Psychology 360: Personality Research Anxiety, Negative Affect and Avoidance Motivation

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Outline

Anxiety, Negative Affect and Avoidance Motivation

1. Anxiety
2. Negative Affect
3. Avoidance Motivation
4. A single trait, but a multitude of theories
5. Useful for integrating personality theory with clinical psychology

What is anxiety?

1. Normal trait with variation in the experience of the unpleasant emotional state associated with subjective feelings of tension, apprehension, and worry as well as activation or arousal of the autonomic nervous system
2. Traditional assumption in personality is that the psychiatric "disorder" is merely the end point of a normal trait.
3. By studying the trait, we learn about the disorder, and by studying the disorder, we learn about the trait.

Anxiety Symptoms

1. Anxiety Symptoms Excessive physiologic arousal
   - muscle tension
   - Irritability
   - Fatigue
   - Restlessness
   - insomnia
2. Distorted cognitive processes
   - poor concentration!
   - unrealistic assessment of problems
   - worries
3. Poor coping strategies
   - avoidance-procrastination
   - poor problem-solving skills

Source: http://www.sh.lsuhsc.edu/fammed/OutpatientManual/Anxiety.htm taken from Gliatto, Michael F. Generalized Anxiety Disorder. Am Fam Physician. 2000;62:1591-600, 1602.

Anxiety as "disorder"

1. Classification of anxiety disorders
2. Generalized Anxiety Disorder
3. Panic Disorder
4. Social Phobia
5. Separation Anxiety
6. Post Traumatic Stress

Generalized Anxiety Disorder

1. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance.
2. The person finds it difficult to control the worry.
3. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past 6 months). Note: Only one items is required in children.
    - restlessness or feeling keyed up or on edge
    - being easily fatigued
    - difficulty concentrating or mind going blank
    - Irritability
    - muscle tension
    - sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep)

GAD: continued (from DSM)

1. The focus of the anxiety and worry is not confined to features of an Axis I disorder, e.g., the anxiety is not about having a Panic Attack (as in Panic Disorder), being embarrassed in public (as in Social Phobia), being contaminated (as in Obsessive-Compulsive Disorder), being away from home or close relatives (as in Separation Anxiety Disorder), gaining weight (as in Anorexia Nervosa), having multiple physical complaints (as in Somatization Disorder), or having a serious illness (as in Hypochondriasis), and the anxiety and worry do not occur exclusively during Posttraumatic Stress Disorder
2. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
3. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism) and does not occur exclusively during a Mood Disorder, a Psychotic Disorder, or a Pervasive Developmental Disorder.

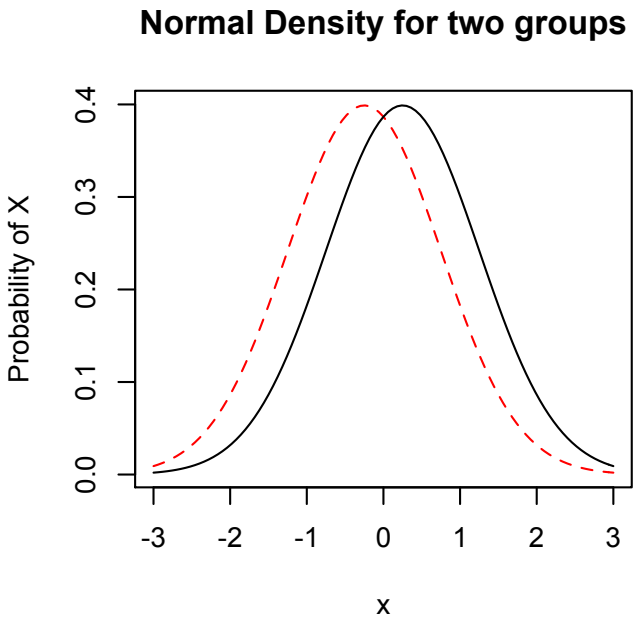
Social anxiety

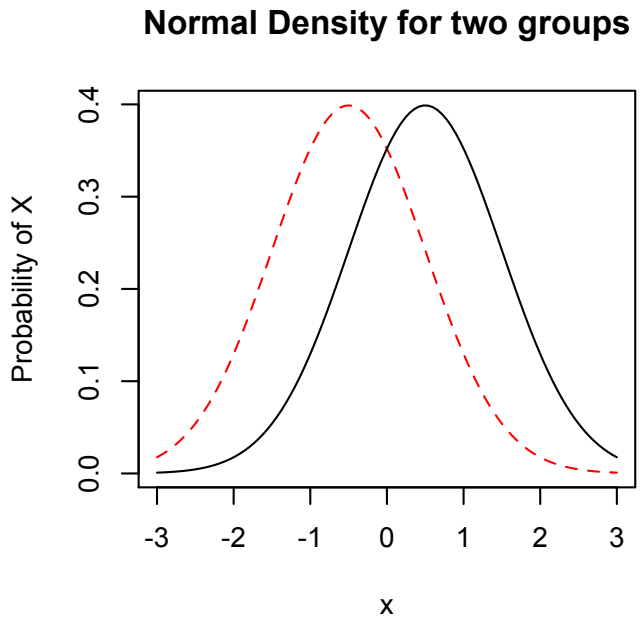
1. Persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others.The individual fears that he or she will act in a way (or show anxiety symptoms) that will be embarrassing and humiliating.
2. Exposure to the feared situation almost invariably provokes anxiety, which may take the form of a situationally bound or situationally pre-disposed Panic Attack.
3. The person recognizes that this fear is unreasonable or excessive.
4. The feared situations are avoided or else are endured with intense anxiety and distress.
5. The avoidance, anxious anticipation, or distress in the feared social or performance situation(s) interferes significantly with the person's normal routine, occupational (academic) functioning, or social activities or relationships, or there is marked distress about having the phobia.
6. In individuals under age 18 years, the duration is at least 6 months.
7. The fear or avoidance is not due to direct physiological effects of a substance (e.g., drugs, medications) or a general medical condition not better accounted for by another mental disorder...

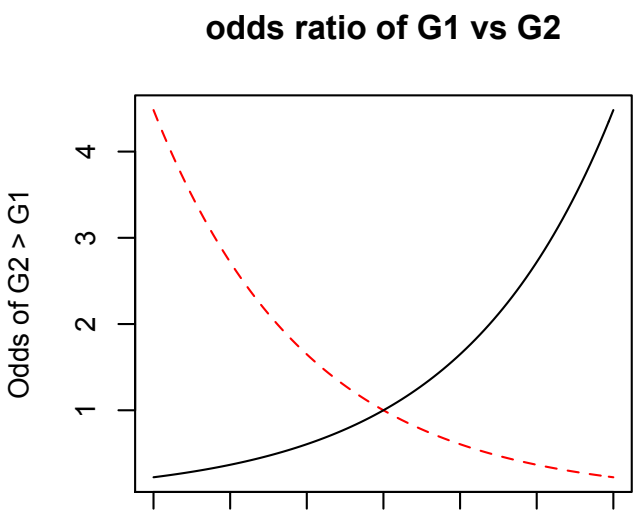
Anxiety as a dimension of personality

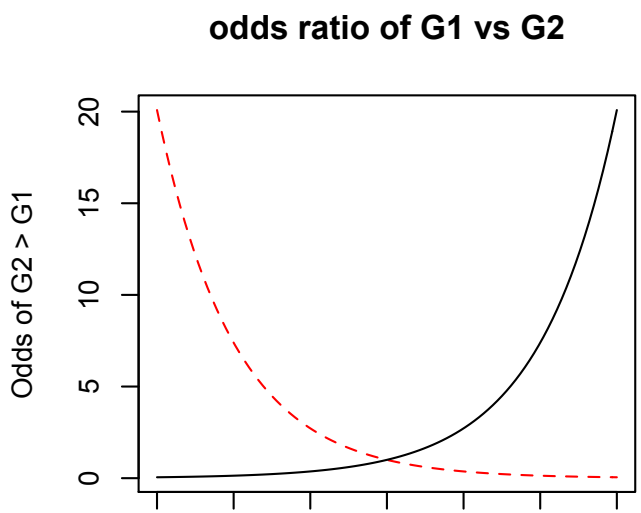
1. Anxiety, Negative Affectivity, Neuroticism and (lack of) Emotional Stability are all closely related trait terms that show normal variation in the population.
2. Extreme scores on these dimensions are associated with the diagnosis of a disorder.
3. Possible to understand the extremes by studying normal variation.
4. However, small differences in means can lead to large differences at tails of the distribution.

Odds of differences vary by extremity of response









Typical measures

1. Manifest Anxiety scale (Janet Taylor Spence) (Taylor, 1956)
2. Worry/Oversensitivity
3. Social Concerns/Stress
4. Physiological Anxiety
5. Fear of Aging (for elderly)
6. Test Anxiety (for students)
7. State-Trait scales (Spielberger, Sydeman, Owen & Marsh, 1999; Spielberger, Gorsuch & Lushene, 1970)
8. Situational Anxiety Scales

State Trait Anxiety Measures

Current (State) or Typical (Trait) feelings of

1. Nervous and restless
2. Failure
3. Inadequate
4. Disturbing thoughts
5. Pleasant (reversed)
6. Satisfied with self (reversed)
7. Rested (reversed)
8. Happy (reversed)

Neuroticism items from the Sapa Personality Incentory (spi

R code

```
lookupFromKeys(spi.keys, spi.dictionary[1:3])
```

```
$Neuro
        item_id                                                  item item_scale
q_979     q_979                                 Get overwhelmed by emotions.       IPIP
q_4252   q_4252                                                Am a worrier.      EPQ:N
q_1989   q_1989                                           Worry about things.       IPIP
q_1505   q_1505                                                 Panic easily.       IPIP
q_4249   q_4249                          Would call myself a nervous person.      EPQ:N
q_808     q_808                                           Fear for the worst.       IPIP
q_793     q_793                            Experience my emotions intensely.       IPIP
q_1840-  q_1840 Think that my moods dont change more than most peoples do.       IPIP
q_811     q_811               Feel a sense of worthlessness or hopelessness.       IPIP
q_1585-  q_1585                                         Rarely get irritated.       IPIP
q_578     q_578                                              Dislike myself.       IPIP
q_176-    q_176                                        Am not easily annoyed.       IPIP
q_797-    q_797             Experience very few emotional highs and lows.       IPIP
q_1683-  q_1683                                              Seldom get mad.       IPIP
```

Anxiety and Emotional Stability items from the spi

R code

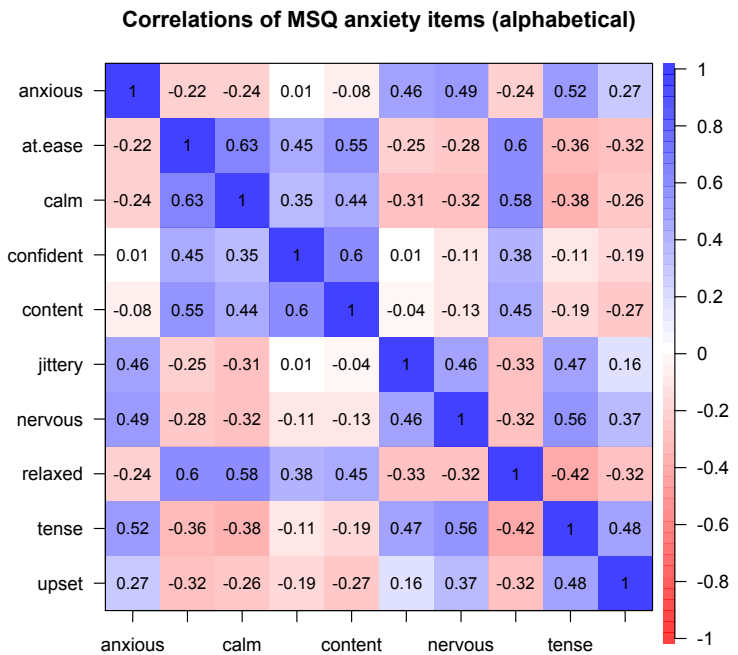
```
lookupFromKeys(spi.keys, spi.dictionary[1:3])
```

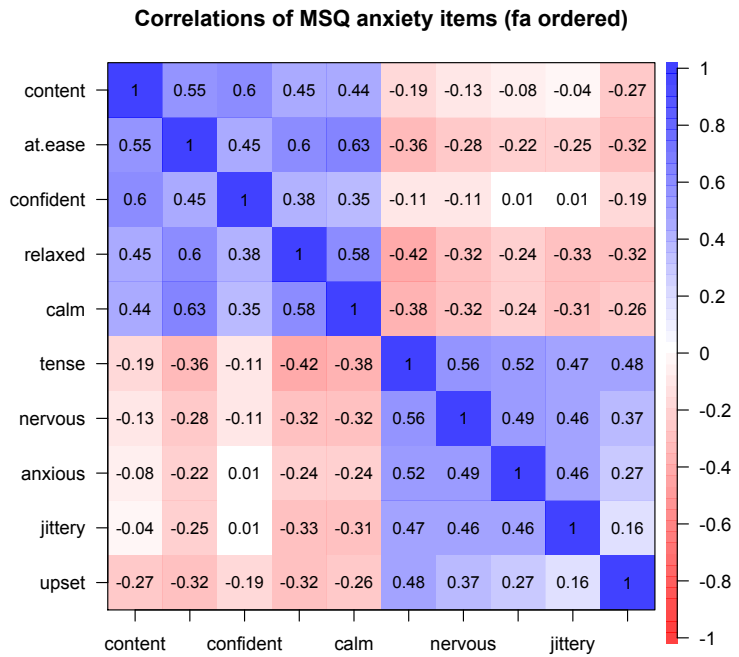
```
$EmotionalStability
       item_id                                                    item item_scale
q_979-   q_979                                  Get overwhelmed by emotions.       IPIP
q_174    q_174                        Am not easily affected by my emotions.       IPIP
q_793-   q_793                             Experience my emotions intensely.       IPIP
q_797    q_797                   Experience very few emotional highs and lows.       IPIP
q_1840  q_1840 Think that my moods dont change more than most peoples do.       IPIP
$Anxiety
       item_id                                  item item_scale
q_4252  q_4252                          Am a worrier.      EPQ:N
q_1989  q_1989                       Worry about things.       IPIP
q_4249  q_4249 Would call myself a nervous person.      EPQ:N
q_1505  q_1505                          Panic easily.       IPIP
q_808    q_808                       Fear for the worst.       IPIP
$WellBeing
       item_id                                                   item item_scale
q_578-   q_578                                      Dislike myself.       IPIP
q_811-   q_811 Feel a sense of worthlessness or hopelessness.       IPIP
q_2765  q_2765                              Am happy with my life.       IPIP
q_820    q_820                     Feel comfortable with myself.       IPIP
q_1371  q_1371                                        Love life.       IPIP

$EmotionalExpressiveness
        item_id                                        item item_scale
q_219     q_219                  Am open about my feelings.       IPIP
q_1081-  q_1081 Have difficulty expressing my feelings.       IPIP
q_803     q_803                     Express myself easily.       IPIP
q_1635-  q_1635                Reveal little about myself.       IPIP
q_1706   q_1706                           Show my sadness.       IPIP
```

The structure of 10 anxiety items from the MSQ

Alphabetical ordering of 10 MSQ anxiety items. Hard to see structure.

"Alabama need not come first". Sort by something meaningful.





R code

```
R <- lowerCor(msq1[msqitems])
corPlot(R,numbers = TRUE)
```

R code

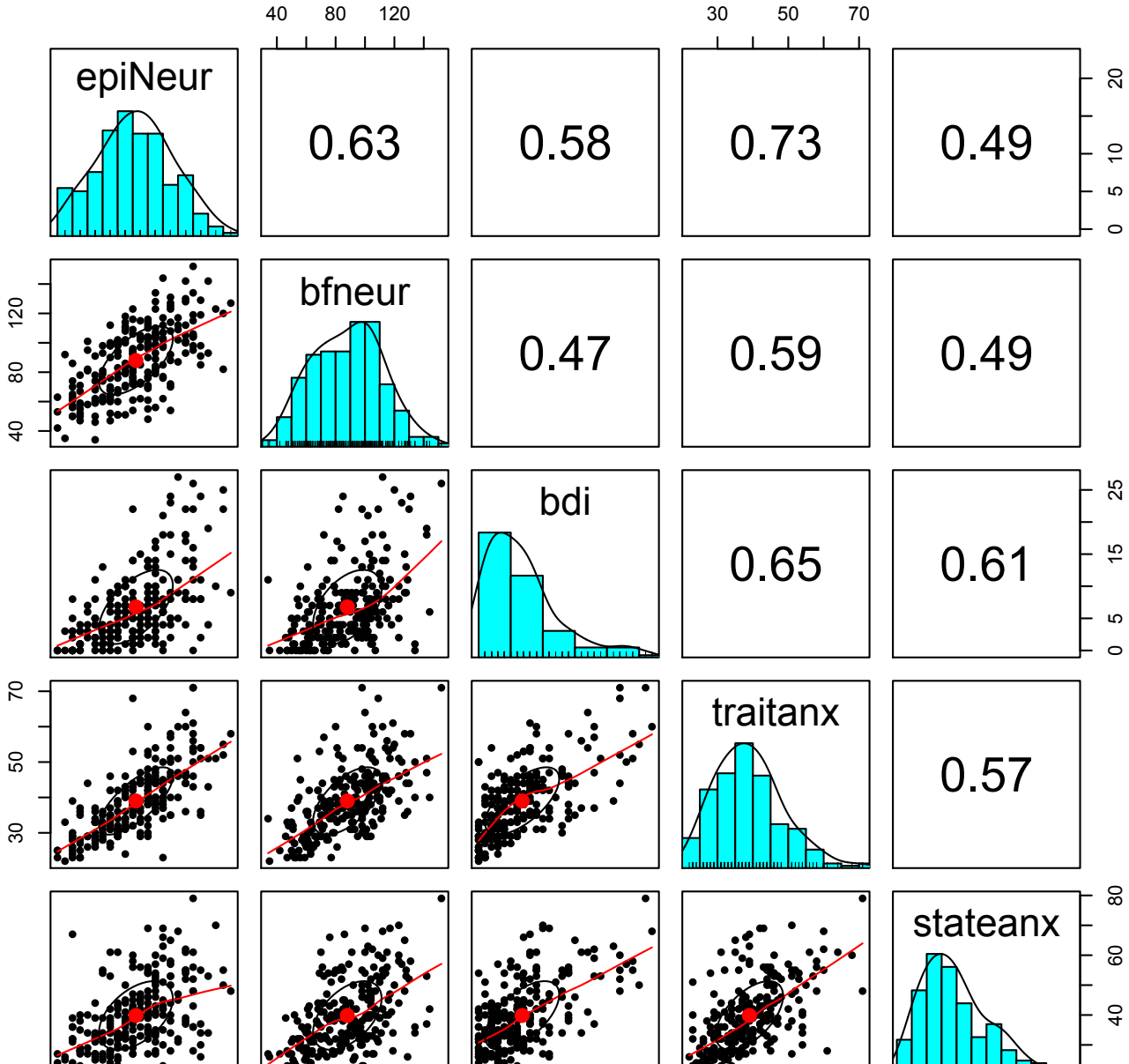
```
f2 <- fa(R,2)   #extract 2 factors
sorted <- mat.sort(R,f2)
corPlot(sorted,numbers=TRUE)
```

$\omega_h = .41$ $\alpha = .83$ $\omega_t = .88$

Anxiety Trait vs. Anxiety State

1. Ray Cattell (1966) & Charles Spielberger et al. (1970) Anxiety trait as a susceptibility to the state
   - But not necessarily frequency of state
   - (anxiety trait can lead to avoidance of situations that lead to the state)
2. Components of State anxiety (Liebert & Morris, 1967)
   - Autonomic arousal/somatic tension
   - Worry and attentional deficits
   - But are these two factors, or merely extremity of trait?

Anxiety, Neuroticism and Depression



from `epi.bfi` dataset in *psychTools*

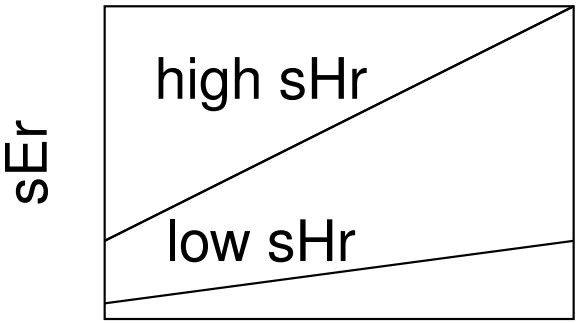
Multiple theories of anxiety effects on performance

1. Hull-Spence Drive Theory (and task difficulty)
2. Anxiety and the inverted U
3. Anxiety as an inappropriate response
4. Anxiety and Negaction - Dynamics of Action
5. Anxiety as cognitive load
6. Anxiety and performance avoidance (Fear of Failure)

Hull, Spence & Spence Drive Theory

Hull-Spence theory of learning and performance

1. Dominant Learning theory of 1940-1950s was Hull (1943, 1952). Eventually replaced by more cognitive theories but the phenomena still need to be explained.
2. Main competitor was Tolman (e.g., Tolman & Honzik, 1930) who demonstrated the distinction between learning and performance.
3. Reaction potential = Habit x (Drive + Incentive)
   - sEr = sHr (D + K)
4. Habit strength (sHr) reflects previous experience
5. Drive = Σ (non specific effects)
   - hunger, thirst, sex
   - anxiety

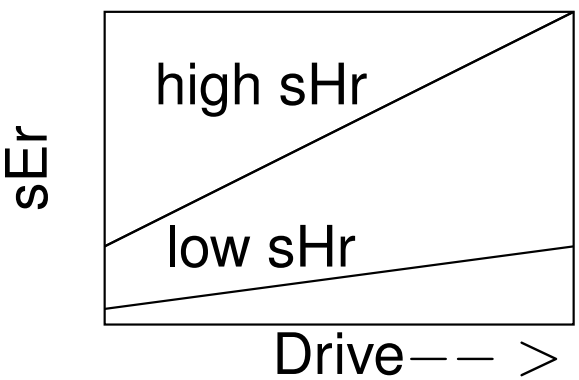


Drive Theory applied to human anxiety

Anxiety and learning

1. Eyeblink conditioning (Spence & Farber, 1953)
2. Verbal learning of easy and hard lists (Spence, Farber & McFann, 1956; Spence, 1964)
3. Task difficulty interacts with anxiety in verbal learning

Anxiety	easy (high sHr)	hard (low sHr)
High Anxiety	8.95	23.30
Low Anxiety	12.60	18.40



Very well replicated experiment, but because it used serial anticipation, it had a confound.

The word lists from (Spence et al., 1956)

Noncompetitive: Exp. I		Competitive: Exp. II	
Stimulus	Response	Stimulus	Response
Adept	Skilful	*Barren	Fruitless
Barren	Fruitless	Arid	Grouchy
Complete	Thorough	Desert	Leading
Distant	Remote	*Little	Minute
Empty	Vacant	Petite	Yonder
Frigid	Arctic	Undersized	Wholesome
Insane	Crazy	*Roving	Nomad
Little	Minute	Gypsy	Opaque
Mammoth	Oversize	Migrant	Agile
Pious	Devout	*Tranquil	Placid
Roving	Nomad	Quiet	Double
Stubborn	Headstrong	Serene	Headstrong
Tranquil	Quiet		
Urgent	Pressing		
Wicked	Evil		

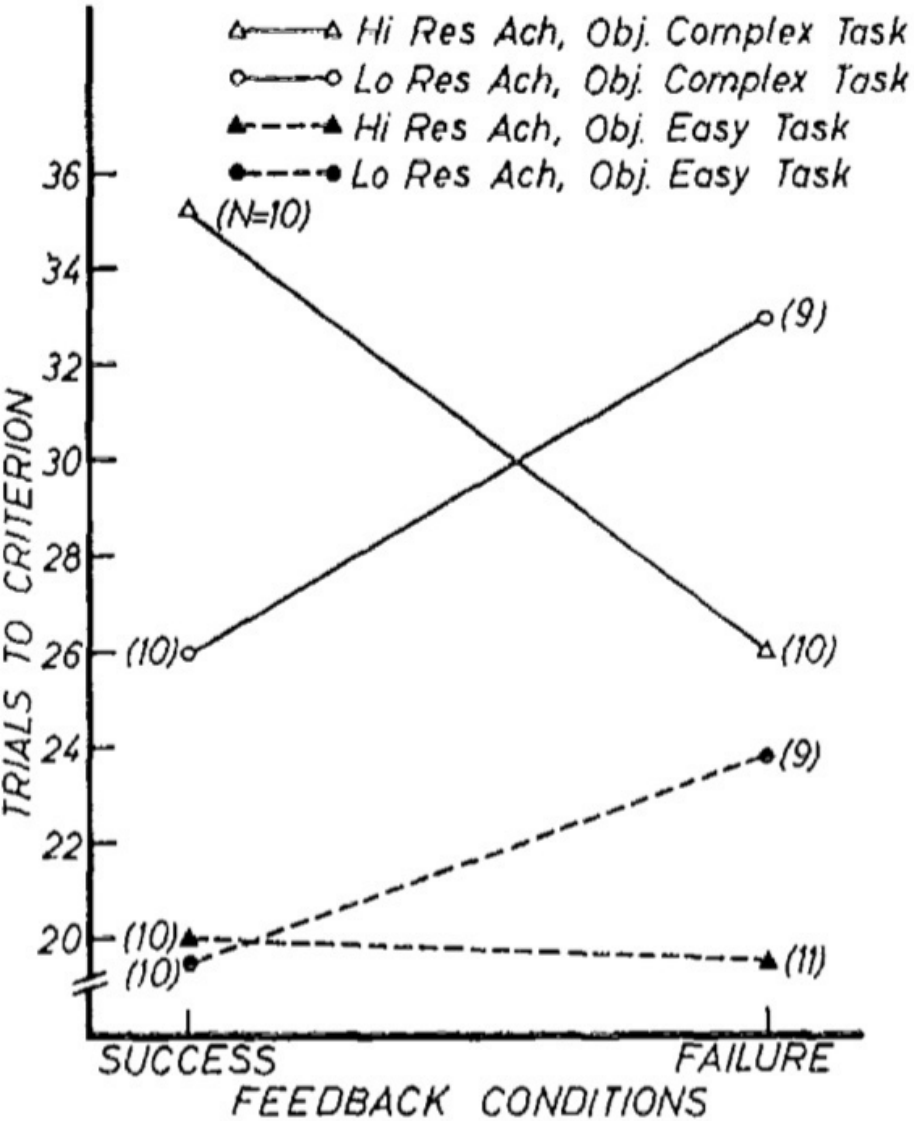
Anxiety and Task Difficulty

1. Many studies have replicated the original Spence et al. (1956) study
2. However, all of these have used a serial anticipation technique that confounds task difficulty with implicit feedback to the subject.
3. Is it feedback or task difficulty that is most important?
4. Nice example of how one good study (with a replication) can replace many studies if they all have the same flaw.

Weiner & Schneider (1971) showed this might be an artifact of design

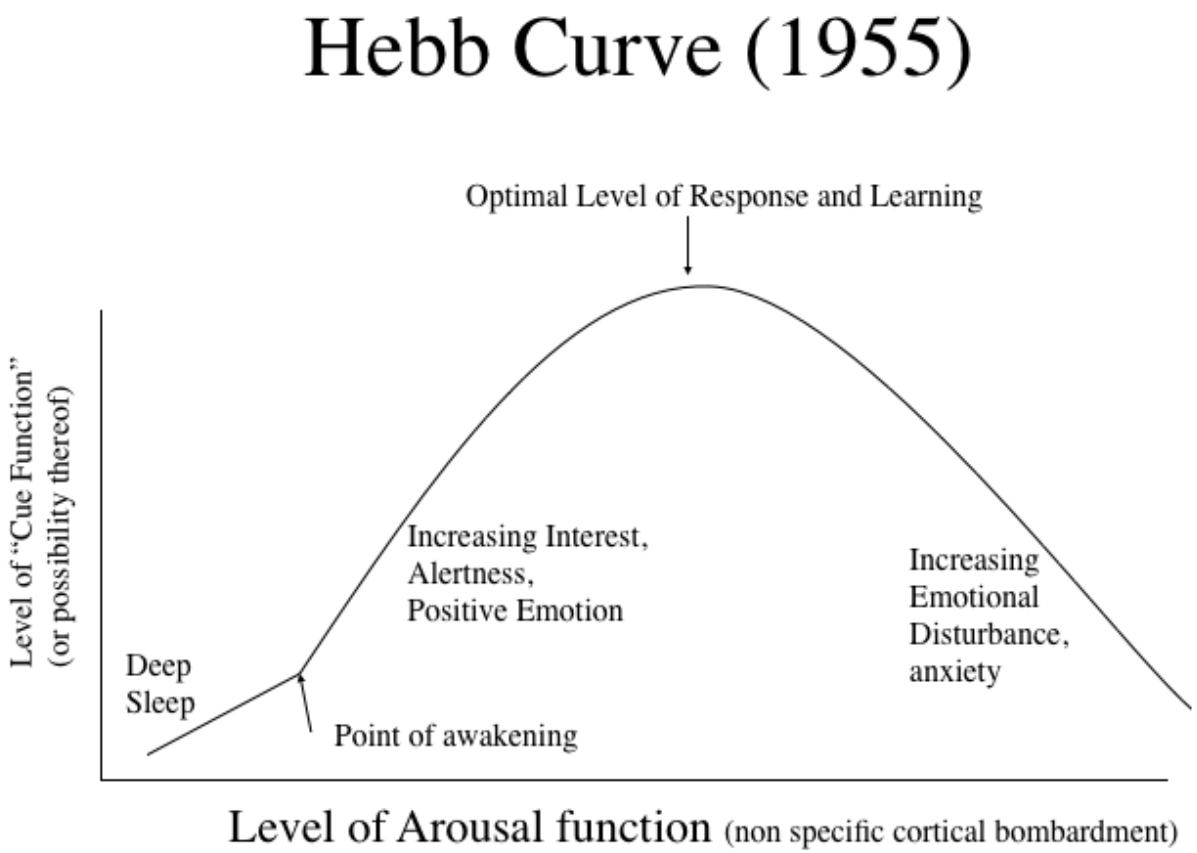
1. Task: Learn 13 CVC trigrams
2. Easy List: high between item differentiation e.g. PAK, BIM, MOT
3. Difficult list: low between item differentiation e.g. HOV, VOV, RIV, MIV
4. Lists presented as serial anticipation (implicit feedback?)
5. Subjects were high and low resultant Achievement Motivation (Nach - Naf)
6. Feedback - list is (easy/hard) you are doing better/worse than othes

Weiner & Schneider (1971)

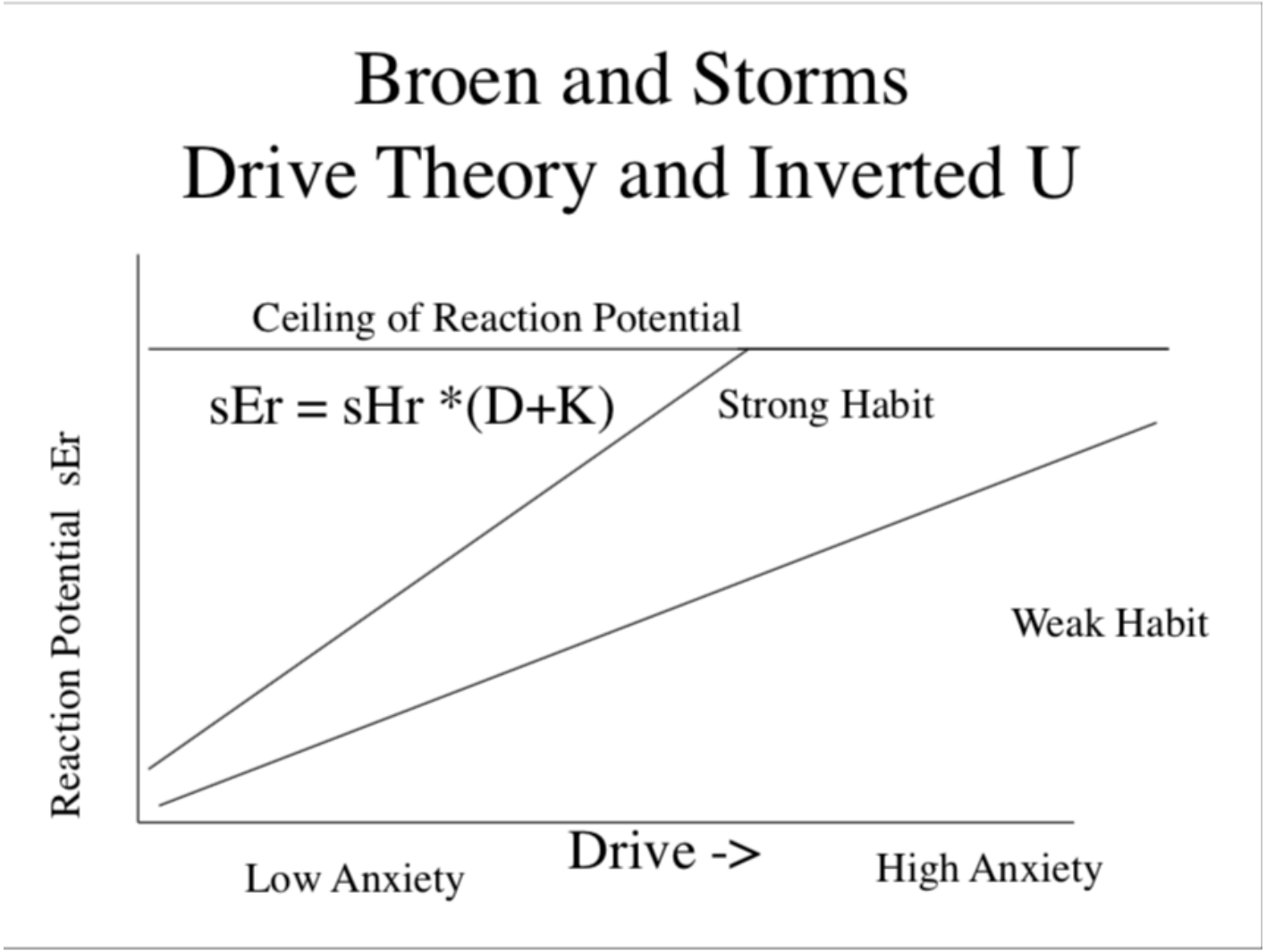


1. Examined high versus low "resultant achievement motivation"
2. N-ach - Fear of Failure
3. Effect of motivation interacts with feedback

Anxiety, Drive and the Inverted U (Hebb, 1955)

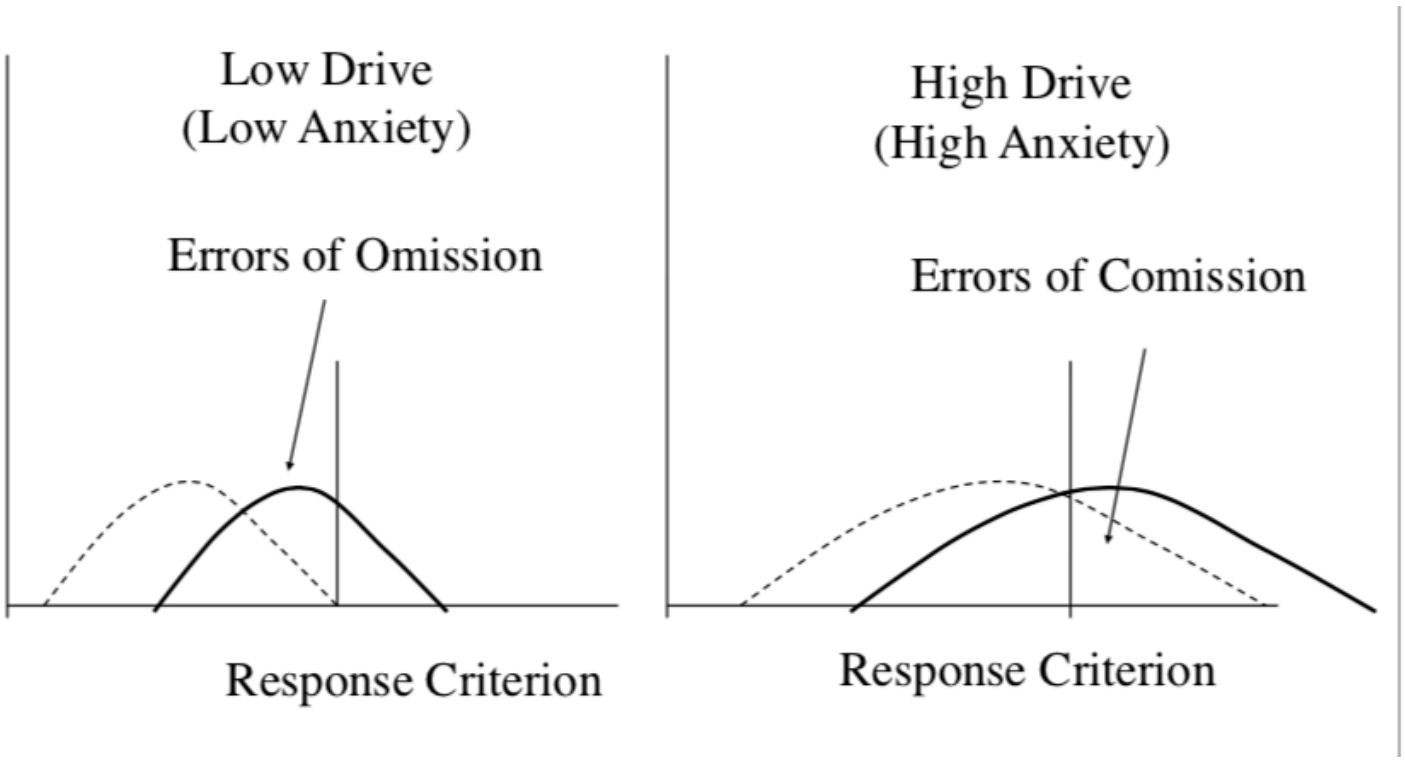


Drive Theory and the inverted U



(Broen Jr & Storms, 1961)

Broadbent: Drive and error types
Drive spreads response strength and changes error type



Anxiety as an inappropriate response

1. Mandler-Sarason-Wine
2. Sarason and Test Anxiety (Mandler & Sarason, 1952)
3. Attention is diverted to off task thoughts
4. Should be able to redirect attention
5. Jeri Wine: Anxiety and attentional deficits (Wine, 1971)
6. A simple model that has much support

Anxiety and working memory

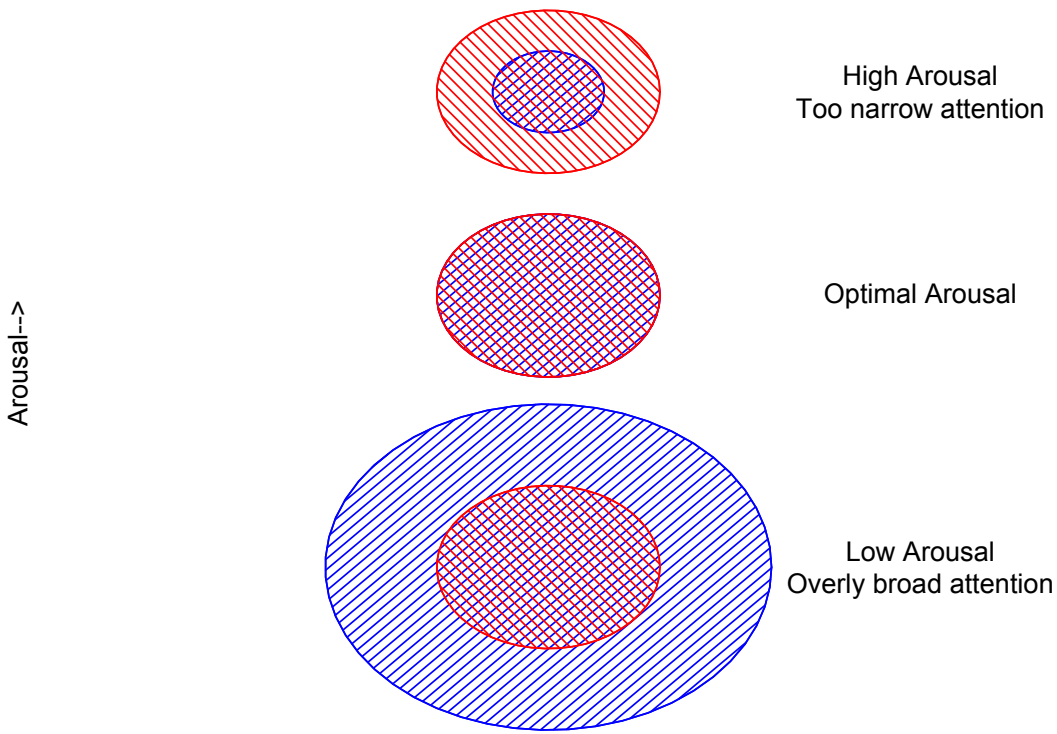
1. Anxiety leads to a working memory deficit Eysenck, Lister & Weingartner (1991); Eysenck (2000); Eysenck, Derakshan, Santos & Calvo (2007)
2. Fewer resources to bring to task
3. Implies interaction of memory load with anxiety
4. But memory load is frequently confounded with task difficulty and implicit feedback (see Weiner and Schneider)

Easterbrook's theory of cue utilization

1. Arousal/Anxiety thought to change the range of cue utilization
2. Tasks differ in the breadth of cues required
3. Arousal/anxiety narrows the focus of attention

The Easterbrook (1959) hypothesis

Easterbrook hypothesis: Arousal narrows cue utilization



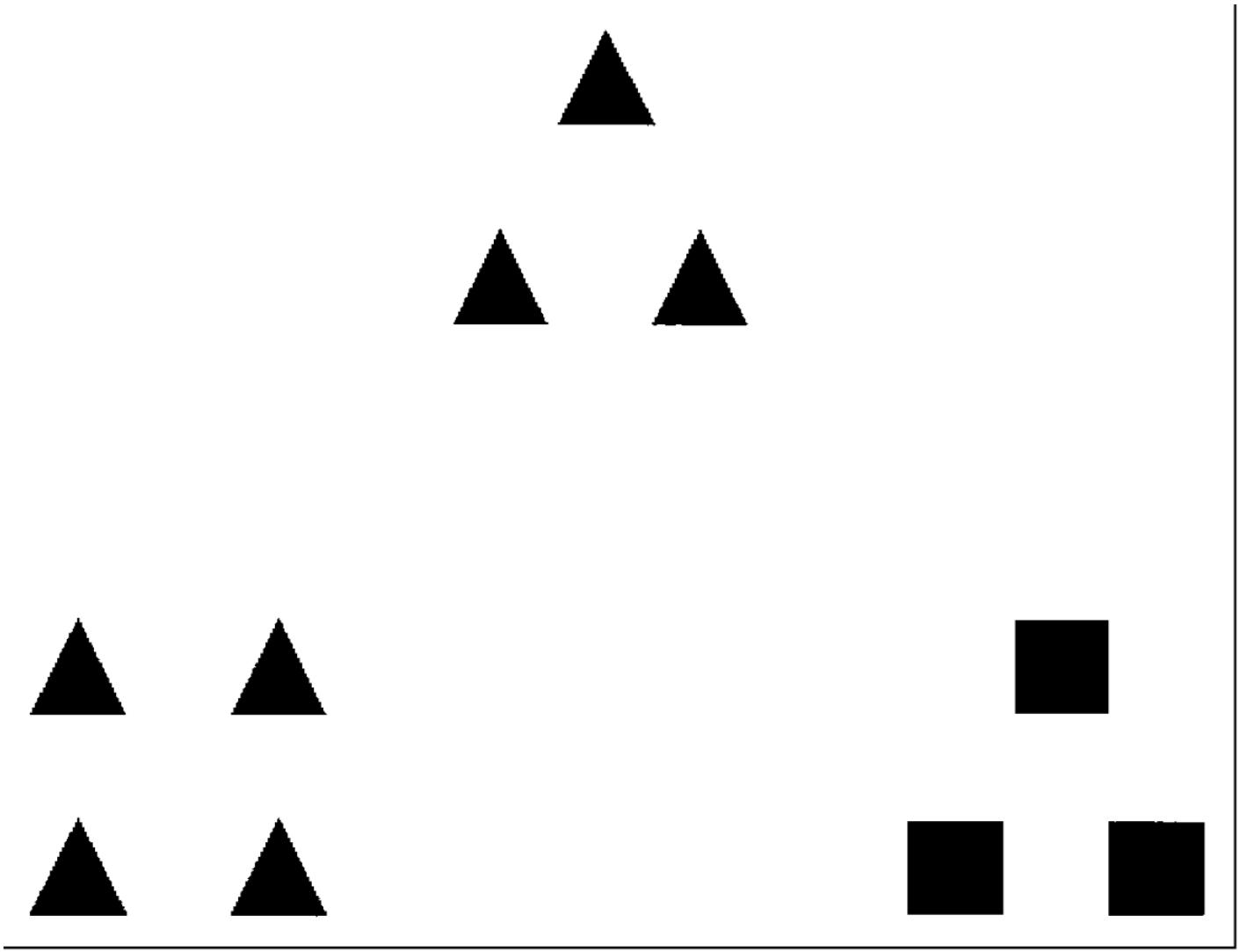
Positive negative affect and cue utilization: Forests vs. trees

1. Gasper & Clore (2002) Affect and broad vs. narrow focus
2. Yovel, Revelle & Mineka (2005) Obsessiveness and broad vs. narrow processing

Marco Polo describes a bridge, stone by stone.
"But which is the stone that supports the bridge?" Kublai Khan asks.
"The bridge is not supported by one stone or another," Marco answers, "but by the line of the arch that they form."
Kublai Khan remains silent, reflecting.
Then he adds: "Why do you speak to me of stones? It is only the arch that matters to me."
Polo answers: "Without stones there is no arch."
(Italo Calvino, 1972/1974, p. 82)

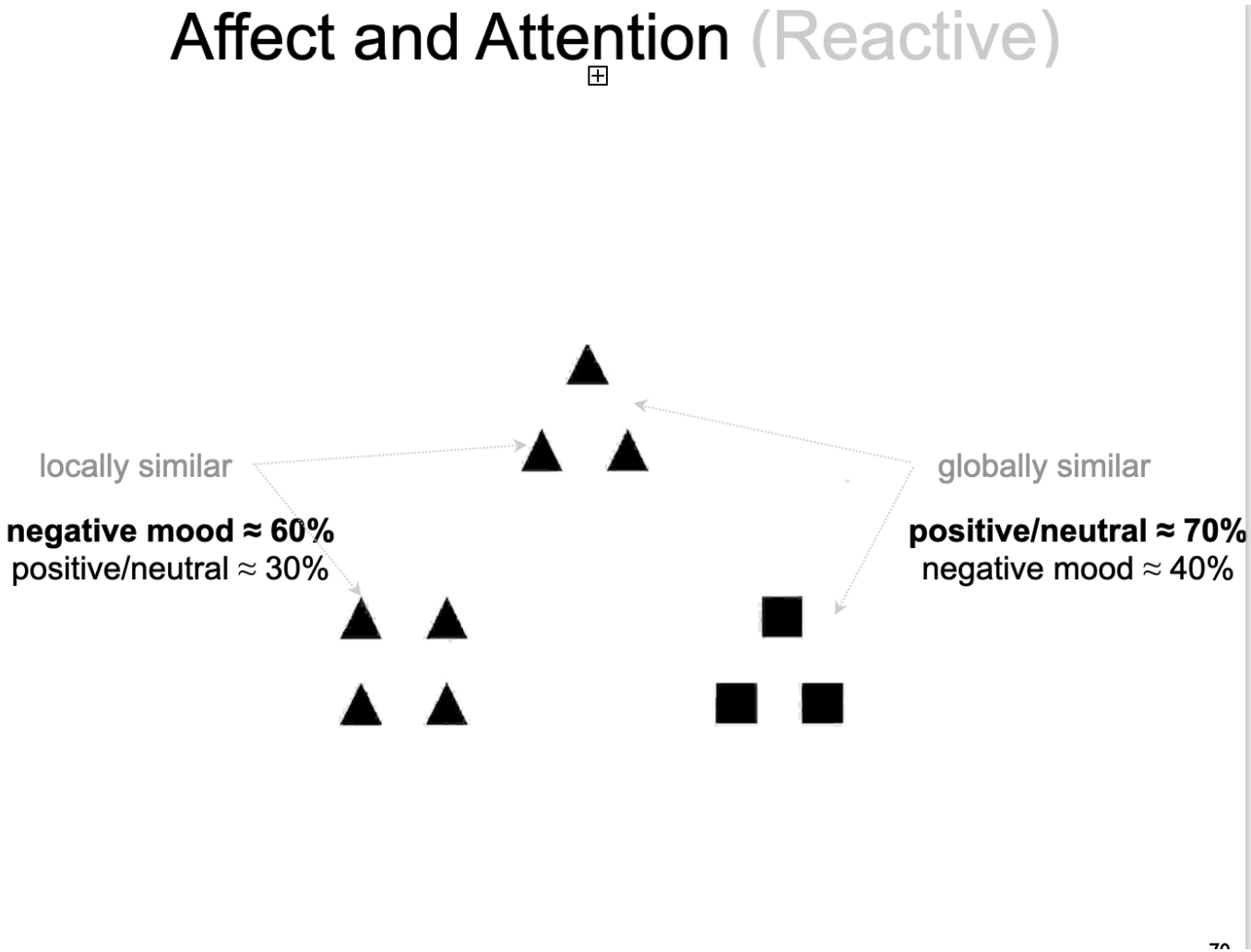
(Kimchi, 1992)

Kimchi figures and global vs. local processing



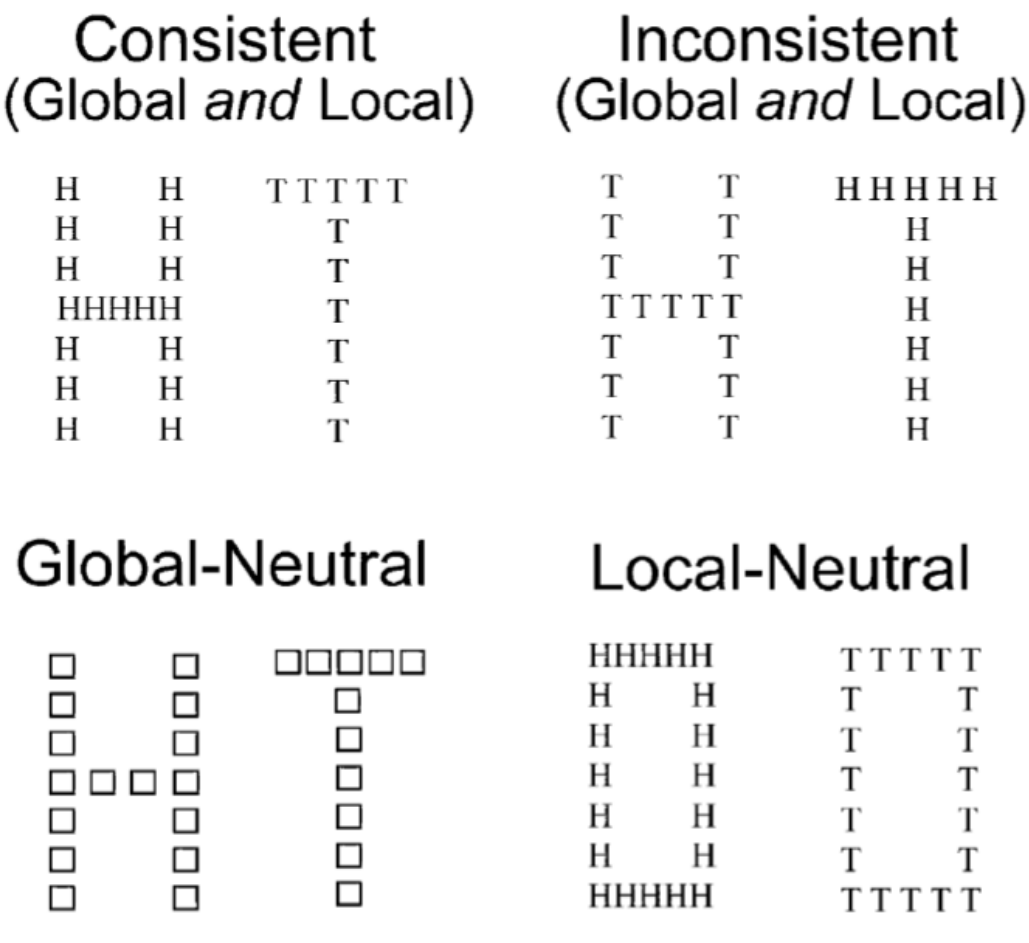
(Kimchi, 1992)

The effect of affect on breadth of attention (Gasper & Clore, 2002)

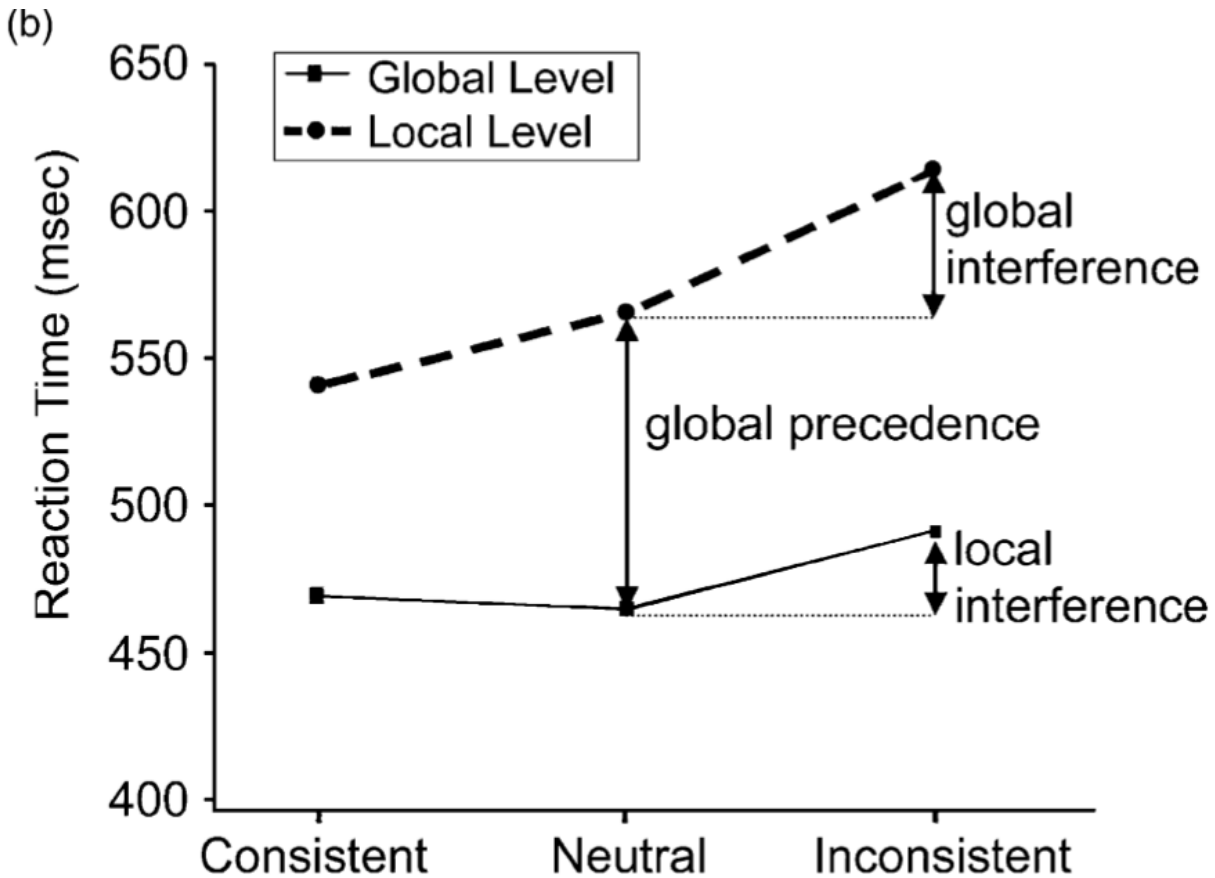


Local versus Global processing

(a)

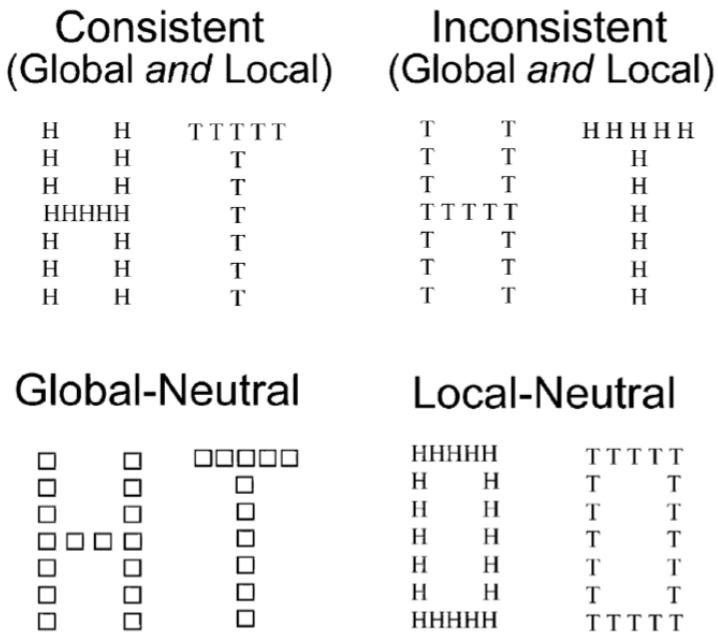


Local versus Global and interference

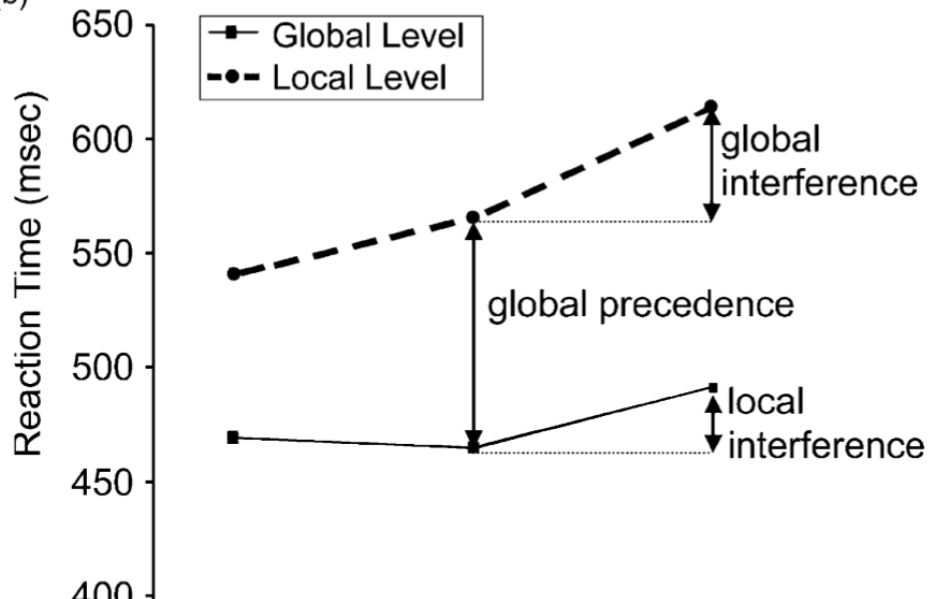


Global versus local processing

(a)



(b)



Who sees trees before forests? Yovel et al. (2005)

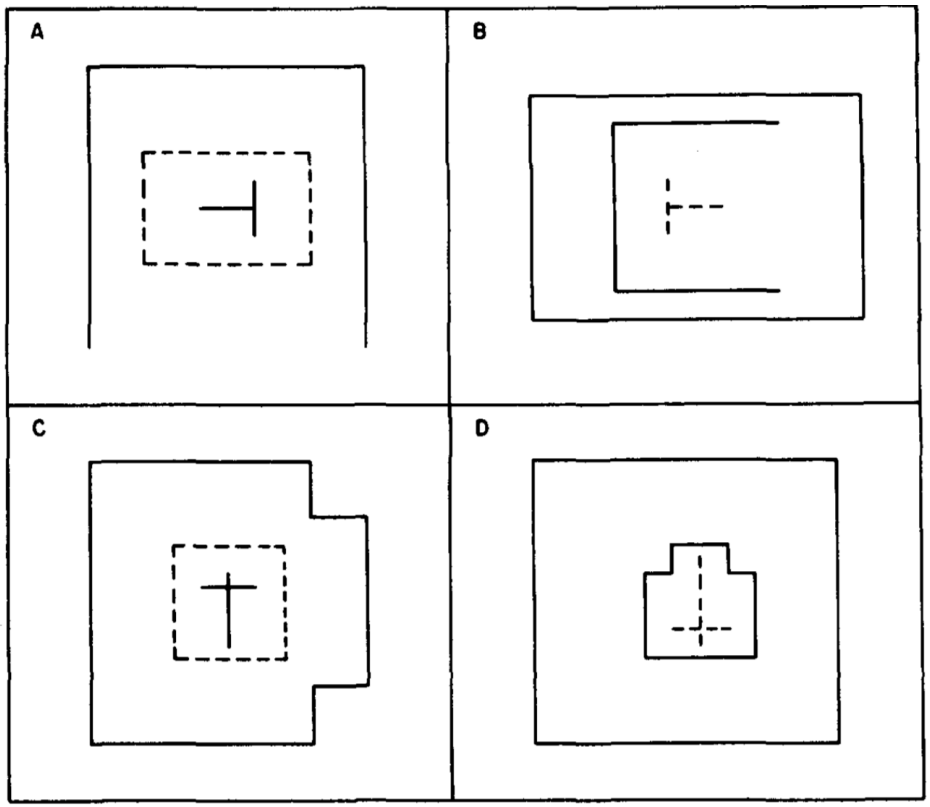
Correlations Between the Personality Scales and Attentional Effects

SNAP scale	Global precedence	Global interference	Local interference
HPD	.06	.04	.19
OCPD	.16	−.11	.33**
Entitlement	.07	−.08	.32**
Exhibitionism	−.02	.08	.21
Impulsivity	.00	.06	−.13
Propriety	.12	−.11	.16
Workaholism	.15	−.03	.27*

Leon (1984) showed that anxiety is probably diversion of attention

1. A test of three theoretical models (Leon & Revelle, 1985)
2. Geometric analogies differed in complexity and memory load
3. Transformation increased memory load
4. Number of elements took more time to process
5. Ideas taken from Mulholland, Pellegrino & Glaser (1980)

Computer generated geometric analogies



Leon and Revelle (1985): anxiety and cognitive procesing

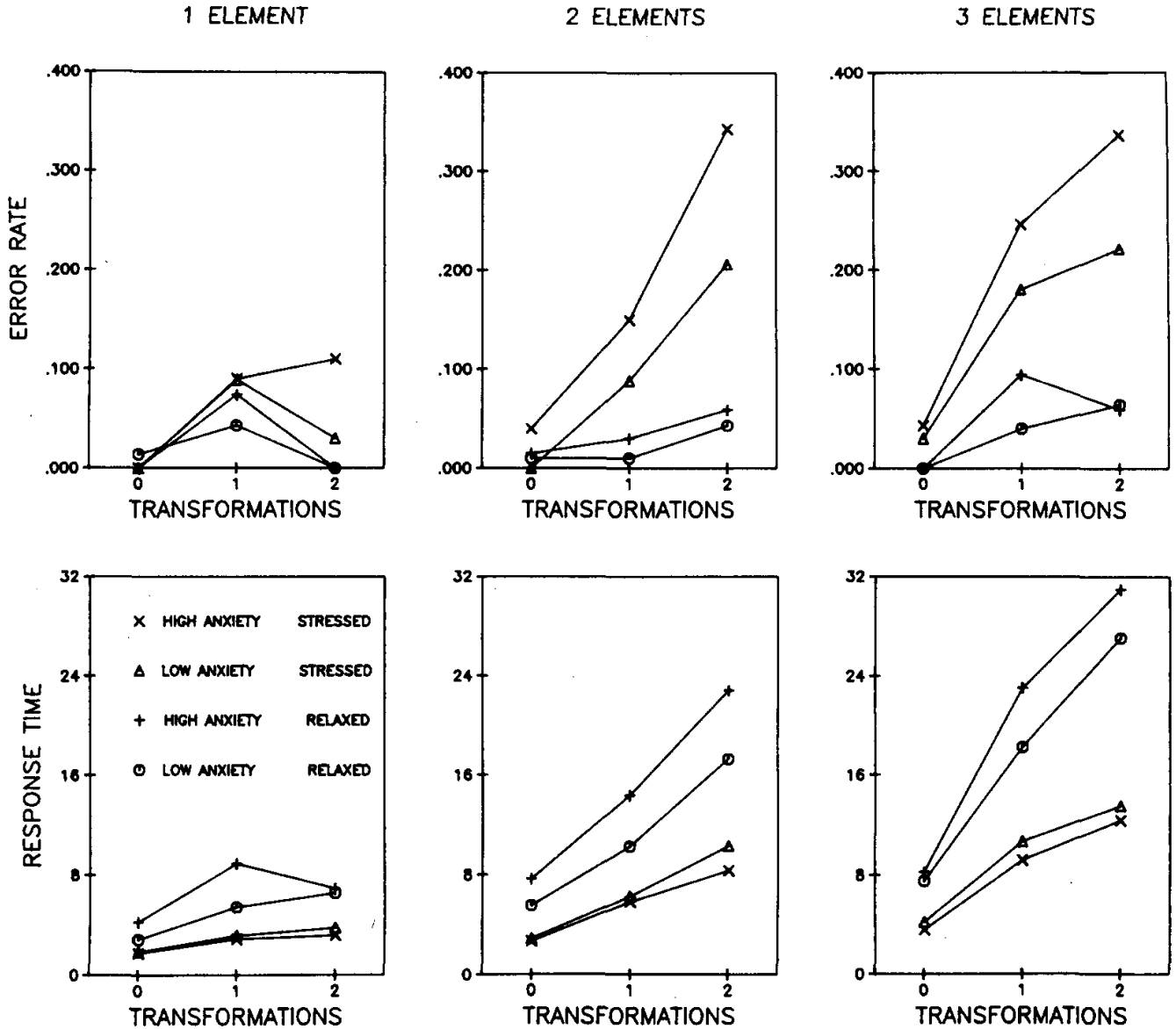


Figure 3. Error rates and response times for true analogies. (Error rates are calculated for all true analogies. Response times are calculated for true analogies that were solved correctly.)

Anxiety and attentional bias

1. The Stroop Task
   - Speeded naming of colors when conflicting with color names
   - This is a response interference effect
2. The Emotional "Stroop" Task (MacLeod & MacLeod, 2005; Williams, Mathews & MacLeod, 1996)
   - Anxiety impedes speed of color naming of threat words
   - but this is an allocation of attention effect and is not really the same
   - Definitely a conflict, but not a response conflict.

A Stroop Task

1. Name the color of the slide as quickly as possible
2. Ignore the word name

RED

GREEN

RED

GREEN

RED

GREEN

The Emotional "Stroop"

1. Anxiety related to impairment to color naming in the face of emotional cues
2. But is the effect due to a general inhibitory effect of negative emotion on performance
3. Decay of effect over time varies as function of anxiety (Gilboa-Schechtman, Revelle & Gotlib, 2000)

A “Stroop-like” Task

1. Name the color of the slide as quickly as possible
2. Ignore the word name

Success

Failure

Death

Happiness

Chair

Water

Eva Gilboa and the time course of anxiety

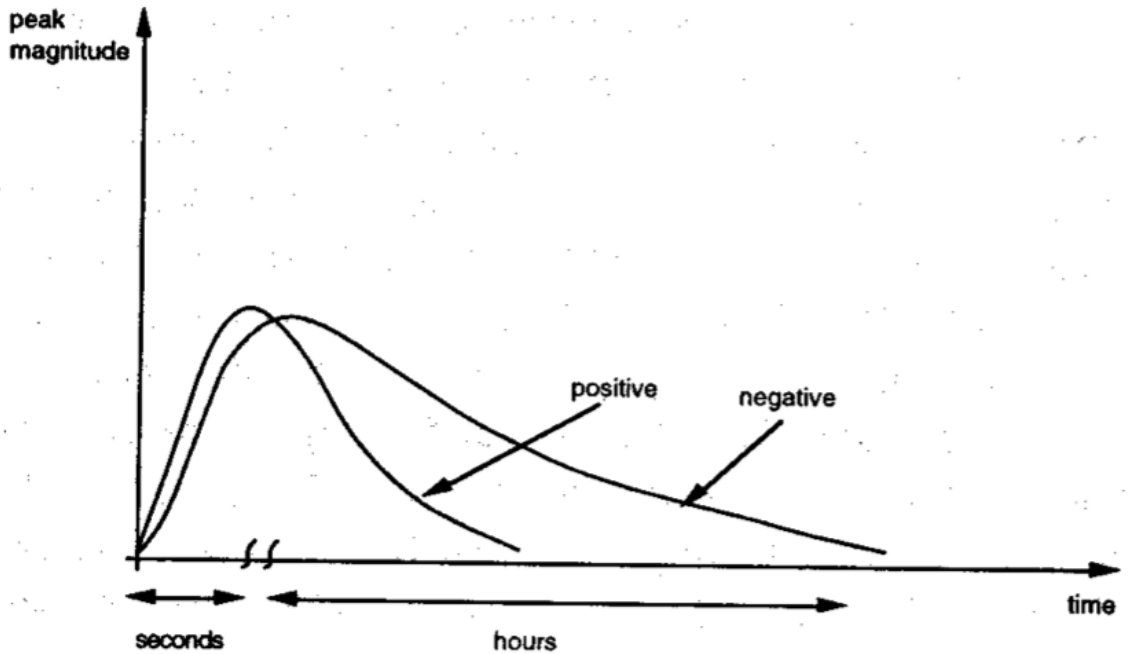
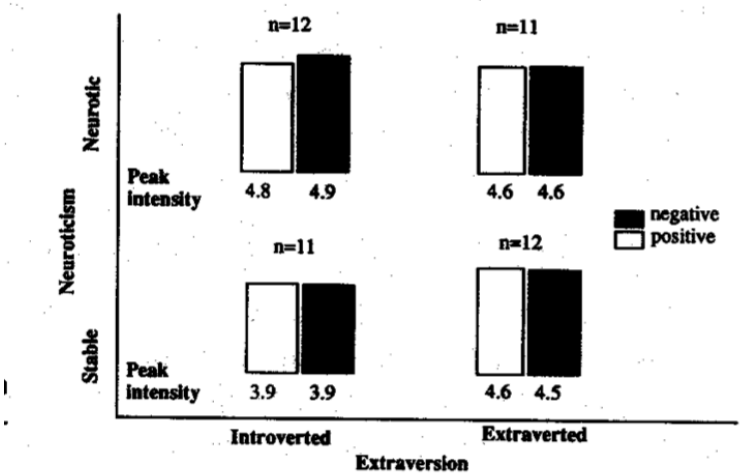
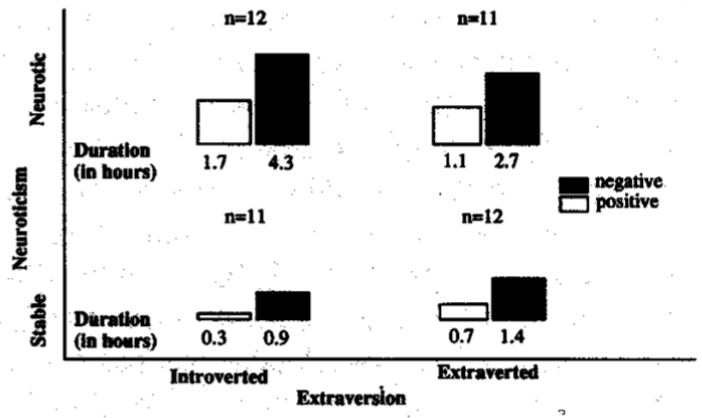


FIG. 5.1. Schematic representation of the duration of positive and negative emotions.

This result is consistent with the personality traits as rates of change in states hypothesis.

Eva Gilboa and the time course of anxiety





(Gilboa-Schechtman et al., 2000)

Attention Allocation
The dot probe task

Respond with right finger if dot is above the fixation point, with left finger if the dot is below the fixation point

.

x

.

X

.

X

Anxiety and memory biases

1. Selective interpretation of homophones (Butler and Mathews)
2. Pain /pane
3. Groan / Grown
4. Die /Dye
5. Consider the following sentence, does the next sentence follow from it?

Ambiguous sentences

1. The doctor opened the chest:

Ambiguous sentences

1. The doctor opened the chest: and discovered the treasure.

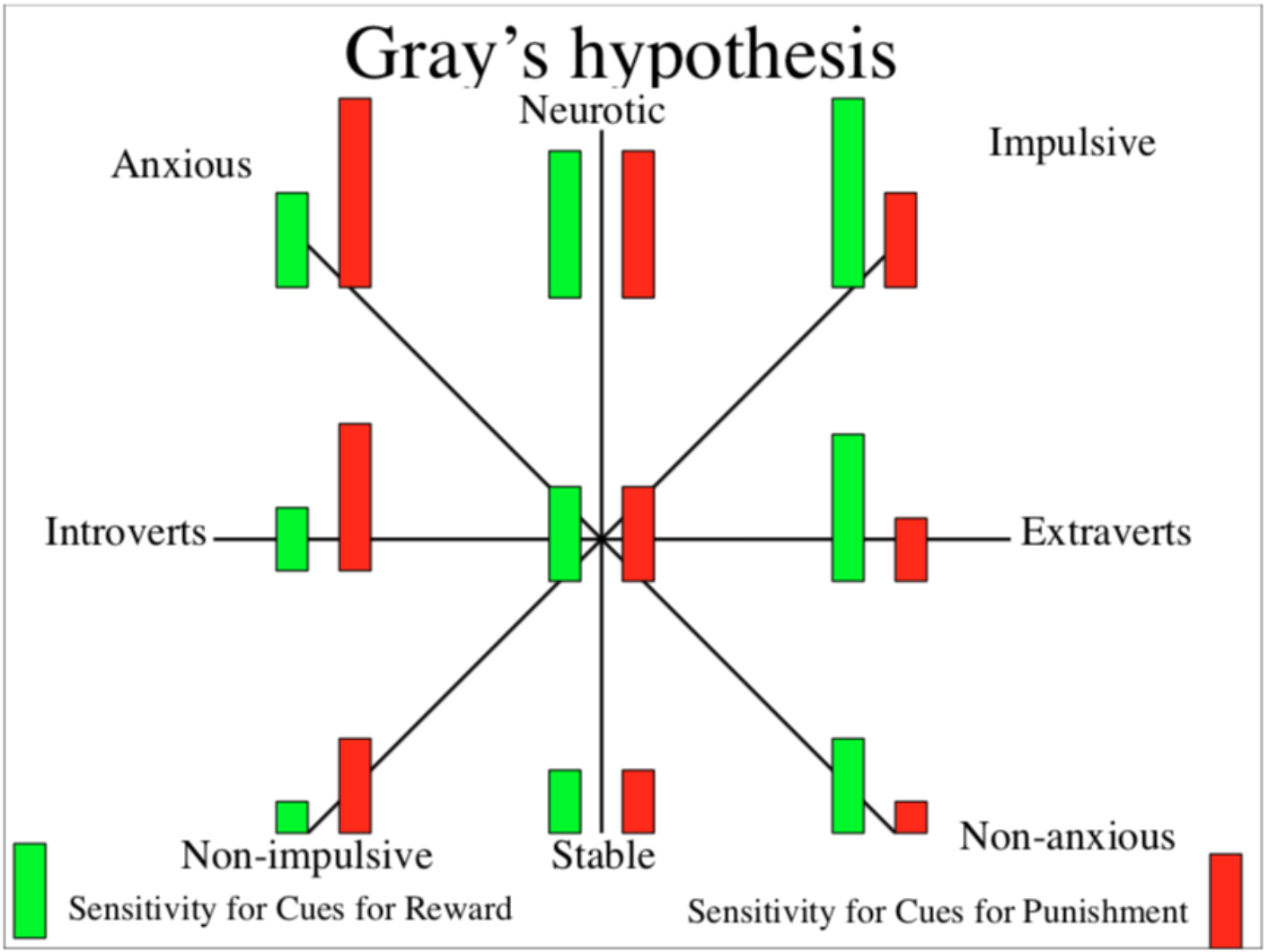
Ambiguous sentences

1. The doctor opened the chest: and removed the heart

State Trait Distinction revisited

1. Are traits predispositions to states
2. Sensitivity to cues
3. Frequency of achieving state
4. Are traits predictors or scars?
5. Currently depressed, never depressed, formerly depressed

The early Gray model



Gray: the BIS/BAS/FFFS model

1. Anxiety and the Behavioral Inhibition System (Gray, 1981, 1991, 1987, 1991)
2. Impulsivity and the Behavioral Activation System
3. Aggression and the Fight/Flight/Freeze System
4. Is this a sensitivity to cues for punishment and rewards or a sensitivity to the actual strength of the rewards and punishments?
5. Revised model suggests Anxiety is more the FFFS system. (Gray & McNaughton, 2000; Corr, 2002, 2016)

Personality, Affect, and Cognition: five examples

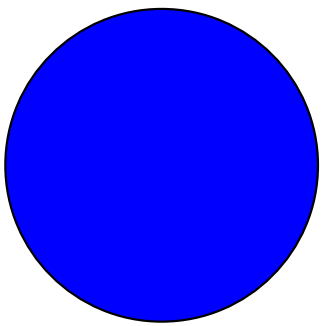
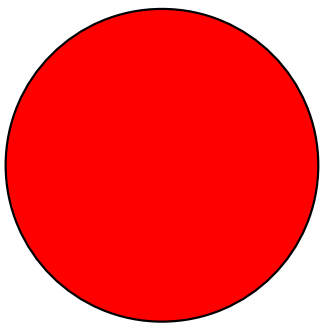
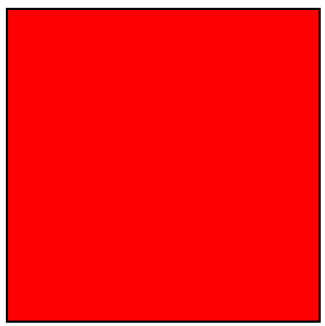
How you feel affects how you perceive the world

1. Trait and State Affect bias $->$ Cognitive Bias
2. Trait & State Affect $->$ Cognitive Bias
3. Cognitive Representation$->$ Behavioral Variability
4. Trait Cognitive$->$ Cognitive Bias
5. Affect$->$ Cognitive Bias

Weiler task: Categorization by Affect versus Semantics

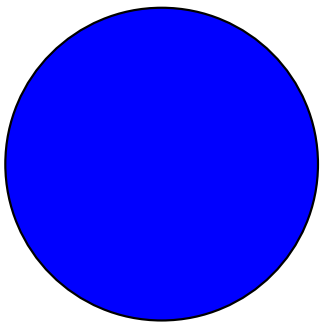
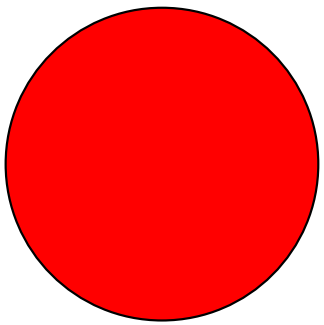
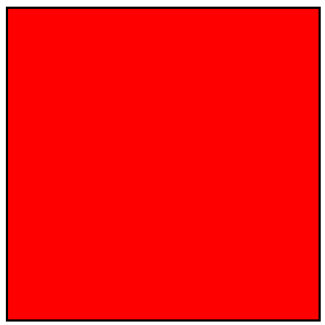
1. Analogy of color blind vs. shape blind individual doing similarity judgement
2. Which of these belong together, which is not the same? (The Sesame Street Game)

Semantic_1 Affect^+ Semantic_1 Affect^- Semantic_2 Affect^-

Weiler task: Categorization by Affect versus Semantics

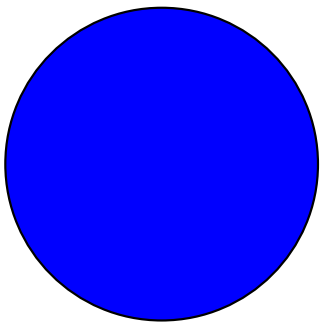
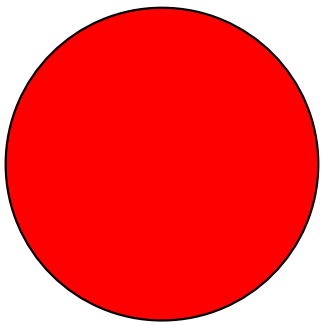
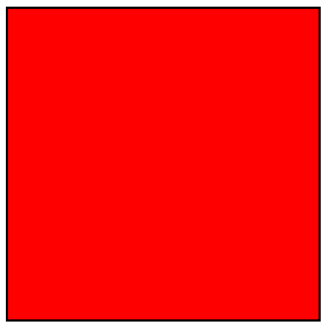
Semantic$_1$ Affect$^+$ Semantic$_1$ Affect$^-$ Semantic$_2$ Affect$^-$

Affect A	Affect B	Neutral B
Positive A	Positive B	Neutral B
Negative A	Negative B	Neutral B

Weiler task: Categorization by Affect versus Semantics

Semantic$_1$ Affect$^+$ Semantic$_1$ Affect$^-$ Semantic$_2$ Affect$^-$

Affect A	Affect B	Neutral B
Fall down (-A)	Drown (-B)	Swim (B)
Hug (+A)	Smile (+B)	Face (B)

Sample Triplets from Weiler

Baseball	Bullet	Knife
Brutal	Useless	Strong
Car Wreck	Final Exam	Football Game
Comedy	Failure	Tragedy
Broiled Steak	Chocolate Cake	Fried Liver
Candy	Acorn	Apple
Carnival	Parade	Procession
Cupcake	Lifesaver	Rollaids

Participants are asked to choose which two go together.

Weiler Model – adapted from Gray

1. Personality traits reflect differential sensitivities to positive and negative aspects of the environment
2. Sensitivity to positive cues independent of sensitivity to negative cues
3. Sensitivity to positive cues should increase categorization based upon positive affect
4. Sensitivity to negative cues should increase categorization based upon negative affect

-0.56	0.02	The beauty of sunsets is greatly over-rated.
-0.55	-0.06	I prefer to take my bath or shower as quickly as possible just to get it over with.
-0.51	0.09	The warmth of an open fireplace doesn't especially sooth or calm me.
0.51	0.11	When I pass by a bakery, I just love the smell of fresh baking breads or pastries.
0.5	-0.04	Beautiful scenery can touch something deep and strong inside me.
0.47	-0.22	I have been fascinated with the dancing of flames in a fire place.
-0.45	0.12	I don't find anything exhilarating about a thunderstorm.
0.44	0.05	Having my back massaged feels wonderful to me.
0.18	0.52	I am always adjusting the thermostat, or wishing I could.
0.15	0.49	It is very annoying to me when a radio isn't tuned quite right.
0.15	0.49	I find body odor extremely offensive.
0.15	0.48	I find it very disappointing when something doesn't taste as good as I thought it would.
-0.05	-0.47	Bad odors have seldom bothered me.
0.12	0.46	Even the smallest piece of gravel in my shoe just drives me crazy until I can get it out
-0.09	0.44	I have terrible feelings when I am not sure I will succeed.
0.31	0.42	It is important to me to get the water temperature just right when I take a bath or shower.

Sensitivity to cues, Pair classification and Valence preferences

Table: The correlation matrix from Weiler

A correlation table from the psych package in R.

Variable	Sens+	Sens-	Pars+	Pars-	Vlnc+	Vlnc-
Sense+	0.85					
Sense-	0.03	0.78				
Pairs+	0.26	-0.15	–			
Pairs-	0.13	0.24	-0.01	–		
Valence+	0.53	-0.09	0.45	-0.04	0.90	
Valence-	-0.01	-0.40	-0.08	-0.23	-0.24	0.89

Note: α reliabilities on the diagonal

Weiler (1992) results

Table: Traditional Personality variables with Sensitivity Measures

Variable	Sensitivity+	Sensitivity-	Pairs+	Pairs-
Mood+	0.35	-0.13	0.19	0.20
Mood-	-0.30	0.13	-0.06	-0.20
Ext	0.25	-0.06	0.29	-0.09
Soc	0.31	-0.11	0.23	-0.10
Imp	0.13	0.02	0.24	0.02
Surg	0.43	0.02	0.17	-0.08
Agree	0.29	-0.06	0.09	-0.20
Intellect	0.35	0.07	-0.03	-0.01
Neurot	-0.17	0.35	-0.07	0.06
Stability	0.18	-0.24	-0.09	-0.10
Consc	0.15	0.23	-0.15	0.01
Psychotocism	-0.35	0.04	0.17	-0.02

Trait and State Affect $->$ Categorization

1. Differential susceptibilities to positive and negative affective states have been proposed to underlie two major personality dimensions, Extraversion and Neuroticism, respectively. Concurrently, the influence of emotional states on cognitive processes has been heavily researched in clinical and social psychology.
2. Four studies bridged these areas by investigating the relations between Extraversion, Neuroticism, and the evaluation of affectively pleasant, unpleasant, and neutral word pairs.
3. Specifically measured were affectivity ratings, categorization according to affect, judgments of associative strength, and response latencies.
4. A strong, consistent cognitive bias toward affective as opposed to neutral stimuli was found across participants.
5. Although some biases were systematically related to personality and mood, effects of individual differences were present only under specific conditions.
6. The results are discussed in terms of a personality/mood framework and its implications for cognitive functioning.

(Rogers & Revelle, 1998)

Trait and State Affect $->$ Categorization

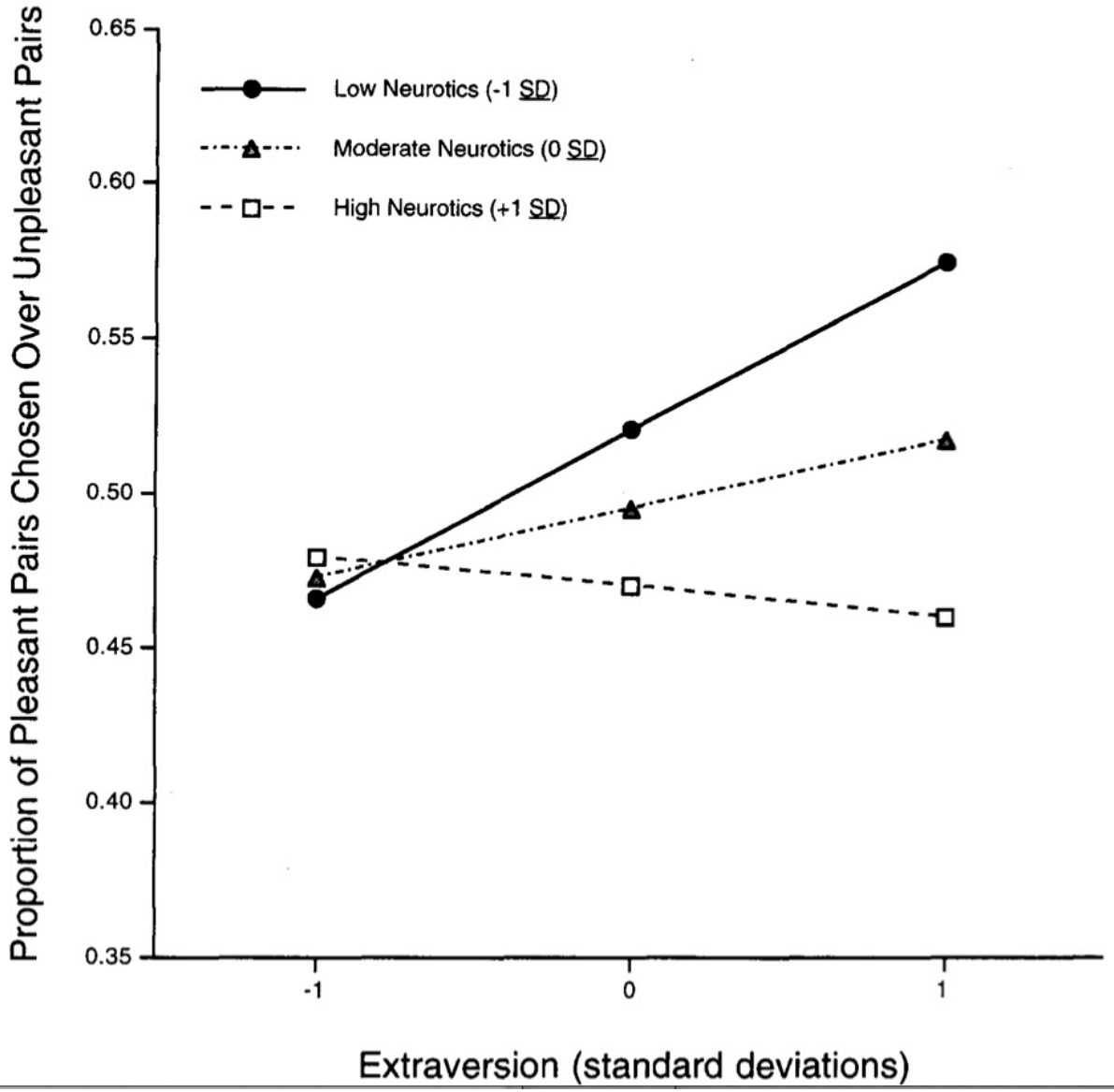
1. Trait: Extraversion, Neuroticism
2. Positive and Negative Affect induction (Movies)
3. Categorization and associative strength
4. variation on the Weiler task
5. RT and choice between two pairs of words
   which pair is more “similar””

Categorization task

Table: The Roger's stimuli

Which Pair is most similar				
Variable	Pair1a	Pairb	Pair2a	Pair2b
1	art	beauty	knife	kill
2	truth	honesty	grief	death
3	family	friends	devil	satan
4	dream	fantasy	sin	hell
5	stars	heaven	hate	despise
6	baby	cute	anger	rage
7	ocean	beach	starving	hunger
8	won	victory	larceny	thief
9	rose	smell	criminal	prison
10	dancing	fun	war	gun

Affective choice varies by E x N



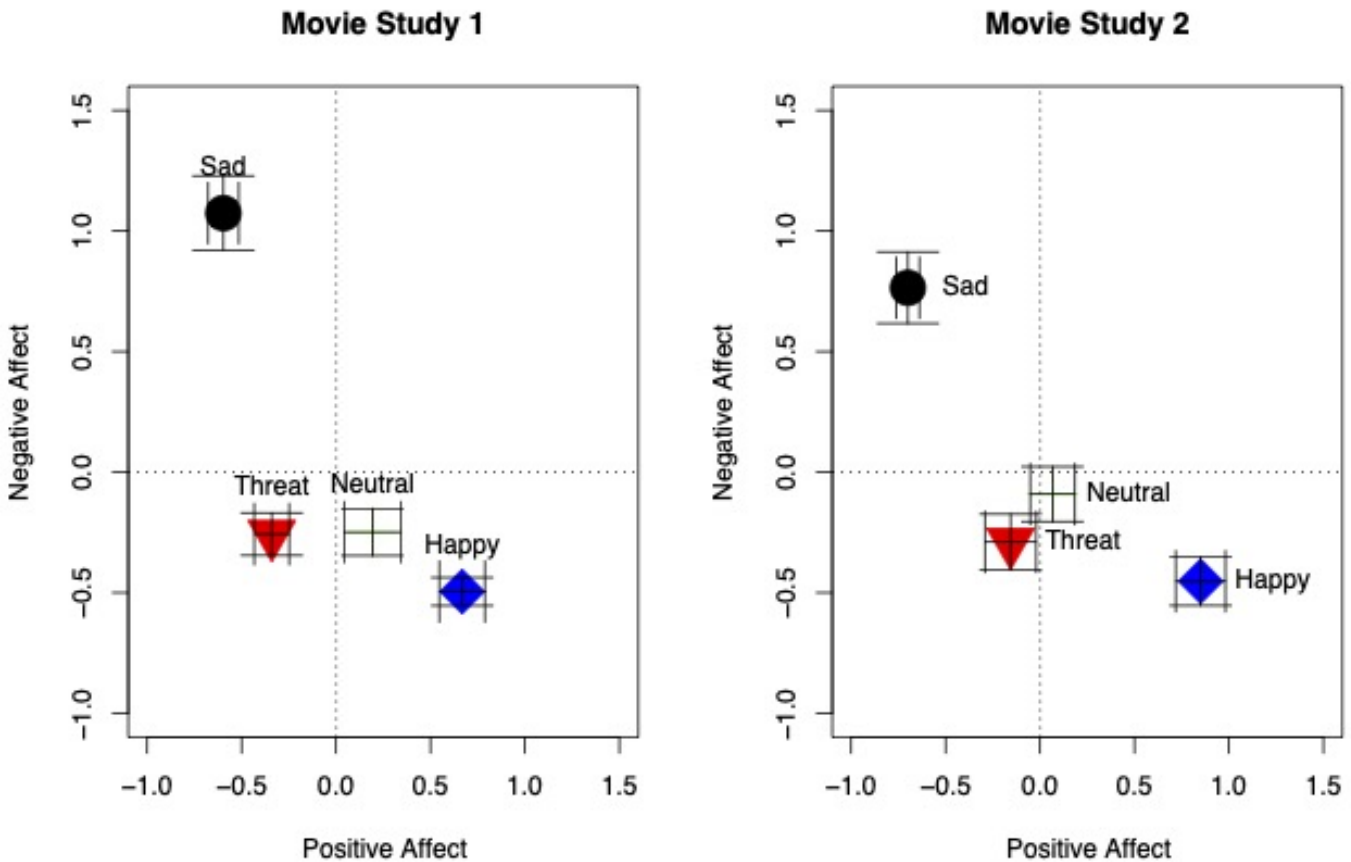
Watson and Clark: Anxiety, depression and affect

1. Two dimensions of affect reactions
   - Positive Affect (happy, pleased)
   - Negative Affect (sad, depressed)
2. Anxiety as high NA + high tension
3. Depression as high NA and low PA

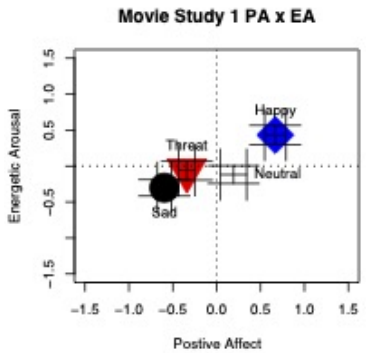
Manipulating State Affect

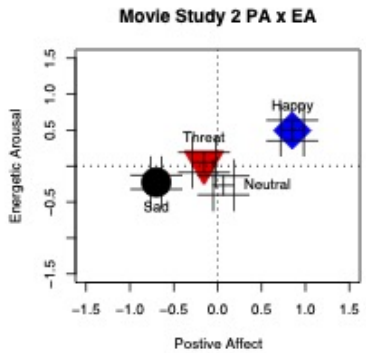
1. Movie induction (Rogers & Revelle, 1998; Smillie, Cooper, Wilt & Revelle, 2012)
   - Concentration camp (Sad)
   - Halloween (Threat)
   - nature film (Control)
   - Parenthood (Happy)
   - Data available in the `msqR` data set in the *psychTools* package
2. Examination stress and positive and negative mood
3. Imagination of good and bad outcomes

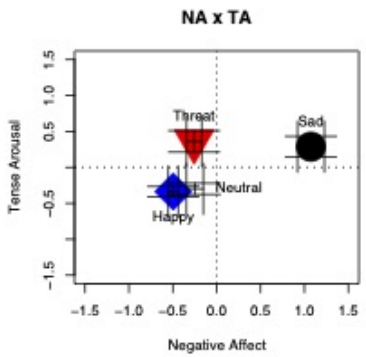
Movie induction on Positive and Negative Affect

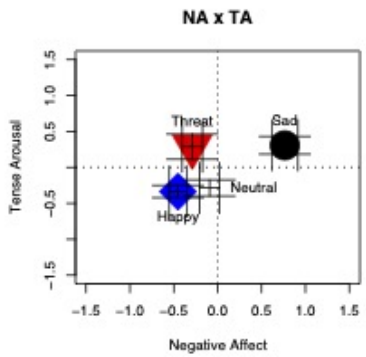


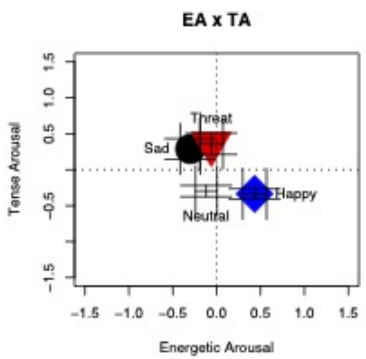
Comparing arousal to affect

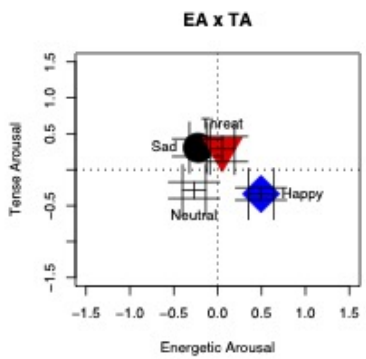












The association between Introversion- Extraversion and Positive Affect (Smillie et al., 2012)

1. Generally, E's are higher on PA than Is.
2. But, is this a sensitivity to rewards or to cues for rewards?
3. If for rewards, then rewarding movies should make them differentially happier
4. If cues for reward, then only if they have to do something for the reward will they show greater PA.

Consider the effect of just pleasant stimuli

1. Movie data suggest that Extraverts do not respond differentially to positive stimuli.
2. But making subjects work for reward does lead to positive affect.
3. Movie effects do not differ when controlling for pretest level.

Anxiety and achievement

1. Anxiety and Achievement (Elliot, Sheldon & Church, 1997; Elliot & McGregor, 2001; Elliot & Thrash, 2002; Elliot & Church, 1997)
2. Performance approach goals
3. Performance Avoidance goals
4. Mastery goals
5. State Test Anxiety
6. Worry
7. Emotionality
8. Exam Performance

Computational Models of Anxiety

1. Prospect Theory (Kahneman & Tversky, 1979) applied to anxiety
2. Expected Utility of a gamble with outcomes p of gain and q of loss
   - Utility = $p * gain^r + q * \lambda(-loss)^r$
   - λ is relative weight of losses versus rewards
   - r is the index of risk aversion, $r < 1$ implies negative acceleration of utility function
3. Sharp & Eldar (2019) applies this to anxiety
   - Anxious subjects weight loss more than gains, high in loss avoidance
   - Anxiety and mood as parameter settings in a dynamic model.
   - See Mkrtchian, Aylward, Dayan, Roiser & Robinson (2017) for a notion of mood as a measure of outcome inertia.

The ABCDs of personality

Affect : The emotional-affective reaction (feelings) induced by a situation

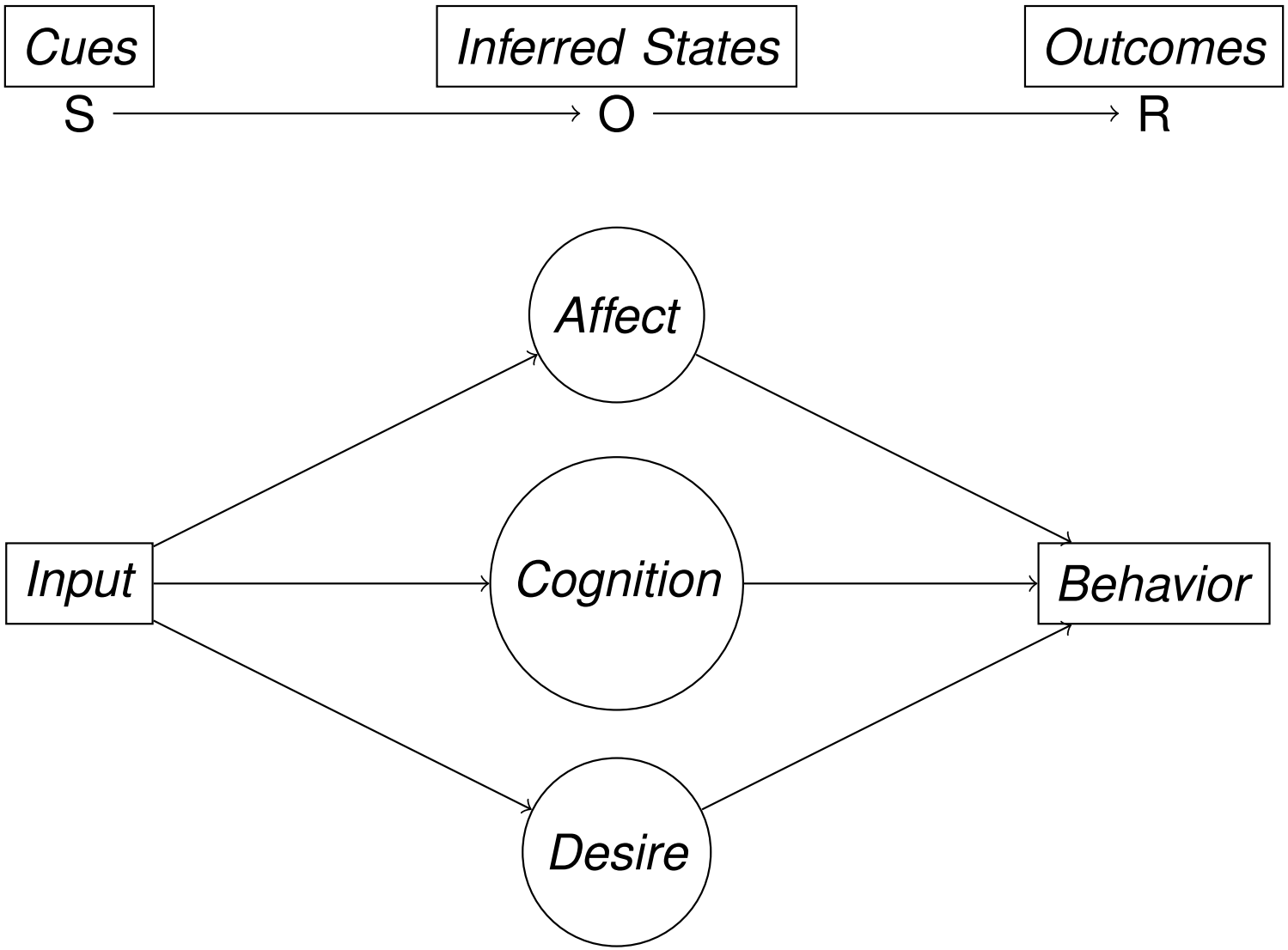
Behavior : The observed (and unobserved) behavioral reaction to a situation

Cognition : Thoughts, plans, beliefs, attributions of a situation

Desire : Goals, hopes, wants

People differ in their relative values of ABCD over time. See (Wilt, Oehlberg & Revelle, 2011) for a discussion of the ABCDs of anxiety.

The ABCDs of personality



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