



# Anticipation and the Elicitation of Approach Motivation.

David E. Gard & Ann M. Kring  
University of California, Berkeley

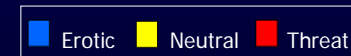
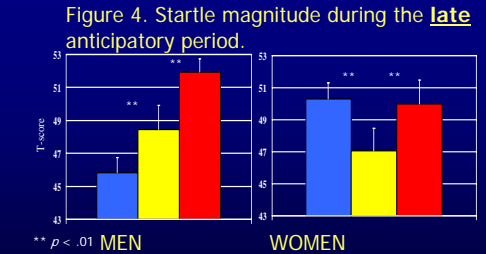
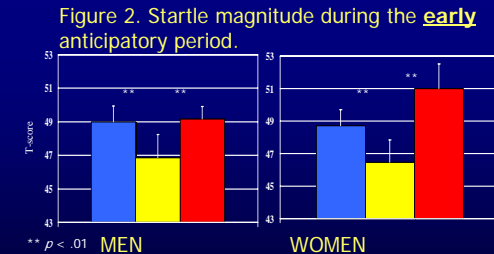
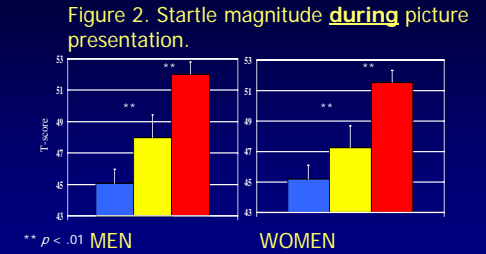
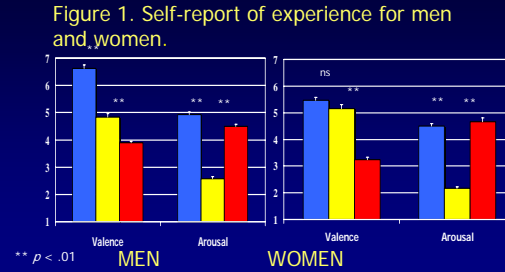
## BACKGROUND

- Anticipatory processes have been noted as a central element in engaging human approach and avoidance motivational systems (e.g. Depue & Collins, 1999; Rozin, 1999).
- However, little is known about underlying mechanisms that connect anticipatory processes and approach motivation.
- Previous studies using affective startle modulation to examine anticipation have for the most part indicated a general arousal effect – i.e., blink responses did not differentiate the valence of the upcoming stimulus (e.g. Dichter, Tomarken, & Baucom, 2002; Erickson, 1996; Sabataneli, Bradley, & Lang, 2001).
- In other words, previous studies have not consistently shown that anticipating a positive stimulus will lead to the activation of the approach motivation system.
- The present study systematically examined responses in an anticipatory period using stimuli previously shown to be the strongest elicitors of approach and avoidance reactions (Bradley, Codispoti, Cuthbert, & Lang, 2001; Mehta Shah, Gard, Germans Gard, Kring & Patrick, 2004).

## RESEARCH QUESTIONS

- Does anticipating an approach-related stimulus activate the approach motivation system?
- Is anticipation a unitary construct, or might there be different processes occurring at different time points in an anticipatory period?

## RESULTS



## METHOD

### PARTICIPANTS

- 86 participants (43 female)

### STIMULI (examples)

#### EROTIC



#### NEUTRAL



#### THREAT

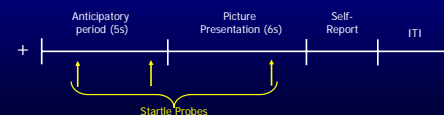


- These slides were chosen as they were the strongest elicitors of approach and avoidance in a previous study (Mehta Shah et al., 2004).

### PROCEDURE

- Expectancy created for upcoming image valence, using simple trial blocks of erotic-neutral-erotic-neutral etc., OR threat-neutral-threat-neutral etc.
- Startle probes were either: early (2000ms) or late (4500ms) in the anticipatory period, or at 3500ms after the onset of the stimulus.

### TRIAL EXAMPLE:



## DISCUSSION

- Using this methodology, the timing of the startle probe, and the content of the upcoming stimulus appear to be important factors in whether the approach motivation system is activated in anticipation of an approach related stimulus. Specifically, activation of the approach motivation system occurred only for men, late in the anticipatory period (i.e., just before picture presentation).
- In other words it may be that the activation of the approach motivation system occurs only as the stimulus is just about to appear, and only when that stimulus is considered positive.
- Women did not show activation of the approach motivation system in anticipation of the erotic slides at any anticipatory probe. This may be due to the difference in how women rated the erotic slides. In particular, women reported the erotic images to be arousing but not particularly positive.
- Therefore, the findings for women in the late anticipatory phase may indicate a general 'arousal effect' in their response to the anticipation of the erotic slides.
- Future studies should investigate these sex differences using varied content in the anticipated stimuli.