

“DRAW A MAN” – MACHOVER TEST – AND ITS ROLE IN THE EDUCATIONAL PROCESS

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Abstract: *The “draw a man” test, developed by psychologists with a psycho diagnostic purpose, can be used as a psychological scientific instrument and also by pedagogues who can lay the basis of their educational program on it or elements that gush forth from the interpretation of the test. This paper deals with elements of form and contents that are supported by researchers in the field of projective tests. Mention has been made of virtues and limitations of this instrument as a measure of intelligence. Drawing is presented as an experience and opportunity for the psycho-pedagogic team that supports the child in his/her cognitive, emotional and social development..*

Keywords: *IQ test, projective test, general criteria of interpretation, forms of contents, drawing – privileged role in the education and psychotherapy of the child.*

After working a lot with the “draw a man” test, after many years and different contexts (clinical, educational, personnel selection, psychological counseling) I reached the conclusion that this can be of real help for the persons involved in the psycho educational process, especially if the person has a dominant inclination towards the assisted person (student, client, patient). Clinical psychologists have concluded upon a double use of this test: as a measure of the IQ and as a projective test to find personality.

1. As a marker of intelligence

The beginning of the 20th century marked the dawn of an ample psycho-pedagogical movement concerning the understanding of children. Among the interests cultivated by this movement, we can mention a vivid curiosity for the artistic production of children, among which drawing has

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a leading role. This interest did not target the final product that resulted from that – the drawing, but the connections that exist between the child and his/her psychological achievements, especially regarding the developmental aspect. There are vast international projects and researchers followed the detailed observation of the drawings of the same child during a period of several years. Such observations allowed the relatively well-defined stages of graphology evolutions. Cutting out the artistic predispositions of the children that are anyway individual, as well as of the cultural particularities, there is some kind of evolution of the drawing of any child by age. Drawing goes together with the psychological abilities development. The idea of using drawing for the discovery of precocity or retard of young children is a logical consequence of the discovery of defined stages in their graphology.

The second discovery that is by no means less important came forth by the interest manifested towards the contents of the drawing. According to Anastasi's study, it has been noticed that 71% of the spontaneous drawings of some hundreds of children, from 41 different countries, represent the human being.

The application of "draw a man" test as an IQ test has been mentioned in the literature as D.A.M. test ("Draw a man" test). The evaluation scale in terms of IQ has been elaborated in 1926 by F.-L. Goodenough. Here is what it is all about.

The child is required to draw a man, encouraging him/her both verbally and by the examination environment, to draw the man as accurately as possible. For evaluation, the points are basically granted for the presence in the drawing of certain details (head, neck, legs, different clothes), and, to a lesser extent according to the correctness of the proportions and the movement coordination. The fast development of the use of the test can be explained by its advantages: satisfactory correlation with other IQ tests ($r=.763$ with Stanford-Binet-Terman), the ease of administration, the pleasure of the subjects and, finally, its use in case of impossibility of usage of some verbal test.

Researchers have agreed on the fact that Goodenough norms are not valid after the age of 12, and this for certain reasons. One of them is related to the refuse to draw spontaneously such drawings, which comes either from the profound need of opposition, or from an emotional inhibition. They are rarely expressed assertively and are rather under the form of self-criticism (ex. *I cannot draw*); this attitude conveys an anxiety over the significance of the test and often lack of confidence in the

examiner. The child often leaves this embarrassing stage by drawing only the head or the chest. Teenagers are the ones that are usually against and presumably this is especially because of the modification of their attitude towards the significance of the test.

At puberty, the physical changes, the emotional conflicts and adaptation problems add a new misbalance and important modifications of the self body image. When the teenager draws a person, they try to avoid at least the tension and conflict areas. In this way, elisions, disproportionate elements, the lack of detail that are characteristic for teenage drawing, seriously affect their evaluation at the 'draw a man' test, while other IQ tests, especially verbal tests, constantly measure the constant growth of the intellectual faculties.

In fact, Goodenough scale is conceived in such a way that it does not ask from the child anything else but a stereotypical representation of the person. Because of the wish - so very characteristic for this stage of development - to conform to the environment, to surprise and unmistakably copying reality, the child gives a corresponding answer to the "draw a man" test, considering his/her IQ and emotional maturity. No doubt that Goodenough scale gives too much importance to the large number of details that are represented; the child that has a high score should rather prove a sharp sense of observation assisted by a very good memory for details, rather than a capacity of making it abstract or other intellectual abilities, which are required by the general IQ tests. Between two children with the same intellectual level, the one that is more meticulous, that will fulfill his/her tasks more scrupulously proving attentive to details shall obtain the best results in the "draw a man" test.

Similarly, if affective problems deteriorate the level of the disabled, the obsessional patients can constitute an exception because of their precious concern for details.

In conclusion, the test does not claim to be an IQ test in itself but it can provide a good representation of the level of the intellectual functions of the subject and, particularly, of the made it is strengthened or weakened by non-intellectual factors of the personality.

The enlarged signification of the test implies the fact that the drawing of the child is a complex evaluation that is relevant to various levels of activity, which are both linked to intelligence and to the movement or affective maturity, to the emotional and social adaptation as well as the individual lifestyle.

As projective test.

By using the “draw a man” test to settle the IQ, Machover discovered that the test provides rich clinical information which is independent from the intellectual level of the subject.

“Children that obtain the same mental age in the test often put up drawings that are distinctly different and that are very personalized”, she concludes (Machover, p. 20). The Machover technique consists in the following: the subject is shown a sheet of paper, a medium hard pencil and an eraser and it is asked to draw a person, a human being. The examiner writes on a separate sheet of paper the identity and other preliminary information, the time of execution, the spontaneous comments of the subject and the order used to draw different parts of the body. When the first drawing is ready, the subject is asked to draw an opposite sex being on a second sheet of paper of the same dimensions. The exact words are: *now draw a man (or a woman – accordingly)*. If the subject refuses to do so or apologizes because he/she cannot draw, they are explain that the purpose of the task is not an esthetic one.

2. Test interpretation.

a) General criteria

Before going to elements analysis, it is important to have a bird’s eye view over it. Here is a series of questions that can help us discriminate between some characteristics of the being in the drawing: is it schematic or complex? Big or small? Harmonious or not? What does the general posture express? Is it young or old? Is it realistic or does it contain bizarre elements or absurd ones? Which are the differences and similarities between the two sexes? What elements of the figure did the author try to highlight? Which are the neglected elements or superficially treated? Who was first in the drawing, the woman or the man?

The answer to these questions can offer us even from the very beginning the self image and also about the roles that he/she identifies with, about the mood, about the attitude towards the opposite sex or about his/her cognitive maturity.

The overall aspect of the figure is very important and the best idea is that holistic impression over the drawing to prevail as compared to the atomistic interpretation of the body elements taken separately. Here are some criteria that Urban (1967) presents in his interpretation catalogue:

- The posture or attitude of the being in the drawing – for example the figures drawn in motion, doing a particular action, suggest a dynamic

person. Figures drawn with legs spread apart and hands up suggest assertiveness and desire of social stand-up. The bent ones indicate an emotional misbalance or a fragility sensation. Sometimes the being is drawn from profile or from behind. This can show a desire of evasion or dissimulation of the subject;

- The major differences of size between male and female beings or the different valorization of the masculine figure in comparison with the female: this valorization is highlighted by the graphical details of the drawn figure. For example, if somebody draws the being of the same sex in detail and the opposing sex superficially, this shows narcissist tendencies and a lack of interest or even hostility towards the other sex;

- Sexual role expectancies: we mean here the sexual characteristics of the drawing, representing a person having the same sex with the subject. Under normal circumstances, drawings must contain such elements, this suggesting a normal identification with the own sexual role. For example, girls usually draw feminine figures with long hair, with specifically feminine garments, they are attentive at the head and face details and presumably adorn the figure with discrete decorative elements. Boys usually show in their drawings elements that have to do with masculinity, like the big body mass of the figure, short hair, maybe beard, masculine garments and strong arms and legs. So, these elements are normal; what comes important is the moment they reverse, are missing or, on the contrary, are exaggerated;

- Highlighting, exaggeration, blackening, crossing out in excess or multiplication of certain elements of a drawing: they suggest the importance rendered by the subject to that very aspect in his/her life;

- Unjustified elision or superficial treatment of some elements: they suggest conflicts in the respective area or lack of implication in that task, even evasion. If the entire figure seems schematic it may suggest that the subject refused to get involved in the task;

- Signs of bizarre or graphical surrealism: they suggest strong inner conflicts, a joyful attitude, or even loss of reality grip. As a rule, the more the personality of the subject is more deteriorated or more torn by conflicts and its Ego is more primitive, the more frequent such signs are in the person's drawing;

- Distinctive, atypical, individual (in comparison with the age, sex or educational level of the subject) elements are very relevant because they

constitute a fundamental track of the person, which reveals something in his/her inner world.

In order for the evaluator to confirm his/her presumptions about the drawing, it is recommended to ask the subject about some personal issues: *what does the person suggest to you? What kind of person this is?* In this research we frequently obtain also projective information about the mood of the author or about the problems on their mind.

b) Formal analysis

The second aspect of the interpretation consists of the formal analysis, which includes the analysis of the graphical traits and of the graphical space. According to Urban (1967), zigzags represent aggression; the same thing is suggested also by the tendency to give a highlighted contour to some body details (like fingers) by using sharp lines. Interrupted lines suggest lack of confidence or anxiety and the soft, barely written ones mean lack of energy.

The analysis of the graphical space refers to layout and size of the drawing. I am talking here about the special symbolism that is valid in all the projective tests. At the age of 3-4 the drawing is always in the center of the sheet. At this age, the protagonist is rarely upright but most of the times in all kinds of positions, without any connection with the margins of the paper. From here we can understand the idea of *I am in the center of the universe, all the world revolves around me*. Going to 5 years of age, this feeling of egocentrism but also possible expansion and spontaneity leaves its place to a different tendency. Practically, the development curve shows that starting with this age and going as far as 9-10 years old, the children start using the lower part of the page. Girls leave this area of the paper only at about 10 and boys even from 9. Thus, persons drawn in the upper part of the page may suggest either that the author feels rootless or the need of power or expansion. When the drawing is placed at the bottom of the page, it means that the author feels unsafe and unadapted. Preferring the left space on the paper indicates retreat to the past, insight and the passive posture of a spectator. If the drawing is clearly placed to the right side of the paper, it means an orientation to the world or the future. Big drawings that take almost all the page, suggest megalomania, self center or enthusiasm. Small figures imply feelings of insignificance or inadequacy.

c) Content analysis

Here we take into account both the way in which some body details are represented as well as extra, supplementary aspects that contribute to

the expressivity of the human figure and can reveal certain traits of the subject. Urban mentions some examples: bent figures suggest affective misbalances and instability, the profile figures or those taken from behind can indicate the need to hide something or dissimulation. The persons drawn in motion suggest an active attitude. The desire to show off can be indicated by a figure with legs spread apart and hands up.

The height of the figure is considered as standard, closely related to the central aspects of personality. Machover presupposes that the size and placement on the paper of the drawing are not so well mind-controlled and are more variable than the other structural aspects of the drawing. Standards have been made according to age groups and sex and they constitute good corpus to compare with and then make interpretations.

The meaning of the profile - almost all of them turned to the left, for both sexes. Exner noticed more frequent drawings from the profile in the cases of more stressed adults. With children yet, the choice of the profile can have a different significance - it is often chosen to refer to a person in motion, the profile being fit to suggest movement and activity.

Yet, the most consistent one still remains the analysis of the body areas. The understanding of their projective significance relies on the biological or social functions they fulfill in reality.

1. The Head is the center of thoughts and emotions, of the self image and image about the world as well as of the body control. It is the center of consciousness and it dictates the person's adaptation in a social and physical environment. At the same time, the face is the key element of emotional expressivity and it plays a vital role in the portrayal of the attitude or disposition of the other. The mouth is the organ that assimilates the food, but, from a symbolic point of view, of the affective experiences. Psychoanalysis revealed the importance of the oral stage in the psychosexual development of the child and so it unveiled a series of symbolic significations of the mouth. This is the organ that helps suck the maternal milk and thus initiate the first emotional relationship with this world. Also, for the young child, the mouth is an essential element by means of which he/she knows and learns reality. The mouth participates in the expression of emotions and at the same time it has some particular erotic significance. If drawn open, like a concavity, it suggests a passive-receptive attitude of the subject, as well as oral dependency. It therefore expresses an intense and childish wish of receiving emotional support unconditionally, just like the child expects to be fed by the mother. If it has

teeth, the open mouth suggests a greedy, devouring and possessive attitude. The frowning mouth or having the corners down expresses disgust or depression, disappointment with the world. If drawn with the corners up, it involves the idea of mask, of conventional smile, thus expressing a certain social conformism. The eyes represent a key element of the face and they complement the expression of the face but they also have the role of information receiver. The hair is only decorative but also an element related to instincts. If very thick or darkened and often in disorder, it indicates sexual preoccupations and anxiety towards this aspect. The ears represent a graphical element whose omission from the drawing is not relevant. They are important when they are highlighted, when they can suggest a state of hyper-attention, of suspicion towards the others or high sensitivity to criticism. The nose is traditionally a phallic symbol but it is still related to the expression of some feelings like fury.

2. The neck makes the connection between the control center and the rest of the body. So, symbolically, it has a function of channel of communication between mind and body, or in other words, between thought and emotions, between a plan and its execution, between unconsciousness and consciousness. Any visible choke in the drawing at this level of the neck (collar, tie, necklace) thus suggest some kind of control or some cerebral impulses blockage. This issue can mean affective inhibitions attentive control of expressing emotions. Also, the feeling of separation between the cerebral and emotional side can be represented by a long neck.

3. The body represents the area of vital organs, consequently, of vital impulses which are coordinated by the brain and put to action by the limbs. At the same time the body is also a reflection of the force and stability of the person. If drawn massive, it indicates the desire of force and masculinity, while a thin or fragile body suggests feelings of weakness or inferiority.

4. Arms and hands are an instrumental component that assures the manipulation of objects in the environment for the satisfaction of the person's needs. If the hands are missing from the drawing, this indicates feelings of lack of adaptation and the sensation of being clumsy. Fingers drawn like claws or anyway pointed suggest aggression.

5. The legs ensure movement and balance, so the autonomy of the person. The tendency to draw thick and long legs, as well as a big foot, suggest the desire of independence. On the other hand, thin, short, fragile legs indicate lack of confidence or the lack of personal autonomy. Also, the

figures on their tiptoes signify the idea of ambition or escape of the subject from an environment perceived as frustrating.

6. The accessories – garments have a specific social role; it often characterizes the person and it indicates the social status of the individual.

3. Drawing and the educational process

Drawing owes a privileged position in the education and psychotherapy of the child, especially for younger ages.

The “draw a man” issue can bring advantages in the system of the construction of a self image, of emotional balance by discharging the dysfunctional feelings.

Widlocher (1965) makes the distinction between the role of education in the development of graphical activity (the pedagogy of drawing) and the use of drawing in different methods of education (pedagogy through drawing). Pedagogy of drawing can have a contribution in the evolution of spontaneous drawing of the child but which is its precise influence? Learning within the family is difficult to evaluate. It can easily be noticed that there is no interest in making the child give up the intellectual realism in favour of the visual one.

It must be admitted that drawing in itself has a pedagogic function. It is now known that drawing contributes to the development of some skills as well as knowledge. Drawing has some characteristics of the exploratory activity of the child, that it actually expresses as a matter of fact. Drawing allows the child to develop his/her observation skills and knowledge: the intellectual realism is the dissection of the object in its constitutive elements. Drawing also has a certain function for the child who is trying to understand details: he/she reproduces them in case they are necessary. Drawing expresses and settles down the child's discoveries.

Leaving aside the evaluative aspect and the psychological assistance, there is also the possibility of the educational element. The educator can guide the child's exploration especially when it is motivated by an internal urge. He/She encourages the graphical expression without teaching clichés. The drawing child is the child that experiences two things: graphical expression of emotions and internalizing and cultivation of a certain sense of harmony. This is an inner, implicit type of authentic learning.

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