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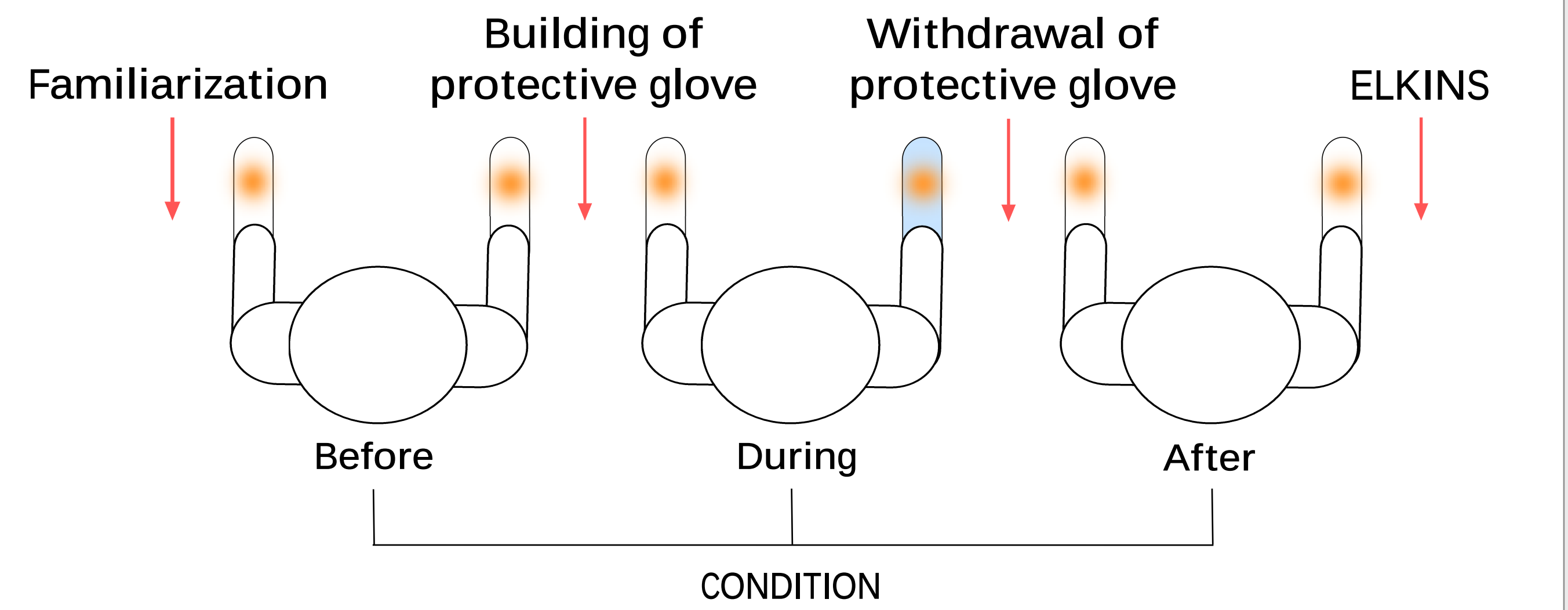
INTRODUCTION

Hypnotic analgesia characterizes the process of reducing pain through the delivery of hypnotic suggestions. Although the use of this technique is expanding in diverse medical contexts, its underlying mechanisms are still unclear. The aim of this study is to investigate whether hypnotic analgesia can be selectively induced when the hypnotic suggestion is restricted to one part of the body. More specifically, we used a technique of focused hypnotic analgesia (FHA), consisting in selectively protecting one part of the body against pain by means of a mentally constructed protective glove. Guided by a hypnotherapist, participants applied the FHA technique on one of their forearms while receiving contact heat nociceptive stimuli on both of them. Assessments of pain perception and discomfort were obtained from the participants after each stimulus, and comparisons of the ratings were made between the two arms. It was expected that ratings on both scales would be reduced on the arm on which focused hypnotic analgesia was applied as compared to the other arm.

METHODS

Stimuli: Contact heat nociceptive stimuli (20 per condition, 10 per arm) applied sequentially on the forearms in a random order using two thermodes (TCS-II). Stimulation temperature was individually set at pain threshold (between 62 and 70°C, during 200ms).

Procedure:



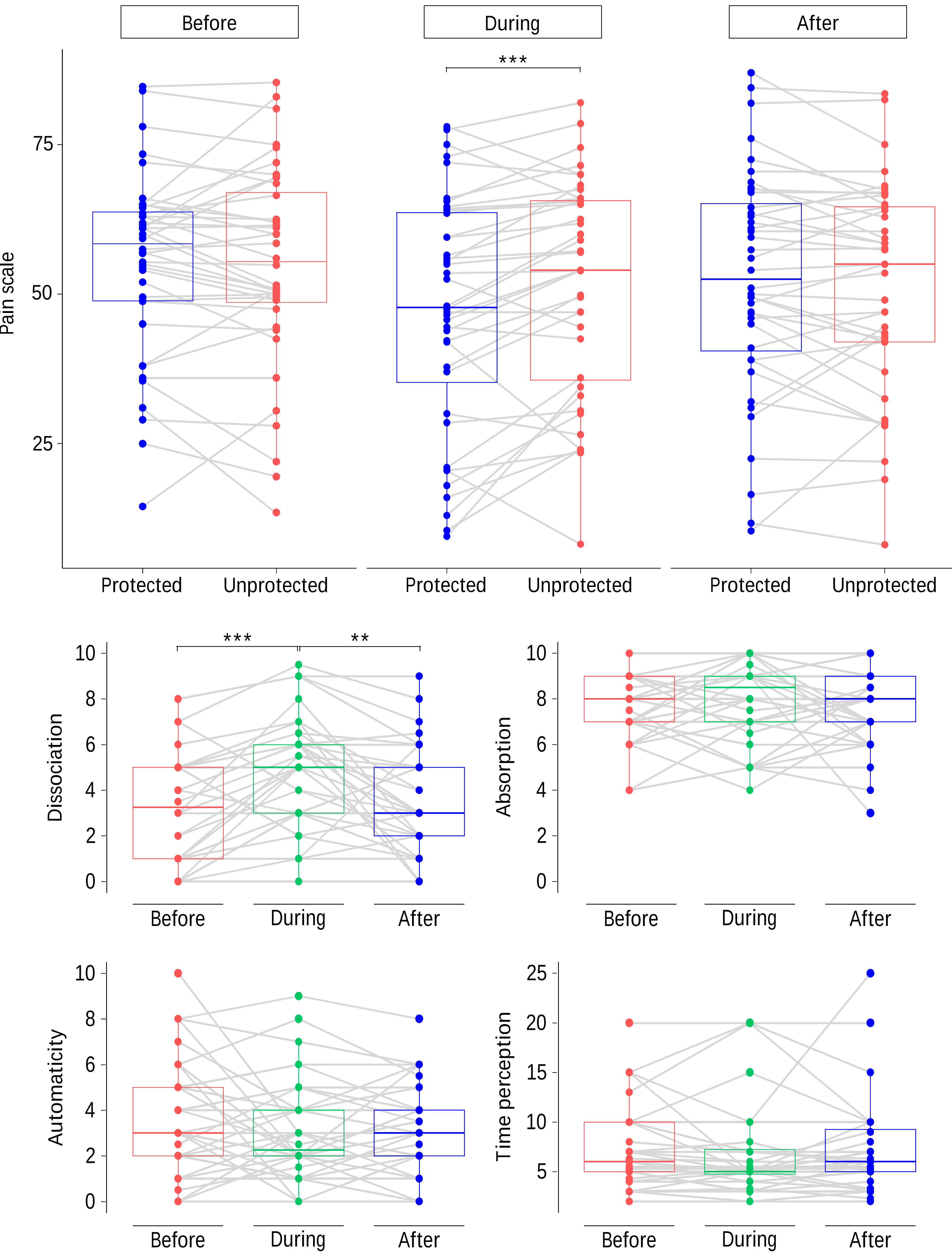
Measures:

- Perceived pain using an NRS: 0 = no sensation; 50 = pain threshold; 100 = the worst painful stimulation imaginable.
- Perceived discomfort using an NRS: 0 = no discomfort; 100 = the worst uncomfortable stimulation imaginable.
- Hypnotic suggestibility: ELKINS scale & 4 hypnotic items (absorption, dissociation, time perception and automaticity) (Vanhaudenhuyse et al., 2019). Participants were categorized according to the ELKINS as low- (n=7), medium- (n=22) and high-hypnotizable (n=11).

Analyses:

- 3*2 (condition*arm) ANOVA for repeated measures, i.e. pain and discomfort ratings.
- Addition of ELKINS (3 groups) to previous model.
- Friedman tests (condition) on absorption, dissociation, automaticity + ANOVA for repeated measures (condition) on time perception.

RESULTS



CONCLUSION

Focused hypnotic analgesia, using the protective glove technique, allows to selectively modulate pain perception. It implies that under hypnotic analgesia, the brain is able to differentially process painful signal depending on its location on the body. This effect is not influenced by hypnotizability, therefore showing that FHA relies on a general capacity of the individuals to respond certain forms of hypnosis. Also, a question is raised regarding the validity of the ELKINS to measure receptivity to the protective glove technique. In fact, this scale measures the ability to fall into a hypnotic state and to respond to hypnotic suggestions within this state, whereas the FHA technique doesn't include any hypnotic induction, but rather represents a suggestion with a hypnotic nature.