Spring Semester 2018

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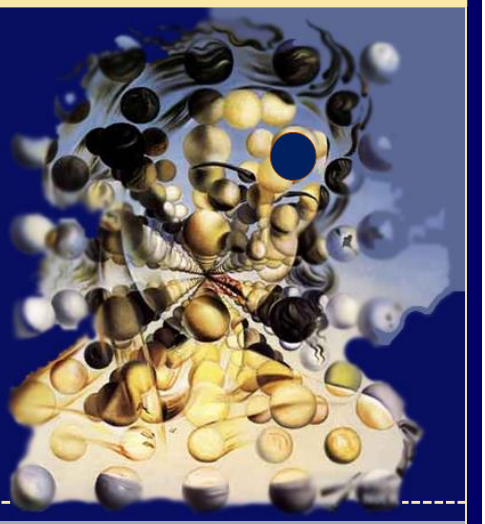


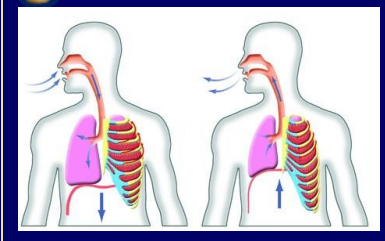
# 4. Anxiety disorders and OCD

## Logic of organization for presenting every disorder

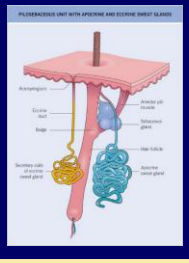
- Phenomenology, differential diagnosis
- Prevalence
- Etiology and treatment
- Presentation on Chinese characteristics

- Special for anxiety disorders: commonalities worked out

# Fear = basic emotion









# Fear as a basic emotion

- = normal reaction to unknown stimuli
- Usually harmless, protecting us from danger
- Mobilizes our body to respond to dangers (fight-flight response):
  - ↑ breathing → more oxygen to our muscles
  - ↑ heartbeat → more blood to our muscles
  - ↑ muscle tension → quick reactions
  - ↑ sweat → cool down the body
  - mind focused on source → quick reactions

# Fear vs. anxiety (?)

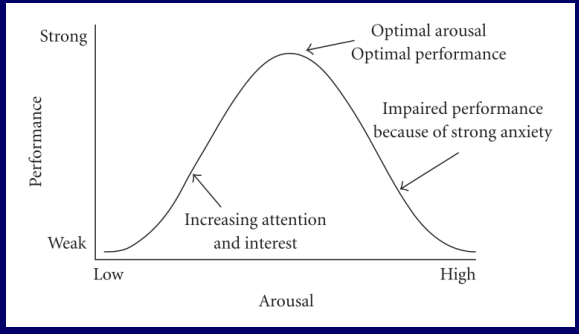
- Emotions in general:
  - Physiological component
  - Cognitive component
  - Behavioral component
  - Motivational component
  - Subjective experiential component
- Fear: definite, present threat
- Anxiety
  = complex blend of emotions, more oriented to the future, more diffuse
  e.g. including worry, negative mood




# Yerkes-Dodson Law (1)

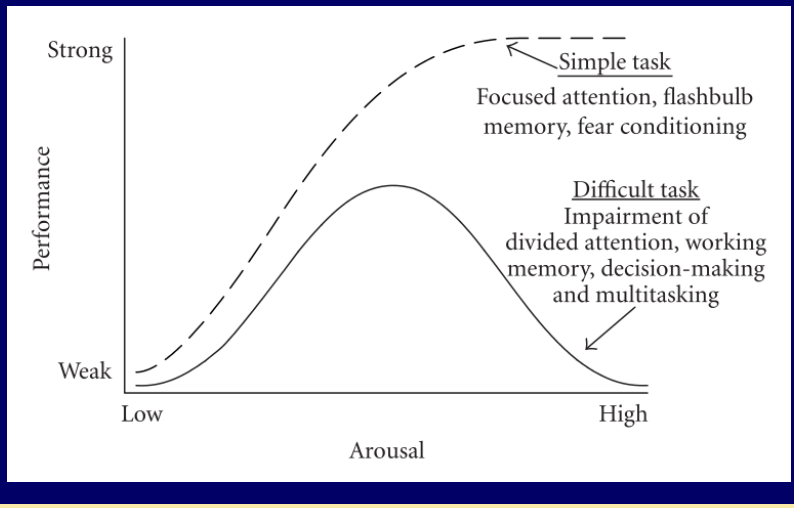
## 耶基斯–多德森定律

Anxiety can be beneficial for performance:




Anxiety disorders start, when harmless situations/stimuli cause extreme reactions of anxiety that make us unable to react/move (e.g. tunnel vision)

# Yerkes-Dodson Law (2)
## 耶基斯–多德森定律






# Examples

Enrico Caruso
恩里科·卡鲁索
(1873 – 1921)

Pablo Casals
帕布罗·卡萨尔斯
(1876 – 1973)

Winston Churchill
温斯顿·丘吉尔
(1874 – 1965)

# Anxiety disorders – ICD-10

**"F4 Neurotic, stress-related and somatoform disorders"**

- Phobic anxiety disorders
  - Agoraphobia
  - Social phobias
  - Specific phobias
- Other anxiety disorders
  - Panic disorder
  - Generalized anxiety disorder
  - Mixed anxiety disorders (e.g., depression)
- Obsessive-compulsive disorder
- Reaction to severe stress and adjustment disorders
  - Acute stress reaction, PTSD, Adjustment Disorder



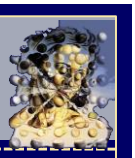

# Changes in DSM-5
## Chapter "Anxiety disorders"

- Separation anxiety disorder
- Selective mutism
- **Specific phobias**
  - incl. Agoraphobia
  - >6 months
  - Not corresponding to actual danger
- **Social anxiety disorder**
- **Panic disorder**
- **Agoraphobia**
- **Generalized Anxiety Disorder**
- Substance-/Medication-induced anxiety disorder

*Excluded from main category*

- OCD
- PTSD

# Changes in DSM-5
## New main categories



*Obsessive-compulsive and related disorders*

- **OCD**
- Body dysmorphic disorder
- Hoarding disorder
- Trichotillomania (hair pulling disorder)
- Excoriation (skin picking disorder)
- Substance/medication-induced OCD

*Trauma and Stressor-Related Disorders*

- Acute Stress Disorder
- Adjustment Disorders
- **Posttraumatic Stress Disorder**
- Reactive Attachment Disorder



# Specific phobias (1) DSM-5

Diagnostic Criteria for Specific Phobia

A. Marked fear or anxiety about a specific object or situation (e.g., flying, heights, animals, receiving an injection, seeing blood).

**Note:** In children, the fear or anxiety may be expressed by crying, tantrums, freezing, or clinging.

B. The phobic object or situation almost always provokes immediate fear or anxiety.
C. The phobic object or situation is actively avoided or endured with intense fear or anxiety.
D. The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context.
E. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.
F. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
G. The disturbance is not better explained by the symptoms of another mental disorder, including fear, anxiety, and avoidance of situations associated with panic-like symptoms or other incapacitating symptoms (as in agoraphobia); objects or situations related to obsessions (as in obsessive-compulsive disorder); reminders of traumatic events (as in posttraumatic stress disorder); separation from home or attachment figures (as in separation anxiety disorder); or social situations (as in social anxiety disorder).

# Specific phobias (2) DSM-5

## Review DSM-5

*Specify* if:

Code based on the phobic stimulus:

**300.29 (F40.218) Animal** (e.g., spiders, insects, dogs).
**300.29 (F40.228) Natural environment** (e.g., heights, storms, water).

**300.29 (F40.23x) Blood-injection-injury** (e.g., needles, invasive medical procedures).

**Coding note:** Select specific ICD-10-CM code as follows: **F40.230** fear of blood; **F40.231** fear of injections and transfusions; **F40.232** fear of other medical care; or **F40.233** fear of injury.

**300.29 (F40.248) Situational** (e.g., airplanes, elevators, enclosed places).
**300.29 (F40.298) Other** (e.g., situations that may lead to choking or vomiting; in children, e.g., loud sounds or costumed characters).

**Coding note:** When more than one phobic stimulus is present, code all ICD-10-CM codes that apply (e.g., for fear of snakes and flying, F40.218 specific phobia, animal, and F40.248 specific phobia, situational).



# Specific phobias (DSM-5)

- Strong, irrational fear of something that poses little or no actual danger, e.g.
  - Arachno*phobia*: fear of spiders
  - Acro*phobia*: fear of heights
  - Claustro*phobia*: fear in narrow rooms
  - *Special:* social phobia, now social AD
- Main criterion either
  - Marked fear OR
  - Marked avoidance

  with symptoms restricted to the situation/object of fear only.

# Social Anxiety Disorder
## (DSM-5)

Fears and avoidance in one (specific) or more (generalized) social situations, e.g.,

- public speaking/"stage fright"
- using the public bathroom/ changing room
- eating in public
- writing in public,

"Just imagine them without their buns."

of being exposed or evaluated negatively in a humiliating/embarrassing manner.



# Panic disorder (DSM-5)

A. Recurrent unexpected *panic attacks*
B. Worries about another attack or avoidance behavior (e.g. avoiding new experiences)
C. Not due to substances or medical condition
D. Other disorders excluded (e.g., PTSD)

# Concepts and usage

- **Panic attack**
  Discrete period of intense fear reaching the peak in 10 minutes.
  *Symptoms (selection):* pounding heart, sweating, trembling, chest pain, dizziness, depersonalization
  (*DSM-IV:* panic attack with/without agoraphobia)
- **Agoraphobia**
  Anxiety about being in places or situations from which escape might be difficult or embarrassing or in which help is unavailable.
  *ICD-10:* agoraphobia with/without panic attack
  *DSM-5:* separate diagnosis



# Generalized anxiety disorder (GAD, DSM-5)

A. Excessive anxiety and worry [„free-floating anxiety“]
B. Worry cannot be controlled
C. At least 3 symptoms
  - restlessness
  - easily fatigued
  - inability to concentrate, going „blank“
  - irritability
  - muscle tension
  - sleep disturbance
D. Distress and impairment
E. Not due to substances or medical condition
F. Not better explained by another disorder

## Anxiety Disorders Prevalence (LTP)

| % | Specific Phobia | Social Phobia | Panic D | GAD | OCD | PTSD |
|---|---|---|---|---|---|---|
| USA (Kessler et al., 2005) | 12.5 | 12.1 | 4.7 | 5.7 | 1.6 | 6.8 |
| China (Lee et al. 2007; Ma et al. 2009) | 2.6 | 0.5 | 0.4 | 0.8 | 2.5 | 0.3 |
| China (other) | | | | 1.2/4 Ma et al., 2009/(1-month) Phillips et al., 2009 | | 8.6 Liu, et al. 2006; flood victims |

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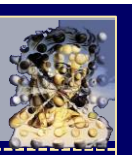
## Prevalence in internal medicine outpatient departments in Shenyang (Qin et al. 2010)



| | *N* | % |
|---|---|---|
| Completed screening | 5312 | 100.00 |
| Completed SCID examination | 1432 | 26.96 |
| Any current *DSM-IV* diagnosis | 863 | 60.27 |
| Any anxiety disorder | 457 | 31.91 |
| Panic disorder | 6 | 0.42 |
| Social phobia | 2 | 0.14 |
| Specific phobias | 14 | 0.98 |
| Obsessive compulsive disorder | 5 | 0.35 |
| Posttraumatic stress disorder | 1 | 0.07 |
| GAD | 115 | 8.03 |
| Anxiety due to general medical condition | 26 | 1.82 |
| Anxiety disorder, NOS | 289 | 20.18 |

60% any mental disorder

32% any anxiety disorder

20% anxiety NOS

## More prevalent in the young?

Phillips et al. (2009) LTP China in %

| | 18-39 years | 40-54 years | >55 years |
|---|---|---|---|
| Anxiety disorders | 4.03 | 7.27 | 7.07 |
| GAD | 0.66 | 2.13 | 2.10 |
| Anxiety NOS | 2.49 | 3.98 | 4.72 |



## Comorbidity

GAD in China (Ma et al., 2009)

| Comorbid psychiatric disorder | Prevalence in subjects with lifetime GAD % | 95% CI |
|---|---|---|
| Major depressive disorder | 59 | 0.5–0.7 |
| Dysthymia | 4.6 | 0–1.0 |
| Bipolar disorder | 4.2 | 0–9.3 |
| Agoraphobia | 5.6 | 0–11.5 |
| Social phobia | 0.9 | 0–3.2 |
| Alcohol abuse or dependence | 8.3 | 1.3–15.4 |
| Overall comorbid psychiatric disorders | 80.4 | 70.3–90.6 |

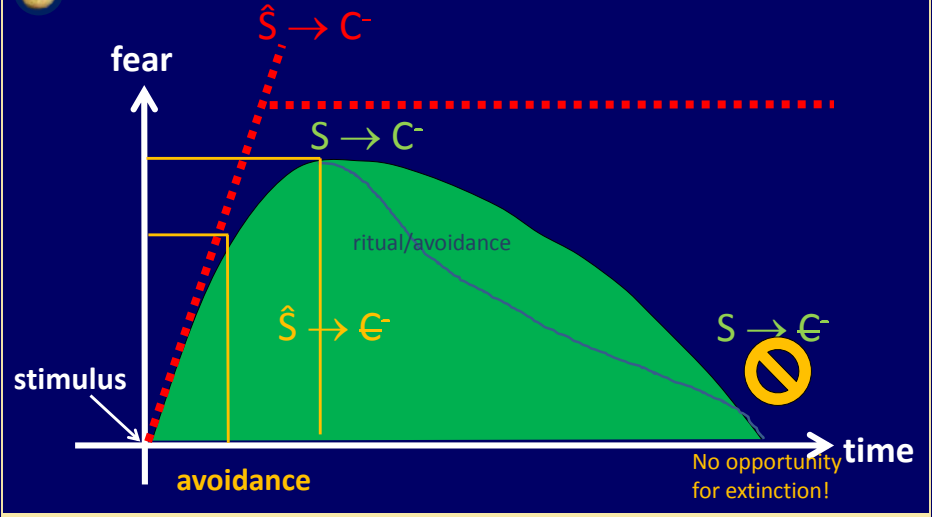
# Etiology - Commonalities

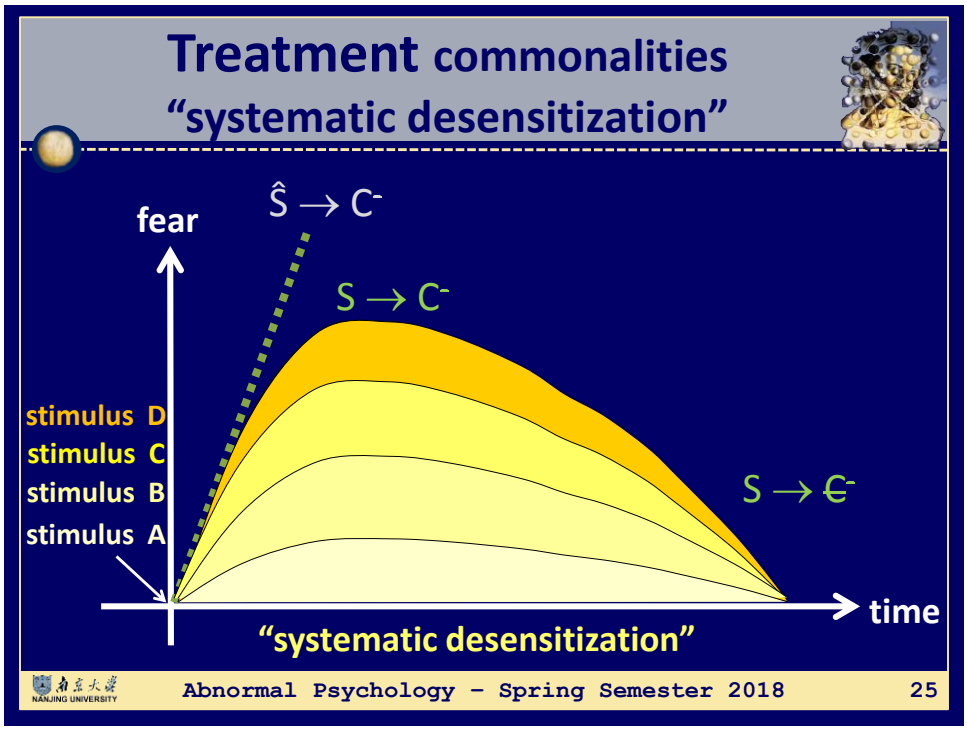
- Biological vs. psychological vulnerability
- Stress and stressors
  - Negative life events
  - "Social trauma"
  - Evaluative situations
- Apprehension processes (learned)
  (perception as uneasy) = misinterpretations
- Alarms: responses to situations/objects
- Preparedness:
  certain situations/objects learned more easily



# Treatment commonalities

## default course of fear




Treatment commonalities
"systematic desensitization"
fear
Ŝ → C-
S → C-
stimulus D
stimulus C
stimulus B
stimulus A
S → Ć-
time
"systematic desensitization"
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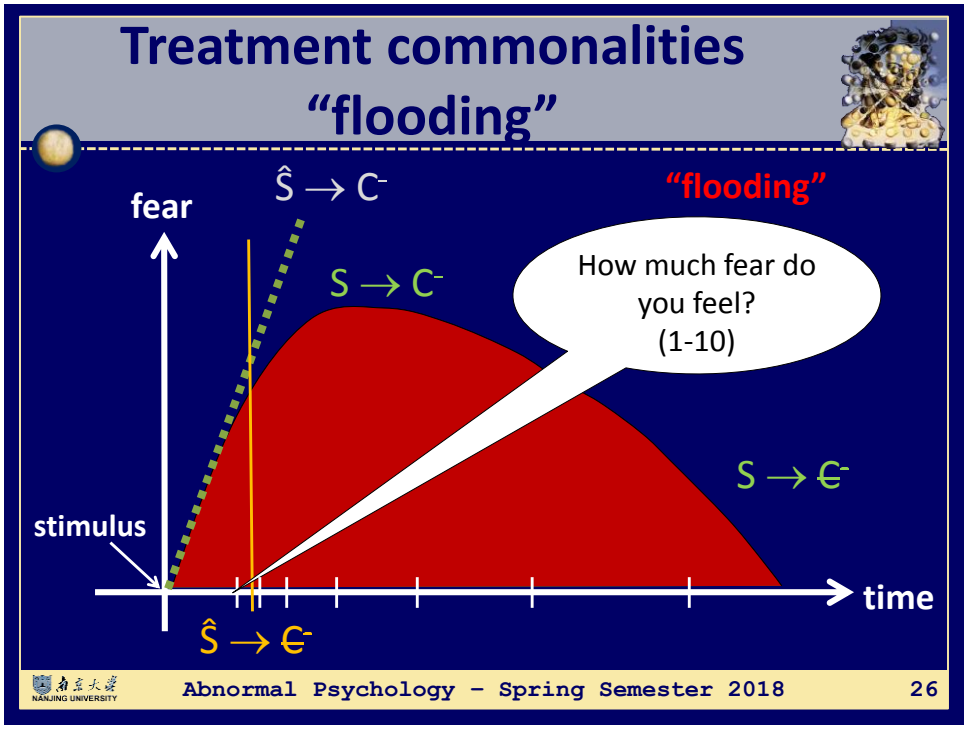
Treatment commonalities
"flooding"
fear
Ŝ → C-
"flooding"
S → C-
How much fear do you feel? (1-10)
S → Ć-
stimulus
time
Ŝ → Ć-
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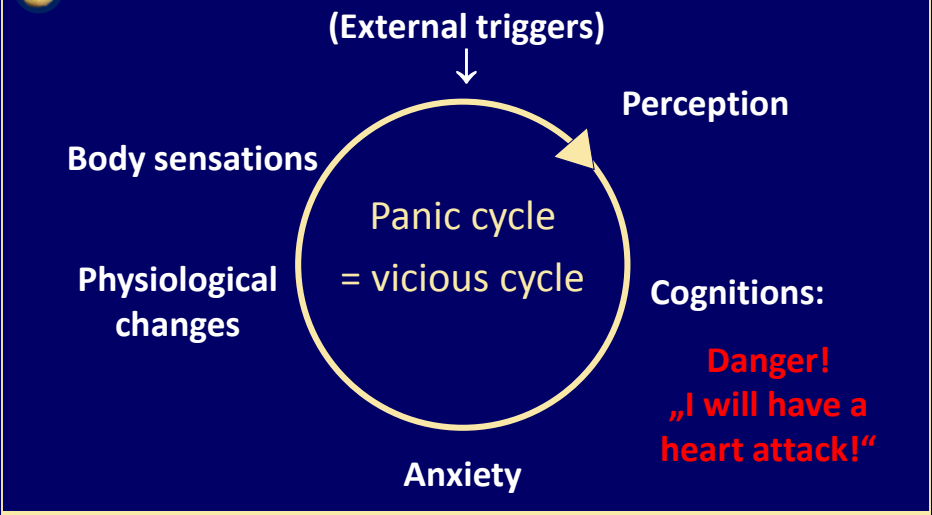
# Panic disorder – Etiology (1)

- *Genetic factors*
  - Some genetic influence (Heritability coefficient =.40)
  - First-degree relatives 8 times more likely to develop PD
- *Neurological factors*
  - Hormone norepinephrine involved (fight-flight-response) – activating
  - Amygdala, locus ceruleus
  - Exact interference of different neurotransmitters (GABA, serotonine) unclear
- *Social factors:* any factor enhancing stress (low SES, divorce, urban areas, early parental loss etc.)
- *Cognitive factors*
  - Triggers: fear-related cognitions („I once had an attack during driving"), high levels of arousal, events leading to physical disturbances
  - Tendency to „catastrophizing" normal reactions lead to the vicious panic cycle (Beck; Clark)

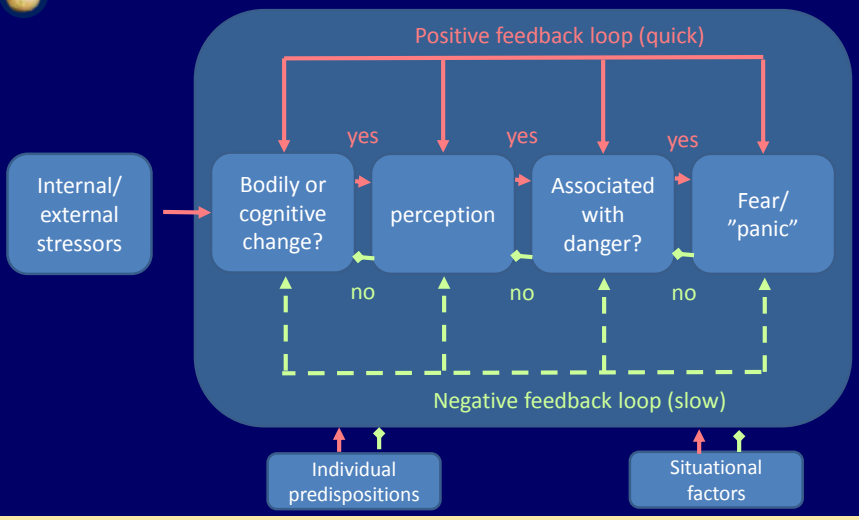


# Panic disorder – Etiology (2)



## Panic disorder – Etiology (3)

Psychophysiological model (Ehlers & Margraf, 1989)



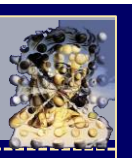



## Panic disorder – Etiology (4)

- *Behavioral Aspects*
  - Operant conditioning: avoidance of the situation provides no opportunity for extinction procedures
  - Secondary rewards, e.g. attention
  - Extended: hyperventilation causes dizziness due to an imbalance of oxygen ($O_2$) and carbone dioxide ($CO_2$) in your blood

# Panic Disorder – Treatment

## Cognitive Behavior Therapy



**Most helpful: CBT**

- Psychoeducation: teaching people models of anxiety
- Relaxation procedures: prevention by controlling breathing
- Change biased cognitions (self-instruction training, cognitive challenge)
- Practice behavioral control measures when the attacks are there (triggered in the session)
- Create an emergency plan (e.g. carry a paperbag)

*Results:*

80% without symptoms at the end of therapy (vs. 12% in the waiting list)



# GAD (1) Etiology

## Comer, p. 136f

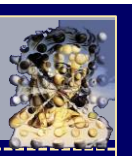
The *metacognitive theory,* developed by the researcher Adrian Wells (2014, 2011, 2005), suggests that people with generalized anxiety disorder implicitly hold both positive and negative beliefs about worrying. On the positive side, they believe that worrying is a useful way of appraising and coping with threats in life. And so they look for and examine all possible signs of danger—that is, they worry constantly.

**Why might many people believe, at least implicitly, that worrying is useful—even necessary—for problems to work out?**

At the same time, Wells argues, people with generalized anxiety disorder also hold negative beliefs about worrying, and these negative attitudes are the ones that open the door to the disorder. Because society teaches them that worrying is a bad thing, they come to believe that their repeated worrying is in fact harmful (mentally and physically) and uncontrollable. Now they further worry about the fact that they always seem to be worrying (so-called *meta-worries*) (see Table 5-3). The net effect of all this worrying: generalized anxiety disorder.

# GAD (2) Etiology

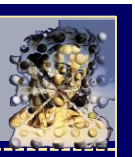
## Comer, p. 137



Borkovec's explanation has also been supported by numerous studies. Research reveals that people with generalized anxiety disorder experience particularly fast and intense bodily reactions, find such reactions overwhelming and unpleasant, worry more than other people upon becoming aroused, and successfully reduce their arousal whenever they worry (Hirsch et al., 2012; Aldao & Mennim, 2012; Fisher & Wells, 2011).



## Risk Factors

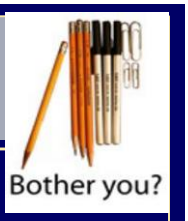


Researchers are finding that genetic and environmental factors, frequently in interaction with one another, are risk factors for anxiety disorders. Specific factors include:

- Shyness, or behavioral inhibition, in childhood
- Being female
- Having few economic resources
- Being divorced or widowed
- Exposure to stressful life events in childhood and adulthood
- Anxiety disorders in close biological relatives
- Parental history of mental disorders
- Elevated afternoon cortisol levels in the saliva (specifically for social anxiety disorder)

http://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml

## Obsessive-compulsive disorder (OCD) – Classification (1)




A. Either obsessions or compulsions

Obsessions

- persistent thoughts, intrusive, cause anxiety or distress
- not only excessive real life worries
- attempts to ignore/suppress thoughts or neutralize them
- unwanted

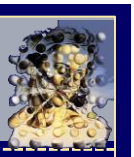
Compulsions

- repetitive behaviors or mental acts
- behaviors or mental acts aim at preventing some dreadful event or situation, but no realistic way to do so

B. Time consuming (>1 hour/day) or distress or interference with social functioning



## Obsessive-compulsive disorder (OCD) – Classification (2)



C. Exclusion of substances

D. Exclusion of other mental disorders

*Specifyers*

- With good or fair insight
- With poor insight
- With absent insight/delusional beliefs
- Tic-related

# Examples

Adrian Monk, from the TV-series "Monk"
(Season 2, Episode 13; Breckham, 2003/04; 31:07-35:24)

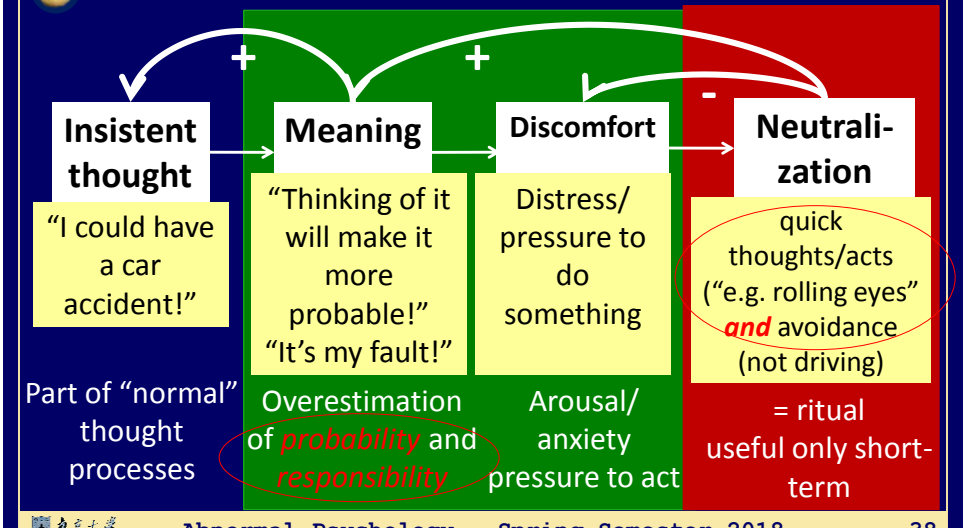
For an exhaustive case example, cf. the interview with Bobbie, a girl suffering from OCD for years:

http://www.thepsychfiles.com/2010/02/episode-117-obsessive-compulsive-disorder-an-interview/



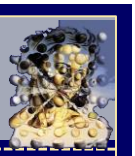
# Cognitive model of OCD (1)

(Salkovskis, 1989)
http://dx.doi.org/10.1016/0005-7967(89)90152-6



# Cognitive model of OCD (2)

(Salkovskis, 1989)

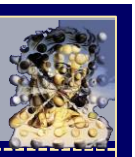


- Suppressing a thought strengthens it (= rebound effect), distractors become reminders
- Long-term result: avoidance inhibits extinction
- *Important factors:* beliefs about
  - Moral
  - Responsibility
  - Control

e.g.
"Failing to prevent harm is the same as causing the harm."

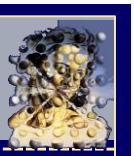


# OCD – Treatment



- Before: Generally difficult!
- Now: improvements with a combination of treatments
  - *Behavioral strategies*: exposure and response prevention
  - *Cognitive strategies:* clarifying irrelevance of thoughts and further actions, challenging inappropriate thoughts and belief systems, „Stop!"-technique
  - *Drug treatment:* antidepressants (50-80% improvement), but high relapse (90%) after premature termination!
  - *Neurosurgery:* only in severe cases if nothing else helps (!); surgical lesion to the cingulate bundle; 30% improved

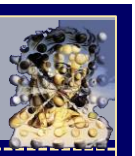
## Post-traumatic stress disorder (PTSD) Criteria



- Experience of an exceptionally threatening situation
- Persistent remembering by intrusive flashbacks
- Avoidance of resembling situations
- Negative changes in memories about the traumatic situation
- Changes in arousal and reactivity, e.g., sleeping disturbances, irritability, concentration problems, hypervigilance, startle response, lack of interest
- Symptoms occur within 6 months of the threatening event



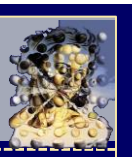

# PTSD treatment options



- Depending on the kind of event
- Elements: drugs, exposure (e.g., EMDR), insight, family therapy
- 50% recover within 6 months without treatment
- 33% of people with PTSD never recover even with advanced treatment
- None of the treatments recovers all symptoms
- Debriefing
  - = immediate expression of emotion directly after disaster to a trained counselor
  - Contradictory findings: possibly even triggering development of PTSD



# PTSD treatment



Eye movement desensitization and reprocessing (EMDR)

*Hypothesis*

Connecting the brain hemispheres (≠ hypnosis); connection of right hemisphere (pictures of terror) and left hemisphere (language)

*Effect*

Increases the activity of the frontal lobes