

Anxiety 101

Chapter 2 –
How do we best assess anxiety?

Zeidner & Matthews (2011)

How do we best assess anxiety?

- Measurement is a key pillar of scientific psychology

- Succinct definition for measurement:
 - A group of objects to be measured
 - A category or group of symbols representing various values of the scale employed
 - An explicit rule of correspondence relating elements of these two categories

Three Key Issues

- **Reliability** refers to the consistency of scores obtained by the same person

- **Validity** refers to the ability of a test to measure what it purports to measure

- **Discriminant validity** is typically demonstrated by showing that measures of constructs that are conceptually unrelated do not correlate in the data

Subsystems for Assessing Anxiety

- A subjective subsystem: composed of verbal reports of anxiety or anxiety phenomena
- A physiological subsystem: composed of autonomic nervous system (ANS) output
- A behavioral subsystem: composed of observable behavioral signs of anxiety

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Subjective Systems

- Primarily self-report questionnaires and procedures
- Have been the most prevalent method for assessing the phenomenological facet of anxiety
- Provide important data about subjective aspects as well as objective facets of anxiety
- Are inferior to more objective and externally valid behavioral measures

IN CLASS EXERCISE!

- Each of you will now complete and then score several subjective measures of anxiety
- Penn State Worry Questionnaire
- Obsessive Compulsive Inventory –Revised
- Liebowitz Social Anxiety Scale
- PTSD Checklist – Civilian Scale

Self-report Limitations

- Threats to construct validity
- Incomplete domain coverage
- Lack of scale differentiation
- Scales are not sufficiently relevant for clinical purposes

Anxiety in Context

- Endler's Multidimensional Anxiety Scale
- Based on an interactional model of anxiety
 - Posits that anxiety is a function of the dynamic interactions between person and situation
- Assumes that trait anxiety is multidimensional

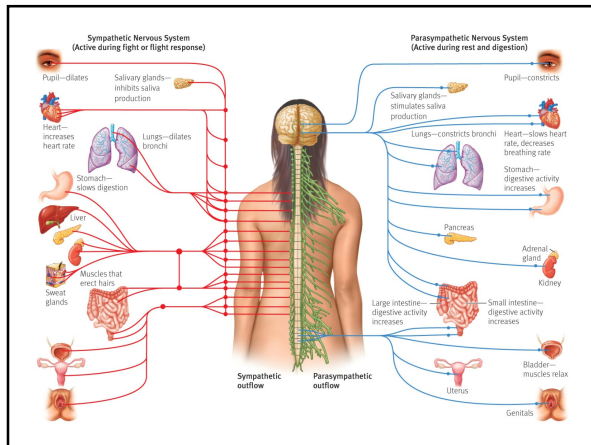
Endler & Kocovski (2001)

Contexts to Invoke Trait Anxiety

- Social evaluation trait anxiety (e.g., public speaking)
- Physical danger trait anxiety (e.g., jumping out of an airplane)
- Ambiguous trait anxiety (e.g., first day on a new job that has an ambiguous job description)
- Daily routines trait anxiety (e.g., changing a flat tire)

Physiological Measures

- Techniques of psychophysiology provide a means for precise measurement of these “fight-or-flight” responses of the body
- Use of these to gauge anxiety in stressful situations would seem to have a distinct advantage over self-report measures



Physio Measurement Problems

- Questionable construct validity
 - Provide information about overall emotional arousal but fail to provide information about the unique significance of anxiety
- Low convergence of physiological measures
- Poor reliability

Response Specificity

- Threshold and ceiling effects
- Lack of norms
- Low practicality in naturalistic settings
- Limitations of brain-imaging

Behavioral Measures

- Behavioral observations are an extremely valuable source of information on anxiety
- Permit great accuracy and more objectivity than self-report or interview procedures
- Individuals with high and low anxiety scores are discriminable by behavioral markers

Overt Anxiety

- Observed perspiration
- Excessive body movement
- Inappropriate laughter
- Lack of eye contact

Mandler and Sarason (1952)

Implicit Measures

- The assumption is that people are often unaware of their own attitudes and emotions
- One of the standard measures in this field is the Implicit Association Test
- Another way to assess anxiety is by orally presenting subjects with ambiguous words which can be variously interpreted

Performance Measures

- Performance measures of anxiety assess a wide array of cognitive and academic performances
- E.g., interview protocols, examination scores, semester GPA, grades, measures of decrements in cognitive functioning, latency and errors in recall of stress-relevant stimulus materials

Conceptual Problems

- Focus only superficially on the experience of anxiety
- Hard to determine what are the psychological functions that, when impaired or otherwise affected, are evidence of anxiety or of its effects
- It is likely that there are vast individual differences in these psychological processes

But What about Projectives?

- Objective – make *direct* inferences based on self or other report, structured and clear
- Projectives – make *indirect* inferences, more ambiguous and less structured
 - Allows one to project their “inner world” onto the stimuli

Projective Examples

- Rorschach Inkblot Method
- Thematic Apperception Test
- Projective drawings
- Sentence completion tasks

The Skinny on Projectives

- RIM and TAT useless to assist in assessing any facet of anxiety
- Drawings good only for global psychopathology
- SCT not currently supported, but specifically constructed ones may in future

Gender & Age Differences

- Women more sensitive to a wide array of threatening stimuli and show more anxiety in the face of such
- Developmental theory and some empirical evidence might lead us to predict an increasing incidence of anxiety with age

Gender Differences

- Gender differences in test anxiety emerge during middle elementary school
 - Females report higher levels of test anxiety scores than males from elementary through college
- Recent cross-cultural research among college students shows that gender differences vary by nationality

Hembree (1988); Hill & Sarason, (1966); Baloglu, Abbasi, & Masten (2007)

Gender Differences

- A meta-analysis of the computer anxiety literature found that women show slightly more computer anxiety than men
- Overall, current research suggests that gender differences in math anxiety may exist
- Women are also reported to obtain higher scores than men on measures of social anxiety and public self-consciousness

Rosen & Maguire (1990); Sowa & Laffeur, (1986).

Age Differences

- Little consensus among researchers on age trends
- Anxiety may decrease from childhood and adolescence into adulthood, increase again in the elderly
- Some believe that anxiety in the elderly is qualitatively different from anxiety in younger persons, while others downplay the difference

Lowe and Reynolds (2005)

