Personality Disorders: Concepts, Constructs and Nosography

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Abstract

Personality Disorder (PD) is an enduring pattern of inner experience and behavior that deviates markedly from the expectation of the individual’s culture. It is pervasive and inflexible, has an onset in adolescence or early adulthood, it’s stable over time and leads to distress or impairment. According to a systematic review, the worldwide pooled prevalence of any PD is 7.8% (95% CI: 6.1-9.5) and rates are greater in high-income countries (9.6%, 95% CI: 7.9-11.3) compared with low- and middle-income countries (4.3%, 95% CI: 2.6-6.1). Global rates of cluster A, B and C PD are 3.8% (95% CI: 3.2-4.4), 2.8% (1.6, 3.7%) and 5.0% (4.2, 5.9%).

The aim of this narrative review is to reconstruct the evolution of the concept of Personality and Personality Disorders from their origins to nowadays controversies regarding categorical versus dimensional models.

Keywords: Personality disorders; Categorical model; Dimensional model; AMPD

Personality Disorders: From the Origin to the Pre-DSM Era

The first attempts to describe personality and its disorders date back to ancient Greek and Chinese philosophy. Confucius (551-479 BC) describes personality as influenced by “blood and vital humors” which changes within the life of the person representing a physical (blood - xuè) and psychological (vital humors - qì) theory (Confucius, 1984) [1-5].

In the Greek and Roman world the first attempt to systematize different personalities is reported inside "Characters" by Theophrastus (371-287 BC). He listed thirty characters describing, for each one, ten examples of reactions in different life situation. The eighteenth character, “distrustfulness”, is relatable to nowadays Paranoid Personality Disorder, characterized by a model of behavior pervaded by unjustified and suspicious diffidence towards the others, perceived by the subject as malevolent or harmful, in absence of real reasons to justify such feelings [6].

The term “character” (from Ancient Greek χαρακτήρ, “graven”) refers to a stable pattern of reactions, and this ancient approach agrees with our age knowledge of PD definition.

The term “temperament” has its origins in the work of the Roman physician Galen, in his four humors temperaments based upon Hippocrates’ bodily humors theory (blood, yellow bile, black bile and phlegm). In Galen’s view an imbalance of each humor matches to a particular human temperament: sanguine, melancholic, choleric and phlegmatic [7].

Between 1870 and 1900, at the beginning of psychiatric science as an autonomous one, the most affirmed theory was Phrenology, ideated by the German physician Franz Joseph Gall (1758-1828) and named by his associated Johan Gaspar Spurzheim (1776-1832). According to this theory every personality trait was associated to a specific area of the cerebral cortex, therefore personality became quantitatively describable by measuring the size of different zone of the cranium (e.g. bravery and tendency to fight was located behind the ear above the mastoid process). Phrenology was the first theory to link personality and cerebral cortex, and in relation with this assumption, abnormal personality became to be treated with prefrontal lobotomy. In 1848 Phineas Gage, an American worker, had an accident while he was constructing a railroad. A large iron rod went through his head due to an explosion and although he managed to survive, his personality and behavior were deeply altered. This case supported the Phrenology theory, suggesting the brain’s role in determining personality; therefore damage to specific parts of the brain might induce specific
personality mutation.

Philippine Pinel (1745-1826) was the first author to introduce PD into psychiatric nosology speaking about "manie sans délire" referring to patients that suffered of abnormal emotions and behaviors in response to minor frustration, but unlike mania had no intellectual impairment [8]. During the same age Jean-Étienne Dominique Esquirol (1772-1840) spoke about "monomanie raisonnante" and the English James Cowles Prichard (1786-1848) named a new category "moral insanity". All three authors based their studies upon cases of patients who had committed a crime, trying to use psychiatry to understand and explain behavior of individuals in trouble with the law.

The French psychologist Théodule-Armand Ribot (1839-1916) wrote about abnormal personalities in his texts "Les maladies de la personnalité" (1885) and "Las psiclogie del sentiments" (1896). As said in the past, he referred to personality as a characteristic that appeared during infancy and remained stable through life. He described three primary types of personality:

- The sensitive, introvert and easily impressed by positive or negative emotion,
- The active, extrovert and brave,
- The apathetic, who had a diminished propensity to excitation and reaction.

Those were then divided into subtypes based into different personality traits, for example the sensitive was divided into:

- The humble, who had limited energy and intelligence,
- The contemplative, as a sensitive individual with keen intellect and diminished activity,
- The emotional.

Intelligence was considered by the author as an important personality trait, and later authors stressed this, such as the Swedish psychiatrist Henrik Sjöbring (1879-1956). He suggested personality validity (psychic energy), stability (balance in keynote) and solidity (tenacity, firmness); finally he categorized personality according to these factors as normal, sub- or super- (e.g. supersolid, subcapable and so on).

Gerardus Heymans (1857-1930) was one of the first authors who used empiric methods to study personality, and he tried to describe it with the "cube of Heymans", a construction based upon his concepts of personality traits. He described three principal dimensions aligned with three axes of the cube: Activity (x-axis), emotivity (y-axis) and secondarity (z-axis). At the apexes of the cubes there were eight temperaments, which he named after theories of ancient philosophers and physician such as Galen and Hippocrates: Amorphous, sanguine, phlegmatic, apathetic, neurotic, choleric, passionate and sentimental.

The Russian psychologist Aleksandr Fyodorovich Lazursky (1874-1917) was the first one who distinguished "endopsychic" and "esopsychic" personality aspects. The first refer to traditional inborn psychological functions (such as perception, memory and attention) covering concepts as "temperament" and "character" whilst the espsychic aspects result from positive or negative interaction of personality with the outer world, hence these characteristic were influenced by individual's education and culture. The interaction between these two aspects gave rise to three level of overall functioning: inferior, characterized by poorly organized and weak personality, intermediate and superior.

At the beginning of XX century the meaning of the term "psychopath" downsized from the broad notion of mental illness to the more restricted abnormal personality. One of the most important authors of the age was Emil Kraepelin (1856-1926) who introduced the concepts of personality types and traits as they are used in current psychiatric nosography. During his studies he found out that there was a broad overlap between pathological conditions and personal features encountered in normal people, stating that the limit between normal and pathologic was gradual and arbitrary. In his opinion psychopathic personalities were the consequence of a faulty inborn constitution, which explained why these characteristics were stable from childhood through life. In the 7th edition of his textbook he described four pathological personalities: the born criminal (based upon Prichard "moral insanity" and the "born criminal" by Cesare Lombroso), the irresolute or weak-willed, the pathological liars and swindlers and the pseudoquersals, which correspond to today's paranoid personality [9]. In the 8th edition he broadened the list to seven types: The excitable, the irresolute, persons following their instincts, the eccentric, the pathological liars and swindlers, the enemies of society and the quarrelsome. As other before him, he studied patients who had problem with social adaptation and with the law because of their symptoms.

The German psychiatrist Kurt Schneider (1887-1967) defined as psychopathic personalities those who suffered or cause society to suffer because of their personality traits [1]. He described ten disorders whose characteristics were mainly inborn, but could evolve and change as a response to outer events. During his studies he noticed that a system composed by the association of normal and pathological personality traits was an artificial construct and that abnormal personality types could not be derived from the exaggeration of normal personality dimensions, hence clinically relevant PD could not be settled at the extremities of bipolar dimensions (e.g. weak-willed - strong-willed).

As the psychoanalysis arose, the focus about PD moved toward the impact of early life events. Sigmund Freud (1856-1939) first, then Karl Abraham (1875-1925) and Willhelm Reich (1897-1957) stated that adult psychology derives from childhood experiences [10]. The first model of a psychoanalytic approach to a faulty personality is Freud’s paper on "Character and anal erotism" (1909), where he described patients with compulsive personality as especially "orderly, parsimonious and obstinate" and he had the impression that they had belonged to the "class who refuse to empty their bowels when they are put on the pot because they derive a subsidiary pleasure from defecating" [11].

**Personality Disorders: From DSM-I to DSM-IV**

After World War II the American Psychiatric Association (APA) decided to develop a diagnostic manual in order to conform the psychiatric diagnoses, and the first edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM) was published in 1952.

The term “psychopath” was abandoned because of its referring to a “soul misery” and Personality Disorder was introduced to replace it [1]. Disorders belonging to this category were generally viewed as deficit conditions due to a partial development arrests or distortion
in development [12].

In the first edition of DSM, PD were listed into three main groups:

- Personality pattern disturbances, viewed as the most entrenched conditions (inadequate, schizoid, cyclothymic and paranoid personalities);
- Personality trait disturbances, less pervasive and disabling (emotionally unstable, passive-aggressive, compulsive personalities);
- Sociopathic personality disturbances, seen as social deviances (antisocial and dissoical reactions, sexual deviation and addictions such as alcoholism and drug addiction) [13].

The wish of the APA to reconcile its diagnostic terminology with the eighth edition of the International Classification of Disease (ICD) led to the second edition of DSM (DSM-II, 1968). The psychoanalytical theories, defining adult personality as a result of an integration process, had a great influence on the revision of the PD section. Considering personality aspects that were observable, measurable and stable through time was the focal point of the revision [14].

The major news about DSM-III (1980) was the introduction of a multiaxial system for diagnoses [15]. The centre of this system, Axis II, was established to include PD as well as specific developmental disorders, both seen as early-onset and persistent conditions [16]. Two new diagnoses were added in this edition: Borderline PD, conceptualized by Otto Kernberg, John Gunder Gunderson and Lalli [17], and Narcissistic PD whilst Schizoid PD, considered too broad and inclusive, was divided into three separate PD (Schizoid, Schizotypal and Avoidant PD) [12].

Theodore Millon et al. [16] had a major influence on the revision of PD. He underlined the importance of a multi-axial diagnosis and supported the "Biosocial-learning theory". Combining the three dimensions nature, source and instrumental behavior, he derived eleven behavioral patterns which can be related to DSM-III categories [1].

PD were grouped into the following three clusters, sorted by common behavioral features and criteria:

- **Cluster A** - odd or eccentric disorders - includes Paranoid, Schizoid and Schizotypal PD;
- **Cluster B** - dramatic, emotional or erratic disorders - lists Antisocial, Borderline, Histrionic and Narcissistic PD;
- **Cluster C** - anxious or fearful disorders - comprehends Avoidant, Dependent and Obsessive-Compulsive PD.

The DSM-III also introduced for each disorder a list of criteria, of which a subset had to be fulfilled to meet diagnostic threshold, defining the presence of a PD by a cutting score. Because of this, the DSM system as well as the ICD are referred to as categorical systems of personality whereas dimensional models, such as the Five Factor Model (FFM, also known as "the Big Five") and the Psychodynamic Diagnostic Manual (PDM), emphasizes the continuum between normal and abnormal personality traits.

DSM-III-R (1987) made almost no change in the diagnostic categories of PD, though some adjustments were made in certain criteria sets, in order to make them uniformly polythetic. Two new PD were included in Appendix A ("Proposed Diagnostic Categories Needing Further Study"): Self-defeating and Sadistic PD (Oldham, 2018) [12].

After an extensive process of literature reviews, data analysis and feedback from the profession, DSM-IV (1994) introduced for the first time a set of general diagnostic criteria for PD: Early onset, long duration, inflexibility and pervasiveness. Passive-aggressive PD moved to Appendix B ("Criteria Sets and Axes Provided for Further Study") because it was considered too unidimensional. Millon tried to rename it as Negativistic PD including further characteristics other than passive-aggressive behavior such as rage, pessimism and discontent. The new diagnose of depressive PD was also added to Appendix B whereas Self-defeating and Sadistic PD were abandoned due to lack of data [18].

DSM-IV-TR (Text Revision) came out in 2000 and no change were made about PD.

During the planning stage of DSM-V the work group on personality and PD tried to develop a dimensional proposal for PD because of the description of the categorical system as "woefully inadequate" whether a dimensional approach was recommended [19,20].

**The Alternative Model of Personality Disorders (AMPD)**

In the end, a hybrid dimensional and categorical model was proposed as an Alternative Model of Personality Disorders (AMPD) placed in section III of the manual (Emerging Measures and Models) while the categorical system, unrevised from the previous edition, was retained in Section II [4]. The alternative model includes 6 specific PD (antisocial, avoidant, borderline, narcissistic, obsessive-compulsive and schizotypal PD) plus a diagnosis of "PD Trait-Specified", allowing the description of individual trait profiles of patients with PD who do not suit any specific PD criteria set, replacing the diagnosis "PD Not Otherwise Specified". A meta-analytic study Watters et al. [21] shows a good correspondence between the six proposed PD and the correspondent ones of the Section II, except for Obsessive-compulsive PD. The authors denote the difficulty of AMPD’s trait evaluation as one of the main problems (Watters and Bagby, 2019).

The AMPD proposes seven criteria (A-G) among which the first two criteria are the prominent ones.

Criterion A quotes: "Moderate or greater impairment in personality functioning, manifested by difficulties in two or more of the following four areas: (1) Identity, (2) Self-direction, (3) Empathy, and (4) Intimacy". Personality functioning is distributed on a continuum, and the individual’s current overall level of impairment can be evaluated using the Level of Personality Functioning Scale (LPFS), included inside the manual [22-24]. While a moderate or greater impairment is necessary to make the diagnosis of a PD, this scale may also be used as a global indicator of personality functioning without specification for a PD diagnosis. According to Pincus [19] these conditions align with the interpersonal model of personality pathology meta-constructs.

Criterion B quotes: "One or more pathological personality trait domains OR specific trait facets within domains […]". It then proposes 25 trait facets grouped into five broad domains of personality trait variation: Negative Affectivity (vs. Emotional Stability), Detachment (vs. Extraversion), Antagonism (vs. Agreeableness), Disinhibition (vs. Conscientiousness) and Psychoticism (vs. Lucidity). The researches and studies behind criterion B led to the creation of an official
inventory, named Personality Inventory for DSM-5 (PID-5) [20].

The five domains are maladaptive variants of the "Five Factor Model" ones (FFM, known as the "Big Five"), a well validated and replicated dimensional personality model stated in 1988 by Costa & McCrae:

- Negative Affectivity → Neuroticism
- Detachment → Extraversion (low)
- Antagonism → Agreeableness (low)
- Disinhibition → Conscientiousness (low)
- Psychoticism → Openness (high)

The FFM is based upon the lexical paradigm: The most important domains of personality are those with the greatest number of terms to describe their manifestation and nuances [25], making robustness one of the major attributes of the FFM, as stressed by different studies [26,27].

Psychodynamic Diagnostic Manual (PDM) is presented as an alternative dimensional classification system to the DSM and it bases its diagnoses upon relational psychoanalysis: The focus of PDM moves from symptoms to the personal experiences of them, aspiring to be a taxonomy of people rather than disease [28]. PDM’s diagnostic evaluation covers adult, child and adolescents, infants and – in the second edition - elderly.

The adult section is divided into three axes and the first one discusses about Personality Patterns and PD (Axis P). Personality is described as defined by two major aspects: Level of personality organization and personality patterns, including their positive features (e.g. Obsession Comprehend Precision and a good job performance). The level of overall mental functioning (Axis M) is evaluated by assessing several competences, such as identity, capacity for relationships, defensive patterns and capacities, and so on. Symptoms and syndromes, focusing on the patient’s personal experience of them, are discussed inside Axis S.

PDM propose fifteen PD diagnoses (P101-15) as prototypic ones, and each description includes the most used defense mechanism [28].

**Discussion**

Nowadays, the debate about the supremacy between categorical and dimensional approaches to PD is still open and further studies and researches are needed to better understand these constructs and - mostly - their treatment.

Categorical systems are closer to traditional medicine approach, their criteria are easier to use in clinical everyday work whereas dimensional systems are more time consuming. By the way, categorical diagnoses cannot describe the sophistication and variety of personalities. On the other hand, dimensional systems have three main advantages compared to categorical ones [29,30].

First, it is considered to be more accurate about the measure and evaluation of abnormal personality traits, resulting more reliable than a categorical model.

Second, categorical approach tends to assign each individual one diagnosis, whereas systematic studies prove that people with a psychopathic personality appear to have more than one PD diagnoses; therefore the most common diagnosis using DSM system is “PD Not Otherwise Specified” that gives no information about the actual condition of the patient [12]. Hence, DSM system’s categories suffer from an “under-inclusiveness” problem that occurs when criteria sets identify a group of people who share some PD features, but there are also subgroups that exhibit large differences on features that are not represented in the criteria sets. It is also proven that the categorical system suffers from an “over-inclusiveness” problem, coming from the heterogeneity of diagnostic groups due to the big amount of different symptom profiles that are sufficient to qualify for a given disorder (e.g. 256 ways to meet a diagnosis of Borderline PD) [23]. Dimensional models not only remove these problems but they also explain the reason behind them.

Last, a dimensional approach may lead the clinicians to evaluate patients following a holistic approach, which is more time consuming but it also allows the clinician to have a deeper ken of the patient [31].

However, different dimensional systems are heterogeneous between themselves and some of the used terms tend to refer more to a cultural norm than to a personality trait [32].

Another problem about categorical system is the lack of validity of some criteria when applied to children and elderly (e.g. lack of interest about sexual experiences as one of Schizoid PD criteria), whilst the consensus about the importance of an early detection of maladaptive traits is increasing, due to both their predictive validity about the outcome and the importance of an early treatment to correct the maladaptive traits and reinforce the adaptive ones [33-37].

**References**


