I. Overview
A. Purpose of classification
   A. Homogeneous group of individuals
   B. Facilitate communication among professionals
   C. Plan treatment

B. Evaluation of assessment procedures classification systems
A. Reliability
   1. Interjudge
   2. Internal reliability
   3. Test-retest
B. Validity of classification procedures
   1. Etiology
   2. Treatment
   3. Prognosis

C. History of classification systems

II. The DSM-5
A. Atheoretical and descriptive
B. DSM-5 Definition of Mental Disorder:
   A mental disorder is a syndrome characterized by clinically significant disturbance in an individual’s cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behavior (e.g., political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above.

C. Elements in common across all disorders:
   1. Clinical Significance
   2. The Usual Ruleouts:
      a. The symptoms are not attributable to the physiological effects of a substance …
      b. or to another medical or neurological condition
      c. or better accounted for by another disorder
D. “Other” DSM-5 Disorders
   1. Other Specified
   2. Other Unspecified

III. Subtypes and Specifiers
A. Subtypes of disorders
B. Severity
C. Medical comorbidities
D. Improves correspondence to ICD-9, 10, and eventually 11 (2015)

III. Schizophrenia Spectrum and Other Psychotic Disorders
I. Introduction

II. Symptoms/features of Sz and psychotic disorders
A. Disorder of thought content—Delusions vs. Bizarre Delusions
   1. Thought Broadcasting
   2. Thought insertion
   3. Thought withdrawal
   4. Delusions of being controlled
   5. Somatic
   6. Religious
   7. Grandiose
   8. Nihilistic
B. Disorder of thought form--AKA formal Thought Disorder
   1. Loosening of associations
      a. Clang associations
      b. Chain associations
   2. Neologisms
   3. Word salad
   4. Poverty of content of speech
C. Disturbance in normal affect
   1. Flat Affect
   2. Inappropriate affect
D. Changes in perception--hallucinations
   1. Most common are auditory, especially voices; perceived as distinctly coming from outside the person's head
      a. Single voice running commentary
      b. Multiple voices commenting on person's behavior
      c. Voices directing person to do something;
      d. Occasionally sounds instead of voices
   2. Less common are tactile hallucinations (tingling, numbing), visual, gustatory, olfactory--may suggest organic problems, especially in absence of auditory hallucinations
   3. NOTE: If occur only in the context of falling asleep (hypnogogic) or awakening (hynopompic), or influence of drugs/alcohol – do not count.

E. Disturbance in psychomotor behavior—including catatonic behavior: a marked decrease in reactivity to the environment
   1. Stupor
   2. Rigidity & posturing
   3. Mutism
   4. Excitement
F. Negative Symptoms
   1. Flat Affect
   2. Avolition
   3. Alogia
   4. Anhedonia
   5. Asociality
III. DSM-5 criteria for Schizophrenia

A. Psychotic symptoms: two (or more) of the following (and at least one must be 1, 2, 3):
   1. delusions
   2. hallucinations
   3. disorganized speech
   4. grossly disorganized behavior or catatonic behavior
   5. negative symptoms (affective flattening, alogia, avolition)
B. Marked decrease in functioning: work, social relations, self-care
C. Continuous signs of the disturbance for at least 6 months
D. Psychotic symptoms NOT related to a mood disorder (psychotic symptoms do arise in course of mood disorders)
   1. no major depressive or manic episodes have occurred concurrently with the active-phase symptoms
   2. if mood episodes have occurred during active-phase symptoms, they have been present for a minority of the total duration of the active and residual periods of the illness.
E. Usual Ruleouts: Symptoms not due to the direct physiological effect of a substance or a general medical condition
F. If history of autism spectrum, only make diagnosis of Sz if prominent delusions of hallucinations for at least one month

IV. Subtypes eliminated from DSM-5 (they were useless anyway!), but now specifiers for:

1. Course (acute episode, partial remission, first episode vs multiple, etc)
2. Catatonia
3. Severity (each symptom rated based on last 7 days: from 0 [absent] to 4 [present and severe])

Other Disorders in the category of “Schizophrenia Spectrum and Other Psychotic Disorders”

I. Schizophreniform: Meets all criteria for Schizophrenia but without clear duration of at least 6 months (but at least 1 month)

II. Brief Psychotic Disorder

A. Positive psychotic symptoms; at least on of: delusions, hallucinations, disorganized speech, catatonic or disorganized behavior (and at least one must be 1-3 [not solely catatonia])
B. Symptoms last at least a day, not longer than a month; full return to premorbid functioning
C. Not better accounted for by another psychotic disorder or direct physiological effect of a substance or a general medical condition
D. Note Specifiers: With Marked Stressors, without Marked Stressors, with post-partum onset

III. Schizoaffective Disorder

A. An uninterrupted period of illness during which there is a major mood episode (major depressive or manic) concurrent with Criterion A of schizophrenia
B. Delusions or hallucinations appear for 2+ weeks in absence of mood symptoms
C. Mood symptoms present for the majority of the total duration of the active and residual portions of the illness
D. Usual Ruleouts

IV. Delusional Disorder

A. One or more delusions for at least 1 month
B. No other prominent psychotic symptoms (Criterion A Schiz)
C. Behavior not especially odd other than delusion
D. Not due to other psychosis or direct physiological effect of a substance or a general medical condition
E. Type:
   1. Erotomanic
   2. Grandiose
   3. Jealous
   4. Persecutory
   5. Somatic
   6. Mixed, Unspecified
F. Specifiers: Severity, Course, and with Bizarre Content (i.e., Bizarre Delusions)

V. Other Specified Schizophrenia Spectrum and Other Psychotic Disorder: includes several but worth noting is

1. Delusional symptoms in partner of individual with delusional disorder: an apparently normal person develops a delusion due to association with another person(s) who already have an established delusion

VI. And … for the usual rule-outs:

A. Substance/Medication-Induced Psychotic Disorder; note, only if individual does not realize delusions/hallucinations are medication-induced (in which case this would be substance intoxication); note DSM-5 provides VERY long list of possible substances/toxins
B. Psychotic Disorder Due to Another Medical Condition

Depressive Disorders, Bipolar and Related Disorders

I. Episodes vs. disorders (Note – DSM-5 lists episode criteria redundantly within disorders)

A. Episodes: Major Depressive Episode, Manic Episode, Hypomanic episode (Mixed episode removed from DSM-IV – moved to specifier)
B. Disorders: Major Depressive Disorder, Persistent Depressive Disorder (Dysthymia), Premenstrual Dysphoric Disorder, Disruptive Mood Regulation Disorder, Bipolar I, Bipolar II, Cyclothymic disorder

II. Major Depressive Episode

A. Case Example
B. Essential feature is a period of at least 2 weeks in which there is depressed mood or loss of interest or pleasure in nearly all activities. In children and adolescents, the mood may be irritable rather than sad.
C. DSM-5 dx criteria for major depressive episode

1. At least 5 of the following symptoms have been present during the same 2-week period and represent a change from a previous level of functioning; at least 1 of the 5 must be either #1 depressed mood or #2 loss of interest or pleasure.
   a. Depressed mood most of the day, nearly every day (NED) as indicated by either subjective report or observation made by
others; may be described by words such as depressed, down-in-the-dumps, blue, sad, hopeless.
b. Markedly diminished interest or pleasure in all or almost all activities, most of the day, nearly every day.
c. Significant weight loss or weight gain (>5% in a month) when not dieting; or decrease or increase in appetite nearly every day.
d. Insomnia (early, middle, or late) or hypersomnia nearly every day.
e. Psychomotor Agitation or Retardation nearly every day (must be observable others, not merely subjective feelings of restlessness or being slowed down).
f. Fatigue or loss of energy nearly every day.
g. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day; not merely self-reproach or guilt about being sick.
h. Diminished ability to think or concentrate, or indecisiveness, nearly every day.
i. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.
2. Symptoms cause clinically-significant distress or impairment in social, occupational, or other functioning.
3. Symptoms are not the direct physiological effects of a substance or a general medical condition.
4. Note: whereas in earlier DSMs, Uncomplicated Bereavement was a rule-out, it is no longer.

III. Manic episode
A. Case Example
B. DSM-5 dx criteria for manic episode
1. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and persistently increased goal-directed activity or energy, lasting at least one week and present most of the day nearly every day (or any duration if hospitalization is necessary).
2. During this period of mood disturbance, at least 3 of the following symptoms (4 if mood is only irritable) are present to a significant degree.
   a. Inflated self-esteem or grandiosity
   b. Decreased need for sleep; e.g., feels rested after only 3 hours of sleep
   c. More talkative than usual or pressure to keep talking.
   d. Flight of ideas or subjective experience that thoughts are racing.
   e. Distractibility; i.e., attention too easily drawn to unimportant or irrelevant stimuli.
   f. Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation (note distinction from psychomotor agitation in depression).
   g. Excessive involvement in pleasurable activities which have a high potential for painful consequences.
3. Mood disturbance sufficiently severe to cause marked impairment in social or occupational functioning, or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.
4. Symptoms not due to the direct physiological effect of a substance or a general medical condition.

IV. Hypomanic Episode
A. Criteria are met for a Manic Episode (distinct period with 3 or 4) of the symptoms (but not impairment).
B. The episode is associated with an unequivocal change in functioning that is uncharacteristic of the individual when not symptomatic.
C. The disturbance in mood and the change in functioning are observable by others.
D. The episode is not severe enough to cause marked impairment in social or occupational functioning or to necessitate hospitalization. If there are psychotic features, the episode is, by definition, manic.
E. The episode is not attributable to the physiological effects of a substance.
F. Differential diagnosis with euthymia -- especially in folks with a history of depression.

V. The disorders:
A. Major Depressive disorder
   1. One or more episodes of depression (Single Episode vs. Recurrent)
   2. The Major Depressive Episode is not better accounted for by other psychotic disorders
   3. There has never been a manic episode or hypomanic episode
   4. Specifiers Galore!
      a. With Anxious Distress (2+ of: keyed up or tense; feeling unusually restless; difficulty concentrating because of worry; fear that something awful may happen; feeling that the individual might lose control of himself or herself)
      b. With Mixed Features (manic/hypomanic symptoms present nearly every day during MDD)
      c. With Melancholic Features:
         i. Presence of at least one of
            (a) loss of interest or pleasure in all, or almost all, activities
            (b) lack of reactivity to usually pleasurable stimuli (does not feel better, even temporarily, when something good happens);
         ii. Three (or more) of the following
            (a) A distinct quality of depressed mood characterized by profound despondency, despair, and/or moroseness or by so-called empty mood.
            (b) Depression that is regularly worse in the morning.
            (c) Early-morning awakening (i.e., at least 2 hours before usual awakening).
            (d) Marked psychomotor agitation or retardation.
            (e) Significant anorexia or weight loss.
            (f) Excessive or inappropriate guilt
d. With Atypical Features
   i. Mood reactivity (i.e., mood brightens in response to actual or potential positive events).
   ii. Two (or more) of the following:
       (a) Significant weight gain or increase in appetite.
       (b) Hypersomnia.
       (c) Leaden paralysis (i.e., heavy, leaden feelings in arms or legs).
       (d) A long-standing pattern of interpersonal rejection sensitivity (not limited to episodes of mood disturbance) that results in significant social or occupational impairment.

e. Peripartum Onset (Onset within 4 weeks of delivery)

f. Seasonal pattern (may be MDD, BPI, BPII)
   i. regular temporal relationship between onset of depressive episode and a particular time of the year -- not related to seasonally-occurring psychosocial stressors (e.g., finals, Christmas)
   ii. Full remissions also occur during another particular time of year;
   iii. In last 2 years, this pattern is present and no nonseasonal episodes as described above
   iv. If nonseasonal episodes present, seasonal episodes substantially outnumber nonseasonal episodes over the individual's life

g. Severity (mild/moderate/severe)

h. Psychotic Features (mood-congruent or mood-incongruent)

B. Bipolar I disorder
   (1) Criteria met for at least one Manic Episode (note Major Depressive Episode not required)
   (2) Not better accounted for by other psychotic disorders
   (3) Specifiers:
       a. Mixed Features
       b. Rapid Cycling (BPI or BPII): at least four episodes in previous year (any combo or order)
       c. Psychotic Features (mood-congruent or mood-incongruent)
       d. Peripartum onset
       e. Seasonal pattern
       f. Severity

C. Bipolar II disorder
   (1) Presence or history of at least one Major Depressive episode
   (2) Presence or history of at least one Hypomanic episode
   (3) No history of Manic Episodes
   (4) The Episodes are not better accounted for by other psychotic disorders
   (5) The symptoms of depression or the unpredictability caused by frequent alternation between periods of depression and hypomania causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
   (6) Specifiers: Same as BP-I

D. Cyclothymia
   (1) For at least 2 years (at least 1 year in children and adolescents) there have been numerous periods with hypomanic symptoms that do not meet criteria for a hypomanic episode and numerous periods with depressive symptoms that do not meet criteria for a major depressive episode.
   (2) During the 2 year period (1 in kiddies), hypomanic and depressive periods present at least half the time, and never a period of > 2 months without hypomanic or depressive symptoms
   (3) Criteria for a major depressive, manic, or hypomanic episode have never been met.
   (4) Not better accounted for by other psychotic disorders
   (5) Symptoms not due to the direct physiological effect of a substance (e.g., medication) or a general medical condition (e.g., hyperthyroidism)
   (6) Cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

E. Persistent Depressive Disorder (Dysthymia)
   (1) Depressed mood for most of the day, more days than not, for at least 2 years (or 1 year for children and adolescents)
   (2) Presence, while depressed, of at least 2 of the following: poor appetite or overeating; insomnia or hypersomnia; low energy or fatigue; low self-esteem; poor concentration or difficulty making decisions; feelings of hopelessness.
   (3) During the 2 year period, never a period of > 2 months without depressive and associated symptoms
   (4) Criteria for Major Depressive Disorder may be continuously present for 2 years
   (5) No history of Mania, hypomania, cyclothymia
   (6) Not better accounted for by other psychotic disorders
   (7) Symptoms not due to the direct physiological effect of a substance or a general medical condition
   (8) Symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
   (9) NOTE: Previous DSMs did not allow full Major Depression (and had Chronic Major Depression)

F. Premenstrual Dysphoric Disorder
   (1) In the majority of menstrual cycles, at least five symptoms must be present in the final week before the onset of menses, start to improve within a few days after the onset of menses, and become minimal or absent in the week postmenstrually. Symptoms must be met for most menstrual cycles that occurred in the preceding year.
Another or more of:
   a. Marked affective lability
   b. Marked irritability or anger or increased interpersonal conflicts.
   c. Marked depressed mood, feelings of hopelessness, or self-depreciating thoughts.
   d. Marked anxiety, tension, and/or feelings of being keyed up or on edge.

3. One (or more) of the following symptoms must additionally be present, to reach a total of five symptoms when combined with symptoms above.
   a. Decreased interest in usual activities
   b. Subjective difficulty in concentration.
   c. Lethargy, easy fatigability, or marked lack of energy.
   d. Marked change in appetite; overeating; or specific food cravings.
   e. Hypersomnia or insomnia.
   f. A sense of being overwhelmed or out of control.
   g. Physical symptoms such as breast tenderness or swelling, joint or muscle pain, a sensation of “bloating,” or weight gain.

4. The symptoms are associated with clinically significant distress or interference with work, school, usual social activities, or relationships with others.

5. The disturbance is not merely an exacerbation of the symptoms of another disorder.

6. Symptoms should be confirmed by prospective daily ratings during at least two symptomatic cycles.

7. The symptoms are not attributable to the physiological effects of a substance or another medical condition.

G. Disruptive Mood Regulation Disorder

1. Severe recurrent temper outbursts manifested verbally and/or behaviorally that are grossly out of proportion in intensity or duration to the situation or provocation.

2. The temper outbursts are inconsistent with developmental level.

3. The temper outbursts occur, on average, three or more times per week.

4. The mood between temper outbursts is persistently irritable or angry most of the day, nearly every day, and is observable by others (e.g., parents, teachers, peers).

5. These four symptoms have been present for 12 or more months. Throughout that time, the individual has not had a period lasting 3 or more consecutive months without all of the symptoms in Criteria A–D.

6. Criteria A and D are present in at least two of three settings (i.e., at home, at school, with peers) and are severe in at least one of these.

7. The diagnosis should not be made for the first time before age 6 years or after age 18 years.

8. By history or observation, the age at onset is before 10 years.

9. There has never been a distinct period lasting more than 1 day during which the full symptom criteria, except duration, for a manic or hypomanic episode have been met.

10. The behaviors do not occur exclusively during an episode of major depressive disorder and are not better explained by another mental disorder. CANNOT be comorbid with oppositional defiant disorder, intermittent explosive disorder, or bipolar disorder.

11. The symptoms are not attributable to the physiological effects of a substance or to another medical or neurological condition.

H. Note, among “Other Specified Depressive Disorder” there are descriptions of brief depressions (2-13 days) or subsyndromal (“Depressive episode with insufficient symptoms”)

I. Note also many mood disorders due to general medical condition, to substances, etc.

Anxiety Disorders

I. Overview.

A. Fear: the emotional response to real or perceived imminent threat

B. Anxiety: anticipation of future threat (worry)

C. Disorders involve fear or worry that is excessive or persistent

II. The Disorders

A. Panic disorder (2-3% of population; but lower rates among Latinos, Black Americans, and Asian Americans)

1. Main Feature: Recurrent unexpected panic attacks (see criteria below: abrupt surge of intense fear or discomfort, reaches peak within minutes.

2. At least one of the attacks has been followed by 1+ month of one or both of:
   a. Persistent concern or worry about additional panic attacks or their consequences
   b. A significant maladaptive change in behavior related to the attacks

3. The disturbance is not attributable to the physiological effects of a substance or another medical condition.

4. The disturbance is not better explained by another mental disorder

B. Panic Attack Specifier (can be coded with many disorders); Criteria for Panic Attack… Abrupt surge of fear or discomfort, peaks within minutes and includes at least 4 of:

1. Palpitations, pounding heart, or accelerated heart rate.

2. Sweating.

3. Trembling or shaking.

4. Sensations of shortness of breath or smothering.

5. Feelings of choking.

6. Chest pain or discomfort.

7. Nausea or abdominal distress.


9. Chills or heat sensations.

10. Paresthesias (numbness or tingling sensations).

11. Derealization (feelings of unreality) or depersonalization (being detached from oneself).

12. Fear of losing control or “going crazy.”

Note: Culture-specific symptoms should not count as one of the four required symptoms. *Ataque de nervios* (Latin American culturally-specific syndrome) may involve trembling, uncontrollable screaming or crying, aggressive or suicidal behavior, and depersonalization or derealization, which may be experienced longer than the few minutes typical of panic attacks.

Note also: Can be Nocturnal Panic Attacks

C. Agoraphobia

1. Marked fear or anxiety about two (or more) of the following situations:
   a) Using public transportation
   b) Being in open spaces
   c) Being in enclosed places (e.g., shops, theaters, cinemas).
   d) Standing in line or being in a crowd.
   e) Being outside of the home alone.

2. The individual fears or avoids these situations because of thoughts that escape might be difficult or help might not be available in the event of developing panic-like symptoms or other incapacitating or embarrassing symptoms.

3. The agoraphobic situations almost always provoke fear or anxiety.

4. The agoraphobic situations are actively avoided, requiring the presence of a companion, or are endured with intense fear or anxiety.

5. The fear or anxiety is out of proportion to the actual danger posed by the agoraphobic situations and to the sociocultural context.

6. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.

7. Clinically significant distress or impairment

8. If another medical condition is present, the fear, anxiety, or avoidance is clearly excessive.

9. The fear, anxiety, or avoidance is not better explained by the symptoms of another mental disorder.

Note: Agoraphobia is diagnosed irrespective of the presence of panic disorder. If an individual’s presentation meets criteria for panic disorder and agoraphobia, both diagnoses should be assigned.

D. Specific Phobia (12-month prevalence 7-9%; lower among Latinos)

1. Marked fear or anxiety about a specific object or situation

2. The phobic object or situation almost always provokes immediate fear or anxiety.

3. The phobic object or situation is actively avoided or endured with intense fear or anxiety.

4. The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context.

5. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.

6. Clinically significant distress or impairment

7. Not better accounted for by something else

E. Social Anxiety Disorder (Social Phobia) (7% 12-month prevalence, but about 1/3 that in Europe; prevalence decreases with age)

Criteria are essentially the same as specific phobia, except that the fear is of social situations in which the individual is exposed to possible scrutiny by others. Note that it is not necessary that the evaluation actually take place, but that there is a fear of such evaluation; Examples include social interactions, being observed, and performing in front of others or saying or doing foolish things

1. Specifier: Performance Only (only involves public speaking or public performance

F. Generalized Anxiety Disorder (3% 12-month prevalence, more common among Euro-Americans, and in developed countries;)

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). NOTE: out of proportion to actual likelihood or impact of anticipated event

2. The individual finds it difficult to control the worry.

3. The anxiety and worry are associated with three (or more) of the following symptoms (with at least some symptoms having been present for more days than not for the past 6 months) (or only one or more in children):
   a) Restlessness or feeling keyed up or on edge.
   b) Being easily fatigued.
   c) Difficulty concentrating or mind going blank.
   d) Irritability.
   e) Muscle tension.
   f) Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep).

4. Clinically significant distress or impairment

5. Not better accounted for by something else (substance, medical, other disorder)

G. Separation Anxiety

1. Developmentally inappropriate and excessive fear or anxiety concerning separation from those to whom the individual is attached as evidenced by at least three of the following:
   a. Recurrent excessive distress when anticipating or experiencing separation from home or from major attachment figures.
   b. Persistent and excessive worry about losing major attachment figures or about possible harm to them, such as illness, injury, disasters, or death.
   c. Persistent and excessive worry about experiencing an untoward event (e.g., getting lost, being kidnapped, having an accident, becoming ill) that causes separation from a major attachment figure.
   d. Persistent reluctance or refusal to go out, away from home, to school, to work, or elsewhere because of fear of separation.
   e. Persistent and excessive fear of or reluctance about being alone or without major attachment figures at home or in other settings.
   f. Persistent reluctance or refusal to sleep away from home or to go to sleep without being near a major attachment figure.
   g. Repeated nightmares involving the theme of separation.
h. Repeated complaints of physical symptoms (e.g., headaches, stomachaches, nausea, vomiting) when separation from major attachment figures occurs or is anticipated.
  2. Duration 4+ weeks in kids, and typically 6 months or more in adults
  3. Distress/Clinically significant impairment
  4. Not better explained by something else

H. Selective Mutism (“relatively rare disorder”)
  1) Consistent failure to speak in specific social situations in which there is an expectation for speaking (e.g., at school) despite speaking in other situations.
  2) Interferes with educational or occupational achievement or with social communication.
  3) Duration of at least 1 month (not limited to the first month of school).
  4) Not attributable to a lack of knowledge of, or comfort with, the spoken language
  5) The disturbance is not better explained by a something else

Obsessive-Compulsive and Related Disorders

I. Obsessive-Compulsive disorder (1% 12-month prevalence)
  A. Presence of obsessions, compulsions, or both:
     Obsessions:
     (1) recurrent and persistent thoughts, urges, images that are experienced, at some time during the disturbance, as intrusive and senseless
     (2) The individual attempts to ignore or suppress such thoughts, urges, or images, or to neutralize them with some other thought or action (i.e., by performing a compulsion).
  b. Compulsions
     (1) Repetitive behaviors (e.g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly.
     (2) The behaviors or mental acts are aimed at preventing or reducing anxiety or distress, or preventing some dreaded event or situation; however, these behaviors or mental acts are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive.
  B. Are time-consuming (more than 1 hour per day) or cause clinically significant distress or impairment
  C. Usual Rule-outs: mental disorder, substance, general medical condition

II. Body dysmorphic disorder; Point prevalence of 2.4%
  A. Preoccupation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others.
  B. Repetitive behaviors (e.g., mirror checking, excessive grooming, reassurance seeking) or mental acts (e.g., comparing his or her appearance with that of others) in response to the appearance concerns.
  C. Clinically significant distress or impairment
  D. Usual rule-outs (note: Do NOT diagnose if Anorexia present)

III. Hoarding Disorder (Prevalence 2-6%)
  A. Persistent difficulty discarding or parting with possessions, regardless of their actual value.
  B. Due to a perceived need to save the items and to distress associated with discarding them.
  C. Difficulty discarding possessions results in the accumulation of possessions that congest and clutter active living areas and substantially compromises their intended use. If living areas are uncluttered, it is only because of the interventions of third parties (e.g., family members, cleaners, authorities).
  D. Causes clinically significant distress or impairment
  E. Usual Rule-outs (Note: not OCD, MDD lack of energy, Psychotic Delusions, etc)
  F. Specifiers:
     1) With excessive acquisition (as opposed to lacking discarding only)
     2) Insight specifiers (Good/Fair, Poor, Absent/Delusional)

IV. Trichotillomania: recurrent pulling out of one's own hair that results in hair loss; Distress/impairment; Usual rule-outs. (Prevalence 1-2%; Females 10:1 Males) Note: tension-release; results in patchy areas of hair loss; usually the scalp, but can be other face and body areas as well.

V. Excoriation (Skin-Picking) Disorder: recurrent skin picking resulting in lesions; repeated attempts to stop; Distress/impairment; Usual rule-outs. (Prevalence 1%; Females 3:1 Males)
Trauma- and Stressor-Related Disorders

I. Post-Traumatic Stress Disorder (PTSD; 12-month prevalence is 3.5%; lifetime prevalence is 8-9%)

Expansion in DSM-5 to witnessed events or learning about events, the latter limited to events happening to those close to the individual and violent or accidental.

A. Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:
   1. Directly experiencing the traumatic event(s).
   2. Witnessing, in person, the event(s) as it occurred to others.
   3. Learning that the traumatic event(s) occurred to a close family member or close friend.
   4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains).

B. Four types of symptoms, all necessary
   1. Intrusion. One or more of:
      i. Recurrent distressing recollections
      ii. Recurrent distressing dreams
      iii. Flashbacks ("dissociative reactions in which the individual feels or acts as if the traumatic event(s) were recurring")
      iv. Intense distress at events/persons that symbolize trauma
      v. Intense physiological reactivity on exposure to some cue
   2. Avoidance. Persistence avoidance of stimuli associated with the trauma. One or both of:
      i. Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
      ii. Avoidance of or efforts to avoid external reminders that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s)
   3. Negative alterations in cognitions and mood. Two or more of:
      i. Amnesia (dissociative not due to head injury, alcohol/drugs)
      ii. Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world
      iii. Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.
      iv. Persistent negative emotional state
      v. Markedly diminished interest or participation in significant activities.
      vi. Feelings of detachment or estrangement from others.
      vii. Persistent inability to experience positive emotions
   4. Arousal and Reactivity. Two or more of:
      i. Irritable behavior and angry outbursts (with little or no provocation)
      ii. Reckless or self-destructive behavior.
      iii. Hypervigilance.
      iv. Exaggerated startle response.
      v. Problems with concentration.
      vi. Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

C. Duration at least one month
D. Distress or impairment
E. Usual Rule-outs
F. Specifiers: With Dissociative Symptoms (Depersonalization or Derealization); Delayed Expression (> 6 months to onset)
G. Note also specific variation of criteria for kids age 6 and younger

II. Acute stress disorder
A. Again exposed to a trauma like that for PTSD
B. Nine or more symptoms (any combo) from the following categories: Intrusion, Negative Mood, Dissociative Symptoms, Avoidance Symptoms, Arousal Symptoms.
C. Duration 3 days to 1 month
D. Distress or impairment
E. Usual Rule-outs

III. Disinhibited Social Engagement Disorder (Childhood disorder, but can continue to adulthood; "Adult manifestations of the disorder are unknown.")
A. Essential feature is a pattern of culturally inappropriate, overly familiar behavior with relative strangers
B. Not due to impulsivity (like ADHD)
C. History of insufficient care (neglect, many changes in caregivers, institutional settings)
D. Developmental age of child at least 9 months old

IV. Reactive Attachment Disorder
A. Essential feature is absent or grossly underdeveloped attachment between the child and putative caregiving adults.
B. Social and emotional disturbances (emotional unresponsiveness, limited positive affect, unexplained irritability sadness or fearfulness interacting with adult caregivers)
C. History of insufficient care (neglect, many changes in caregivers, institutional settings)
D. Developmental age of child at least 9 months old, onset by age 5
E. Not due to Autism Spectrum Disorder

V. Adjustment Disorders
A. Essential feature is a clinically significant reaction with emotional or behavioral symptoms to an identifiable stressor(s), occurs within 3 months after stressor, persists no longer than 6 months after stressor (and its consequences) has terminated
B. Not due to uncomplicated bereavement, not PTSD (more severe stressor, severe symptoms, and delayed onset possible)
C. Specifiers, with: anxiety, depressed mood, disturbance of conduct, mixed anxiety and depressed mood, mixed disturbance of emotions or conduct, unspecified

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Dissociative Disorders

III. Essential feature of these disorders is a disruption of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior. DSM Says: “The dissociative disorders are frequently found in the aftermath of trauma.”

A. Dissociative Identity Disorder (formerly Multiple Personality Disorder) age onset usually childhood; One study showed 12-month prevalence of 1.5% (really?!). DSM-IV said uncommon but "not rare", females 3-9x vs males; criteria more detailed in DSM-5

1. Criteria:
   a. Disruption of identity characterized by two or more distinct personality states, which may be described in some cultures as an experience of possession. The disruption in identity involves marked discontinuity in sense of self and sense of agency, accompanied by related alterations in affect, behavior, consciousness, memory, perception, cognition, and/or sensory-motor functioning. These signs and symptoms may be observed by others or reported by the individual.
   b. Recurrent gaps in the recall of everyday events, important personal information, and/or traumatic events that are inconsistent with ordinary forgetting.
   c. Clinically significant distress or impairment
   d. Not a part of a broadly accepted religious or cultural practice (and in kids, not part of fantasy play)
   e. The usual ruleouts

2. Awareness by other personalities

3. IMHO: DSM-5 text description is an uncritical overstatement of clinical beliefs as if they are empirically-supported observations. Research base is very limited, and based on few authors, which publish repeatedly, often in uncritical outlets (Book chapter, Dissociation, J Trauma and Dissociation

B. Dissociative amnesia (12 month prevalence 1.8%)
   1. An inability to recall important autobiographical information, usually of a traumatic or stressful nature, that is inconsistent with ordinary forgetting.
   2. The usual ruleouts (not blackouts, not due to head injury)
   3. Not due to DID, PTSD, etc.
   4. Specifier: with dissociative fugue (formerly its own DSM disorder)
   5. Localized is “most common”; Generalized is rare
   6. Differential diagnosis vs. head injury or disease; Amnesias due to brain insult typically involve primarily anterograde amnesia; psychogenic retrograde

C. Depersonalization/Derealization Disorder: persistent or recurrent experiences of depersonalization, derealization, or both!
   1. Depersonalization: Experiences of unreality, detachment, or being an outside observer with respect to one’s thoughts, feelings, sensations, body, or actions.
   2. Derealization: Experiences of unreality or detachment with respect to surroundings
   3. Clinically significant distress/impairment
   4. Usual Rule-outs

D. Note: among Other Specified Dissociative Disorder is Dissociative Trance: an acute narrowing or complete loss of awareness of immediate surroundings that manifests as profound unresponsiveness or insensitivity to environmental stimuli.
I. Overview:

II. Somatic Symptom Disorder:
A. One or more somatic symptoms that are distressing or result in significant disruption of daily life.
B. Excessive thoughts, feelings, or behaviors related to the somatic symptoms or associated health concerns as manifested by at least one of the following:
   1. Disproportionate and persistent thoughts about the seriousness of one’s symptoms.
   2. Persistently high level of anxiety about health or symptoms.
   3. Excessive time and energy devoted to these symptoms or health concerns.
C. Although any one somatic symptom may not be continuously present, the state of being symptomatic is persistent (typically more than 6 months).
D. Specifiers
   1. With predominant pain (previously pain disorder)
   2. Persistent (> 6 months)

III. Illness Anxiety Disorder: Most individuals with hypochondriasis are now classified as having somatic symptom disorder. Illness anxiety disorder entails a preoccupation with having or acquiring a serious, undiagnosed medical illness.
A. Preoccupation with having or acquiring a serious illness.
B. Somatic symptoms are not present or, if present, are only mild in intensity. If another medical condition is present the preoccupation is clearly excessive or disproportionate.
C. There is a high level of anxiety about health, and the individual is easily alarmed about personal health status.
D. The individual performs excessive health-related behaviors (e.g., repeatedly checks his or her body for signs of illness) or exhibits maladaptive avoidance (e.g., avoids doctor appointments and hospitals).
E. Illness preoccupation has been present for at least 6 months
F. The illness-related preoccupation is not better explained by another mental disorder
G. Specifiers: Care-seeking type or Care-avoidant type

IV. Conversion disorder;
A. DSM-5 stresses medical implausibility: There must be clinical findings that show clear evidence of incompatibility with neurological disease.
B. All kinds of specifiers (with weakness, abnormal movement, swallowing problems, speech symptoms, attacks/seizures, anesthesia/sensory loss)

V. Psychological Factors Affecting Other Medical Conditions (NEW)
A. Essential feature is presence of one or more clinically significant psychological or behavioral factors that adversely affect a medical condition by increasing the risk for suffering, death, or disability. (Can do so by influencing course or treatment, by constituting an additional health risk factor, or by influencing the underlying pathophysiology.
B. Diagnosis reserved for cases where the psychological factor has clinically significant effects on the course or outcome of the medical condition. Psychological symptoms that develop in response to a medical condition are more properly coded as an adjustment disorder.

VI. Factitious disorder; essential feature is the feigning of physical or psychological symptoms, without any identifiable secondary gain;
A. Two variants: Imposed on Self and Imposed on Another (formerly By Proxy); in latter case, perpetrator (not victim) receives diagnosis

Malingering
I. Malingering (V Code): Malingers intentionally feign symptoms (physical or psychological) with a clearly identifiable goal

Disruptive, Impulse-Control, and Conduct Disorders

I. Essential feature is problems in the self-control of emotions and behaviors.
A. Oppositional Defiant Disorder: pattern of angry/irritable mood, argumentative/defiant behavior, and/or vindictiveness lasting at least 6 months. Do not diagnose if only exhibited with a sibling.
NOTE prevalence ranges from 1-11%!
B. Intermittent Explosive Disorder: Essential feature is recurrent behavioral outbursts representing a failure to control aggressive impulses, that are grossly out of proportion to circumstances; not premeditated. Rapid onset – out of the blue. Must have either of:
   1. Verbal outbursts (tantrums, tirades) twice weekly for 3+ months
   2. Behavioral outbursts that damage property or hurt others (including animals) at least 3 times in 12 months
NOTE: Comorbidity allowed with ADHD, Conduct disorder, ODD, or Autism spectrum disorder
C. Conduct Disorder
   1. A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated
   2. At least 3 symptoms in the past 12 months, at least one present in the last 6 months, from among 15 symptoms in several categories: aggression to persons or animals, destruction of property, deceitfulness or theft, serious violation of rules
   3. If over age 18, does not meet for ASPD
   4. Oodles of specifiers regarding unsavory traits (lack remorse, callous, shallow affect, etc)
   NOTE: Childhood-onset appears to be more severe than adolescent-onset
D. Antisocial Personality Disorder (see ASPD in Personality Disorders!)
E. Pyromania: Deliberate and purposeful fire-setting on more than one occasion; tension before the act; fascination with the aftermath
F. Kleptomania: Recurrent failure to resist impulses to steal objects that are not needed for personal use or for their monetary value; Tension—pleasure; not committed for revenge
Substance-related and Addictive Disorders

I. Three broad categories:
   A. Substance use disorders (formerly abuse and dependence): essential feature is that the individual continues to use despite significant substance-related problems
   B. Substance induced disorders (intoxication, withdrawal, substance/medical induced mental disorders (mood, anxiety, etc.)
   C. Gambling Disorder

II. Some facts on Alcohol specifically

III. [Substance] use Disorder (where [Substance] is replaced with Alcohol, Cannabis, Opioids, Stimulants, Tobacco, etc.)
   A. A problematic pattern of [substance] use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:
      1. Substance is often taken in larger amounts or over a longer period than was intended.
      2. There is a persistent desire or unsuccessful efforts to cut down or control substance use.
      3. A great deal of time is spent in activities necessary to obtain substance, use substance, or recover from its effects.
      4. Craving, or a strong desire or urge to use substance.
      5. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home.
      6. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of substance.
      7. Important social, occupational, or recreational activities are given up or reduced because of substance use.
      8. Recurrent substance use in situations in which it is physically hazardous.
      9. Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by substance.
      10. Tolerance, as defined by either of the following:
          a. A need for markedly increased amounts of substance to achieve intoxication or desired effect.
          b. A markedly diminished effect with continued use of the same amount of substance.
      11. AS APPLICABLE: Withdrawal, as manifested by either of the following:
          b. Substance (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

II. Substance-induced Disorders
   A. [Substance] intoxication: Clinically significant problematic behavior or psychological changes that follow ingestion of a substance;
      Substance-specific features
   B. [Substance] Withdrawal: Development of a substance-specific syndrome following cessation of, or reduction in, intake of a psychoactive substance the person previously took regularly

III. Gambling Disorder
   A. Persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the following in a 12-month period:
      1. Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
      2. Is restless or irritable when attempting to cut down or stop gambling.
      3. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
      4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, thinking of ways to get money with which to gamble).
      5. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed).
      6. After losing money gambling, often returns another day to get even (“chasing” one’s losses).
      7. Lies to conceal the extent of involvement with gambling.
      8. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling.
      9. Relies on others to provide money to relieve desperate financial situations caused by gambling.
Neurocognitive Disorders

I. Overview
A. DSM NOTES: The NCDs are unique among DSM-5 categories in that these are syndromes for which the underlying pathology, and frequently the etiology as well, can potentially be determined.
B. The term dementia is retained in DSM-5 for continuity.
C. Misconceptions:
1. Progressive & irreversible—need not be either
2. NOT necessarily insidious onset, can come on suddenly

D. Domains of Neurocognitive Function (Table in DSM):
1. Complex Attention
2. Executive Function
3. Learning and Memory
4. Language
5. Perceptual-Motor
6. Social-Cognition

II. Delirium: an acute confusional state or alteration of consciousness
A. A disturbance in attention (i.e., reduced ability to direct, focus, sustain, and shift attention) and awareness (reduced orientation to the environment).
B. The disturbance develops over a short period of time … and tends to fluctuate in severity during the course of a day.
C. An additional disturbance in cognition (e.g., memory deficit, disorientation, language, visuospatial ability, or perception).
D. Not better explained by another preexisting, established, or evolving neurocognitive disorder
E. Specific criteria concerning etiology: general medical condition, substance-induced (intoxication or withdrawal), toxins, multiple etiologies

III. Major and Mild Neurocognitive Disorders
A. Evidence of significant cognitive decline from a previous level of performance in one or more cognitive domains based on:
1. Concern of the individual, a knowledgeable informant, or the clinician that there has been a significant decline in cognitive function; and
2. A substantial impairment in cognitive performance, preferably documented by standardized neuropsychological testing or, in its absence, another quantified clinical assessment.
B. The cognitive deficits interfere with independence in everyday activities
C. The cognitive deficits do not occur exclusively in the context of a delirium.
D. The cognitive deficits are not better explained by another mental disorder

E. Specify if due to:
1. Alzheimer’s disease
2. Frontotemporal lobar degeneration
3. Lewy body disease
4. Vascular disease
5. Traumatic brain injury
6. Substance/medication use
7. HIV infection
8. Prion disease
9. Parkinson’s disease
10. Huntington’s disease
11. Another medical condition
12. Multiple etiologies
13. Unspecified

F. Etiological Types of dementia
1. Due to Alzheimer's Disease
A. Dementia with insidious onset and a generally progressive deteriorating course
B. Autopsy/Biopsy is only sure dx:
1. Neurofibrillary tangles
2. Amyloid Plaques
C. Because histology is only definitive confirmation, list diagnosis as “probable” or “possible” based on history and testing

2. Due to Frontotemporal lobar degeneration: Associated with changes in their personality and socially inappropriate, impulsive or emotionally indifferent behavior; some lose the ability to use and understand language; age of onset generally younger than Alzheimer’s

3. Due to Vascular Disease
A. Must be evidence of focal cerebrovascular disease: focal neurological signs and symptoms or imaging data
B. Dementia typically with an abrupt onset and a stepwise deteriorating course with "patchy" distribution of deficits
C. Typically more common in males, and age onset generally earlier than Alzheimer’s

4. Due to Parkinson’s Disease
A. Major symptoms are resting tremor, stooped posture, shuffling gait, drooped and unexpressive facies, muscular rigidity, Bradykinesia, Akinesia, speech gets progressively worse
B. About 10% develop dementia
C. Disease involves deterioration of Substantia Nigra (dopamine rich cells)

5. Due to Huntington’s Disease (Chorea)
A. 1st symptoms are choreiform movements
B. Later, problems swallowing, slurred speech, staggered gait
C. Eventually, almost all become demented
D. Onset typically age 30-50
E. Inherited as a dominant gene—50% of offspring therefore at risk; there exists a test for the disease
F. Personality changes and movements show up early in disorder; dementia occurs

6. Substance/Medication-Induced (e.g., amnestic confabulatory (Korsakoff’s) NCD)

7. Not to be confused with pseudodementia--a dementia of functional origin, most commonly depression
   A. In elderly, depression may manifest with disorientation, memory loss, judgment probs
   B. Pseudodementia can be differentiated from dementia:
      (1) Dementia--int'l deficits precede depression
      (2) Pseudodementia--date of onset more easy to pinpoint
      (3) Folks with pseudodementia complain and emphasize problems; dementia, cover up
      (4) Dementia--generally more consistent deficits over time
      (5) Antidepressants tend to clear symptoms in pseudodementia
   C. Important to look for pseudodementia in elderly--it is treatable!

Neurodevelopmental Disorders (Selected)

I. Overview: a group of conditions with onset in the developmental period, and typically manifest early in development, often before the child enters grade school; produce impairments of personal, social, academic, or occupational functioning.
NOTE: DSM Says… “The neurodevelopmental disorders frequently co-occur”

II. Intellectual Disability (Intellectual Developmental Disorder): Formerly Mental Retardation
   A. Diagnosis:
      1. Deficits in intellectual functions (reasoning, problem solving, planning, abstract thinking, judgment, academic learning) confirmed by both clinical assessment and individualized, standardized intelligence testing.
      2. Deficits in adaptive functioning that limit functioning in one or more activities of daily life
      3. Onset of intellectual and adaptive deficits during the developmental period.
   B. Four levels of impairment
      1. Mild (~50-70); 85%
      2. Moderate (~35-50); 10%
      3. Severe (~20-35); 3-4%
      4. Profound (~<20); 1-2%
   C. Etiology--two groups of causes
      1. Sociocultural deprivation: MILD
      2. Physical: SEVERE
         a. Down syndrome (Trisomy 21)
         b. Phenylketonuria (PKU)

III. Autism Spectrum Disorder: Merges former diagnoses of Autism, Asperger’s, and Childhood Disintegrative Disorder
   A. Persistent deficits in social communication and social interaction across multiple contexts as manifested by:
      1. Deficits in social-emotional reciprocity
      2. Deficits in nonverbal communicative behaviors used for social interaction
      3. Deficits in developing, maintaining, and understanding relationships
   B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following:
      1. Stereotyped or repetitive motor movements, use of objects, or speech
      2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior.
      3. Highly restricted, fixated interests that are abnormal in intensity or
      4. Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment
   C. Present early in the developmental period
   D. Clinically significant impairment
   E. Not accounted for by another disorder (e.g. Intellectual Disability)

IV. Specific Learning Disorder: “a neurodevelopmental disorder with a biological origin that is the basis for abnormalities at a cognitive level that are associated with the behavioral signs of the disorder. The biological origin includes an interaction of genetic, epigenetic, and environmental factors, which affect the brain’s ability to perceive or process verbal or nonverbal information efficiently and accurately.”
   A. Difficulties learning and using academic skills lasting 6+ months
   B. Affected academic skills are substantially and quantifiably below those expected for the individual’s chronological age, and cause significant interference with academic or occupational performance, or with activities of daily living.
   C. The learning difficulties begin during school-age years
   D. Not better accounted for by another disorder
   E. Specifiers:
      1. Impairment in Reading
      2. Impairment in Written Expression
      3. Impairment in Math Reasoning
V. Attention-Deficit/Hyperactivity Disorder
A. Diagnosis; onset prior to age 12, duration of at least 6 months, symptoms in at least two settings (e.g., home school), at least 6 symptoms of inattention or at least 6 symptoms of hyperactivity
   1. Inattention: distractible, forgetful, difficulty sustaining attention, poor follow through on instructions, poor sustained attention in tasks, poor listening
   2. Hyperactivity: fidgets, squirms, difficulty remaining seated, runs about in inappropriate situations, excessive talking, interruptions, difficulty playing quietly, difficulty waiting his or her turn, impulsive
B. Impairment
C. Not accounted for by other disorders
D. Ritalin/Adderall etc: pros/cons

VI. Tic Disorders: All onset before age 18
A. Tourette’s Disorder: Vocal AND Motor Tics for 1+ years
   1. Motor tics
   2. Vocal tics
B. Persistent (Chronic) Motor or Vocal Tic Disorder: Vocal OR Motor Tics for 1+ years
C. Provisional Tic Disorder: Vocal and/or Motor Tics for < 1 year

Feeding and Eating Disorders
I. Anorexia Nervosa: 12-month prevalence 0.4% in females; 10:1 sex ratio
A. Restriction of energy intake … leading to a significantly low body weight (taking into account age, sex, developmental trajectory, and physical health). Significantly low weight = less than minimally normal.
B. Intense fear of gaining weight or of becoming fat, or persistent behavior that interferes with weight gain, even though at a significantly low weight.
C. Disturbance in the way in which one’s body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.
D. Subtypes: Restricting type vs Binge-eating/Purging type; Mild/Moderate/Severe/Extreme based on BMI (17, 16, 15, <15 kg/m²).
E. Associated features (not diagnostic):
   1. Laxative or diuretic abuse
   2. binge-purging (bulimia)
   3. preoccupation with food
   4. sleep disturbance
   5. Hyperactivity
   6. Lack of interest in sex
   7. Inflexible thinking/need for control
   8. Overly-restrained emotional expression
   9. Comorbid disorders: MDD, anxiety disorders, substance-use disorders
F. Binge-purging anorexics differ from non-bing-purging anorexics along a dimension of constraint/impulsivity
G. Treatment comments

II. Bulimia Nervosa: 12-month prevalence 1-1.5% in females; 10:1 sex ratio
A. Recurrent binge-eating (eating more than most would in a discrete 2 hour period) and lack of control during the episode (e.g., 3000+ calories in a sitting not unusual)
B. Recurrent inappropriate compensatory behavior (purging (vomiting, laxatives), enemas, medications, fasting, excessive exercise [excessive if interferes with life or is at inappropriate times/settings or gets dangerous medically])
C. Binges and compensatory behaviors occur on average at least once per week for at least 3 months (DSM-IV was twice/week)
D. Self-evaluation unduly influenced by body weight and shape
E. Not exclusively during anorexia (as bulimia can be a feature of binge-eating/purging subtype)

III. Binge-Eating Disorder (essentially Bulimia without the compensatory behavior): 12-month prevalence 1.6% females, 0.8% males
A. Recurrent binge-eating
B. Binge eating criteria (3+ of): eating rapidly, till uncomfortably full, eating large amounts when not hungry, eating alone due to embarrassment, feeling disgusted/embarrassed after eating)
C. Marked distress regarding binge eating
D. Binge-eating occurs on average at least once per week for at least 3 months
E. Absence of inappropriate compensatory behavior

IV. Pica: Persistent eating of nonnutritive, nonfood substances over a period of at least 1 month.

V. Among Other Specified Feeding or Eating Disorder
A. Atypical anorexia nervosa: meets criteria except weight is within or above the normal range.
B. Bulimia nervosa (of low frequency and/or limited duration)
C. Binge-eating disorder (of low frequency and/or limited duration)
D. Purging disorder
E. Night eating syndrome
Elimination Disorders: Enuresis and Encopresis

Essential Feature: Repeated Involuntary OR intentional urination into bed or clothes after age at which continence is expected
1. Dx made only when physical cause is ruled out and child is at least 5 years (enuresis) or 4 years (encopresis)
2. Not due to physiological effects of a substance or another medical condition

Sleep-Wake Disorders (selected): Insomnia

I. This group includes 10 disorders/groups: insomnia disorder, hypersonmollence disorder, narcolepsy, breathing-related sleep disorders, circadian rhythm sleep-wake disorders, non–rapid eye movement (NREM) sleep arousal disorders, nightmare disorder, rapid eye movement (REM) sleep behavior disorder, restless legs syndrome, and substance/medication-induced sleep disorder. Resulting daytime distress and impairment are core features shared by all of these sleep-wake disorders.

II. Relationship to mental disorders
A. DSM Sayz: often accompanied by depression and anxiety; risk factors for the subsequent development of other mental disorders
B. DSM Sayz: may also represent a prodromal expression of an episode of another mental disorder
C. DSM allows comorbidity with depressive and anxiety disorders, among others.

III. Insomnia (Prevalance 6%–10%, but insomnia symptoms higher: 10-15%)
A. A predominant complaint of dissatisfaction with sleep quantity or quality, associated with one (or more) of the following symptoms:
1. Difficulty initiating sleep.
2. Difficulty maintaining sleep
3. Early-morning awakening with inability to return to sleep.
B. Clinically significant distress or impairment
C. Occurs at least 3 nights per week for at least 3 months.
D. Occurs despite adequate opportunity for sleep
E. Not attributable to something else:
1. Another sleep-wake disorder
2. Physiological effects of a substance
3. Coexisting mental disorders and medical conditions
F. Specifiers:
1. With non–sleep disorder mental comorbidity, including substance use disorders
2. With other medical comorbidity
3. With other sleep disorder

Sexual Dysfunctions

I. Essential feature is inhibition in the appetitive or psychophysilogic changes that characterize the complete sexual response cycle.
II. To diagnose: 1) must be present in all or almost all occasions; 2) last for at least 6 months; 3) cause distress. Diagnosis is not made if fully explained by medical/substance factors or secondary to another Axis I mental disorder

III. Disorders are not mutually exclusive:
A. Disorders involving interest/arousal:
   Female Sexual Interest/Arousal Disorder;
   Male Hypoactive Sexual Desire Disorder;
B. Disorders affecting satisfactory orgasm:
   Erectile Disorder;
   Delayed Ejaculation;
   Premature (Early) Ejaculation;
   Female Orgasmic Disorder
C. Disorder involving pain:
   Genito-Pelvic Pain/Penetration Disorder: includes four commonly comorbid symptom dimensions: 1) difficulty having intercourse, 2) genito-pelvic pain, 3) fear of pain or vaginal penetration, and 4) tension of the pelvic floor muscles
D. Substance/Medication-Induced Sexual Dysfunction; no duration criterion

Gender Dysphoria

I. Essential Feature: a marked incongruence between the gender assigned (usually at birth, referred to as natal gender) and the experienced/expressed gender. There must also be evidence of distress about this incongruence.
A. Prevalence: For natal adult males, prevalence ranges from 0.005% to 0.014%, and for natal females, from 0.002% to 0.003%.
B. Must last at least 6 months
C. Variant for Children; another for adolescents/adults

II. Specifiers: With a disorder of sex development; Posttransition

Paraphilic Disorders

I. Overview:
II. A Paraphilia is necessary but not sufficient for diagnosis of Paraphilic disorder; diagnosis is made if person finds the urges distressing or that they cause impairment, or if the person acted on the urges and by so doing causes personal harm, or risk of harm, to others.
III. Duration of 6 months required; recurrent and intense sexual arousal required
IV. Specifically:
   Voyeristic Disorder,
   Exhibitionistic Disorder,
   Frotteuristic Disorder;
   Sexual Masochism Disorder;
   Sexual Sadism Disorder;
   Pedophilic Disorder (noteindividual ≥ 16 years and at least 5 years older than child);
   Fetishistic Disorder
   Transvestic Disorder;
V. Other Specified Paraphilic Disorder (Telephone scatologia, Necrophilia, Zoophilia, Coprophilia, Urophilia, Klismaphilia).
Personality Disorders

I. General Issues
   A. **Deeply ingrained, maladaptive** patterns of behavior: rigid, repetitive, self-defeating
   B. To Diagnosis, must cause social/occupational impairment OR personal distress
   C. Traditionally a diagnostic category with low reliability; difficult to diagnosis on a single sighting; insight of patients may be limited (not MY problem…)
   D. Co-morbidity a problem; upwards of 50%
   E. Prevalence: Cluster A 5.7%; Cluster B, 1.5%; Cluster C, 6.0%; Any PD: 9-15%

II. Definition of a Personality Disorder (**Persistent, Pervasive, Pathological**)  
   A. Enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, as manifested by 2+ of:
      1. Cognition (ways of perceiving and interpreting self, other people, and events)
      2. Affectivity (range, intensity, lability, appropriateness)
      3. Interpersonal functioning
      4. Impulse control
   B. This pattern is inflexible and pervasive
   C. Distress or impairment in functioning
   D. Stable pattern dating back to adolescence or childhood
   E. The usual rule-outs

III. Three clusters of Personality Disorders
   A. Cluster A: odd & eccentric
      1. Paranoid--pervasive pattern of distrust and suspiciousness; unwarranted tendency to interpret actions of others as threatening or demeaning
      2. Schizoid--pervasive pattern of detachment from social relationships and restricted range of emotional expression
      3. Schizotypal--pervasive pattern of acute discomfort in close relationships, cognitive or perceptual distortions, and eccentricities of behavior; peculiar ideas, dress, & behavior; deficits in relationships
   B. Cluster B: dramatic & emotional & erratic
      1. Antisocial--DSM's psychopathy; pervasive pattern of disregard for, and violation of, the rights of others
      2. Borderline--pervasive pattern of IN STABILITY: interpersonal relationships, self-image, and affect; marked impulsivity
      3. Histrionic--pervasive and excessive emotionality and attention seeking
      4. Narcissistic--pervasive pattern of grandiosity, need for admiration, lack of empathy; grandiose fantasies and behavior about self or abilities, lack of empathy for others, hypersensitivity to negative evaluation of others
   C. Cluster C: anxious & fearful
      1. Avoidant--pervasive pattern of social inhibition, feelings of inadequacy, hypersensitivity to negative evaluation; social discomfort, timidity, and fear of negative evaluation
      2. Dependent--pervasive pattern of submissive and clinging behavior related to an excessive need to be taken care of
      3. Obsessive-Compulsive--pervasive pattern of preoccupation with order, cleanliness, perfectionism, mental and interpersonal control
### Substance-Related and Addictive Disorders

#### Table 1 Diagnoses associated with substance class

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<tr>
<th>Substance</th>
<th>Psychotic disorders</th>
<th>Bipolar disorders</th>
<th>Depressive disorders</th>
<th>Anxiety disorders</th>
<th>Obsessive-compulsive and related disorders</th>
<th>Sleep disorders</th>
<th>Sexual dysfunctions</th>
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**Note.** X = The category is recognized in DSM-5. I = The specifier “with onset during intoxication” may be noted for the category. W = The specifier “with onset during withdrawal” may be noted for the category. I/W = Either “with onset during intoxication” or “with onset during withdrawal” may be noted for the category. P = The disorder is persisting. *Also hallucinogen persisting perception disorder (flashbacks). **Includes amphetamine-type substances, cocaine, and other or unspecified stimulants.
### RDoC Matrix

#### Negative Valence Systems

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<th>Molecules</th>
<th>Cells</th>
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## Cognitive Systems

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THE UNIVERSE

E=MC  The equation for the atom bomb. It says that matter and energy are the same thing. So then what is that? Matter, look at a brick. Its in a three dimensional form. Its made of electrons, protons and neutrons (atoms) and they are moving so the brick is moving. Energy, sunlight. Its in a three dimensional form. It comes to us from the sun therefore it is moving. 3D and moving Both matter and energy are 3D and moving. I outproduce Einstein. We already know all matter has gravity. The bending of light shows that energy has gravity also. So matter and energy are 3D moving with gravity. The universe is made of matter, energy, time and space. That just stated is the matter and energy part. Time and space. Take everything in the universe and stop it. Does time progress? No. Therefore time is the motion and the understanding of all the motion is the understanding of all of time.

Space, it ends. Space does not go on forever. Space is in a three dimensional form. It moves but does not have gravity. Space moves like this. O ∪ + ∩ O
And that is the understanding of all of time.

O This is what was first in the beginning.
∪ This is the old kings and queens.
+ This is democracy.
∩ This is socialism.
O This is when the Lord Jesus Christ returns.

And that is the understanding of the universe. Glory be to the Father the Son and the Holy Ghost. Revelation chapter 10 & 11; 15 - 19. It is very important the people receive this information. You may tell someone about this.

Thank You
Bird In A Box

I'm not a free lunch box car parked in the seat
deading streetcar of desire caught by the tailpiece
I'm a Jiffy pop tarts are bad for your teenage beef
There's a mandolinda evans talking on the phone call a porter wagoner tailor-made underwear
Every dog has his dayton ohio hillier says to button your fly tijuana place a bette midler
Oh drop dead lock stock and bugle coral reefer man
every marlon brando gave him a great big handstand
What a lumpy guy lumbago embargo fish pants
Is there a groucho marxist doctrine in the house calls about a lost set of keystone cops out the same way you came in through the bathroom wind
Oh look! A rock n' roller skate and all skate slowly
Hey man a t-bone state of the aren't you gonna finish your bird in a box
Hey man your witness to the stand still shoulder to shoulder the burden a box hey man and even colonel sanders' daddy was a thunderbird in a box
Loose tooth three of a perfect paradiced onions cheese and beans from another planetari gargoyle change
Every two thousand smiled at linda evans called again singing happy birthmark

Lyrics by Adrian Belew
© 1989 Sako Music Co.
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21

SUN 9/14
7:15 Up, get ready, shave, hairgel, Brush teeth + floss + List,
BRUT 8:45 Leave 9 CAFÉ Mass + Breakfast
ASK IF THEY MEET EVERY WED ... WEBSITE SAYS SO
(ALTERNATE: 7 MASS St Elizabeth Ann)
BRUSH TEETH Get ready for bed Bed (Up 1:40 tomorrow)
WNBA REGULAR SEASON ENDS 5-962-52720
CHURCH GIVING HOLY FAMILY THROW OUR FAMILY
GET BULLETIN FROM HOLY FAMILY
APT OFC VIDEOS RECYCLE alum, paper, plastic
WALKING TRAILS Mark these 3 things off “Things to do”
Log workout, Ice muscle PRAYER
Log Food Stock + Groc List + Move, Thaw Food, Ice Cubes,
TV view, Sleep Time, Shades, Outdoor Light, AC,
Alarm Cell, Alarm Clock, Hairgel Off, Scratch Skin,
Wipe Eyes, Wipe Face, Move Pillow, Clean Nose, Vitamin
Tucson Diocese Mag, U of A Visitor’s Mag
AMANDA APOLOGY DEE Sociability (eyebrows)

2nd list on left side (row before handicapped)
Mexican breakfast at church 10:30 look for
Fr. Robert
Cleckley's Notion of the Psychopath

1. Superficial charm and good intelligence
2. Absence of delusions and other signs of irrational thinking
3. Absence of "nervousness" or other psychoneurotic manifestations
4. Unreliability
5. Untruthfulness and insincerity
6. Lack of remorse or shame
7. Inadequately motivated antisocial behavior
8. Poor judgment and failure to learn by experience
9. Pathologic egocentricity and incapacity for love
10. General poverty in major affective reactions
11. Specific loss of insight
12. Unresponsiveness in general interpersonal relations
13. Fantastic and uninviting behavior with drink and sometimes without
14. Suicide rarely carried out
15. Sex life impersonal, trivial, and poorly integrated
16. Failure to follow any life plan
University of Arizona – Department of Psychology

In support of XXXXX XXXXXX’S application to the Ph.D. Clinical Program

I spent the dawn of the millennium at the University of Windsor in Ontario working towards an honors B.A. in psychology. Although I was almost certain that I was destined for a career in clinical psychology, I thought it would be best to pursue a XXXX degree in Experimental Psychology, so as to have a more balanced view of the mind on the whole. This I did in September of #### in XXXXXXXXXX XXXXXXXXXX University. For 21 months, I worked on my thesis, which dealt with the necessity of protein synthesis in the amygdala for consolidating a predator stress episode between a rat and a cat. In the process, I chalked-up a publication in a scientific journal (and book chapter) and was included in a presentation held in New Mexico to an international Neuroscience Society. In addition to providing a rare – and I believe invaluable – purely materialistic interpretation of psychological phenomena, it strengthened my initial resolve to become a clinician, as I found that I continuously intuitively related my new science outlook back to previous philosophical inquiries and vague artsy ideas. I don’t think I can place anything more on paper that would be of any relevance to your selection process: an additional linear string of letters does not do justice to timeless, parallel bushels of conceptual and emotional development that could really only be expressed by increasing layers of symbolic representations that would border on the flush of a poetic dreamscape: difficult to do in a speech like this without sounding like a French perfume pitch. If I were to mould the weave of the senses-time-learning into a fixed warp and woof for only a moment, I would conclude that an ideal clinician is not a person who possesses the most number of correct answers, but the greatest flexibility in thought: it is at once a blindfolded pirouette along a dotted-line Universe and a here-and-now perception of curling smoke in a Parisian café. It is the liquefying of the soul into musical notes. It is the alchemist’s belief in pure-Zen-light balanced precariously atop a Jovian marshmallow. It is openness resulting in an endless emotional differentiation building up every which way and back again. It is being an Old Man watching a starving young Hem being fed on the images of Cezanne. It is being a swollen hot-air balloon filled to the brim with axioms and platitudes while dissolving oneself instantaneously with a snap of the fingers. It is bluffing a cool eye to a desert sky; cosmic curvature trailing mimesis, an oasis. It using Proust’s cookie as a Frisbee. It is bedazzle nightly as the sober force in a chorus of Aristophanic camels. It is being the panache in Dali’s moustache...etc., etc., (the theoretical aggregate of which should bear but a modicum of resemblance to the symmetry of a perfume ad). Well, I should end by selecting a person with whom I would like to work with: this would be either Dr. Jacobs or Dr. Allen, because, as you will notice from my XXXX work cited above, our research interests are reasonably similar; yet I realize that I possess a deficit in my schooling with regard to the philosophical side of pathological emotionality. So this would complement my previous learning beautifully. To conclude, I suppose my overall professional goal is to learn as much as humanly possible. This would likely entail future teaching and research posts post-Arizona; integral, dynamic branches that they are to this endless process: all in the pursuit, though, of making me a happy, well-rounded productive person for my brief sojourn on this small planet.
OPINION

So This Is A Panic Attack, Eh?

BY T. ERIC MAYHEW
JULY 30, 2009 | ISSUE 45•31

Hmmm. Something seems to be happening. I'm definitely noticing a quickening of the breath, a pounding of the heart, racing thoughts, and I believe...yes, the feeling of an elephant sitting on my chest. If I didn't know any better, I'd say this is one of those elusive "panic attacks" I've heard so much about.

Huh. I really didn't expect it to be quite so utterly terrifying. Weird.

It's almost as if the more I think about how panicked I am, the more panicked I get. Like some kind of, what do you call those? Vicious circles. Like I'm spiraling around in an state of utter helplessness, unable to function on even the most basic level. Yeah, that about sums it up. I'd like to try to calm myself down by drinking a glass of water, but—it's really the darnedest thing—the kitchen sink feels 400 miles away, and the thought of actually getting up to go over there feels about as impossible as flapping my arms and flying to the moon. Man, these panic attack things really are as petrifying as they look in the movies!

Now, granted, I'm new at this, but I can't help but notice that there doesn't appear to be any concrete reason for me to feel so terrible. How odd. I guess I assumed that such a sudden, paralyzing wave of unbearable dread like this would follow an actual occurrence of some sort. Like, say, my girlfriend leaving me. Oh my God, what if my girlfriend leaves me? Perhaps if I think about it for a moment longer, I can come up with all kinds of specific reasons to feel this terrible.

Oh, yep, here they come. Here they come. Loneliness, getting fired from job, alienation by social circle, blood clots in legs, my dog hates me, plane crashes, cancer. Gee, these panic attacks are powerful stuff, aren't they? They weren't kidding!

I can't quite put my finger on the total sensation of unavoidable doom that's coursing through my body like a tidal wave. But if I had to describe it, I'd probably go with "all-consuming."

Yeah, definitely all-consuming. Everything in my field of vision seems to contain malevolent, menacing forces bent on my destruction, which is a bit of a surprise considering they're just inanimate objects in my living room. Lamps, end tables, rugs...who knew they could be so horrifying, in a nonspecific sort of way?

Aaaand, now I'm sweating. Oh, my stars and garters, isn't this wild?

I wonder what's going to happen next. If I weren't stuck in the fetal position, I'd be on the edge of my seat with anticipation. Going by what my brain has been telling me repeatedly for the past 20 minutes, I'd predict that I'm about to die. Probably a heart attack. Or stroke. Or brain aneurysm, diabetic shock, spontaneous lung collapse, or...can you panic to death? My, my, what amazingly rapid thoughts I'm having.

Maybe if I repeat some simple phrase to myself over and over maniacally, that'll calm me down. It's worth a try, right? You're fine. You're fine. You're fine. Nope. Turns out the only sounds I am capable of making right now are strangled gurgling noises and quiet sobs.

Oh, wait. I seem to be calming down a bit. Yes. Things are coming back into focus and I can feel my heart slowing. All right. Settle down. Breathe slow. Someday I'm going to die. Oh, God, it's back. Here we go.

I had better call 9-1-1 and have an ambulance come pick me up. Then they can take me to the hospital and complete a barrage of tests that will all come back negative, and the doctors will tell me there's nothing wrong with me physically, and they'll chastise me for wasting their time and valuable hospital resources, and the bill will be outrageously high, and I won't be able to pay it, and I'll be right back here in this whirling vortex of unrelenting horror and fear.

Oh, my goodness gracious. How long do these things last?

Perhaps hiding under the covers in my bed will help. Let's see now...no, nope. Still just as panicky under there as I was curled up in a ball on the couch. This panic attack sure is persistent. Looks like it's going to follow me wherever I go.

In fact, come to think of it, nothing can help me at all. Alternately hugging the couch pillows and throwing them across the room doesn't seem to have any effect. Sobbing with big fat tears running down my face isn't doing any good either. The worse things get, the more I panic, and the more I panic, the worse things get.

Who knew that, all this time, when people were talking about a panic attack, what they really meant was a nonstop rocket-sled ride to hell itself, where your soul gets sucked through a straw by demons?

Well, at least I finally understand what all the hubbub is about.
Handbook suggests that deviations from 'normality' are disorders

By George F. Will
Sunday, February 28, 2010

Peter De Vries, America's wittiest novelist, died 17 years ago, but his discernment of this country's cultural foibles still amazes. In a 1983 novel, he spotted the tendency of America's therapeutic culture to medicalize character flaws:

"Once terms like identity doubts and midlife crisis become current," De Vries wrote, "the reported cases of them increase by leaps and bounds." And: "Rapid-fire means of communication have brought psychic dilapidation within the reach of the most provincial backwaters, so that large metropolitan centers and educated circles need no longer consider it their exclusive property, nor preen themselves on their special malaises."

Life is about to imitate De Vries's literature, again. The fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM), psychiatry's encyclopedia of supposed mental "disorders," is being revised. The 16 years since the last revision evidently were prolific in producing new afflictions. The revision may aggravate the confusion of moral categories.

Today's DSM defines "oppositional defiant disorder" as a pattern of "negativistic, defiant, disobedient and hostile behavior toward authority figures." Symptoms include "often loses temper," "often deliberately annoys people" or "is often touchy." DSM omits this symptom: "is a teenager."

This DSM defines as "personality disorders" attributes that once were considered character flaws. "Antisocial personality disorder" is "a pervasive pattern of disregard for . . . the rights of others . . . callous, cynical . . . an inflated and arrogant self-appraisal." "Histrionic personality disorder" is "excessive emotionality and attention-seeking." "Narcissistic personality disorder" involves "grandiosity, need for admiration . . . boastful and pretentious." And so on.

If every character blemish or emotional turbulence is a "disorder" akin to a physical disability, legal accommodations are mandatory. Under federal law, "disabilities" include any "mental impairment that substantially limits one or more major life activities"; "mental impairments" include "emotional or mental illness." So there might be a legal entitlement to be a jerk. (See above, "antisocial personality disorder.")

The revised DSM reportedly may include "binge eating disorder" and "hypersexual disorder" ("a great deal of time" devoted to "sexual fantasies and urges" and "planning for and engaging in sexual behavior"). Concerning children, there might be "temper dysregulation disorder with dysphoria."
This last categorization illustrates the serious stakes in the categorization of behaviors. Extremely irritable or aggressive children are frequently diagnosed as bipolar and treated with powerful antipsychotic drugs. This can be a damaging mistake if behavioral modification treatment can mitigate the problem.

Another danger is that childhood eccentricities, sometimes inextricable from creativity, might be labeled "disorders" to be "cured." If 7-year-old Mozart tried composing his concertos today, he might be diagnosed with attention-deficit hyperactivity disorder and medicated into barren normality.

Furthermore, intellectual chaos can result from medicalizing the assessment of character. Today's therapeutic ethos, which celebrates curing and disparages judging, expresses the liberal disposition to assume that crime and other problematic behaviors reflect social or biological causation. While this absolves the individual of responsibility, it also strips the individual of personhood and moral dignity.

James Q. Wilson, America's preeminent social scientist, has noted how "abuse excuse" threatens the legal system and society's moral equilibrium. Writing in National Affairs quarterly ("The Future of Blame"), Wilson notes that genetics and neuroscience seem to suggest that self-control is more attenuated -- perhaps to the vanishing point -- than our legal and ethical traditions assume.

The part of the brain that stimulates anger and aggression is larger in men than in women, and the part that restrains anger is smaller in men than in women. "Men," Wilson writes, "by no choice of their own, are far more prone to violence and far less capable of self-restraint than women." That does not, however, absolve violent men of blame. As Wilson says, biology and environment interact. And the social environment includes moral assumptions, sometimes codified in law, concerning expectations about our duty to desire what we ought to desire.

It is scientifically sensible to say that all behavior is in some sense caused. But a society that thinks scientific determinism renders personal responsibility a chimera must consider it absurd not only to condemn depravity but also to praise nobility. Such moral derangement can flow from exaggerated notions of what science teaches, or can teach, about the biological and environmental roots of behavior.

Or -- revisers of the DSM, please note -- confusion can flow from the notion that normality is always obvious and normative, meaning preferable. And the notion that deviations from it should be considered "disorders" to be "cured" rather than stigmatized as offenses against valid moral norms.

georgewill@washpost.com
Fort Ord Inventory (4 Indicators)
Sensitivity = .55
Specificity = .81

Allis Amy Ophistic Oak
Fort Ord Inventory (4 Indicators)
Sensitivity = .55, .80
Specificity = .81, .95
Bayesian Prediction

-- **THE** essential table:

<table>
<thead>
<tr>
<th>Diagnosis from test</th>
<th>Actual Diagnosis</th>
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<tbody>
<tr>
<td></td>
<td>Diseased</td>
<td>NonDiseased</td>
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<tr>
<td></td>
<td>$P$</td>
<td>$Q = 1 - P$</td>
</tr>
<tr>
<td><strong>Diseased</strong></td>
<td>$p_1$ Sensitivity True Positive</td>
<td>$p_2$ 1-Specificity False Positive</td>
</tr>
<tr>
<td><strong>NonDiseased</strong></td>
<td>$q_1$ 1-Sensitivity False Negative</td>
<td>$q_2$ Specificity True Negative</td>
</tr>
</tbody>
</table>

-- Single indicator case if indicator suggests **presence** of the disease (i.e., $H_p$):

$$\frac{Pp_1}{(Pp_1 + Qp_2)}$$

Example, Major Depression:
Assume Prevalence = 6%
Sign is low/sad mood,
Sensitivity = .95
Specificity = .80

$$\frac{(.06)(.95)}{(.06)(.95) + (.94)(.20)} = .233$$

Thus, or 23% of the time you identify someone with depressed mood, they have Major depression.

-- Single indicator case if indicator suggests **absence** of the disease:

$$\frac{Pq_1}{(Pq_1 + Qq_2)}$$

Same example, Major Depression:
Prevalence = 6%
Sensitivity = .95
Specificity = .80

$$\frac{(.06)(.05)}{(.06)(.05) + (.94)(.80)} = .0039$$

Thus, or ~0.4% of the time you identify someone without depressed mood, they actually have Major depression.

Using multiple indicators can improve our ability to make accurate predictions:

$$PROB(Depr | CombinationIndicators) = \frac{(Dd_1d_2...d_n)}{(Dd_1d_2...d_n) + (Nn_1n_2n_3...n_n)}$$

where

- $D =$ base rate of Depression,
- $N =$ rate of Nondepression ($1 - D$),
- $d_i =$ Sensitivity of indicator $i$ if indicator $i$ indicates the person is depressed
  or Complement of sensitivity ($1$ - sensitivity) for indicator $i$ if indicator $i$ indicates the person is NOT Depressed,
- $n_i =$ Complement of specificity ($1$-specificity) for indicator $i$ if indicator $i$ indicates the person is depressed
  or Specificity for indicator $i$ if indicator $i$ indicates the person is NOT Depressed.

Conceptually, this probability ratio is equal to the **proportion of DEPRESSED persons with a given combination of indicators** divided by the **proportion of ALL persons showing this combination**. If all indicators suggested the person was depressed, the probability would be high, but disagreement between indicators would lower the probability.
Example, again Major Depression, Assume Prevalence = 6%

<table>
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<tr>
<th>Signs are low/sad mood</th>
<th>Anhedonia</th>
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<tr>
<td>Sensitivity = .95</td>
<td>Sensitivity = .81</td>
</tr>
<tr>
<td>Specificity = .80</td>
<td>Specificity = .85</td>
</tr>
</tbody>
</table>

Thus if a person has both low mood and anhedonia,

\[
\frac{(.06)(.95)(.81)}{(.06)(.95)(.81) + (.94)(.20)(.15)} = .62
\]

If a person has only low mood but not anhedonia,

\[
\frac{(.06)(.95)(.19)}{(.06)(.95)(.19) + (.94)(.20)(.85)} = .06
\]

If a person has only anhedonia but not low mood,

\[
\frac{(.06)(.05)(.81)}{(.06)(.05)(.81) + (.94)(.80)(.15)} = .021
\]

If a person has neither low mood nor anhedonia,

\[
\frac{(.06)(.05)(.19)}{(.06)(.05)(.19) + (.94)(.80)(.85)} = .00089
\]

In words, if you identify a person with both low/sad mood and anhedonia, the probability that the person has major depression is 62% (62% of persons with both symptoms have major depression). If you identify a person with neither low/sad mood nor anhedonia, the probability such a person has major depression is ~0.09%. If a person has only one sign, the probability that person has major depression is 6% if they have only low/sad mood, and ~2% if they have only anhedonia.

To convince yourself of the utility of this procedure, think about the diagnostic criteria for Major Depression. A person must have a minimum of 5 of 9 symptoms. For simplicity, assume that each of the nine symptoms has a sensitivity of .8 and a specificity of .75 (some symptoms will obviously have better discriminating power, especially #1 and #2). You should compute the probability that an individual with 5, 6, 7, 8, or 9 of the 9 symptoms actually has a diagnosis of major depression.

The bayesian computation must therefore take into account 9 indicators in each case. The graph at the right plots the results of such computations with baserates for major depression ranging from 0 to 20%. The numbers in parentheses are what you should obtain when you make the computations assuming a baserate of 6%. 