Draw-a-person for the evaluation of antisocial personality trait

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Abstract

Introduction: the analysis of criminal personality is the field of common interest both for criminology and forensic psychiatry. It takes in great consideration an assessment of psychological, constitutive and environmental factors predisposing to antisocial behavior. The goal is to estimate the power of the DAP in evaluating the presence and intensity of the Antisocial Personality trait.

Materials and Methods: the sample consists of 20 subjects with antisocial personality disorder with a history of crime, drug abuse and alcohol addiction, instability in emotional relationships, who are admitted to nursing homes for mental disorders; a control group of 52 normal subjects randomly recruited among university students and government employees. In the control group, subjects had no previous psychiatric or psychological signs. Their age is between 25 and 45 years old equally distributed by sex. They were recruited for the study of DAP scales and the MCMI-III test.

Results: the scales and the DAP (acting out, good adaption, aggression, narcissism, negativity-oppositionality, psychosis, paranoia, pulsionality and interpersonal relationships) have produced significantly different results between the two study groups. Within the pathological sample, the acting out and negativity-oppositionality scales proved to be associated with the MCMI-III scale of antisocial disorder.

Discussion: the antisocial subjects turn out to have a significant tendency towards acting out, poor ability to manage and sublimate their aggression, and a negativistic-oppositional behaviour. Within the sample of pathological subjects, the DAP differentiates only in relation to the area of impulsivity; the tests used have discriminating ability within the group, while losing efficacy in relation to the aggression variable.

KEY WORDS: antisocial, borderline, draw-a-person manual testing, psychodiagnostic evaluation.

Introduction

Analysis of the criminal personality is the basic common concern both for criminology and forensic psychiatry, which takes into account at the same level an assessment of psychological, constitutive and environmental factors, possibly predisposing to antisocial behavior (1). The psychopathic or antisocial personality is characterized by a regular pattern of inner experience and behaviour that noticeably deviates from the expectations of the individual’s cultural environment. Access to the experience is characterized by abnormal ways of perceiving and interpreting the self, the others or events; of managing affects, in particular their intensity, lability and adequacy; impulse control and interpersonal functioning that flow within a structure that is inflexible, rigid, non-adaptive and pervasive in a variety of personal and social contexts. These existential modes of behaviour for the subjects and for those who come in contact with them entail a significant distress and impairment in social, occupational, and networking functions. Psychopaths “suffer and make society suffer” (2). It is in relation to the poor ability to adapt to social norms that psychopathic personalities have been described and defined, in descriptive and relational terms, even as sociopathic. Psychiatry defines these as personality disorders or character syndromes because the disorder is within the character, which is understood to be a modality, or individual sum of usual traits congenital and acquired, that exists, acts and reacts to external circumstances. The disorder captures and deforms, in an elective or prevalent and lasting mode, the methods of response and behaviour to environmental conditions and internal purposes: symptoms which consist of behavioral and ideo-affective alterations, most evident in the relational and interpersonal scope, are alloplastic, meaning that the psychopath subjects tend towards the satisfaction of their needs through manipulation and exploitation of others and dominate through the exercise
of power. They are also egosyntonic, inasmuch the behaviours that appear abnormal and dysfunctional to others, are recognized by the self as its own integral part, consistent with personality and therefore exempt from criticism, with consequent lack of guilt and civic and moral responsibility. After the first studies on aggression and alleged identification of the criminal personality (3, 4), on the relationship frustration-aggression (5), the psychological contributions of Fromm (6), until the "neurotic pursuit of punishment" of Psychoanalysis and the contributions of Winnicott (7, 8) and Adler (9), efforts were made to underline how purely psychological and neuroanatomical aspects could be the fundamental substrate of criminal behaviour. Then, the criminological study of personality received the contribution of Pinatel (4). He identifies four main traits that determine the core of the criminal personality underlying the passage to action and are present in each of us ("In every person dozes a criminal"). The traits are: egocentrism, by which the subjects ignores the judgements; lability, which permits them to disregard the consequences of the criminal act; aggression, which leads to certain criminal acts regardless of the obstacles in doing them; emotional indifference, which leads to ignore the suffering of the victim. Recent results (10, 11) have led some scientists to reconsider organic characters as a cause or contributing cause to antisocial and, in extreme cases, violent behaviour. Among the various personality disorders, those ones that show a constant and significant relationship with aggressive and violent behaviors are the following: antisocial disorder, which is very frequently associated to eetoaggressive conducts; the borderline disorder, marked by instability and ease in the transition to action, and the "malignant narcissism" syndrome, characterized by a malignant sense of omnipotence and invincibility, the feeling of impunity, lack of empathy and moral sense, the prevalence of a life experience in which "everything is doable" in order to meet their own drives. Attention has been strongly paid on the frontal cortex, which is known to have a key role in the acquisition of social skills and control of emotions and actions. Therefore an impairment has been suggested. Another important relationship is between environment and predisposition (12) through the recognition of the MAO-A gene, that would cause an increase in uncontrolled aggression. It is essential, however, that gene expression is conditioned by a particular family and environmental situation characterized by strong emotion, violent behaviour and abuse, in order for abnormal behaviours to occur. After tracing the history of this area of research, a criminal personality syndrome has been identified: it is characterized by a specific psychopathological structure, which favors the acting-out, and by three basic features: criminal hyperactivity, antisociality, and considerable egocentrism. It was shown that the environmental and social factors are always mediated by the aforementioned syndrome, which frequently overlaps other personality structures (13). Although they draw attention to frequent psychological characteristics in criminology such as ease of excitement, fantasies of domination, power and triumph, widespread fear and persistent suspiciousness (traits which suggest the presence of narcissistic and paranoid components in the character structure), Yochelson and Samenow (14) argue that the personality traits of the person who execute crimes are present in most individuals, even slightly. Some criminals may also be pushed to the search of illegality and dominion by a low self-esteem, feelings of hopelessness, pride and quest for power (13). The tendency to commit crimes of any severity and nature, and in general, conducts marked by the acting-out tendency, are strongly affected by the presence of a series of negative factors such as family disintegration, lack of social support network, noncompliance with pharmacological and psychological therapies, unemployment and abuse of dependence on drugs, which in combination with each other can promote and unleash morally and criminally unacceptable behavior. Classically, the psychodynamic interpretation of the criminal act envisages the release from superego control, the decline in the ability of the ego to defer the drives, and the production by the id of particularly virulent and uncontrollable instinctual compulsions. As a matter of fact, nowadays there are more and more people who are free of internal references, not because of their failure but for the absence of one’s own corroborative internal representations of socially appropriate behaviour. Psychopaths definitely have not reached the development of object constancy (15), resulting in lack of a comforting maternal introjection. There is an overlap between antisocial and narcissist in the construction of a pathological grandiose self. The antisocial structure differs, however, from that of the narcissistic in an important aspect. Kernberg (16) described the grandiose self of the narcissistic personality as a fusion between the real self, the ideal self and ideal internal object. In the psychopath, conversely, the "ideal object" is an aggressive introjection often described as "foreign self-object" (17). The aforementioned view reflects the parent’s life experience as extraneous that cannot be trusted and feeds negative feelings towards the child. This frightening internalized figure is potentially derived from actual experiences of cruelty and parental neglect. The lack of basic trust, associated to the absence of love and maternal care, has a big impact on the future evolution of the psychopath. There is a blockage of the maturation process before it is completed the phase of separation-individuation and the development of object constancy. At the same time, the emotional attachment to the mother fails, because it is perceived as extraneous or predator. In the later stages of child development two separate processes occur (17): a profound detachment from all relationships and all affective experiences, and a binding mode with the other that features interpersonal exploitation and manipulation through the exercise of power and destructiveness. The subsequent withdrawal from relationships precludes the normal passage to the depressive position...
and the oedipal phase of development, with the result that the psychopath will never become aware of others as separate individuals with their own feelings, and will not develop the ability to feel depressive anxieties or feelings of guilt regarding the effect of their behavior. In fact, they are not able to experience true depression but a rabid resentment towards the world that does not conform to their desires, a feeling of frustration that they define as boredom or void (14). Thoughts of death are actually an expression of narcissistic rage rather than being tied to a genuine sense of despair, as it happens in affective disorders (17). The psychopath’s inability to naturally introspect leads to a deficiency in superego or rather in a sadistic superego’s precursors development (or extraneous self-objects) that appear in their sadistic and cruel behavior (18). Their only value system is the exercise of an aggressive power.

Among projective tests that assess the aforementioned characteristics we can consider the DAP (Draw-A-Person). This test was proposed by Karen Machover in 1951 (19) and subsequently revised, among others, by Harris in 1963, Kopitz in 1968 and Naglieri in 1991. It starts from the theoretical assumption, inspired by a psychodynamic interpretation, that the drawing of the human figure represents the expression of the self or of the body in the environment, and the composite image (i.e. the figure) is intimately linked to the self in all its ramifications. All the information detected from the drawing of the male and female figure should then provide indications on the state of the sexual identification of the subjects, of the assessment they have of themselves, of their emotional state and their relationship with the social environment.

Unfortunately, in the Italian edition of the manual the Author does not provide validation data. As for the validity, the Author promises: “In the technique of drawing more than in any other projective methods, theory followed the practical success and empirical validation preceded the construction of a theoretical system”. As to the interpretation of the illustration, we refer to a detailed clinical study, not reported, through which a broad interpretation of the system has been reached, and so it is expressed: “These interpretations have met and continue to meet stringent norms of specific clinical validation in each case that has been studied”. But to this regard precise information or references to articles in order to scrutinize “strict validation rules” are not provided. In our work we set out to investigate and differentiate between certain psychopathological dimensions (impulsivity, aggression, tendency to acting out, psychosis, impaired reality check, maladjustment and difficulties in interpersonal relationships) that are the basis of potentially criminal behavior in individuals with antisocial personality disorder and underlying borderline organization, and we use the Draw-A-Person (DAP) as a projective test.

In accordance with Machover’s methodology, a variety of signs derived from the DAP have been associated with specific personality and psychopathological features. The time of administration used by the most commonly Goodenough-Harris DAP Test (20) is about 5 minutes. However, the scientific status of the scores derived from the drawing of human figures is rather tenuous. In our survey we set out to verify whether and how some antisocial features will be expressed in the image that these individuals with antisocial personality have of themselves by projecting them in drawing the human figure, and the ability of the test to distinguish them.

Materials and methods

Our sample consists of 20 individuals with antisocial personality disorder and borderline traits, with a history of offences (brawls, assault against property and people, drugs trafficking), drug abuse and alcohol dependency, instability in affective and interpersonal relationships, job instability, and admitted to nursing homes for mental disorders to undergo detoxification treatments. The group of patients is selected according to the following criteria:

- diagnosis of the state of antisocial personality disorder with borderline organization, confirmed by administration of SCID-II: semi-structured clinical interview for DSM-IV TR axis II disorders (21);
- age between 25 and 45 years old;
- broadly balanced in sex.

Among those with antisocial disorder, 4 of them have a little education, 13 a middle school education and 3 have a university degree; regarding marital status: 11 are not married, 3 are married and 6 are separated/widower; regarding occupation: 11 are unemployed, 7 employed and 2 are freelancers.

The control group consisted of 52 individuals randomly recruited among students, government employees, housewives and freelancers. The control group was selected following these criteria:

- no previous psychiatric and psychological contacts;
- negative profile resulting from SCID-II;
- age between 25 and 45 years old;
- broadly balanced in sex.

Among these subjects, 25 of them have a high school education, 5 a middle school education and 22 a university degree; regarding marital status: 38 are unmarried, 11 are married and 3 are separated/widower; regarding occupation: 2 are housewives, 12 unemployed, 27 are employees and 11 freelancers.

The group of antisocial individuals was administered the MCMI-III test (considered for the Antisocial Disorder Scale) and the DAP with standard delivery (asking the subject to draw a human figure, using a white A4 paper, a pencil n. 2 medium softness). The subjects were reassured about their inability to draw themselves by letting them know that the test would not assess their artistic skills. No time limit was considered throughout the test administration. The textbook for the MCMI-III test describes a personality profile based on BR scores within four ranges:

- BR score between 30 and 60 = no disease;
- BR score between 60 and 75 = trait of personality;
Within the group of antisocial patients we collected these data: a score above 85 in antisocial scale, BR above 75 in the borderline scale as well as in the alcohol and drugs dependence scale. As to the interpretation of the human figure test, the most used marking system was followed and these data were analyzed:

- graphic level;
- level of formal structures;
- content level: analytical and synthetic;
- areas of convergence between intra test indexes.

We applied 9 DAP scales constituted by the convergence of signs that are indicative of the following areas (22) (Tab. 1):

- tendency to acting out
- good adaption
- aggression
- narcissism
- negativism-oppositionality
- paranoia
- psychosis
- pulsionality
- difficulty in establishing interpersonal relationships.

In the evaluation of each scale the score is derived from the sum of each index detected in the drawing divided by the total number of indexes and expressed in percentage; its higher or lower value is indicative of the presence or absence of psychopathological elements. All results were statistically analyzed using significance tests of the differences between independent samples, Mann Whitney U Test and Spearman Correlation Coefficient using the SPSS software (v. 17.0) (Tab. 2, Fig. 1).

### Table 1 - DPA Scales description.

1. **ACTING OUT**: heavy pressure, very large figure, symmetry sharply deflected; weapons, muscular arms; teeth; pointed fingers; dehumanized figures; pointed nose; big, dark, threatening eyes; bare feet in dressed figure; large shoulders; pointed, square shoulders.

2. **(GOOD) ADAPTATION**: moderate deletions, round lines, medium and constant pressure, central positioning, front figure, fluid moderate movement, moderate symmetry, well defined neck, figure of one’s own sex drawn first, relaxed face and body.

3. **AGGRESSION**: jagged lines, crossed out lines, thick and heavy lines, mainly straight lines, heavy pressure, weapons, attitude to violent action, mouth designed with a firm sign as a slash, hat, teeth, pointed fingers, fingers in greater numbers, particularly large fingers, fingers without palm, armed characters, soldiers, very large hands, hands clenched into fists, hands on hips, prominent chin, beard nose, broad nose and heavily-stressed nostrils, pointed knuckles, dark, large and menacing eyes, bulging or very bolstered eyes, long feet, pointed long feet, pointed shoes, furrowed eyebrows, square and pointed shoulders, heels, head bigger than body, asymmetric torso in relation to the limbs, face with an ironic expression, omission of lineaments of face.

4. **NARCISSISM**: very large figure, nude figure with highlighting of the genitalia (excluding Art students), explicitly drawn mid-line, elaborate dresses, cupid’s bow-like mouth, elaborate hairstyles, very elaborate eyelashes and eyebrows, jewels, draw themselves, mirrored figure, head larger than the rest of the body.

5. **NEGATIVISM-OPPOSITIONALITY**: marked positioning on the right side, stick-like figure, half-face figure, extremely schematic figure, arms omission, hands clenched into fists, small eyes, eyes covered or closed, bare feet in clothed figure, omission of the features of the face.

6. **PARANOIA**: figure drawn from behind, rigidly drawn half-face figure, very large figure, symmetry accentuated with stiffness, pointed fingers, closely united legs, big dark and threatening eyes, eyes without orbit with the same pupil, protruding or very bolstered big ears, head drawn from behind, head larger than the body, rigid face and body.

7. **PSYCHOSIS**: confusion between half-face and frontal position, drawing with poor shapes, lack of details, unrefined distortion of the whole figure, figure drawn from behind, unstable posture, empty figure, unrefined transparency in the entire illustration, wing-shaped arms (in children), omitted hair, house designed in human form (if in adult individuals), omitted eyelashes and eyebrows, extraterrestrials, dehumanized figures, orbitless eyes represented by one pupil, empty eyes without pupils, internal organs, sun and stars drawn in human form (if in adults), head only figure, head omission, head with irregular contour or odd-shaped, head larger than the face, body features omitted, face with impersonal expression.

8. **PULSIONALITY**: large and heavy lines, heavy pressure, undefined, shaky, uneven stroke, very large figure, figure not completed because it exceeds the margin, symmetry deflected in an accentuated way, weapons, emphasized hair, neck omission, short and thick neck, female figure with hair emphasized, big breasts and bare legs (in both sexes), prominent chin, genital organs in evidence (excluding art students), feet oriented in opposite directions, bushy and uncultivated eyebrows.

9. **INTERPERSONAL RELATIONSHIPS (DIFFICULTY IN ESTABLISHING)**: positioning in the upper left corner, stick-like figure, half-face figure, figure from behind, extremely schematic figure, empty figure, encapsulation or subdivision of the figure, animals instead of human figures, omission of the mouth, arms rigidly glued to the body, omission of fingers, geometric, abstract shapes rather than human figures, gloves, frequently deleted hands, shaded hands, hidden hands, covered eyes, small or closed eyes, empty eyes and without pupils, characters of different race and/or time, feet and legs drawn first, statues (excluding art students), head only figure, head drawn from behind, head drawn last, omission of the head, indistinct features of face, omission of the features of face.
Results from the Mann Whitney U Test show the presence of significant differences (p value < 0.05 and p value < 0.01) between the antisocial group and the control group in all variables. They emphasize the difference between normal and pathological subjects in relation to aspects of acting out, aggression, negativism-oppositionality (Tab. 2, Fig. 1).

After implementing a correlation between the MCMI-III scale and the DPA scales within the pathological sample subjects, data confirm the DPA power in differentiating the antisocial trait by means of the scales of acting out and negativism-oppositionality, but not that of aggression (Tab. 3).

The most significant indexes, observed in antisocial subjects drawings, that indicates acting-out are (Tab. 1):
- heavy pressure
- very large figure
- emphasized deviated symmetry
- weapons
- muscular arms
- teeth
- pointed fingers
- dehumanized figures
- sharp nose
- big, dark, intimidating eyes
- bare feet in clothed figure
- broad shoulders
- square pointed shoulders.

An index of aggression is the low score found in this scale (Table 1):
- jagged lines
- crossed out lines
- thick and heavy lines
- predominantly straight lines
- heavy pressure

### Table 2 - Grouping Variable: Normalcy / Pathology.

<table>
<thead>
<tr>
<th>DAP scales</th>
<th>NORMAL MEAN RANK</th>
<th>PATHOLOGICAL MEAN RANK</th>
<th>MANN – WHITNEY U TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impulsiveness area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acting out</td>
<td>33.48</td>
<td>44.35</td>
<td>363*</td>
</tr>
<tr>
<td>Aggression</td>
<td>32.55</td>
<td>46.78</td>
<td>314.5*</td>
</tr>
<tr>
<td>Pulsionality</td>
<td>34.16</td>
<td>42.58</td>
<td>398.5</td>
</tr>
<tr>
<td>Negativity-oppositionality</td>
<td>30.89</td>
<td>51.8</td>
<td>228.5**</td>
</tr>
<tr>
<td>Adaption area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good adaption</td>
<td>38.88</td>
<td>30.30</td>
<td>396</td>
</tr>
<tr>
<td>Interpersonal relationships</td>
<td>32.35</td>
<td>47.30</td>
<td>304</td>
</tr>
<tr>
<td>Reality check area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narcissism</td>
<td>38.74</td>
<td>30.68</td>
<td>403.5</td>
</tr>
<tr>
<td>Psychosis</td>
<td>34.58</td>
<td>41.5</td>
<td>420</td>
</tr>
<tr>
<td>Paranoia</td>
<td>36.44</td>
<td>36.65</td>
<td>517</td>
</tr>
</tbody>
</table>

* p value <.05
** p value <.01
Table 3 - Connection between the scales of the DPA antisociality scale (in pathological subjects).

<table>
<thead>
<tr>
<th>Scales</th>
<th>Antisocial Personality Disorder (Spearman correlation coefficient)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acting out</td>
<td>.819**</td>
</tr>
<tr>
<td>Good adaption</td>
<td>-.300</td>
</tr>
<tr>
<td>Aggression</td>
<td>.400</td>
</tr>
<tr>
<td>Narcissism</td>
<td>.225</td>
</tr>
<tr>
<td>Negativity-oppositionalilty</td>
<td>.733**</td>
</tr>
<tr>
<td>Paranoia</td>
<td>-.095</td>
</tr>
<tr>
<td>Psychosis</td>
<td>-.327</td>
</tr>
<tr>
<td>Pulsionality</td>
<td>.222</td>
</tr>
<tr>
<td>Interpersonal relationship</td>
<td>-.083</td>
</tr>
</tbody>
</table>

- weapons
- attitude to violent action
- mouth designed with a strong mark, like a slash
- hat
- teeth
- pointed fingers
- higher number of fingers
- particularly large fingers
- fingers without the palm of the hand
- armed figures, soldiers
- very large hands
- hands clenched into fists
- hands on waist
- prominent chin
- beak-nose
- wide and marked nose and nostrils
- sharp knuckles
- large, dark and menacing eyes
- bulging or very reinforced eyes
- long feet
- long, pointed feet
- pointed shoes
- furrowed eyebrows
- squared and pointed shoulders
- high heels
- head larger than the body
- asymmetrical trunk in relation to the arms
- ironic expression on the face
- omission of the features of face.

Negativism-oppositionalilty indicators are (Table 1):
- placing on the right side in an accentuated fashion
- stick-like figure
- half-face figure
- extremely schematic figure
- omission of arms
- hands clenched into fists
- covered eyes
- eyes small or closed
- bare feet in clothed figure
- face features omission.

Discussion

Compared to the control group antisocial subjects were found to have a significant tendency to acting out, a poor ability to manage and sublimate their aggression and a negativistic-oppositional behaviour. Within the pathological sample the DAP differentiates only with regard to the area of impulsivity; distinction that is kept within the group, even when losing efficacy in relation to the aggression variable (Tab. 3).

References