
Emotionality and Perceptual Defense (McGinnies, 1949)

— HUL261 Tutorial: Perception —

Before we begin...

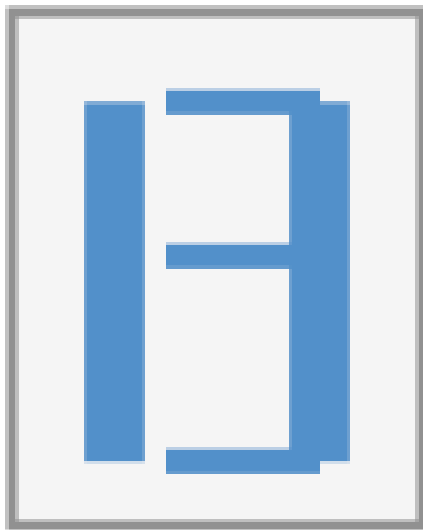
Sensation versus perception?

Sensation is the process of activation of sensory receptors when receiving information from the external world. This information is merely raw material that needs to be interpreted and understood to make sense of the world around us. The process of perception involves interpretation of sensory information in the light of existing knowledge, beliefs, goals, expectations, etc.

Perceptual defense?

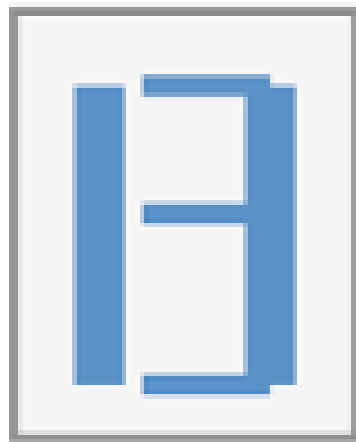
Perceptual defense is “a misperception that occurs when anxiety-arousing stimuli are unconsciously distorted” (APA Dictionary of Psychology). Anxiety-arousing stimuli refers to any stimuli that may be threatening, offensive, or unpleasant. The “misperception” may be observed in terms of higher threshold for (i.e., delayed) recognition or incorrect recognition.

What do you see?



A B C

12

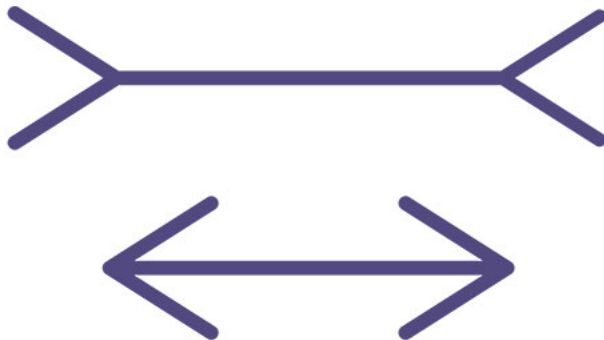


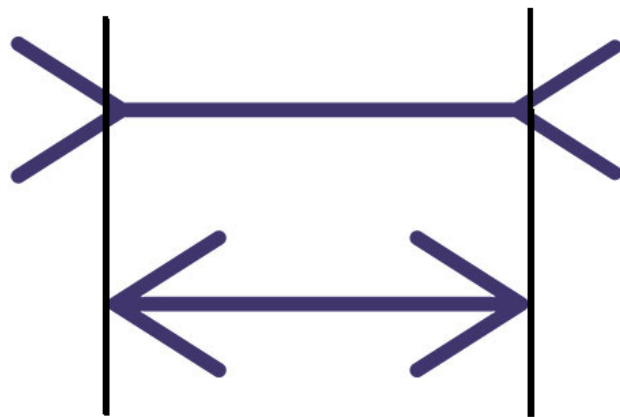
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Can you read this?

THE CAT

Which is the longer line?





An overview of the paper

Ample research has demonstrated that perception is a “dynamic” (as opposed to a passive) process, guided by motivational factors- reward and punishment, need fulfillment, emotional connotation, etc.

As a filter or a screening mechanism, perceptual defense allows us to perceive (albeit incorrectly) stimuli that are potentially threatening or unpleasant, and serves to protect us from the anxiety bound to arise out of correct recognition of the stimulus.

The question that remains, and that McGinnies (1949) attempts to answer, is: "How is a raised or lowered threshold of recognition for inimical stimulus objects accomplished before the observer discriminates them and is thereby made aware of their threatening character?" (p. 244, 245).

McGinnies proposed that exposure to a stimulus- either neutral or threatening- leads to an autonomic response *before* one is consciously aware of the stimulus. One way of measuring an autonomic response is galvanic skin response (GSR, changes in the activity of sweat glands when we are emotionally aroused).

It was hypothesised that: autonomic reactivity (in this study, GSR) would “have a lower threshold to threat than do those neural systems which mediate consciousness” (p. 245).

Method

Eleven neutral and seven emotionally toned words (IV) were presented to 16 participants, and their GSR (DV) and time taken for correct recognition of word (DV) was noted. For each exposure, participants were instructed to report what word they saw. Only findings for trials upto correct recognition of words were included in the analyses.

TABLE 1
STIMULUS WORDS USED IN THE EXPERIMENT
IN ORDER OF THEIR PRESENTATION
TO EACH OBSERVER
Critical, or emotional, words are in italics.

apple	<i>kotex</i>
dance	broom
<i>raped</i>	stove
child	<i>penis</i>
<i>belly</i>	music
glass	trade
river	<i>filth</i>
<i>whore</i>	clear
sleep	<i>bitch</i>

Results

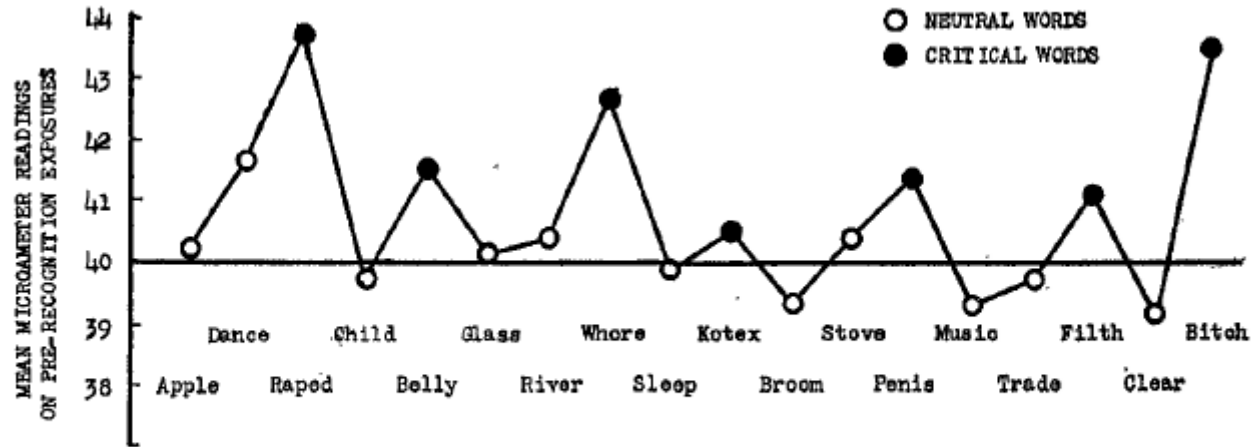


FIG. 1. Group averages of galvanic skin response to neutral and critical words during pre-recognition exposures.

- Emotionality: the autonomic response (GSR) to presented words

Emotionality was significantly greater during pre-recognition exposures of the critical than of the neutral words.

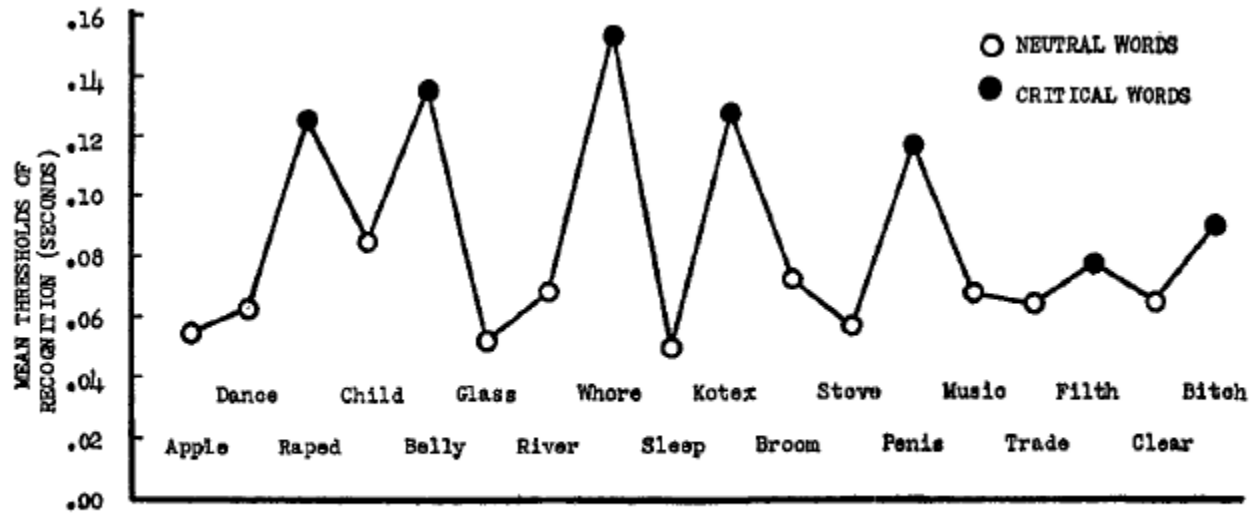


FIG. 2. Mean thresholds of recognition of the observers to the neutral and emotionally-charged words.

➤ Threshold for recognition: time taken for correct recognition of the presented word

The mean thresholds of the observers were significantly greater for the critical than for the neutral stimulus words.

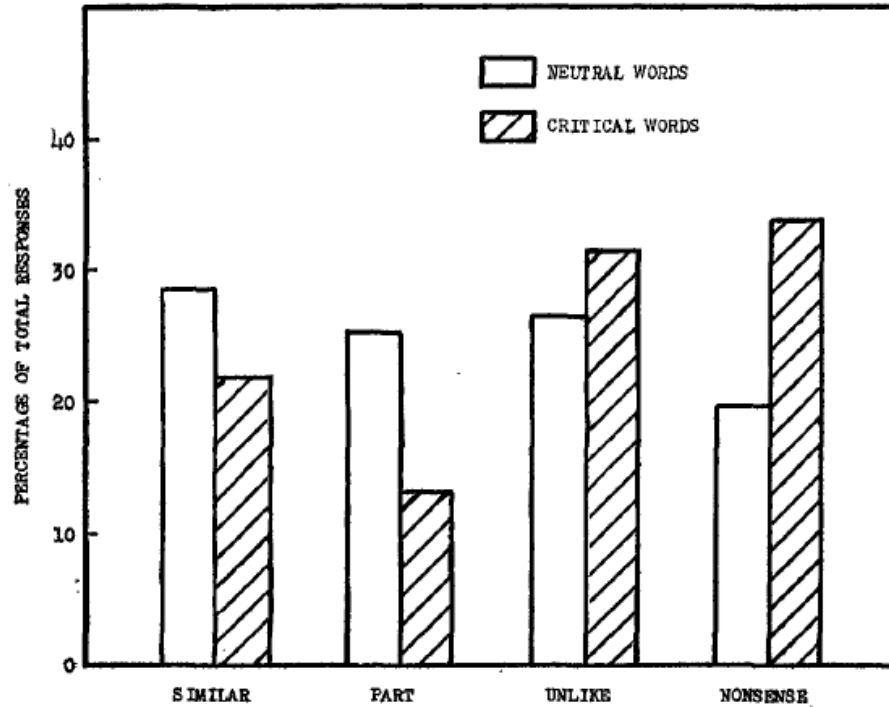


FIG. 3. Percentage frequencies with which hypotheses to neutral and critical stimulus words appeared in the response categories.

- Content analysis: categorising the “guesses” participants had made when trying to recognise the words being shown to them

Participants made proportionately more similar and part responses to the neutral words and proportionately more unlike and nonsense responses to the critical words.

What do these findings mean?

There is an early establishment of a conditioned emotional response to taboo words, which persists even later in life.

The 'protective' function of perceptual defense: GSR of participants was greatest in the trial where they correctly recognised the critical word.

Perceptual defense occurs despite an unconscious emotional arousal- what may be the neurophysiological pathway? Two possibilities are put forth: increased GSR is a result of feedback from the brain's cortical areas, or that of visual information being rerouted such that cortical integration of visual information is modified.

The findings are not simply a result of unfamiliarity with critical words and greater effort to recognise them: commonly spoken words, no reason for nonsense and structurally unlike words to be guessed for critical words, no correlation between mean GSR and mean threshold for either neutral or critical words.

Discuss...

Q1. Can there be alternative explanations for the findings?

Q2. What might be some limitations of this experiment?

Q3. If you were to replicate this study, how would you do it? What changes from the original experiment would you make and why?

Q4. If you were to study perceptual defense, how would you go about designing a study?

Q5. Can you think of areas where research on perceptual defense may find applicability?

Write... A brief (~ 500 words) response note to the experiment and submit on Moodle (10 marks).