Mood killer: Response inhibition reduces the capacity of erotic stimuli to elicit feelings of sexual arousal

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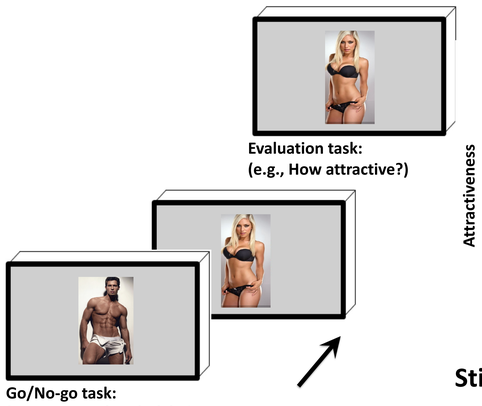
Introduction

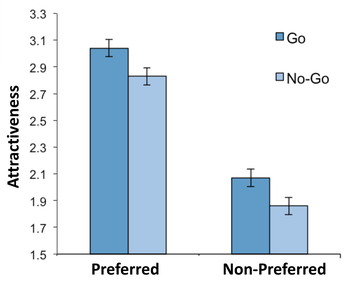
To make efficient, goal directed decisions, we must pay attention to relevant stimuli and ignore distractions.
Inhibition of irrelevant stimuli helps to direct our attention and make appropriate responses.
Evidence suggests that the act of withholding a response can impact liking.

Inhibitory Devaluation

- *Phenomenon whereby the act of withholding a response can decrease the hedonic value of motivationally salient stimuli*

Go/No-go: Hedonic value

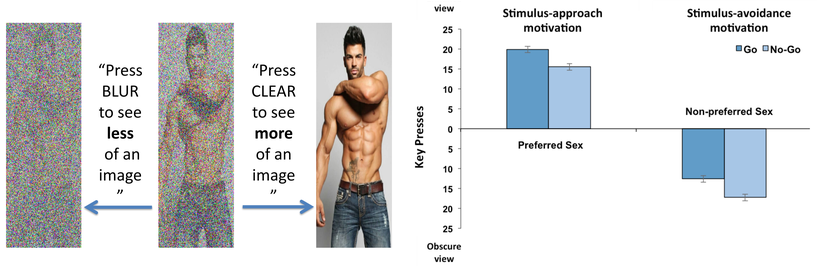




Stimuli to which a response is withheld are devalued.

(Driscoll et al., 2017)

Go/No-go: Motivational incentive



Inhibition negatively impacts the motivational salience of erotic stimuli, resulting in less approach, more avoidance.

Research Question

Does response inhibition impact ratings of subjective arousal to sexually explicit stimuli?

Prediction

- The average ratings of sexual arousal to a sexually explicit video will be lower for videos when they were previously inhibited (No-go stimuli) compared to videos when they were responded to (Go stimuli).

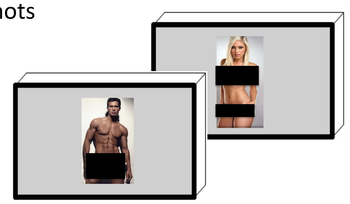
Method

Stages of sexual response impacted by inhibition

Liking → Attractiveness → Motivation → Arousal?

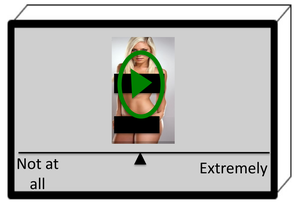
Participants: 90 men / 90 women (self-reported as heterosexual)

Phase 1: Go/No-go task using screenshots from videos in phase 2.
Go/No-go Group (N=120): Preferred vs. Non-preferred stimuli as Go vs. No-go signal counterbalanced across participants.
Passive viewing control group (N=60): Watch image sequence.



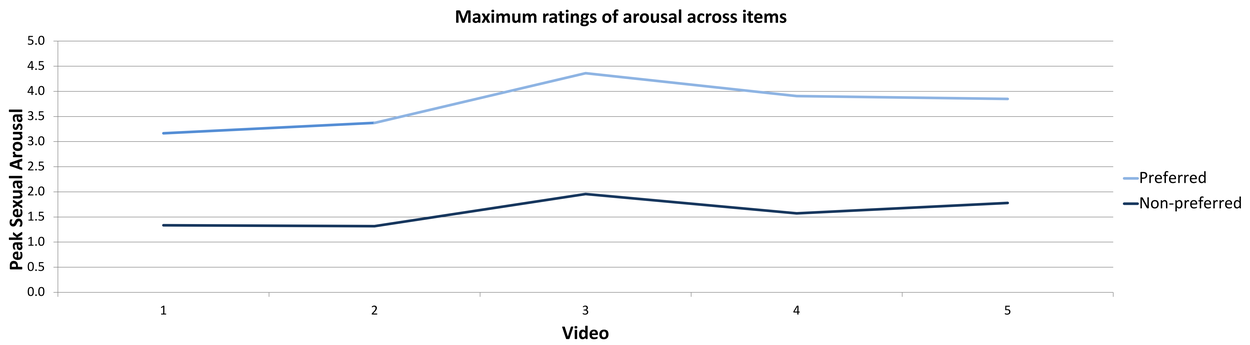
Go/No-go task:
(e.g., Respond to women, Withhold response to men)

Phase 2: Watch 5 two-minute long clips of either preferred or non-preferred individuals engaging in solo masturbation. *Participants are asked to continuously rate their feelings of subjective sexual arousal.*

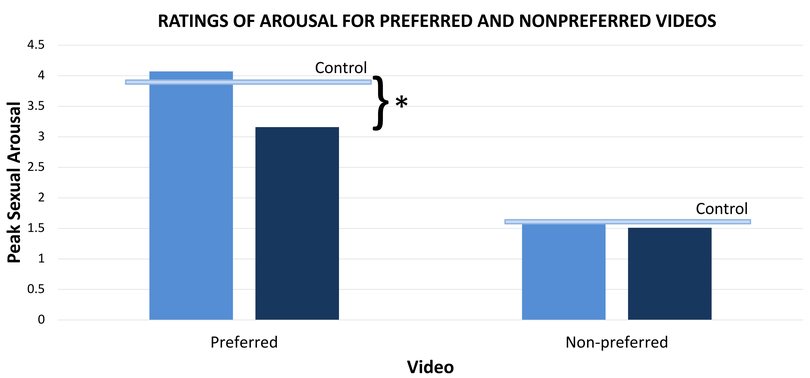


Will inhibition decrease self-reported sexual arousal?

Results



No significant difference in arousal for Go vs Control for preferred (p=.22) and non-preferred video (p=.20).
Responding to stimuli did not increase levels of arousal.



Item Analysis

Main effects:
Go/No-go= 34.57, p = .000
Preference = 116.62, p= .000

Interaction:
Preference*Go/No-go = 22.15, p =.000

Significant difference in arousal for Go vs No-go (p=.000), and Control vs No-go (p=.000) for preferred video.
Response inhibition decreased sexual arousal to preferred-sex videos.

Discussion

Evidence was found to support our prediction – response inhibition does lead to decreased subjective sexual arousal to preferred-sex videos.

The No-go vs Control in the non-preferred condition was non-significant (p=.059), however it is trending in the direction we were expecting.

There was no significant difference for Go vs No-go in the non-preferred video condition. This may be due to floor effects - people cannot get less aroused than they already are.

Future directions may include using thermal imaging to determine whether there are physiological changes in arousal due to response inhibition.