




The Function of Dreaming

EXPLORING THE COGNITIVE EFFECTS OF DREAMING

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Brain functions during sleep

- ▶ Memory replay in hippocampal cells during rat's sleep
(Dragoi & Tonegawa, 2011, Ji & Wilson, 2006)
- ▶ Hobson's protoconscious theory
(Hobson & Schredl, 2011)



“If the goal of the brain is to interact with the outside world then why do neurons work so hard when interaction with the outside world is diminished during sleep?”

(Buzsaki, 1989)

Dream-learning hypothesis

- ▶ Sleep functions to integrate our unconscious minds into our daily behavior through dreaming experiences

Loopholes in clinical psychology


- ▶ Panic disorder
- ▶ It is not “only a dream”
- ▶ Our brains react the same way to waking and dreaming stimuli regardless of recall

Implications for study

- ▶ Lucid dreaming as a therapeutic tool
- ▶ Controlling one's mental state during a dream could prevent unconscious strengthening of counterintuitive neural pathways

We spend 1/3 of our lives asleep

- ▶ Dreaming in REM and non-REM sleep creates a new world for us to develop in
- ▶ A virtual reality generator



Dreaming has been a fundamental building block for developing people's attitudes, minds, and behaviors.

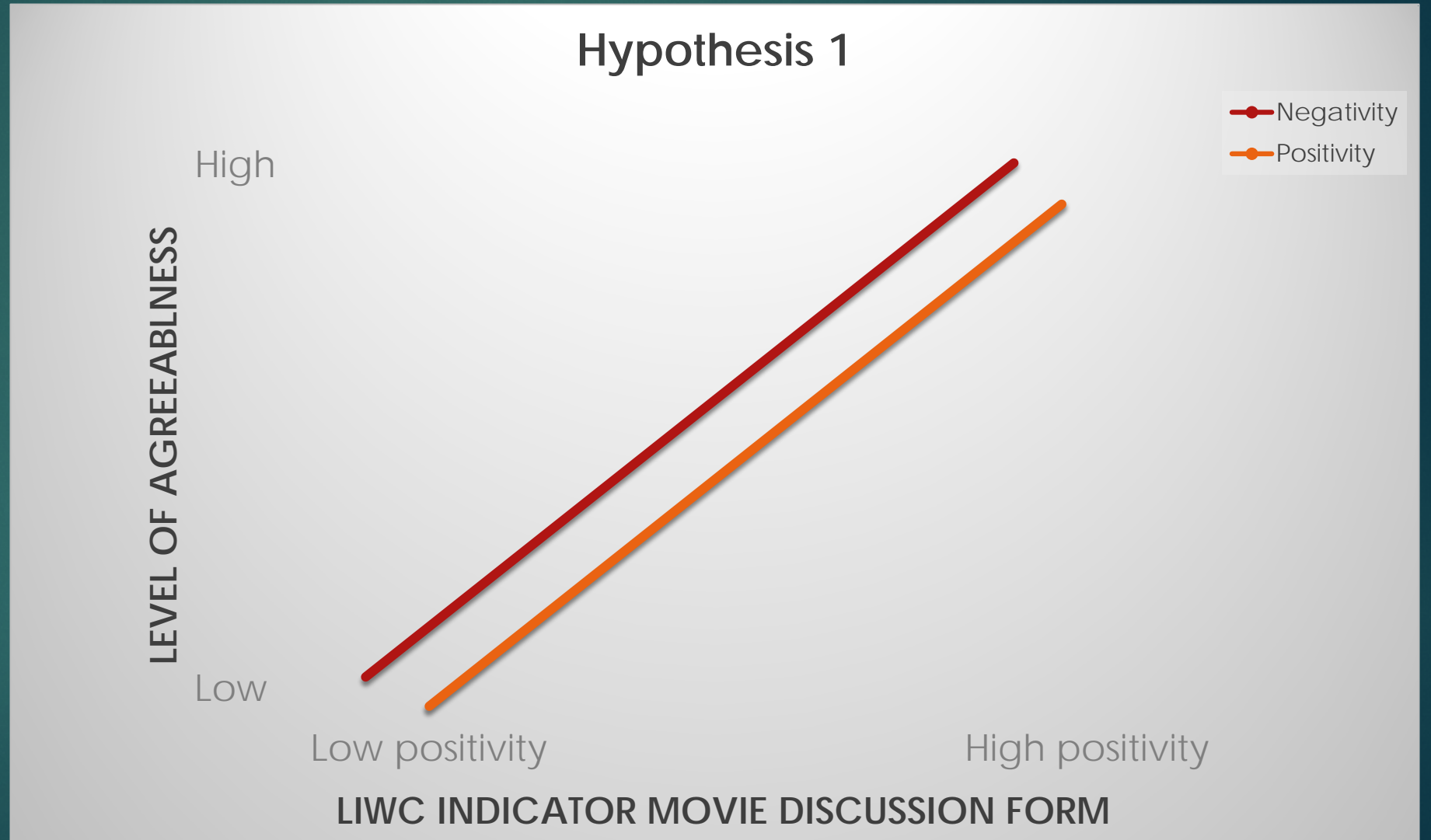
Movie night!

- ▶ Independent variables: exposure to the positive and negative movie
- ▶ Dependent variables: Linguistic Word Count (LIWC) positive and negative word counts from movie discussion form and dream journal
- ▶ Repeated measure design with counter balanced order of administration

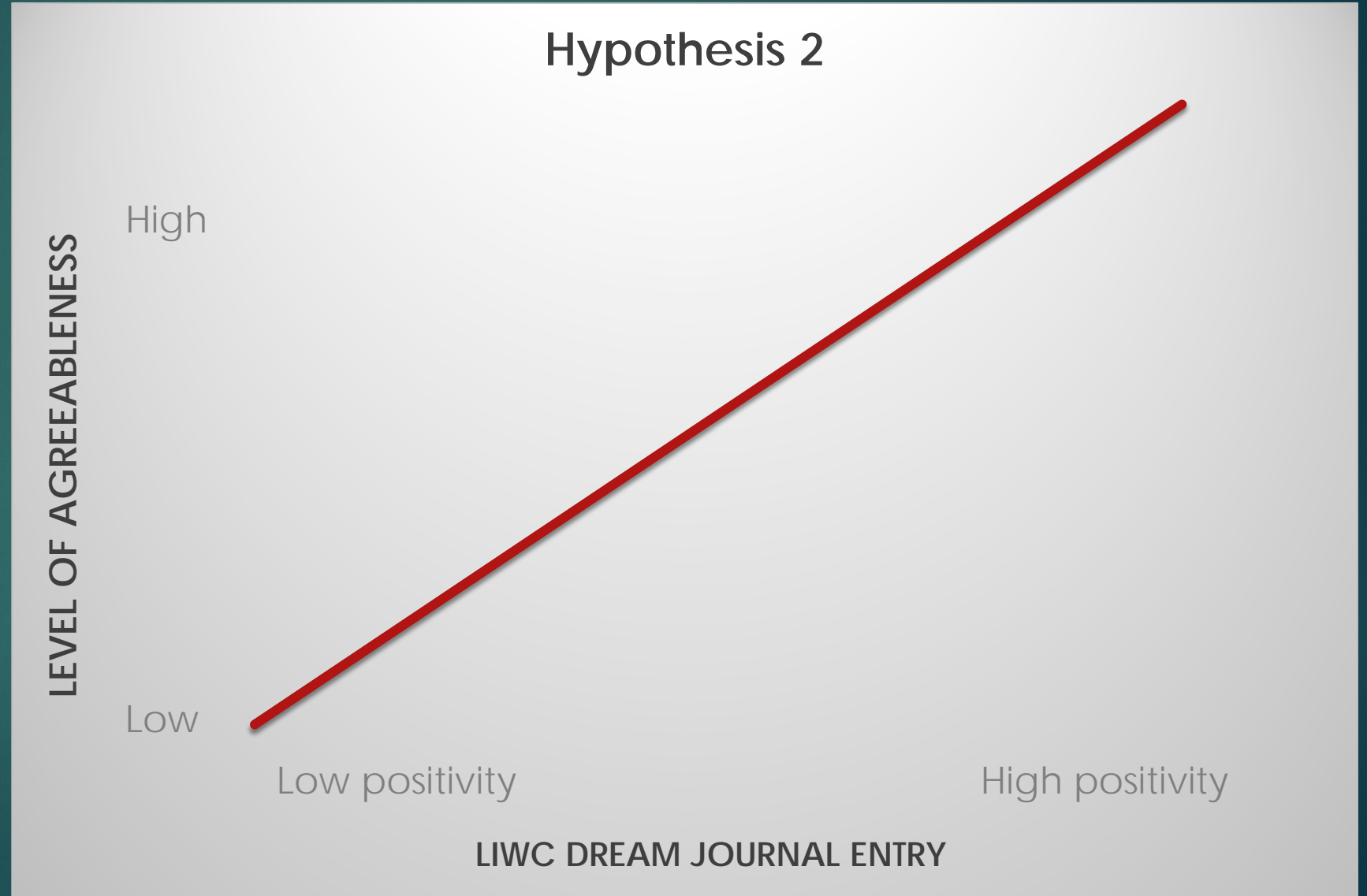
What we expect

- ▶ H1: The level of agreeableness will predict the perceived positivity of the movie experience.
- ▶ H2: The level of agreeableness will predict the perceived favorability of participant's dreams.
- ▶ H3: The favorability of dreams will predict the perceived positivity of the movie experience one day after exposure.

The level of agreeableness will predict the perceived positivity of the movie experience.

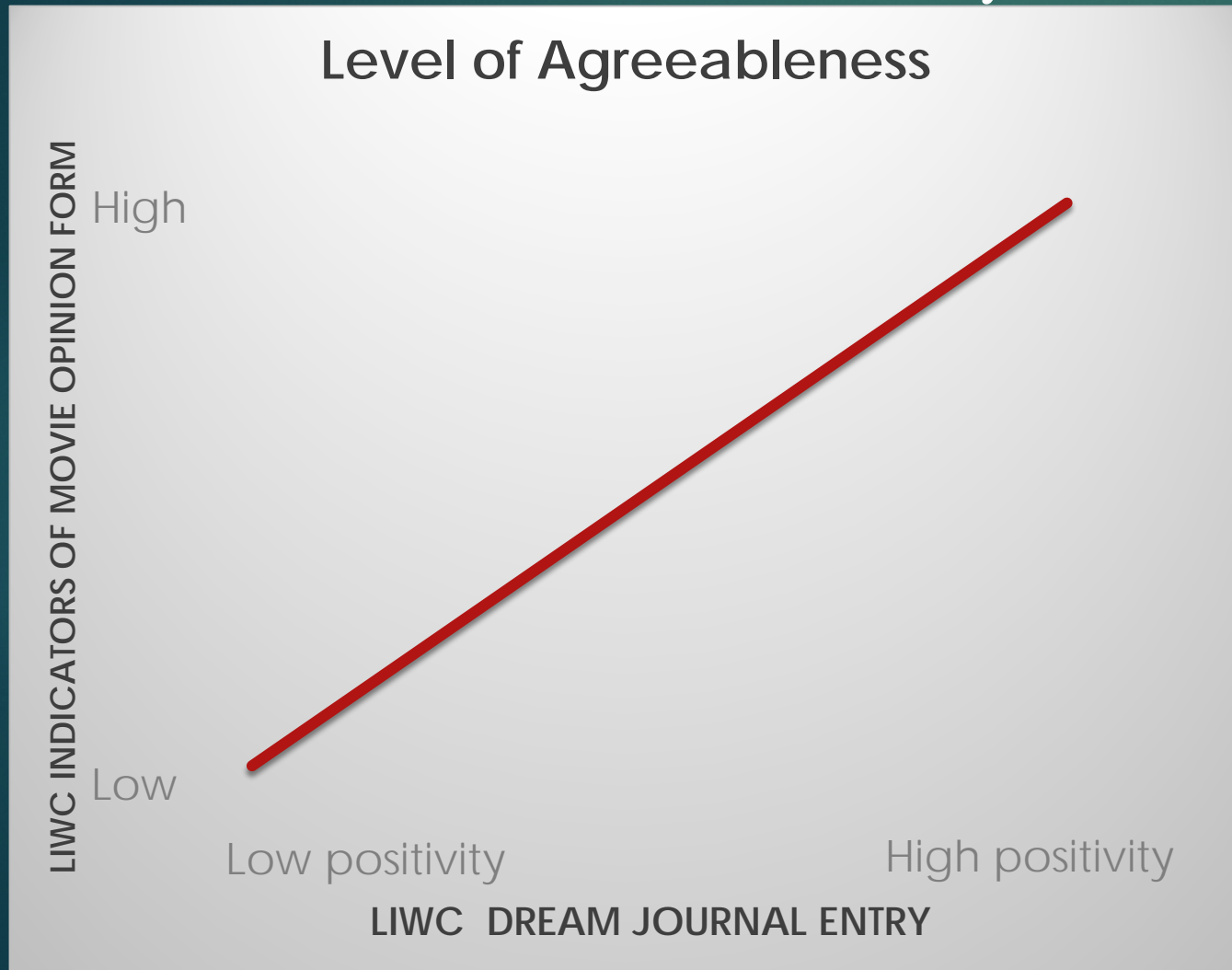


The level of agreeableness will predict the perceived favorability of participant's dreams.



Hypothesis 3: 1 day after exposure

The favorability of dreams will predict the perceived positivity of the movie experience one day after exposure.



Questions?

