to seek relaxation. Auditory stimulation in ASMR is thought to play the most important role among its triggers, and previous studies have used a mixture of auditory and visual stimulation and auditory stimulation. This is the first study to approach the differences between the effects of direct audiovisual and auditory stimulation from the perspective of brain function using functional magnetic resonance imaging (fMRI) and to clarify the effects of ASMR, which attracts many young people.

Methods

The subjects were 30 healthy subjects over 19 years old or older who had not experienced tingling. Brain function was imaged by fMRI while watching ASMR videos or listening to the sound files only. We administered a questionnaire based on a Likert scale to determine if the participants felt a “relaxed mood” and “tingling mood” during the task.

Results

Significant activation was found in the visual cortex for audiovisual stimulation and in the visual and auditory cortex for auditory stimulation. In addition, activation of characteristic sites was observed. The specific sites of activation for audiovisual stimulation were the middle frontal gyrus and the left nucleus accumbens, while the specific sites of activation for auditory stimulation were the bilateral insular cortices. The questionnaire showed no significant differences in either “relaxed mood” or “tingling mood” in response to auditory and visual stimulation or auditory stimulation alone.

Conclusion

The results of this study showed that there was a clear difference between auditory and audiovisual stimulation in terms of the areas of activation in the brain, but the questionnaire did not reveal any difference in the subjects’ mood. Audiovisual stimulation showed activation of the middle frontal gyrus and the nucleus accumbens, whereas auditory stimulation showed activation of the insular cortex. This difference in brain activation sites suggests a difference in mental health effects between auditory and audiovisual stimulation. However, future research on comparisons between those who experience tingling and those who do not, as well as investigations of physiological indices, and examination of the relationship with activated areas in the brain may show that ASMR is useful for mental health.