

Milestones in the history of personality disorders

Marc-Antoine Crocq, MD



This paper analyzes the major historical milestones in the study of normal and abnormal personality, from antiquity up until the 20th century. Special attention is paid to the interaction between dimensional and typological approaches, which was a major issue during the preparation of DSM-5. Theories of personality started with the humoral theory of Greek medicine. Pinel, and later Esquirol and Prichard, are credited with the first descriptions of abnormal personalities in textbooks of psychiatry. Between the late 19th and early 20th centuries, elaborate systems of normal and abnormal personality, associating to some degree types and dimensions, were devised by a succession of European psychologists, such as Ribot, Heymans, and Lazursky. Emil Kraepelin and Kurt Schneider proposed classifications of abnormal personality types. In parallel, psychoanalysts stressed the role of early life experiences. Towards the mid-20th century, statistical methods were applied to the scientific validation of personality dimensions with pioneers such as Cattell, anticipating the five-factor model.

© 2013, AICH

Dialogues Clin Neurosci. 2013;15:147-153.

Introduction

The objective of this article is to describe the history of the study of normal and abnormal personality. We will review the major concepts that have emerged up to the 20th century. The knowledge of historical antecedents helps us put into perspective the classification of personality disorders that has prevailed from *DSM-III* through *DSM-IV-TR*. Also, we will pay special attention to the interaction between dimensional and typological classifications, since this was the focus of a heated debate during the preparation of *DSM-5*, the latest version of the *Diagnostic and Statistical Manual of Mental Disorders* of the American Psychiatric Association. Indeed, the *DSM-5* work group on personality and personality disorders debated several options: (i) maintaining a typological classification of personality disorders (as in *DSM-IV-TR*); (ii) switching to a dimensional system (adapted from the Five Factor model); or (iii) constructing a hybrid system associating both approaches. Both approaches have their own merits and demerits. Dimensional systems are better at depicting the variegated nuances of normal personality; they emphasize the continuum between normal and abnormal personalities; and they usually define abnormal personalities as the cases that exceed a threshold at the

Keywords: *personality; temperament; character; personality disorder; personality type; personality dimension; history of psychiatry; history of psychology; Théodule Ribot; Gerard Heymans; Aleksandr Lazursky; Emil Kraepelin; Kurt Schneider; DSM*

Author affiliations: Hospital specialist, Rouffach General Hospital, Rouffach, France

Address for correspondence: Centre Hospitalier, 68250 Rouffach, France (e-mail: macrocq@aol.com)

Clinical research

extreme(s) of a unipolar or bipolar dimension. On the other hand, abnormal personality types have been described first with literary sketches, then clinical vignettes in psychiatric textbooks, and more recently lists of criteria. Diagnostic categories agree with the diagnostic approach of traditional medicine, and they are more convenient to use than a dimensional system in clinical settings. However, diagnostic categories cannot render the variety and complexity of personality, whether normal or abnormal. Often, patients with a personality disorder are not adequately described by one distinct category, with the result that one of the most frequent personality diagnoses in *DSM-IV* is “not otherwise specified.” Also, personality types were created via the clinical intuition of gifted psychiatrists, and they are not based on scientific methods. Finally, another objective of this paper is to describe in more detail the contributions of a few key historical authors, who are often quoted but whose original papers are seldom read. An exhaustive report on all significant authors is beyond the scope of this paper; thus, a few important names have been omitted.

Personality in ancient Chinese and Greek philosophy

Both ancient Chinese and Greek medicine offer physiological and psychological explanations for the variety of personality types. The effect of the combination of “blood and vital essence” (Chinese: 血氣; pinyin: xuè-qì) on temperament are mentioned in the *Analects* (XVI, 7), a collection of sayings attributed to Confucius (551–479 BCE)¹:

The gentleman guards against three things: when he is young, and his blood and vital essence (xuè-qì) are still unstable, he guards against the temptation of female beauty; when he reaches his prime, and his blood and vital essence have become unyielding, he guards against being contentious; when he reaches old age, and his blood and vital essence have begun to decline, he guards against being acquisitive.

In this text, temperament is understood as variable, subject to variations induced by age. We might interpret “blood and vital essence” as a physiological-psychological theory of human temperaments.² The physiological element is the blood (xuè) and the substances that are contained in it, whereas the psychological element is represented by “qì,” the immaterial energy that imparts

activity and movement to the substances it penetrates, according to traditional Chinese philosophy.

The first system of personality types in the Greco-Roman world was expounded in a book called *The Characters*, by the Greek philosopher Theophrastus (c 371 to c 287 BC). Theophrastus joined Plato’s academy, before the latter’s death, and he was a close follower of Aristotle, his senior by 12 years. His book contains 30 descriptions that are all organized along the same structure; the character type is first named, then briefly defined in one short sentence, and finally illustrated by a list of about ten examples showing how the person will typically react in different life situations. This is in line with the notion, emphasized since *DSM-III*, that personality is revealed by a fixed pattern of reacting to various life circumstances. For instance, the “Suspicious Man,” (Character 18, ἄπιστός) is analogous to today’s paranoid personality³; he is defined by the sentence “he believes that everybody is fraudulent,” and further described by typical patterns such as “The suspicious man is the sort of person who sends a servant to market and then sends another to watch him and find out the price he pays.” The “Thankless Man” (Character 17, μνησχορικός) always sees the negative aspects and is incapable of enjoying life; he is presenting traits that might be qualified today as anhedonia, resentment, and negativism. For instance, “when his sweetheart kisses him, he says ‘I wonder if you really do love me so in your heart.’” Theophrastus’ book exerted much influence in the 17th and 18th century in Western Europe, where it prompted much literature on character description. There is a well-known French translation by La Bruyère (Paris, 1688). Because of Theophrastus, European languages have adopted the term *character*. As suggested by the etymology of the Greek χαρακτήρ (instrument for marking or graving, impress, stamp), character refers to a permanent or long-standing mode of functioning that is inscribed in the fabric of the person, like a coin that has been stamped. Long before *DSM-III*, the permanence of traits has been part of the definition of a personality disorder, although certain personality disorders may be acquired to some degree, and are amenable to change as a result of treatment.

Besides “character,” other terms such as “temperament” and “personality” were well also defined by the 18th century. According to the *Encyclopédie*, the very influential French-language encyclopedia edited between 1751 and 1772 by Denis Diderot and Jean d’Alembert,⁴ *temperament* (temperament) originates from the natural consti-

tution of the individual. The definition goes on to mention the four temperaments described by the Greco-Roman physician Galen, on the basis of the four humors of the Hippocratic school: phlegmatic, sanguine, melancholic, and choleric. This illustrates how humoral theories of personalities remained influential well into the 18th century. According to the *Oxford English Dictionary*, the term “personality” has been used since the 18th century to designate the distinctive individual qualities of a person. Personality traits are a continuum, ranging from the normal to the pathological. However, in current usage, personality tends to refer to the traits or qualities that are strongly developed or strikingly displayed, rather than to usual features. This raises the issue of defining abnormality, a task complicated by the fact that the same terms are often used to designate both normal personality traits and psychiatric diagnoses.

Personality and the birth of psychiatry

Psychiatry, as a medical science, began to take shape toward the end of the 18th century. One very popular way of describing personality characteristics at that time was phrenology. Although this science is now discredited, it was a sincere attempt to describe personality on a neuroanatomical basis. Phrenology is associated with Franz Joseph Gall (1758–1828) a German physician who was active in Vienna and ultimately settled in Paris. However, it was Johann Gaspar Spurzheim, an associate of Gall, who coined the term *phrenology*. Progress in neuroanatomy led to the hypothesis that personality traits had their basis in the cerebral cortex, where they could be localized with precision. Phrenology models indicated the location of many personality facets on the cranium. For instance, combativeness, or courage and the tendency to fight, were located behind the ear and above the mastoid process; self-esteem, “was placed at the top, or crown of the head, precisely at the spot from which the priests of the Roman Catholic Church are obliged to shave the hair”⁵; cautiousness was situated nearly in the middle of the parietal bones; and conscientiousness was located next to cautiousness. The concept of phrenology started losing its appeal in the middle of the 19th century. However, it remains an important milestone in the development of psychiatry, since it highlighted the role of the cerebral cortex.

According to most historians of psychiatry,^{6,7} Philippe Pinel (1745–1826) was the first author to include a per-

sonality disorder in psychiatric nosology. In his *Traité médico-philosophique sur l'aliénation mentale ou la manie*,⁸ Pinel introduced a category termed “*manie sans délire*” (mania without delusion). At that time, “mania” referred to states of agitation. Pinel described a few male patients who appeared normal to the lay observer. Indeed, “without delusion” meant, in Pinel’s depiction, that the patients did not present with abnormalities of understanding, perception, judgment, imagination, memory, etc. However, they were prone to fits of impulsive violence, sometimes homicidal, in response to minor frustration. One such patient grappled a woman who had insulted him, and threw her into a well. Philippe Pinel considered that a possible etiology of such cases was “a deficient and ill-directed upbringing of the child, or an undisciplined or perverse nature ... [for instance in] an only son, raised by a weak and permissive mother.” Subsequent French alienists and psychologists retained an interest in the conditions that were characterized by peculiarities in the expression of emotions and behaviors, in the absence of delusions, hallucinations, and without disorders of the intellect. Jean-Étienne Dominique Esquirol (1772–1840) introduced the concept *monomanie raisonnée*,⁹ which he illustrated with a motley collection of clinical cases; a few of those cases would still be considered personality disorders today. Esquirol also acknowledged Prichard, noting that *monomanie raisonnée* was similar to the moral insanity described by James Cowles Prichard (1786–1848). Prichard was born into a Quaker family and knew many foreign languages, including French, which may explain his interest for French psychiatry and allowed him to reappraise Pinel’s work.¹⁰ Neither Esquirol’s *monomanie raisonnée*, nor Prichard’s moral insanity, were well delimited; they included a heterogeneous collection of cases that would fall under a variety of modern diagnostic categories today. As would be the case for Kraepelin later, many cases that captured the interest of both Esquirol and Prichard had forensic consequences. This shows that the practical question was whether psychiatry could explain patterns of abnormal behavior, in subjects with a normal intellect and no acute psychiatric symptoms who had come into contact with the law.

The period between the late 19th century and early 20th century was marked by the emergence of several elaborate systems of normal and abnormal personality, associating to some degree types and dimensions. A succession of European psychologists, such as Ribot, Heymans, and Lazursky, deserve mention.

Clinical research

Théodule Ribot (1839-1916), a French psychologist known for coining the term “Anhedonia,” wrote on normal and abnormal characters.¹¹ Ribot’s treatise was translated into English within a year (the *Psychology of Emotions*, 1897), and English-speaking contemporaries were familiar with his ideas. Like his predecessors, Ribot stressed that character is stable, appearing in childhood and lasting all life. Ribot’s classification had “subtypes,” defined by the association of several “primary types.” Ribot’s terminology is antiquated, but his system becomes more limpid when one realizes that he is, in fact, describing dimensions. Normal personality was characterized by the three following primary types: (i) the *sensitive* or emotional, whose nervous system was easily impressed by pleasant or unpleasant emotions, and whose feelings were introverted; (ii) the *active*, who were extraverted, spontaneous, and courageous; (iii) and the *apathetic*, corresponding to the lymphatic of the humoral classification, who displayed little propensity to excitation and reaction. These three primary categories were further subdivided into various “subtypes,” according to the association of several dimensions. For instance, the *sensitive* were subdivided into: the (i) humble, with limited intelligence and energy; (ii) the contemplative, who showed sensitivity, a keen intellect, and little activity (Hamlet, indecisive, was given as an example); and (iii) the emotional, *stricto sensu*. Among the *active*, the association of high activity, high intelligence, and little sensitivity could produce historical figures such as empire builders (Ribot mentioned Hernan Cortez and Pizarro). Subjects associating *apathy* with intelligence were good at strategy and unemotional reasoning (eg, Benjamin Franklin, or Philip II of Spain). It is noteworthy that intelligence was an important modifier of personality according to Ribot; later authors would also stress this.

Gerard Heymans (1857–1930) was a professor of philosophy and psychology at the University of Groningen (in the Netherlands). He coauthored articles with Enno Dirk Wiersma (1858–1940), a professor of psychiatry at the same university. Heymans was one the first to apply empirical methods to the study of personality. He wrote his habilitation in Freiburg im Breisgau (Germany), and introduced Wilhelm Wundt’s methods of experimental psychology into the Netherlands. The “Cube of Heymans” that constructs personality types on the basis of dimensions represents his description of personalities. Heymans defined three bipolar dimensions: activity

level, emotionality, and primary vs secondary functioning (ie, functioning immediately vs according to plans).¹² These three dimensions are represented on the x-, y- and z-axes of the Heymans cube. All possible combinations of the three dimensions defined eight personality types, represented at the eight extremities of the cube. The eight types are: amorphous, sanguine, nervous, choleric, apathetic, phlegmatic, sentimental, and passionate. Heymans’ terminology, obviously inspired by Greek medicine, constitutes a link between ancient schools and modern experimental psychology.

Aleksandr Fyodorovich Lazursky (1874-1917) was a psychologist in Saint Petersburg (Russia), where he studied under Bekhterev. He developed one of the first comprehensive theories of personality and had very creative intuitions.¹³ His work did not enjoy international recognition, probably because of the author’s early death, the fact that he published in Russian, and because historical upheavals isolated his country from international scientific contacts after his death. Like others, he described personality as a stable and long-lasting ensemble. Lazursky’s first original contribution was his distinction between “endopsychic” and “exopsychic” aspects of personality. Endopsychic features comprise the traditional psychological functions (eg, memory, representations, attention) that are largely innate or inherited. “Temperament” (associated with physiological processes) and “character” (linked to the exercise of will and reason) belong to the “endopsychic” core of personality. In contrast, exopsychic characteristics result from the favorable or unfavorable reciprocal interactions between the personality and the outside world; they are influenced by the person’s interests and are capable of evolving. The endopsychic sphere has to do with the psychological and neurological constitution. In contrast, the exopsychic interface encompasses psychosocial elements, the consequences of upbringing and education, and the individual’s adaptive capacity. The individual acquires a few exopsychic traits—such as the attitude toward work and property, and the vision of the world—but they become as durable as the endopsychic personality traits. The interaction between the endo- and exopsychic spheres determines three levels of functioning (inferior, intermediate, superior). Individuals functioning at an inferior level are personalities that are weak, ungifted, poorly organized; they have difficulties adjusting to the environment; their life is guided by exterior factors and not by their endopsychic capacities.

Individuals functioning at an intermediate level are more able to use the environment for their purposes; they can find an occupation that corresponds to their inclination; they achieve higher levels of comfort and more freedom of initiative; in the end, they are more useful to society. Highly gifted, talented people functioning at a superior level can develop their creativity even in unfavorable circumstances; they not only adjust to the environment, but they even actively adapt the environment to their needs.

Personality dimensions and personality types in contemporary psychiatry

This section reviews the key authors that have defined the concepts of personality types and personality dimensions, as we use them today. Emil Kraepelin (1856–1926) introduced personality types into modern psychiatric classification, under the term “psychopathic personalities.” At the beginning of the 20th century, in German-speaking psychiatry, the meaning of the term “psychopathy” was limited from the broad notion of mentally ill to the more restricted abnormal personality. Kraepelin stressed the existence of a broad overlap between overt pathological conditions and personal features that are encountered in normal people. He noted that the limit between pathological and normal is gradual and arbitrary. In entering the field of personality, psychiatry was taking an interest in conditions that were not previously considered to be liable to psychiatric interpretation. In the 7th edition of his textbook,¹⁴ Kraepelin assumed that psychopathic personalities were the consequence of a faulty constitution, which had previously been approached under the ill-defined concept of degeneracy. Psychopathic personalities result from a psychological inborn “defect,” which explains why the symptoms of psychopathic personalities have always been present in the individual and persist with little modification during his or her whole life. Their pathological nature is not deduced from the fact the symptoms appear in the patient after a period of normal functioning, but rather from the fact that symptoms deviate from the range of normalcy. Patients with psychopathic personalities often have good cognitive capabilities, but their affects and emotions are problematic. In the 7th edition of Kraepelin’s textbook, the list of pathological personalities comprised only four types: (i) the born criminal (*der Geborene Verbrecher*), modeled on earlier

description by Cesare Lombroso (*l’uomo delinquente*) and James C. Prichard (*moral insanity*); (ii) the irresolute or weak-willed (*die Haltlosen*), who are unable of applying themselves to sustained and long-term work; (iii) the pathological liars and swindlers (*die krankhaften Lügner und Schwindler*) whose disorder is due to hyperreactive imagination, unfaithful memory, an instability of emotions and willpower; and (iv) the pseudoquerulants (*die Pseudoquerulanten*) who correspond to today’s paranoid personality. The prefix “Pseudo” was meant to differentiate this personality from the delusional disorder of the same name. In the 8th edition (1915), the list was expanded to seven types: (i) the excitable (*die Erregbaren*), possibly sharing some characteristics with today’s borderline personality disorder; (ii) the irresolute; (iii) persons following their instincts (*Triebmenschen*) such as periodic drinkers and pleasure-lovers; (iv) eccentrics (*Verschrobene*); (v) pathological liars and swindlers; (vi) enemies of society (*Gesellschaftsfeinde*); and (vii) the quarrelsome (*die Streitsüchtige*). Kraepelin studied patients whose symptoms had consequences on social adaptation, and for whom a psychiatric opinion might be sought after some problem with the law. Most of Kraepelin’s personality types do not correspond to *DSM-IV-TR* categories.

Kurt Schneider (1887–1967) described several “psychopathic” (ie, abnormal) personalities in the successive editions of his textbook.¹⁵ Schneider’s various types of psychopaths are as follows: (i) the hyperthymic (*Hyperthymische*); (ii) the depressive; (iii) the insecure (*Selbstunsichere*); (iv) the fanatical (*Fanatische*); (v) recognition-seeking (*Geltungsbedürftige*); (vi) with labile mood (*Stimmungslabile*); (vii) explosive (*Explosible*); (viii) emotionally-blunted (*Gemütlose*); (ix) the weak-willed (*Willenlose*); and (x) the asthenics (*Asthenische*). Kurt Schneider stated several key concepts that are still valid. He defined “psychopathic” personalities as those individuals who suffer, or cause society to suffer, because of their personality traits. Abnormal personalities are largely inborn constitutions, but they can evolve as a result of personal development or outside influences. Kurt Schneider made an observation that is extremely relevant to the debate surrounding the preparation of *DSM-5*. He noted that a hybrid system of personality, associating dimensions of normal personality and pathological types, was an artificial construction. One could build a “characterological system” describing normal human personality dimensions, but it would be mean-

Clinical research

ingless to derive clinically relevant abnormal types from the exaggerations of these normal personality dimensions. He remarked that characterological systems would produce mostly bipolar dimensions, such as “explosive—unexcitable” or “weak-willed—strong-willed.” However, the clinically relevant abnormal personality types could not be accommodated at the extremities of these axes. Sigmund Freud (1856–1939) was born in the same year as Kraepelin, which is their only shared characteristic. Psychoanalysts reshaped contemporary thinking by centering their attention on the impact of early life events. In addition, they assumed that these early events remained out of awareness, kept unconscious, owing to their potentially troublesome character. It was Sigmund Freud, Karl Abraham, and Wilhelm Reich who laid the foundation of the psychoanalytic character typology. The first model of a psychoanalytic approach to a faulty personality is Freud’s paper on “Character and anal erotism,” published in 1909.¹⁶ Before this, Freud had already associated money and miserliness with excrements in a letter to Fliess in 1897. Freud established a connection between character traits and childhood experiences. He described patients who are especially “orderly, parsimonious and obstinate.” These three character traits were inter-related. When exploring the early childhood of these patients, Freud 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.” He postulated that such people were born with a sexual constitution in which the erotogenicity of the anal zone was exceptionally strong. This description of the compulsive personality by Freud opened the way for the subsequent psychoanalytic definitions of other personality types. The classification of personality disorders in *DSM-II* was influenced by psychoanalysis, at least as regards terminology.

Modern dimensional systems of personality are based on the statistical analysis of the many thousands of adjectives that are used to describe personality in all languages. The pioneer of this approach, Raymond Bernard Cattell (1905–1998), was a British-born psychologist who moved to the USA. Believing that psychology should be based on measures, he pioneered the use of statistics to discover personality dimensions. With the help of correlation and factor analyses, made possible by the first computers, he grouped the multitude of terms usually used to describe personality into a smaller number of

traits. Cattell discovered a variable number of “source traits” arranged along bipolar dimensions. The number of these source traits varied as Cattell’s work evolved; they amounted to sixteen in the final versions of his system. Initially, Cattell chose to name these dimensions with letters, in alphabetical order, starting with A for the factor accounting for the most variance, B for the next one, etc. He reasoned that it was more prudent to use letters to name these dimensions, in the same way as biologists had used letters to name vitamins, since giving names would entail a risk of erroneously interpreting dimensions whose true nature was unknown. Cattell’s factor B (bright, abstract thinking versus dull, concrete thinking) is supposed to be similar to Charles Spearman’s *g factor*, measuring general intelligence. Cattell coined a few words to name his source traits. For instance, he adopted “surgent” to designate a distinct type characterized by resourcefulness, responsiveness, joyfulness, and sociability. The word “surgent,” from the Latin *surgo*, conveys the idea of “leaping” or “rising up” with facility. Systems of personality have been described with a varying number of dimensions, often with three or five dimensions (see ref 17 for a detailed description of the history of dimensional description of personality). The most successful dimensional model is the five-factor model, which was adapted for the dimensional description of personality in *DSM-5* (see the paper by Trull and Widiger in this issue).¹⁸

Conclusion

The long history of personality theories helps put *DSM* classifications of personality disorders into perspective. *DSM-II* (1968) was influenced by psychoanalysis¹⁹; in *DSM-II*, some personality disorders had to be differentiated from the neuroses of the same name (eg, hysterical, obsessive-compulsive, and [neur]asthenic personalities and neuroses). In *DSM-III* (1980),²⁰ and the subsequent *DSM-III-R* (1987) and *DSM-IV* (1994), personality disorders were described as discrete types, grouped into three clusters, placed on a separate axis (axis II). This categorical approach was in line with the medical model advanced by Emil Kraepelin. Borderline and narcissistic personality disorders, which entered *DSM-III*, were adapted from psychoanalytical concepts. The preparation of *DSM-5* questioned the merits of combining typological and dimensional models of personality, reopening a century-old debate. □

Hitos en la historia de los trastornos de personalidad

Este artículo analiza los principales hitos históricos en el estudio de la personalidad normal y anormal, desde la Antigüedad hasta el siglo XX. Se pone especial atención a la interacción entre las aproximaciones dimensionales y tipológicas, tema que fue importante durante la preparación del DSM-5. Las teorías de la personalidad se iniciaron con la teoría humoral de la medicina griega. En los textos de psiquiatría se reconoce a Pinel, y luego a Esquirol y Prichard como los primeros autores en describir las personalidades anormales. Una sucesión de psicólogos europeos como Ribot, Heymans y Lazursky, entre finales del siglo XIX y comienzos del XX, idearon complejos sistemas de personalidad normal y anormal, asociando en algún grado tipos y dimensiones. Emil Krepelin y Kurt Schneider propusieron clasificaciones de tipos de personalidad anormal. Paralelamente, los psicoanalistas destacaron el papel de las experiencias tempranas de la vida. Hacia mediados del siglo XX se aplicaron métodos estadísticos para la validación científica de las dimensiones de la personalidad con pioneros como Cattell, anticipando el modelo de cinco factores.

Les grandes étapes dans l'histoire des troubles de la personnalité

Cet article passe en revue les étapes majeures de l'histoire de l'étude des personnalités normales et pathologiques, depuis l'antiquité jusqu'au XX^e siècle. Cette perspective historique permet de comprendre certains débats qui ont animé la préparation du DSM-5, notamment le choix entre une approche faisant appel à des catégories diagnostiques distinctes, selon un modèle kraepelinien, par opposition à une description de la personnalité normale ou pathologique par des dimensions, dans la suite de travaux qui ont culminé dans le modèle de la personnalité à cinq facteurs (dit Big Five).

REFERENCES

- Confucius. *Analects*. With selections from traditional commentaries. Edward Slingerland (trans). Indianapolis, IN: Hackett Publishing Company; 2003:195.
- La médecine chinoise traditionnelle. Sang et souffles. In: *Aperçus de civilisation chinoise*. Les Dossiers du Grand Ricci. Paris, France; Association Ricci, Desclée de Brouwer; 2003:196.
- Theophrastus. *The Characters*. (Bennett CE, Hammond WA, trans). New York, NY: Longman, Greens & Co; 1902:37.
- Diderot D, d'Alembert J, eds. *Encyclopédie ou Dictionnaire Raisonné des Sciences, des Arts et des Métiers*. Available at: http://portail.atilf.fr/cgi-bin/getobject_?p.120:57./var/artfla/encyclopedie/textdata/IMAGE/. Accessed December 31, 2012.
- Spurzheim JG. *Outlines of Phrenology; Being Also a Manual of Reference for the Marked Busts*. London, UK: Treuttel, Wurtz, and Richter; 1827.
- Berrios GE. Personality and its disorders. In: *The History of Mental Symptoms*. Cambridge, UK: Cambridge University Press; 1996:419-442.
- Schott H, Tölle R. *Geschichte der Psychiatrie*. Munich, Germany: Verlag C. H. Beck; 2006:364-368.
- Pinel P. *Traité médico-philosophique sur l'aliénation mentale ou la manie*. Paris, France: Richard, Caille & Ravier; 1801:149-155.
- Esquirol E. *Des maladies mentales considérées sous les rapports médical, hygiénique et médico-légal*. Vol 2. Paris, France: Baillière; 1838:49-72.
- Leigh D. James Cowles Prichard, M.D., 1786-1848. *Proc R Soc Med*. 1955;48:586-590.
- Ribot T. *La psychologie des sentiments*. Paris, France: Félix Alcan; 1896:371-413.
- Gauchet F, Lambert R. *La caractérologie d'Heymans et Wiersma*. Paris, France: Presses Universitaires de France; 1959.
- Leontyev DA. The theory of personality of A. F. Lazursky: from predisposition to relationships. *Metodologia i istoria psikhologii*. 2008;3:7-20 (Russian). [Леонтьев Д.А. Теория личности А.Ф. Лазурского: от наклонностей к отношениям. *Методология и история психологии*. 2008. Т. 3. № 4. С. 7-20].
- Kraepelin E. *Psychiatrie. Ein Lehrbuch für Studierende und Ärzte*. 7. Auflage. II. Band. Klinische Psychiatrie. Leipzig, Germany: Verlag Barth; 1904:815-841.
- Schneider K. Psychopathische Persönlichkeiten. In: *Klinische Psychopathologie*. 11. Unveränderte Auflage. Stuttgart, Germany: Thieme Verlag; 1976:17-39.
- Freud S. Character and anal erotic. In: *The Standard Edition*, Vol. IX, 169-175. London, UK: The Hogarth Press; 1959.
- Millon T. *Disorders of Personality*. 3rd ed. Hoboken, NJ: John Wiley; 2011.
- Trull TJ, Widiger TA. Dimensional models of personality: the five-factor model and the DSM-5. *Dialogues Clin Neurosci.*, 2013;15:135-146.
- Shorter E. *A Historical Dictionary of Psychiatry*. New York, NY: Oxford University Press; 2005:213.
- American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. Third ed. Washington, DC: American Psychiatric Association; 1980.