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Current Issues in the Classification of Personality Disorder

Erroneous Assumptions

- The assumption that personality disorders are distinct from each other and from normal personality is wrong:
  - Implication: classifications should show continuity with normal personality
- The DSM-IV assumption that the features of personality disorder are organized into 10 diagnostic entities is wrong:
  - Implication: we need a scientific classification that reflects the empirical structure of personality pathology

Problems with DSM-IV

- Inadequate validity (Krueger et al., 2011)
  - Structural validity is poor: Statistical studies fail to replicate DSM diagnoses
  - Discriminant validity is poor:
    - There is extensive diagnostic overlap which poses a serious challenge to validity (Mineka et al., 1998; Widiger & Clark, 2000)
    - Diagnoses are not differentiated from each other
    - DSM PDs do not carve nature at its joints

Other Problems with DSM-IV

- Inadequate coverage: the system cannot classify about 40% of cases (Westen & Arkowitz-Westen, 1998)
- Diagnostic concepts show little resemblance to typical clinical presentations as evidenced by the prevalence of the PDNOS diagnosis (Verheul & Widiger, 2005
- Criteria sets identify highly heterogeneous samples for both borderline PD (Stone, 2010) and antisocial PD (Lykken, 2006)

Reaction to the Problems with DSM-IV

- General dissatisfaction: 80% of experts were dissatisfied with DSM-IV (Bernstein et al., 2007)
- Nevertheless, the field's reactions to these problems is puzzling:
  - Clinicians continue to use DSM-IV as if there were not a problem
  - Investigators who know better continue to study borderline and antisocial PDs (and psychopathic disorder) as if they were discrete, homogeneous entities
  - There is enormous resistance to change:
    - There is intense criticism of the DSM-5 and ICD-11
    - Much of this reflects a desire to maintain the *status quo*

Problems with DSM-IV and Criteria for Evaluating Revisions

1. The goal is a scientific classification based on, or at least compatible with, the best available scientific evidence
2. Diagnostic constructs should not be based on "unsystematic clinical observation" (Tyrer et al., 2011) or clinical myths, nor should they be simply "made up"
3. Avoid unnecessary changes
4. Change should primarily be concerned with increasing construct validity
5. Any change should be supported by substantial empirical evidence
6. Increase coverage

DSM-5

1. General definition of PD and associated level of personality disorder (measure of severity) based on:
   - Self pathology
   - Chronic interpersonal dysfunction
2. Six types: antisocial, avoidant, borderline, narcissistic, obsessive-compulsive, schizotypal each diagnosed on the basis of a specified number of traits; and *PD trait specified* to diagnose cases that do not fit a type
3. Dimensional system of 20+ traits organized into 5 domains: Negative Emotionality, Detachment, Antagonism, Disinhibition vs Compulsivity, and Psychoticism

DSM-5: Useful Features

- General definition of PD and measure of severity
- Introduction of dimensional classification
- In terms of criteria for evaluating classifications, the propose increased coverage because dimensional classification can encompass all cases
- This is achieved through the PD Trait Specified diagnosis

Problems with the DSM-5 Proposal

1. The proposal perpetuates the myth of discrete categories of personality disorder

Problems with the DSM-5 Proposal

2. The basic structure is flawed:
   - DSM-5 claims to be innovative hybrid model that integrates categorical and dimensional classification
   - This claim is false: the proposal contains two contains two distinct classifications.
   - This creates two problems:
     1. The assumptions underlying these models are logically incompatible; at least one is wrong
     2. The practical problem: Are clinicians required to make both a typal and a dimensional diagnosis? If so, why?

Problems with the DSM-5 Proposal

3. The typal model is inconsistent with empirical evidence:
   - The only appropriate types are what Cattell (1950) referred to "continuous types" created when cut-offs are used to convert the extremes of broad dimensions into categories e.g., PCL-R
   - The six typal diagnoses are NOT continuous types
   - Each type represents a discrete category of individuals who share the same dimensional profile; this profile cuts across domains
   - Cattell referred to these types as "discontinuous types"

A Minor Problem with "Discontinuous Types" as Proposed for DSM-5

- Nearly a century of research has consistently failed to identify replicable discontinuous types
- Recent empirical studies make this point clear (Krueger & Eaton, 2010; Eaton, *Krueger*, South, Simms, & *Clark*, 2011)
- This point is also made in a publication by the Personality and Personality Disorder Work Group (*Krueger*, Eaton, *Clark*, Watson, Markon, Derringer, *Skodol*, & *Livesley*, 2011)

Krueger, Eaton, Clark, Watson, Markon, Derringer, Skodol, & Livesley, (2011). Deriving an empirical structure of personality pathology for DSM-5. *Journal of Personality Disorders*, 25, 170-191

"There are numerous problems with *DSM-IV*, but most of these can be well understood as examples of the fact that personality disorder features and psychopathological tendencies ***do not tend to delineate categories of persons in nature*** (Eaton, Krueger, Simms, & Clark, in press) leading many to propose reconceptualizing *DSM-IV* PDs using dimensional constructs……" (p. 170-171) (italics added for emphasis).

Acknowledgments listed in Krueger et al 2011

- "We thank Renato Alcaron, Carl Bell……..for helpful comments on drafts of this article. We also thank other members of the DSM-5 Personality and Personality Disorders Work Group (Donna Bender, Les Morey, John Oldham, Larry Siever, and Roel Verheul) for their broad intellectual input into the paper through many Work Group discussions."

- This list plus the co-authors of the paper comprise the entire DSM-5 Work Group

Inconsistent Opinions Expressed by the Work Group

- Skodol, Bender, Morey, Clark, Oldham, Alarcon, Krueger, Verheul, Bell, & Siever. Personality types proposed for DSM-5. *Journal of Personality Disorders*, 25, 136-169

- Krueger, Eaton, Clark, Watson, Markon, Derringer, Skodol, & Livesley, (2011). Deriving an empirical structure of personality pathology for DSM-5. *Journal of Personality Disorders*, 25, 170-191

Problems with the DSM-5 Proposal

4. The six diagnoses included in the typal component are arbitrary and lack empirical support
5. The trait model bears limited resemblance to trait structures that have emerged in more than 60 years of systematic research (Widiger, 2011)
6. There are serious problems with the definition and diagnostic procedure for the six types:
   - Definitions of each type is not based on evidence
   - Basically, they are simply "made up"

DSM-5 Antisocial PD

1. Anatagonism characterized by:
   a. Manipulativeness
   b. Deceitfulness
   c. Callousness
   d. Hostility
2. Disinhibition characterized by:
   a. Irresponsibility
   b. Impulsivity
   c. Risk taking

DSM-5 Borderline PD

1. Negative Affectivity characterized by:
   a. Emotional lability
   b. Anxiousness
   c. Separation insecurity
   d. Depressivity
2. Disinhibition characterized by:
   a. Impulsivity
   b. Risk taking
3. Antagonism characterized by:
   a. Hostility

Impulsivity as Defined by DSM-5

- As defined for antisocial PD:
  - Acting on the spur of the moment in response to immediate stimuli; acting on a momentary basis without a plan or consideration of outcomes; difficulty establishing and following plans
- As defined for borderline PD:
  - Acting on the spur of the moment in response to immediate stimuli; acting on a momentary basis without a plan or consideration of outcomes; difficulty establishing and following plans; a sense of urgency and self-harming behavior under emotional distress

Hostility as Defined by DSM-5

- As defined for antisocial PD:
  - Persistent or frequent angry feelings; anger or irritability in response to minor slights and insults; mean, nasty, or vengeful behavior
- As defined for borderline PD:
  - Persistent or frequent angry feelings; anger or irritability in response to minor slights and insults

ICD-11

- The only diagnosis evaluation is assessment of severity of personality disorder based on 5 levels:
  - Normal personality
  - Personality dysfunction
  - Personality disorder
  - Complex personality disorder
  - Severe personality disorder
- A dimensional system for assessing personality disorder along 5 dimensions:
  - Asocial/schizoid
  - Dyssocial
  - Obsessional/anankastic
  - Anxious-dependency
  - Emotionally unstable

Radical Changes Proposed by ICD-11

- Diagnosis by severity:
  - The "only task asked of the clinician is to allocate level of severity to the disturbance; everything else is secondary" (Tyrer et al 2011)
- The only diagnostic decision is whether personality disorder is present or not
- This innovation is consistent with:
  - Dimensional assessment where the task is to establish the presence of general PD and to describe personality using a dimensional profile (Cloninger, 2000; Livesley 2003; Livesley et al, 1994)
  - Evidence that severity not the specific type of PD best predicts outcome (Crawford et al, 2011)

ICD-11: Dimensional Classification

- Robust evidence suggests that four broad dimensions underlie personality disorder (Mulder & Joyce, 1997; Livesley, 1998, 2001, 2003; Widiger & Simonsen, 2005; Trull & Durrent, 2005; Widiger & Trull, 2007)
- ICD-11 literature review drew similar conclusion (Mulder et al., 2011):
  - Asocial/schizoid
  - Dyssocial/antisocial
  - Obsessional/anankastic
  - Anxious/dependent
- Behavioural genetic studies suggest:
  - The 4-factor structure reflects the genetic architecture of personality disorder traits (Livesley et al., 1998)
  - Genetic continuity between normal and disordered personality traits (Jang & Livesley, 1999)

ICD-11: Four or Five Domains

- The ICD proposal separates the anxious dependent domain into two domains:
  - Anxious-dependency
  - Emotionally unstable
- Why? There is no evidence to support this cleavage
- This domain has consistently been one of the most robust and homogeneous (Neuroticism as described by Eysenck and the five-factor model)
- The reason seems political: pressure from the "borderline lobby"

Challenges for ICD-11

- To develop effective definitions of:
  - General personality disorder
  - Severity
- Specify domains in terms of component traits
- Resist the pressures of the borderline lobby
- Develop clinical labels for domains and traits
- Resist the pressures of trait psychologists to adopt the language of normal personality e.g., antagonism, negative emotionality, introversion

Criteria for Evaluating Revisions

1. Classification based on best available scientific evidence
2. Enhanced construct validity
3. Diagnostic constructs should not be based on unsystematic clinical observation, clinical myths, or "made up"
4. Empirical support for changes
5. Avoid unnecessary, pointless change
6. Increased coverage

Developments in Classification: Common Themes

- Two-component classification:
  1. Definition and criteria for general PD:
     - ICD-11: chronic interpersonal dysfunction
     - DSM-5: chronic interpersonal dysfunction and self/identity pathology
  2. A system to describe individual differences in personality pathology:
     - ICD-11: five (four) broad trait dimensions
     - DSM-5: six types and a dimensional structure

Why it is so difficult to construct a coherent, consensual classification?

1. Enormous disparity between traditional concepts and empirical findings

- Failure to substantiate the assumption of discrete categories:
  - Not only a problem for PDs but for most mental disorders.
  - Goldberg (2010) noted: "most mental disorders are continuously distributed in the general population" (pp. 256).
- Enormous difference between clinical concepts and empirically derived structures
  - The evidence suggests that 4 major dimensions underlie the domain of personality disorder
  - These dimensions show limited resemblance to traditional diagnoses

Dimensions of Personality Disorder

Emotional Dysregulation	Socially Avoidant	Dyssocial	Compulsive
Emotional reactivity	Low affiliation	Remorselessness	Orderliness
Emotional intensity	Avoidant attachment	Exploitativeness	Conscientiousness
Anxiousness	Self containment	Egocentrism	
Pessimistic anhedonia	Inhibited sexuality	Hostile-dominance	
Insecure attachment	Restricted emotions	Sadism	
Submissiveness		Conduct problems	
Social apprehensiveness		Sensation seeking	
Oppositionality		Impulsivity	
		Narcissism	
		Suspiciousness	
Neuroticism	**Introversion**	**Agreeableness**	**Conscientiousness**
Emotionally Unstable	**Asocial**	**Antagonism**	**Anankastic**
Asthenia		**Antisocial**	

Dimensions of Personality Disorder

Emotional Dysregulation

Emotional reactivity
Emotional intensity
Anxiousness
Pessimistic anhedonia
Insecure attachment
Submissiveness
Social apprehensiveness
Oppositionality

Socially Avoidant

Low affiliation
Avoidant attachment
Self containment
Inhibited sexuality
Restricted emotions

Neuroticism/Emotionally Unstable/Asthenia

Introversion/Asocial

Dimensions of Personality Disorder

Dyssocial	Compulsive
Remorselessness	Orderliness
Exploitativeness	Conscientiousness
Egocentrism	
Hostile-dominance	
Sadism	
Conduct problems	
Sensation seeking	
Impulsivity	
Narcissism	
Suspiciousness	
Agreeableness Asocial/Antagonism/ Antisocial	**Conscientiousness/ Anankastic**

2. The impact of cognitive information processing mechanisms on diagnostic classification

- Cognitive mechanisms used in everyday thinking influence clinical thinking and thereby hinder acceptance of an evidence-based system
- In everyday thinking, we organize information into categories or prototypes e.g., bird
- Clinicians also think in this way e.g., "classical psychopath"
- DSM-IV categories are heuristics for organizing clinical information into manageable clumps that support clinical decisions (Hyman, 2010; Livesley, 2003)
- Heuristics are an economical way to organize information and make it readily accessible
- This economy incurs a cost -- the process is subject to biases that introduce error into decision making (Kahneman, Slovic, & Tversky, 1982)

Cognitive Heuristics and PDs

- Common cognitive biases are:
  - The availability bias (the tendency to base decisions on the ease with which information is recalled)
  - The confirmation bias (the tendency to seek confirming evidence and neglect disconfirming evidence)
- These biases also influence decision-making in professional situations ranging from finance and investing (Ferguson, 2008, *The Ascent of Money*) to medical practice
- Availability and confirmation biases help to maintain the conviction that there are discrete categories of personality disorder

Cognitive Heuristics and PDs

- Personality disorder diagnoses are prototypic categories organized around classical cases
  - Prototypes seem "real" and intuitively convincing because classical cases are readily recalled and hence seem to confirm the prototype (availability and confirmation biases)
  - Less prototypic cases show features of more than one prototype
  - Hence they do not “stand out” and are less easily remembered (less accessible) despite constituting the majority of cases

Prototypic Categories and Philosophical Assumptions Underlying Classification

- Prototypes also persist because they are consistent with philosophical assumptions about the nature of mental disorders
- A commonly held philosophical perspective is essentialism -- the idea that a disorder has an underlying nature or essence – a fundamental impairment that causes the disorder (Zachar & Kendler, 2007)
- This mindset pervades ideas about personality disorder
- It is widely assumed there is an essence to disorders such as BPD and psychopathy and that the nosological task is to capture this essence with appropriate diagnostic criteria

Kendler, K.S. (2011). Levels of explanation in psychiatric and substance disorders: implications for the development of an etiologically based nosology. *Molecular Psychiatry, e-pub*

- An "approach which assumes that [mental] diseases have single clear essences, is probably inappropriate for psychiatry (and for much of chronic disease medicine). Rather, our disorders can be more realistically defined in terms of complex, mutually reinforcing networks of causal mechanisms" (p. 7)
- This idea has major implications for:
  - Constructing an aetiologically informed nosology of personality disorder
  - Theorizing about complex personality disorders such as psychopathic and borderline PD

3. The influence of the "personality disorder establishment" on the revision process

- David Bodanis in "*e=mc2: A Biography of the World's Most Famous Equation*" argues that radical change in a field is usually brought about from outside
- Establishment figures (those considered experts) cannot make radical innovations simply because they cannot imagine anything different from the ideas that they have worked with for so long
- Consequently, we must expect the "PD establishment" (experts who built their reputations working within the DSM) to resist attempts to create an innovative, empirically-based system
- Unfortunately, establishment figures usually form committees to revise classifications where they work to maintain the *status quo*
- This one of the problems with DSM-5: innovation is needed because the *status quo*, DSM-IV, is not working

4. The inordinate complexity of personality pathology

- This complexity comes about for three reasons:
  1. The inter-connectedness of underlying neurobehavioural mechanisms
  2. Personality is a complex system with multiple subsystems
  3. Psychopathology pervades all subsystems
- For example, McAdams (1994) described three levels to personality:
  - Dispositional traits
  - Personal concerns which include motives, roles, goals, and coping strategies
  - Life narrative

Dimensions of Personality Disorder

Emotional Dysregulation	Socially Avoidant	Dyssocial	Compulsive
Emotional reactivity	Low affiliation	Remorselessness	Orderliness
Emotional intensity	Avoidant attachment	Exploitativeness	Conscientiousness
Anxiousness	Self containment	Egocentrism	
Pessimistic anhedonia	Inhibited sexuality	Hostile-dominance	
Insecure attachment	Restricted emotions	Sadism	
Submissiveness		Conduct problems	
Social apprehensiveness		Sensation seeking	
Oppositionality		Impulsivity	
		Narcissism	
		Suspiciousness	
Neuroticism	**Introversion**	**Agreeableness**	**Conscientiousness**
Emotionally Unstable	**Asocial**	**Antagonism**	**Anankastic**
Asthenia		**Antisocial**	

Genetic Architecture of PD

- Twin studies show that PD traits are heritable in the 35-55% range (Livesley et al., 1993; Jang et al., 1996)
- Factor analysis of matrices of genetic correlations among traits produces the same 4-factor structure as phenotypic analyses

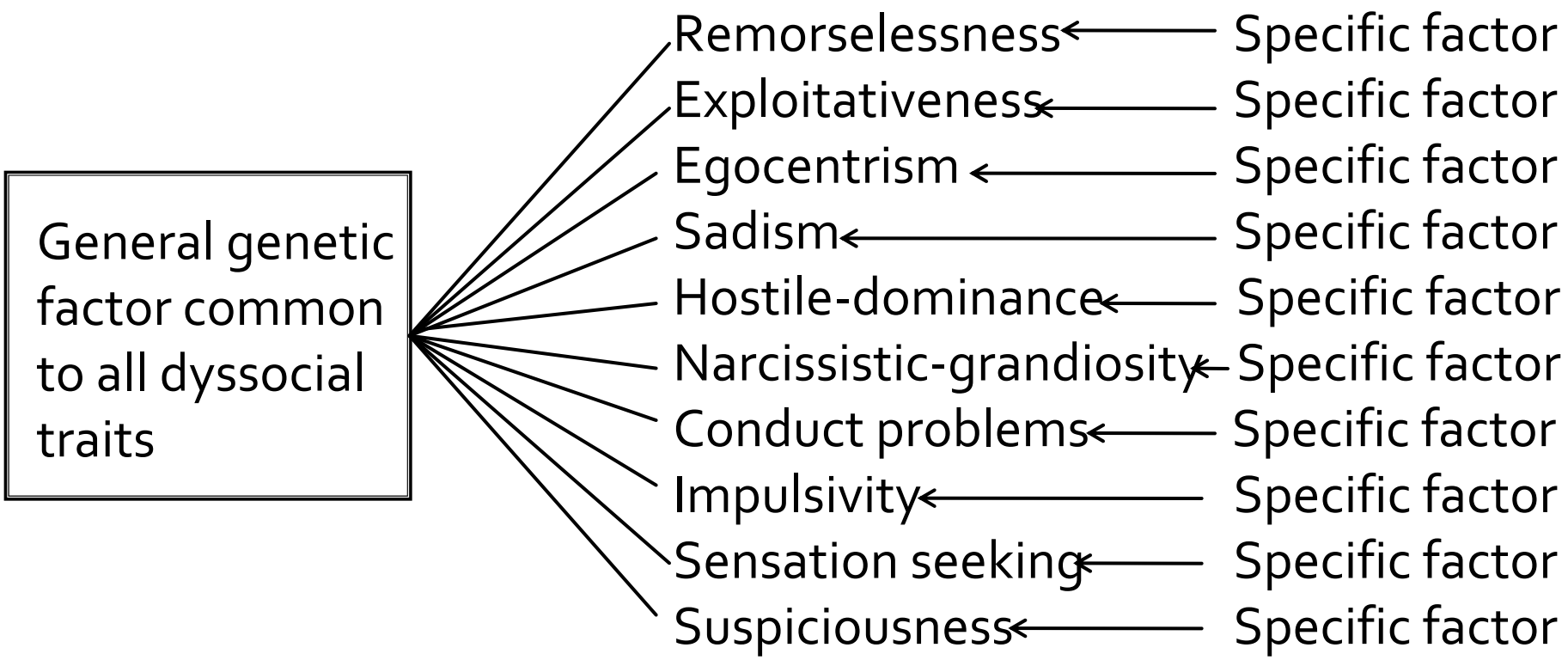
Factor 1: Emotional Dysregulation

	Phenotypic	Genetic
Anxiousness	89	95
Identity Problems	83	84
Submissiveness	79	91
Affective Lability	78	69
Cognitive Dysregulation	77	66
Insecure Attachment	75	64
Social Avoidance	76	76
Oppositionality	69	74
Suspiciousness	59	--
Narcissism	52	60

Factor 2: Dissocial

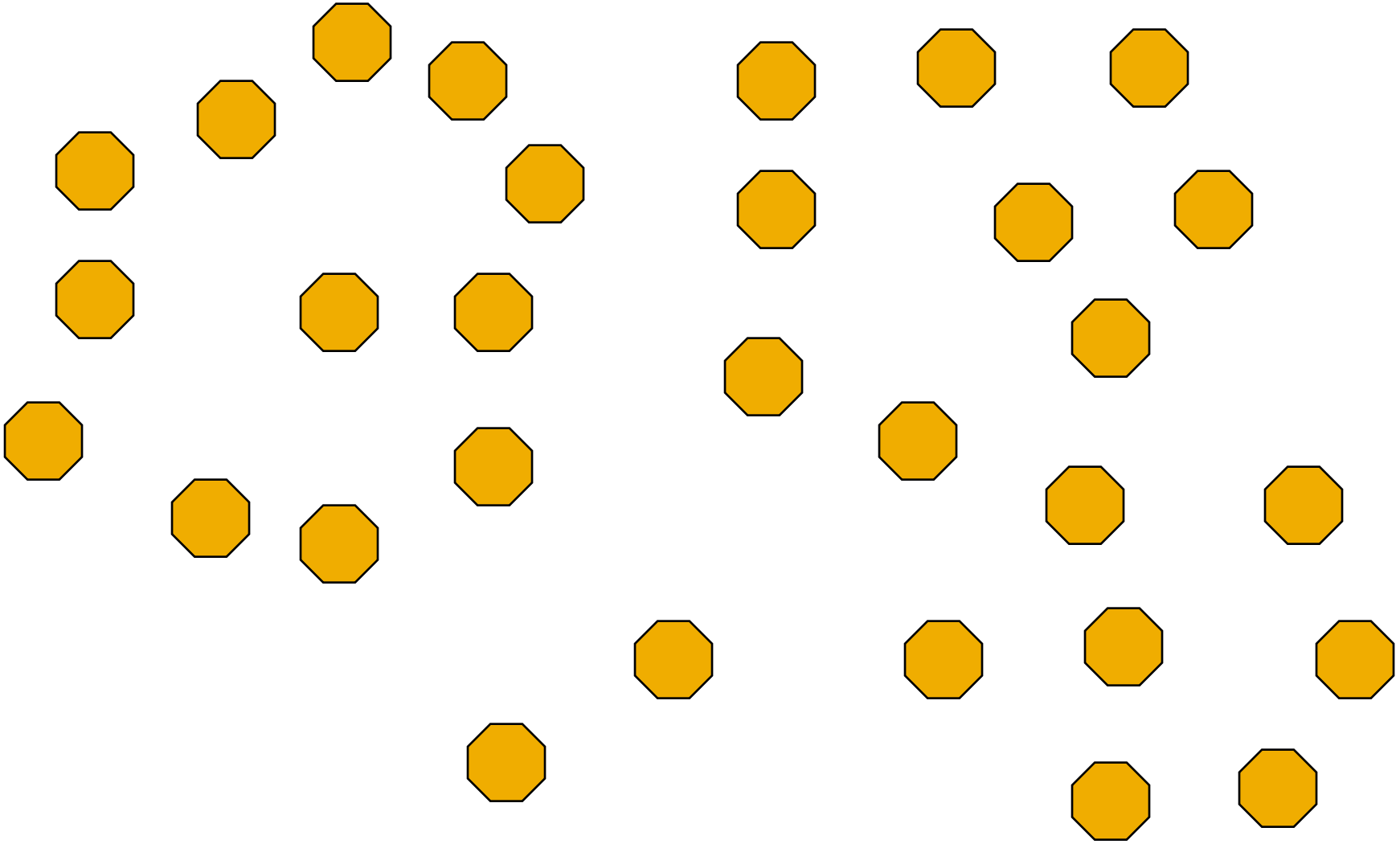
	Phenotypic	Genetic
Callousness	79	88
Rejection	79	82
Stimulus Seeking	73	61
Conduct Problems	71	75
Narcissism	52	- -
Suspiciousness	46	61

Genetic Architecture of Dyssocial Traits

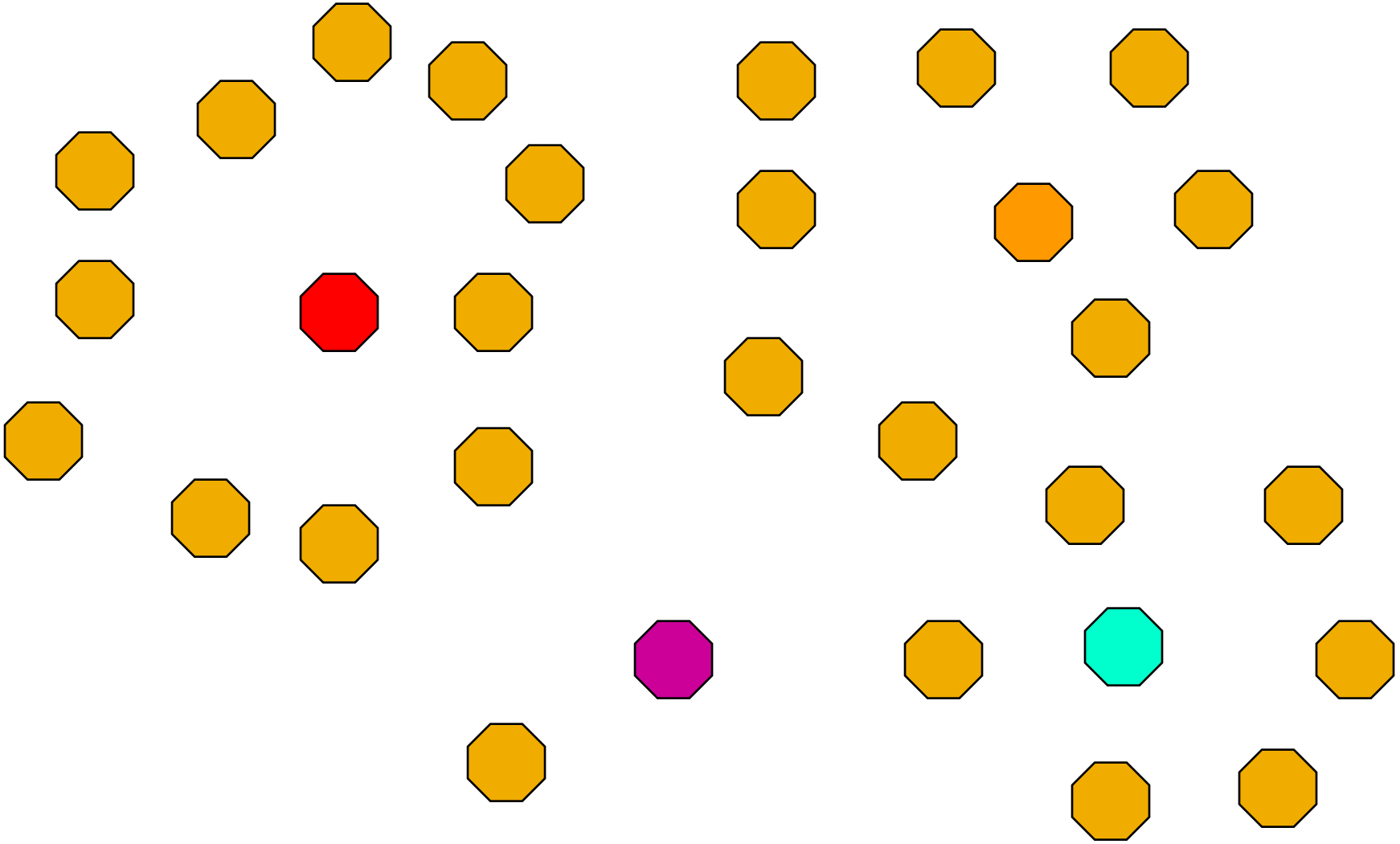


Genetic Component of Primary Trait = General Genetic Factor + Specific Factor

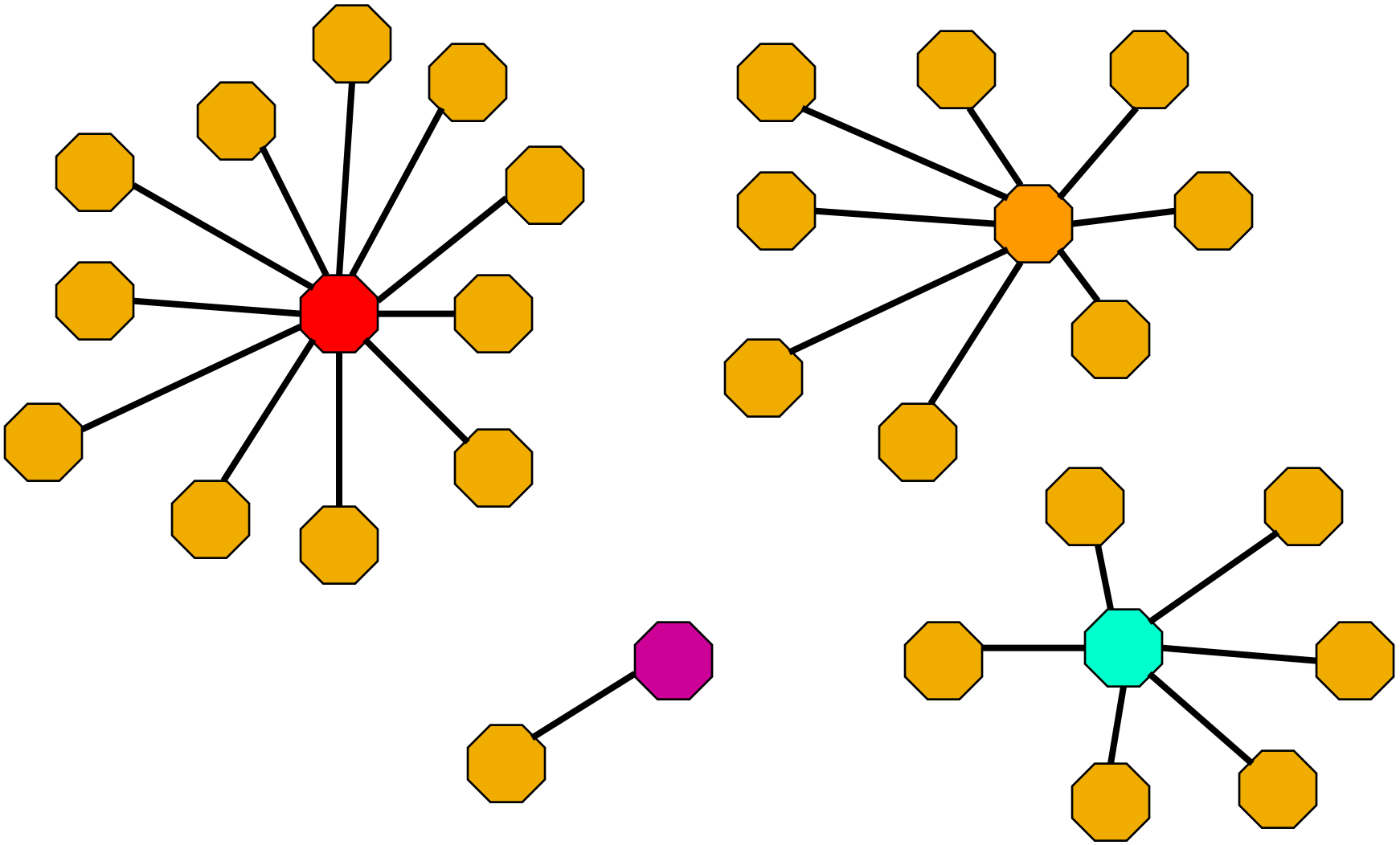
Genetic Architecture of Personality Disorder



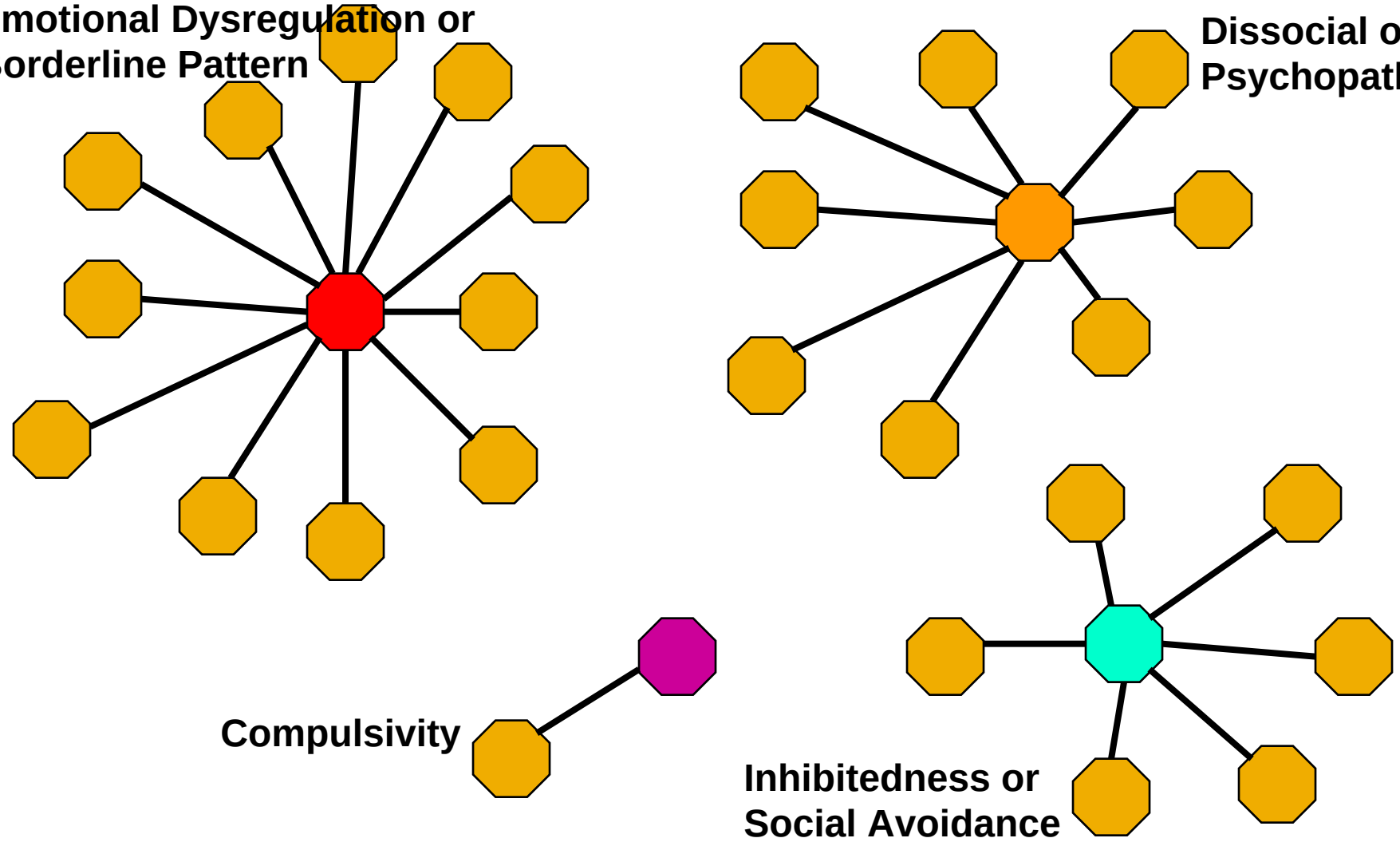
Genetic Architecture of Personality Disorder



Genetic Architecture of Personality Disorder



Genetic Architecture of Personality Disorder



Implications for Conceptualizing PD

- With this approach, domains are simply clusters of covarying traits (Lynam & Dreefinko, 2006) influenced by the same general genetic factor (Livesley & Jang, 2008)
- Domain names are merely labels that should not be reified
- The primary level of explanation is that of the primary trait: it is assumed that each primary trait is based on an adaptive mechanism that evolved because it conferred an adaptive advantage
- This model suggests that multiple aetiological factors contribute to the development of personality disorder and that any form of disorder can develop along multiple developmental pathways
- "Big causes" for personality disorder seem unlikely (Livesley, 2008)

Implications for Classification

- The complex genetic architecture of personality and the interplay between genetic and environmental influences create enormous diversity in personality phenotypes
- Any group of individuals with high scores on a given domain will show considerable heterogeneity
- Heterogeneity is further increased because many individuals will also have high levels of more than one domain or high levels of specific traits from different domains
- This heterogeneity presents a challenge classification and theory construction

What can we do about this?

Is a classification of PD feasible?
And, in what sense is it feasible?

Is a classification of PD feasible?

- If the goal is to construct an evidence-based system then current evidence suggests that a classification structured along traditional lines is not feasible
- The best that can be achieved is a two- component classification consisting of:
  1. A consensual definition of personality disorder and a related system to assess severity
  2. An evidence-based, aetiologically-informed system to describe individual differences in personality disorder
- The evidence suggests that the system to describe individual differences needs to incorporate the 4-factor model

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Anxiousness	Self containment	Egocentrism
Pessimistic anhedonia	Restricted emotions	Sadism
Submissiveness	Inhibited sexuality	Hostile-dominance
Insecure attachment		Conduct problems
Social apprehensiveness		Sensation seeking
Oppositionality		Impulsivity
		Narcissism
		Suspiciousness

Dimensions of Personality Disorder

Emotional

Emotional reactivity
Emotional intensity
Anxiousness
Pessimistic anhedonia
Submissiveness
Insecure attachment
Social apprehensiveness
Oppositionality

Threat/Fear Mediated Disorders

Socially

Low affiliation
Avoidant attachment
Self containment
Restricted emotions
Inhibited sexuality

Social Distance Disorders

Dyssocial

Remorselessness
Exploitativeness
Egocentrism
Sadism
Hostile-dominance
Conduct problems
Sensation seeking
Impulsivity
Narcissism
Suspiciousness

Socialization Disorders

Domain Based Classificagtion

- Pervasive disorder: elevated levels of most primary traits defining the domain
- Focal disorders: elevated levels in a subset of primary traits defining the domain

Emotional Dysregulation Domain: Pervasive and Focal Threat-Mediated Disorders

Pervasive Disorder	Primary Traits	Focal Disorders
Regulation Disorder (Borderline PD)	Emotional reactivity	*Emotional regulation disorder*
	Emotional intensity	
	Anxiousness	
	Pessimistic anhedonia	
	Submissiveness	*Dependency disorder* (Dependent PD)
	Insecure attachment	
	Social apprehensiveness	
	Oppositionality	*Oppositionality disorder* (Passive-Aggressive PD DSM-III)

Socialization Disorders

Pervasive Disorder	Primary Traits	Focal Disorders
Pervasive Socialization Disorder (Psychopathy)	Remorselessness Exploitativeness Egocentrism Sadism Hostile-dominance Conduct problems Impulsivity Sensation seeking Narcissism Suspiciousness	*Callousness Disorder* *Disinhibition Disorder (AsPD)* *Narcissistic Dis.* *Paranoid Disorder*

Conclusion

- It would be very nice if PDs were organized into discrete categories and if each category was clearly linked to a major aetiological factor
- Unfortunately, nature had something much more complex in mind
- At some point, the field has to come to terms with this reality.