

Level of personality integration in psychopathy

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Summary

Aim. Aim of this research was to determine whether differences in clinical picture of psychopathy (on the basis of which subtypes of psychopathy are identified) reflect differences in pathology of personality organization (integration) according to O. Kernberg.

Method. The research was conducted on 417 subjects, of whom 88.5% were criminals, 11.5% – non-criminals. Psychopathic Personality Inventory-Revised (PPI-R), developed by S.O. Lilienfeld, was used to assess level of psychopathy while personality organization level was assessed by Borderline Personality Inventory (BPI) developed by F. Leichsenring. K-means cluster analysis was supported by AUC.

Results. Cluster analysis allowed for differentiation of two groups: cluster 1 – fearlessly dominating psychopaths and cluster 2 – egocentrically-impulsive psychopaths. Egocentrically-impulsive psychopaths are significantly more frequently characterized by borderline personality organization than psychopaths from cluster 1. In addition to symptoms of psychopathy they show evidence of deeper identity disorders, apply primitive defense mechanisms more frequently, experience fear of fusion and severe problems in reality testing.

Conclusions. Differences in picture of psychopathy reflect different pathology of personality organization. Results confirm the thesis of distinctive nature of coldheartedness and its invariant presence in picture of psychopathy regardless of configuration of other traits in both subtypes.

Key words: types of psychopathy: fearlessly dominating and egocentrically-impulsive, level of personality integration

Introduction

Although psychopathy is one of the most investigated personality disorder, it remains consecutively absent from statistic and diagnostic manuals of mental disorders

[1]. Accepting its status by researchers and practitioners yet as a standalone clinical entity – not just a manifestation of an antisocial personality disorder – is a result of over 30 years of intense clinical investigation and scientific research.

Various criteria have been used to differentiate psychopathy from other personality disorders in categorical, dimensional and prototypical approaches. Categorical approach proved to be a useful perspective in defining psychopathy – both when it was perceived in terms of antisocial personality and when it was differentiated from it [2, 3]. Reconstruction of clinical picture of psychopathy in dimensional model allowed researchers to describe a constellation of personality traits specific to psychopathy, which determine one's style of functioning in social environment [4–6]. This approach is intensely explored by researchers who study relationships between five-factor model and psychopathy. Such perspective is exemplified by an attempt to translate Hare's Psychopathy Checklist-Revised (PCL-R) to five-factor model terms [7], or by experts' assessment of connections between personality traits profile and a clinical picture of that disorder [8]. Prototypical approach can be illustrated by attempts to fit a diagnosed individual into a prototypical picture of a psychopath provided by Hare's PCL-R [9].

Psychological concepts of individual functioning can be described as multilevel models consisting of explanatory and descriptive statements. Commonly these statements: 1) describe an idea of mental health and/or disturbance; 2) explain the essence of intrapsychic pathomechanism which is responsible for observed behavior; and 3) explain epigenesis, i.e. the impact of biological and environmental factors on shaping the personality structure, including the mentioned pathomechanism [10]. In our research we assumed that statements made on these 3 levels and specific to particular psychological concept allow to differentiate and describe sub-types of psychopathy and to highlight subtype-specific personality pathomechanisms.

Contemporary approach to describing symptoms of psychopathy is dominated by Hare's non-theoretical model. Though Hare's diagnostic criteria were inspired by etiopathological theories, he proposes a prototypical picture of psychopath consisting of statements made on phenomenological level. This can be illustrated by typologies which differentiate psychopaths on the basis of different configurations of PCL-R factors. Hare shows that most symptoms of psychopathy are grouped into two different factors [9, 11]. Factor 1 – “interpersonal/affective” – represents emotional and interpersonal traits: egocentricity, manipulative attitude, emotional callousness or lack of remorse. Factor 2 – “social deviation” – represents impulsive, antisocial, unstable style of psychopath's life. In 2-factor and 4-factor models [12] (in contrast to 3-factor models [13–15]) components of “social deviation” are seen to be not only a manifestation of personality traits, but also a defining and specific aspect of psychopathy, which differentiates it from similar disorders. Other example was provided by Millon [16], who describes subtypes of psychopaths with neurotic traits.

In the presented research symptoms of psychopathy – i.e. constellation of personality traits and behavioral patterns – were formulated on the basis of S.O. Lilienfeld's

model [17], which is a theoretic foundation of the Psychopathic Personality Inventory–Revised (PPI-R). A statistically significant relation was found between PPI-R and PCL-R results and between general psychopathy measured by these instruments and other personality variables [18]. Aiming to move from descriptive level towards an explanatory one, we formulated a hypothesis that a diversity of clinical picture of psychopathy results from different levels of personality integration. This assumption is in line with a claim of object relations theory that each type of personality disorder can be built upon different type of personality organization, i.e. neurotic, borderline or psychotic [19]. A concept of differing levels of personality integration was formulated by M. Klein and developed further by O. Kernberg and his assumptions regarding levels of personality organization pathology [20, 21]. Kernberg’s model proved to be widely accepted by clinicians and inspired many researchers to its empirical verification [22, 23]. This model combines two levels, i.e. a descriptive perspective (categorical and dimensional) and a structural perspective, highlighting relations between symptoms specific to a particular type of personality disorder and a general level of personality organization pathology. According to Kernberg [24] the levels of personality organization can be characterized on 5 dimensions: 1) sense of identity; 2) types of defense mechanisms, applied in response to external stress and internal conflicts; 3) ability to test reality; 4) nature of object relationships, reflected in interpersonal relationships; and 5) moral functioning, i.e. an ability to inform behavior by ideals and values. Last two dimensions can be used to differentiate between high-functioning borderline (less pathology in object relationships, relatively unimpaired moral functioning) and low-functioning borderline (severe pathology in object relationship, deeply impaired moral functioning). Borderline personality organization is determined by intrapsychic conflict and defenses stemming from developmental fixation in the phase of differentiating self from object, while neurotic organization is based on developmental fixation on the phase of relative integration of positive and negative representation of self and object and emergence of ego and superego.

Aim

Highlighting phenomenological differences between diverse types of psychopathy serves an important diagnostic function, but lacks in providing sufficient clues relevant to planning most adequate treatment or rehabilitation. Combining observed symptoms of psychopathy with knowledge about underlying structural organization of personality enables deeper understanding of individual pathology in psychopath and reliable achievement of clinical goals. This article presents preliminary results of exploratory research. The goal of this research was to find out whether differences in clinical picture of psychopathy (on the basis of which subtypes of psychopathy are identified) reflect differences in pathology of personality organization. This question concerns connections between first and second level statements, i.e. connections between phenomenology of mental disturbance and its structural and functional intrapsychic pathomechanism.

Material and method

Research was based on questionnaires. Personality organization level was assessed by F. Leichsenring's Borderline Personality Inventory (BPI) [25], adapted by L. Cierpialkowska. This inventory enables assessment of both borderline personality disorder and borderline organization level. It was assumed that borderline organization level is reflected by high intensity of symptoms included in questionnaire items, which can be traced back to concepts of ego identity integration level, primitive defense mechanisms, reality testing and fear of fusion. In line with accepted norms of qualifying subjects to personality pathology group [25] it was assumed that BPI score of 20 and higher reflects borderline personality organization level.

S. O. Lilienfeld's Psychopathic Personality Inventory–Revised (PPI-R) [17] adapted by J. Groth was used to assess level of psychopathy and to describe a configuration of personality traits in psychopathy. PPI-R, being a theoretically well-grounded measure, is commonly used in diagnosing psychopathy [26]. General result of this test consists of values on 8 scales: Machiavellian Egocentricity (ME), Rebellious Nonconformity (RN), Blame Externalization (BE), Carefree Nonplanfulness (CN), Social Influence (SOI), Fearlessness (F), Stress Immunity (SI) and Coldheartedness (C). Factor of egocentric impulsiveness consists of first 4 scales (ME, RN, BE and CN), factor of fearless domination is composed from SOI, F and SI, while C is responsible for factor of coldheartedness [27]. Both questionnaires used in this research are characterized by sufficient validity and reliability.

The research was conducted on volunteers with guaranteed anonymity. 417 subjects were included in the research, 65 females (37 ± 11.9) and 352 males (32 ± 9.6) aged from 18 to 63 (mean 32.8 ± 10.2). 88.5% of subjects were convicted criminals serving their sentences ($N = 365$, including 65 females, mean age 32 ± 10.1), while 11.5% were not criminals ($N = 48$ males, mean age 35.5 ± 10.3). Results which allowed for the diagnosis of borderline personality disorder were found in 24 criminal female subjects, 89 criminal male subjects and 23 non-criminal male subjects. Results from female subjects were excluded from statistic analyzes due to an impact of sex on clinical picture. In the end, analyzes covered data from 126 males (120 criminals, 6 non-criminals) who scored high on general psychopathy scale, with cut-off point set on mean result of PPI-R plus 0.5 standard deviation score – which in the study group was 328 points (mean 307.4 ± 41.3).

Results

Research question was answered via k-means cluster analysis of PPI-R results. AIC criterion was used to differentiate two clusters of subjects with heightened general psychopathy score but differing particular dimensions in the picture of psychopathy (see Table 1; Figure 1).

Table 1. Mean values for clusters 1 and 2 of psychopaths, where PPI-R > 327 (M + 0.5 SD)

cluster	ME	RN	BE	CN	SOI	FE	STI	C
1 (n = 54)	49.7 (7.7)	41.4 (5.14)	40.3 (6.04)	42 (7.67)	52.5 (6.42)	45.2 (6.27)	41.1 (5.68)	38.4 (7.25)
2 (n = 72)	54.4 (7.4)	44.3 (5.86)	46.4 (6.42)	49.2 (6.9)	44.4 (6.33)	41 (7.09)	32.5 (6.45)	37.9 (8.73)
P	0.001	0.004	< 0.001	< 0.001	< 0.001	0.001	< 0.001	0.743

Significance based on Student's t-test. Source: own study.

ME – Machiavellian Egocentricity; RN – Rebellious Nonconformity; BE – Blame Externalization; CN – Carefree Nonplanfulness; SOI – Social Influence; F – Fearlessness; SI – Stress Immunity; C – Coldheartedness

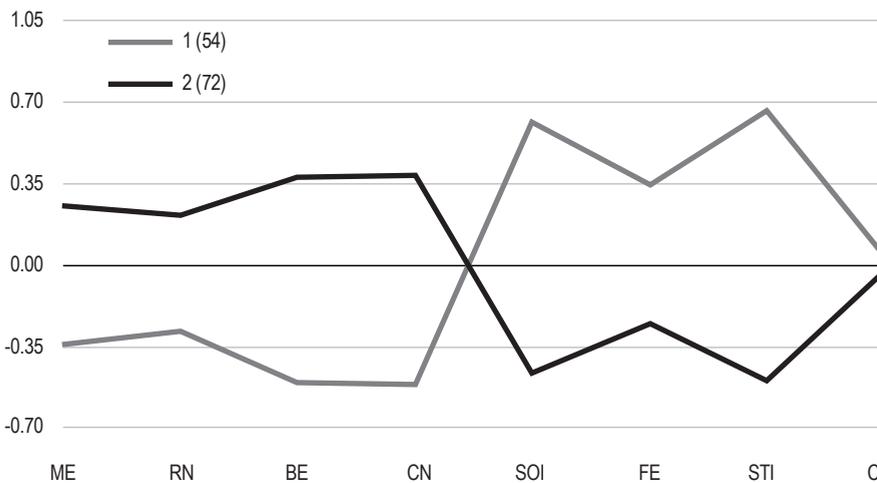


Figure 1. Clusters versus psychopathy dimensions according to PPI-R

Mean values in standard z units.

Cluster 1 (N = 54; fearlessly dominating psychopaths) consisted of subjects characterized by high perceived social influence, fearlessness and stress immunity. Cluster 2 (N = 32) – egocentrically-impulsive psychopaths) consisted of subjects characterized by high level of Machiavellian egocentricity, rebellious nonconformity, blame externalization and carefree nonplanfulness.

Clusters differed significantly on all dimensions of psychopathy except coldheartedness, both as a dimension and factor ($p = 0.743$). Clusters proved to be statistically different regarding two factors: egocentric impulsiveness (cluster 1: 173.4 ± 14.59 ; cluster 2: 193.7 ± 13.50 ; $t(109) = 7.95$; $p < 0.001$) and fearless domination (cluster 1: 138.9 ± 11.48 , cluster 2: 118.6 ± 11.09 ; $t(112) = 9.96$; $p < 0.001$), respectively consisting of four (ME+RN+BE+CN) and three (SOI+F+SI) basic scales of psychopathy. No difference was observed regarding general score of psychopathy ($t(112) = 0.11$;

$p = 0.917$). Difference between clusters involved configuration of symptoms, while no differences in general severity of psychopathy were observed (cluster 1: 350.6 ± 20.41 ; cluster 2: 350.3 ± 19.58).

Psychopathy is a valid predictor of borderline personality organization in $AUC^1 = 27.2\%$ (correctness: 24.6; specificity: 12.4; sensitivity: 54.1; Neglerke's $R^2 = 26.9\%$; $\chi^2(8) = 26.4$; $p < 0.001$). Scales BE (OR = 1.09; $p = 0.022$) and FE (OR = 1.13; $p = 0.002$) proved to be significant predictors – rise in scores of these scales increases the probability of diagnosing borderline personality organization. Predictive value of diagnosing borderline personality organization on the basis of psychopathy cluster (i.e. specific constellation of particular dimensions of this disturbance) is $AUC = 35.3\%$ (correctness: 54.8; specificity 48.3; sensitivity 70.3). There were significantly more subjects diagnosed with borderline personality organization in Cluster 2 (36.1%) than in frequency distribution in this group (29.4%). Difference between clusters in general borderline score was statistically insignificant ($t(119) = 1.84$; $p = 0.069$).

Table 2. **Borderline frequency distribution in clusters 1 and 2**

	cluster 1		cluster 2		general score	
non-borderline	43	79.6%	46 (1)	63.9%	89	70.6%
borderline	11	20.4%	26 (5)	36.1%	37	29.4%
general	54		72		126	

Values in brackets refer to non-criminal group.

Subjects clustered in Cluster 2 – egocentrically-impulsive psychopaths – are characterized by heightened incidence of borderline personality organization. This sub-group was examined to explore possible differences with non-borderline group regarding particular personality traits measured with BPI, i.e. diffusion of identity, primitive defense mechanisms, fear of fusion and reality testing. Groups were compared with Student's t-test (see Table 3).

Table 3. **Mean results of cluster 2 subjects in BPI sub-scales and significance of differences between groups**

Cluster 2	non-borderline		borderline		p
	N = 26		N = 46		
Diffusion of identity	5.3	2.6	0.9	1.3	< 0.001
Defense mechanisms	5.9	1.8	1.3	1.8	< 0.001
Reality testing	1.8	1.9	0.4	0.9	0.021
Fear of fusion	4.5	1.9	1.2	1.5	< 0.001

¹ **Correctness** – percentage of correctly classified subjects; **specificity** – proportion of incorrectly classified subjects to non-borderline subjects; **sensitivity** – proportion of correctly classified subjects to all borderline subjects; **AUC** – general correctness of classification in relation to incorrect classifications.

Borderline subjects from Cluster 2 differ from non-borderline subjects in severity of identity diffusion, frequency of applying primitive defense mechanisms such as splitting, projection and projective identification, ability to test reality and intensity of fear of fusion in interpersonal relationships.

There are further significant differences between clusters of borderline psychopaths and non-borderline psychopaths regarding percentage of criminal and non-criminal subjects (see Table 2). All non-criminal subjects – 5 of 6 subjects in this group can be diagnosed with borderline personality disorders – were included in cluster 2. Number of non-borderline criminals in both clusters proved to be nearly even (43 vs. 45), while cluster 2 consisted of significantly more borderline criminal psychopaths than in general subject population.

Discussion

The goal of this research was to find out whether differences in clinical picture of psychopathy reflect differences in pathology of personality organization. The group of subjects with high scores in general psychopathy scale proved to be internally diverse regarding configuration of traits involved in clinical picture of their disturbance. Diagnostic categories of PPI-R allowed differentiating two sub-types of people with similar severity of general psychopathy but varying configuration of psychopathic personality traits. First of these sub-types consisted of people who were characterized with high perceived social influence, fearlessness and stress immunity. Second sub-type consisted of subjects characterized by high level of Machiavellian egocentricity, rebellious nonconformity, blame externalization and carefree nonplanfulness. This configuration of traits corresponds with factor structure of PPI-R [17], thus sub-types of psychopathy were named after factors dominating in each cluster (cluster 1: fearlessly dominating psychopaths; cluster 2: egocentrically-impulsive psychopaths). In both sub-types of psychopathy intensity of coldheartedness – seen as a necessary criterion of diagnosing psychopathy and a key manifestation of psychopathic pathomechanisms [28–31] – is higher than in general population. The results confirm the thesis of distinctive nature of coldheartedness and its invariant presence in the picture of psychopathy regardless of configuration of other traits in both sub-types. It can be assumed that all psychopaths suffer from deficiency of empathy, inability to sympathize with other's pain, lack of feelings of guilt and loyalty, inadequate caring for other and inability to build lasting relationships. This picture is supported by descriptive categories, which substantiate differentiation of two sub-types.

Psychopaths characterized by fearless domination (cluster 1) are convinced of their manipulative abilities and power to influence other people. They perceive themselves as eloquent, able to make a good impression, self-assured, free from social anxieties. Their immunity to stress is high – they do not show a clear response to anxiety arousing stimuli and remain calm in the face of pressure or difficult circumstances. They seem to be fearless – they show tendency to choose risky behaviors and seem to be free from anticipatory fear of physical threats.

Egocentrically-impulsive psychopaths (cluster 2) relate to others in cynical and instrumental way. They are narcissistic and ruthless, bend the rules, manipulate and lie to gain personal benefit. They perceive their non-conformity as being a “rebel without a cause”, who fights with authorities and daringly ignores social norm. This type of psychopaths sees the world as hostile place and themselves as innocent victims of other people or circumstances. They tend to rationalize their aggressive behavior and to blame others of their own problems or failures. Such persons easily experiences boredom, are unable to plan their actions and to commit to long-term goals. Egocentrically-impulsive psychopaths act on impulse and do not learn from experience. The presented results suggest that these traits foster antisocial and criminal behaviors.

The obtained results show that egocentrically-impulsive psychopaths are significantly more often characterized with borderline personality. BPI defines borderline as both personality disorder and level of personality organization [25] – this allows for both categorical and structural-functional interpretation of results.

Results considered from first perspective can be seen as an evidence of co-existence of two types of personality disorders. Such interpretation is confirmed by both clinical observation and empirical research [32, 33]. The obtained results confirm a strong link between egocentric impulsiveness and borderline personality disorder symptoms [34], which leads to a conclusion that people in this group are characterized by various symptoms of both psychopathy and borderline personality disorder. The picture of egocentrically-impulsive sub-type of psychopaths can be supplemented by external correlates of a factor which shapes this variant of disturbance (and which is strongly related to PCL-R factor 1). These traits seem to be consistent with theoretical and empirical agreement on the picture of psychopathy: externalizing behavior (aggression, substance abuse, etc.) and personality traits (impulsiveness, interpersonal antagonism, “meanness” or “disinhibition”) [34–38].

Interpretation of results according to the second perspective leads to the assumption that differences in the clinical picture of psychopathy reflect different pathology of personality organization, which involves lack of identity integration, inadequate reality testing, fear of fusion and tendency to apply primitive defense mechanisms. Sub-types of psychopathy differentiated on descriptive level proved to be different also in the area of explaining intrapsychic pathomechanism.

Results of this research allow us to infer that constructs which describe borderline personality organization level create theoretical context for those traits which add up to a picture of egocentrically impulsive psychopaths. Psychopaths representing this sub-type are characterized by lack of identity integration, feeling of emptiness, dysphoria and inability to engage in relationships. Such traits can account for their tendency to experience boredom and lack of interest. Function of experience-seeking can be further explained by the category of primitive defense mechanisms, particularly splitting, projection and projective identification. These mechanisms result in depriving an individual of internal content, intensify feeling of futility and emptiness, and impair integration of libidinal and aggressive aspects of self and object. Domination

of primitive defenses can account for sustaining feelings of omnipotence or worthlessness in relation with self and others. It seems that the way that egocentrically-impulsive psychopaths perceive human nature can be seen in the context of dilemmas stemming from identity diffusion and fear of engulfment in face of closeness – and feeling of abandonment when faced with separation. Categories of identity diffusion and defenses based on splitting, which polarize internal object relations, seem to be helpful in understanding egocentrically-impulsive psychopaths' extremely positive and negative emotional states. Inability to experience ambivalence might prevent feelings of concern from modulating their hostility. Lack of ambivalence and devaluing attitude outline theoretical context for interpreting such psychopaths' way of seeing other people and their tendency to cynically use others for their own benefit. Tendency to devalue others (especially those who cannot meet one's needs), typical in borderline personality organization, can facilitate ruthless manipulation. In similar matter origins of exalted, supercilious attitude can be traced back to unrealistic self-perception based on identity pathology. Polarized perception of self and others – stemming from splitting, idealization and devaluation – can account for belief in world as a hostile place. Tendency to project one's own unacknowledged mental states into other people's minds, characteristic of borderline patients, might shed some light on psychopaths' view of world as a hostile place full of malicious intentions. Mechanisms of splitting and projective identification account for difficulties in linking facts, thinking and learning from experience, while impulsive (or criminal) behavior can be understood in context of stress-induced, temporary regressive loss of reality-testing and emotion regulating abilities.

Differences in level of personality organization in connection with diversity of clinical picture suggest that psychopathy can be formulated in terms of Kernberg's structural-categorical model, similarly to narcissistic disorder. In other words, egocentrically-impulsive psychopaths, whose clinical picture stems from functioning on borderline personality organization level, can be contrasted with fearlessly dominating psychopaths who function on neurotic level of personality organization. Nevertheless, it seems that specific pathomechanism characterizing this second sub-type of psychopathy requires further investigation, as constructs which describe neurotic level of personality organization are inadequate in attempts to explain the observed clinical picture. This question calls for further reflection in light of ongoing discussion on conceptual and empirical adequacy of applying external correlates of fearless domination to a concept of psychopathy [39–41]. This factor is not linked with traits associated with psychopathy, like aggression, antisocial or externalizing behavior or disinhibition. It is, however, linked with symptoms of psychological stress and internalizing disturbances (negative correlation), extraversion and experience-seeking (positive correlation) [42–44]. On the other hand, researches highlight correlation of fearless domination with PCL-R factor 1 [18] and psychopathic impudence, one of the key traits in Patrick's model [45, 46].

Conclusions

1. Subjects in the study group differed significantly in the configuration of traits on descriptive level of conceptualizing psychopathy, which allowed for differentiating two sub-types of psychopaths: fearlessly dominating and egocentrically-impulsive.
2. Results confirm the thesis of distinctive nature of coldheartedness and its invariant presence in the picture of psychopathy regardless of configuration of other traits in both sub-types.
3. Differences in the picture of psychopathy reflect different pathology of personality organization.
4. Results regarding differentiating sub-types of psychopathy on descriptive and structural-functional level highlight a crucial role of both perspectives of thinking about the disorder in diagnostic process and illustrate the value of constructs of psychological theory in deepening the understanding of people who suffer from a given disorder.

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