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Visual Narratives of Disability in Projective Drawing Test

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Abstract

Encountering someone with a disability may evoke anxiety but engaging in discourse about emotional disturbance is against the unwritten rules of acceptable behaviour in most Western societies. Attitudes toward disabilities are highly complex mental reactions which stem from a wide range of interacting factors. The aim of this pilot study was to uncover the various components of Hungarian adolescent students' attitudes through projective drawing tests. The test instruction was to 'draw a person with disabilities.' One hundred and sixteen drawings by Hungarian 7th- and 10th-grade students and thirty drawings by 11th-grade students were examined by six independent professionals.

The first and most noticeable aspect of the drawings was the personal engagement of the participants. Different patterns were identified as possible indicators of the drawer's inner representations of disabilities referring to social status, active or passive social roles, social isolation, inclusion, personal- or problem-centered point-of-view, or the emotional aspect of the drawer's attitude. The projective drawing test is a promising practice in education and research when planning or evaluating disability awareness projects.

Key words: DAP test, attitude, projective drawing test, disability, disability awareness.

1.1 Attitudes towards Disabilities

A central focus of social psychology is the study and measurement of attitudes, which are viewed as evaluative statements that predispose the individual to respond in a preferential way – in other words, predispositions to react positively or negatively to a person, object, or event. Attitudes consist of cognitive, affective, and behavioral components.¹

In the context of disability, the attitude towards people with disabilities can be influenced by many contradictory factors.² Encountering someone with a disability may cause anxiety or even emotional disturbance. In most Western cultures, treating someone with a disability as an equal person is part of the societal and cultural norms; nevertheless, negative emotional responses upon perceiving a person with disabilities are normal human reactions. As Oaten et al. wrote, 'perceptions of difference and deviance are sufficient to

¹ Michael A. Hogg and Graham M. Vaughan, *Social Psychology* (4th ed.) (London: Prentice-Hall, 2005); Richard M. Perloff, *The dynamics of persuasion: Communication and attitudes in the twenty-first century*, (4th ed.) (New York: Routledge, 2010).

² Susan Baglieri and Arthur Shapiro, *Disability Studies and the Inclusive Classroom: Critical Practices for Creating Least Restrictive Attitudes* (New York: Routledge, 2012); Mónika Kovács, "Az előítéletek okai és mérséklésük lehetőségei: a szociálpszichológiai nézőpont," *Alkalmazott Pszichológia* 12, no. 1–2 (2010): 7–27.

arouse existential anxiety; however, it is especially likely to occur when such differences generate concerns in people about their own vulnerability, such as when faced with physical disability and disfigurement'.³ Visible signs of human fragility may evoke feelings of repulsion and discomfort. These unspoken and often shameful negative reactions or disturbing emotions and memories can cause deep and stable components of one's attitude. This potentially results in withdrawal from further interaction with people with disabilities and resistance to any programs or strategies aimed at positive change.

1.2 Discover the Unspoken: Projective Drawing Tests

When it is difficult to express thoughts or emotions, symbolization can improve communication. Visual expressions can open up space for self-disclosure and self-expression.⁴ Drawings are widely used with children, because they reflect their inner worlds and express their emotions.⁵ While drawing is a natural expression for children, drawing tests can be used for people of all ages: children, adolescents, and adults. Pre-adolescence is a critical period because verbal expressions become more important. Moreover, due to different developmental processes, there is a decline in drawing performance.⁶ In this developmental state, young people are unsatisfied with their drawings; thus, pre-adolescents and adolescents constitute the most problematic age group for projective drawings tests. Nonetheless, as Kárpáti wrote, when adolescents are motivated by the topic and have a strong narrative intention, they are also inspired to draw.⁷

³ Megan Oaten, Richard I. Stevenson, and Trevor I. Case, "Disease avoidance as a functional basis for stigmatization," *Philosophical Transactions of the Royal Society Biological Sciences* 366 (2011): 3433-3452, doi: 10.1098/rstb.2011.0095, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3189356/>.

⁴ Andrea Kárpáti and Lisa Kay, "Visual expression of beauty and ugliness in adolescent art," *International Journal of Education Through Art* 9, no.2 (2013): 155-171, https://doi: 10.1386/eta.9.2.155_1; Laurie Wilson, "Symbolism in art therapy", in *Approaches to art therapy*, ed. Judith A. Rubin, (2nd ed.), (New York: Brunner-Routledge, 2010) 40–53.

⁵ Cathy A. Malchiodi, *The art therapy sourcebook* (New York: McGraw-Hill, 2007); Sai P. Pala, Sivakumar Nuvvula, and Rekhalkami Kamatham, "Expression of pain and distress in children during dental extractions through drawings as a projective measure: A clinical study," *World Journal of Clinical Pediatrics* 5, no. 1 (2016): 102-111.; Maria Papandreu, "Communicating and thinking through drawing activity in early Childhood," *Journal of Research in Childhood Education* 28, no.1 (2012): 85-100, doi: 10.1080/02568543.2013.851131.

⁶ Andrea Kárpáti, *A kamaszok vizuális nyelve* (Budapest: Akadémiai Kiadó, 2005).

⁷ Kárpáti, *A kamaszok*.

1.3 Draw-a-Person (DAP) Test

The draw-a-person (DAP) test is widely used in psychology, education, and research. Traditional use of these tests is based on assumptions that drawings serve as a self-representation of the examinee, showing many characteristics of his or her personality.⁸ DAP tests are also used to assess children's representations of different themes – for example, social stereotypes and prejudice in inter-ethnic conflicts,⁹ friendship,¹⁰ basic emotions,¹¹ or gender stereotyping.¹²

According to Jolley,¹³ visual expression is a developmental process. Until the age of six, facial indicators express feelings (e.g., they depict happiness with a smiling person). Children between the age of six and ten tend to draw more complex emotional scenes, adding contextual indicators or narratives to the drawings to depict the cause of emotions. Vass¹⁴ defines projective drawing as 'an inner structure externalized through drawing movements that consist of [a varying degree of] five elements: learned cognitive schemes; analogue or transformed signs and symbols of pictorial communication; expressive movements; a personal construct of an individual reality; and, in some cases, traces of unconscious projection' (82).

⁸ István Hárdi, *A dinamikus rajzvizsgálat* (DRV. Budapest: Flaccus Kiadó, 2016); Zoltán Vass, *A psychological interpretation of drawings and paintings. The SSCA method: A systems analysis approach* (Pécs: Alexandra Publishing, 2013).

⁹ Daniel Bar-Tal, and Yona Teichman, *Stereotypes and prejudice in conflict: Representation of Arabs in Israeli Jewish society* (Cambridge: Cambridge University Press, 2005); Yona Teichman, "The development of Israeli children's images of Jews and Arabs and their expression in human figure drawings," *Developmental Psychology* 37 (2001): 749-761.

¹⁰ Anna S. Bombi and Giuliana Pinto, "Making a dyad: Cohesion and distancing in children's pictorial representation of friendship," *British Journal of Developmental Psychology* 12 (1994): 563-575.

¹¹ Claire Brechet, René Baldy, and Delphine Picard, "How does Sam feel?: Children's labelling and drawing of basic emotions," *British Journal of Developmental Psychology* 27 (2009):587-606.

¹² David W. Chambers, "Stereotypic images of the scientists: The draw-a-scientist test," *Science Education* 67 (1983): 255-265.; Ann Colley, Eryn Berman, and Liz Van Millingen, "Age and gender differences in young people's perceptions of sport participants," *Journal of Applied Social Psychology* 35 (2006): 1440-1454.

¹³ Richard P. Jolley, *Children and pictures: Drawing and understanding*. (Oxford: Blackwell, 2010).

¹⁴ Zoltán Vass, "Phenotypes of aggressive psychiatric patients' and delinquents' projective drawings," *Studia Casuistica* 2, Supplement 1. (2012).

2.1 The Research Process

The initial intention of this test was to gain a deeper understanding of a disability awareness program organized by one of the authors of the study and musicians with disabilities. The research hypotheses were:

1. Projective drawing tests could be a powerful tool for discovering the unspoken components of attitude towards disability.
2. It is possible to identify patterns of positive and negative attitudes.
3. While verbal feedback about a disability-awareness project was highly positive, some of the drawings will not reflect such a positive attitudinal change.

2.1.1 Methods: Draw-a-person with Disabilities Test

The model of this method was reported by Magyar and Meggyesné.¹⁵ They instructed Hungarian elementary schools' students to 'draw a person with a disability'¹⁶ in the hope of gaining an impression of their inner representation of disability. They compared these drawings with the selected and published drawings of the DrawDisability Campaign¹⁷ to identify similarities and differences in the drawings. Their qualitative analysis identified different patterns of medical approach to disability, such as a hospitalized figure, loneliness of the disabled character, lack of social situation. The aim of the research was to continue this work and identify more graphical patterns that express positive or negative attitudes.

2.1.2 Data collection

116 drawings by Hungarian 7th- and 10th-grade students were examined. The instruction was to 'draw a person with a disability'. Tools included a set of 12 color pencils and a sheet of A/4-size paper. (The participants were not prohibited from using their own pencils or other tools.) The test was taken in their classrooms in a group overseen by instructors

¹⁵ Adél Magyar and Hosszú T. Meggyesné, "11-12 éves általános iskolai tanulók fogyatékoságról alkotott vizualizációjának elemzése," in *SJE Nemzetközi Tudományos Konferencia*, ed. György Juhász, Yvette Orsovics, and Melinda Nagy (Komárno, Szlovákia: Selye János Egyetem, 2016).

¹⁶ In Hungarian there is no distinction between "Draw a person with a disability" and "Draw a person with disabilities."

¹⁷ DrawDisability Campaign, a yearlong global campaign on inclusive education 2014, UNESCO. <http://www.unesco.org/new/en/gefi/stories-events/recent-stories/2016/draw-disability-campaign-art-book/>

and supervised by psychologists. The post-test was to describe in a few words a personal encounter with someone with a disability.

Significant differences were expected between the participants of the project and the control group, such as visual narratives of the event, or signs of emotional involvement. As there was high variability in the appearance of figures, we could not identify such evident signs.

2.1.3 Evaluation

In order to solve this problem two independent psychologists were asked to comment on the drawings. They were instructed to decide on the attitude of the drawer and to name the graphical patterns on which their opinion was based. Surprisingly, their judgments varied widely concerning the attitudes of the drawers, while there was significant agreement in their associations between graphical signs/patterns and their meanings.

After the first round of the research, the second hypothesis was demonstrated to be wrong.

2.2 Action Research - Second Circle:

2.2.1 Theoretical Background: The Seven Steps Configuration Analysis Method

The seven-step configuration analysis (SSCA) is a method of projective drawing analysis elaborated by Zoltán Vass.¹⁸ This complex approach is based on 25 years of the author's research. Vass considers the picture, the drawer, the context, and the process as a multifarious system; thus, the drawing is only a sub-system with incomplete information.¹⁹ He emphasizes the complexity and heterogeneity of drawings. Hence, instead of isolated features, the interrelationships of several features should be examined.

The method of (SSCA) provides detailed information about the drawer and the picture from seven different viewpoints. SSCA consists of the following stages: (1) collecting preliminary information about the examinee, and (2) observation of the drawing process: depiction decisions, production strategies, execution of movements, and latency after the instruction. The following steps assist in describing the picture: (3) phenomenological description, (4) intuitive assessment, (5) global assessment, (6) item analysis of unusual phenomena, and (7) grasping the essence of the drawing. These are consecutive phases, or viewpoints, that help identify interrelated patterns and configurations.

¹⁸ Vass, *A psychological interpretation*.

¹⁹ Vass, *A psychological interpretation*, "Phenotypes of aggressive".

The complex view of Vass's method (especially the steps of intuitive, global, and item analysis) was employed to describe possible pictorial expressions of a wide range of attitudinal features. Intuitive analysis involves making a list of free impressions, in order to detect the viewer's spontaneous focus of attention, attempting to interpret the drawn figure's body position (kinesthetic empathy) and visualizing the drawing as if it were moving in space. Global analysis is aimed at gaining a complex impression of the emotionally affecting tone of the drawing – taking into consideration integration; harmony; spontaneity; dominance of forms, colors or movements; and the position of the picture or a particular figure in the sheet. Item analysis focuses on formal-structural elements – for example, the choice of viewpoint, symmetry, positioning, size and proportion, and the content and symbols of the drawings. This step consists of enactive analysis of the drawer's expressive movements, iconic analysis, visual expressions of the drawer's experiential world and symbolic level of personal narratives, and the subject's own associations, as well as archetypal, cultural and individual symbols and stereotypes.

Vass used artificial intelligence to establish a scientifically objective system to identify interrelated patterns of graphic features associated with psychological meanings, and the strength of connection among these patterns.²⁰ He discovered that instead of an unlimited variety of graphic manifestations, there are well defined patterns that occur together, representing meaningful interrelated patterns. He operationalized this method in the ESPD expert system. He used hierarchical cluster analysis to identify this well-defined group of items, the so-called configurations. Configurations are definitive features associated with a list of specific items, and those with certain psychological characteristics (trait, meaning, and interpretation), and a so-called *certainty factor*, which is a scaling system from 0 to 100. In this system it is important to avoid so-called *signes-fixes* interpretations (when a graphic sign is associated with only one meaning). In contrast, the meaning of a graphic item highly depends on the configuration in which the given item occurs. Moreover, co-occurring item-configurations mutually influence each other.

2.2.2 Adaptation of SSCA and Involvement of Professionals

The aim of Vass's method is the psychological interpretation of drawings and paintings, not the detection of the drawer's inner representation of disability, thus we could use the theoretical background of the method to avoid superficial interpretation, but the method itself could not provide a solution in our case. While it was not possible to collect more information from the drawers, we overcame this by approaching professionals from other

²⁰ Vass, *A psychological interpretation*, "Phenotypes of aggressive".

fields. In order to represent the complex and professional view of this method, a special-needs educator trained in SSCA method was involved.

Vass (2013) referred to the research of Feldman and Hunt,²¹ in which clinicians and visual art teachers were asked about the same drawings. Clinicians detected emotional disturbances associated with different body parts, and art teachers highlighted the same body parts as they are difficult to draw. For example, adolescents frequently draw human figures with hidden hands – because drawing hands is highly challenging.²² Thus, a visual art teacher and a painter were involved in the research so as to represent this important knowledge.

To emphasise the importance of intuitive and global analysis, such as cultural meaning, spontaneous focus of attention, global impression about the drawings, we involved a non-professional person too.

All judges were asked to find meaningful patterns in each and every drawing of the sample of 116 drawings. All these professionals were encouraged to share not only their professional knowledge, but also their associations about the figure, the thoughts and feelings of the drawer and the graphic features associated with this meaning. Following the steps of the content analysis, the semi-structured interviews were condensed, coded, and categorized. In order to avoid subjectivity, we neglected those interpretations that were not reinforced by other judges or by the modern literature of projective drawing tests.

2.3 Results of the First and Second Circles: Categories - Stereotypes

All of the professionals agreed that the extent of personal involvement was the first and most evident aspect of the drawings. After the long process of coding, we categorized the drawings of four different groups as one sample with the aim of defining patterns of drawings of people with disabilities associated with different components of the drawer's attitude towards disabilities.

²¹ M. Feldman and R.G. Hunt, "A relation of difficulty in drawing and ratings of adjustment based on human figure drawings," *Journal of Consulting Psychology* 22 (1958): 217–220.

²² Cathy A. Malchiodi, *The art therapy*,

2.3.1 Four levels of Personal Involvement

A. Uninvolved

The first category of drawings included schematic pictures, circle-line schemes, and stick-figures. The stick figure is drawn with single lines, while circle-line schemes feature a trunk that is two-dimensional – whether a circle, an oval, or a rectangle. These kinds of drawings can be associated with evasiveness and non-compliance because they can be drawn fast without involving too much energy.²³ In this case, it is important to compare the drawing with other human figure drawings, to see if it is a specific answer for this test or typical of the person. Drawing schematic pictures is a normal developmental stage for adolescents.

B. Situation or problem

In this category, examinees did not draw a person, but a problem. A person in a wheelchair in front of stairs was a typical depiction. Being ostracized or isolated was also a typical thematic stereotype. The common feature of these pictures was that the environment was more elaborated than the figure itself, which also indicates a problem-oriented approach.

Faceless figures were also typical in the sample of the 116 drawings. The global quality of these figures was highly variable, from stick figures to artistic excellence. In some cases, these drawings are good compositions even without faces; in other cases, they seem to be unfinished. This characteristic rather belongs to the first two categories.

C. Identification

In this category, the person depicted is in the same age-group or older than the drawer by illustrating additional contents, such as accessories, sports gear, or play activities in a familiar environment, or in the situation, which is recognisable (e.g., at school). These drawings are positive because the person with a disability can be interpreted as ‘one among us.’

D. Personal or Symbolic Pictures

According to Balázs-né-Szűcs,²⁴ the narrative intention is an important feature of drawings. It indicates that the experience was important, and the drawer wants to express

²³ Vass, *A psychological interpretation*; Hárdi, *A dinamikus*.

²⁴ Judit Balázs-né-Szűcs, *Rajzelemzés belemagyarázás nélkül* (Budapest: Szort Bt., 2008).

it. Narrative attitude typically appears in detailed pictures with complex scenes. These drawings use the whole paper for drawing. The composition, especially the use of colors, and ornaments increases the global quality of these pictures. In personal narratives, the examinee typically depicts a real person. It is clear from the post-test; or, in many cases, there are significances in the drawing itself (e.g. the name of an existing camp or foundation). Some other drawings were highly symbolic, even non-figurative, with a complex explanation. These drawings are associated with personal engagement and more complex representations of disability.

2.3.2 Other patterns associated with different aspects of disability

A. Inclusion or social isolation?

The subjective experience of the social environment around the person with a disability can be interpreted by analyzing the full, depiction or description of the surroundings in the participant's drawing. It also can represent the drawer's perspective of the depicted person's social situation, the drawer's inner world, and the space made for someone with a disability.²⁵ The majority of the figures are drawn as small on a blank paper. It can refer to the drawer's view about disability as a socially isolated life, but it may indicate a lack of integration in regard to the participant's personal experience of disability.²⁶ The global quality of these pictures is typically low, which reinforces the impression that the drawer has nothing to share about disability.

Most of the small figures are located in the top right corner of the paper. In projective tests this is a possible sign of fear of the surrounding world, low self-confidence, depression, lack of social relationships, and dependency, especially when the figure has an unsure, weak, and helpless empathic quality.²⁷ However, professionals should be cautious with the interpretation because it signifies various meanings at different levels. First, it may symbolize the drawer's own insecurity when encountering those with disabilities. Another interpretation could refer to real life experiences of the marginalized social state associated with people who have disabilities.

Features of some pictures show a natural environment with meaningful emotional connotations (sunshine, green fields) and social relationships (a lonely figure in the rain, two figures embracing, or a tree with a nest hole).

²⁵ Vass, *A psychological interpretation*.

²⁶ Balázsne-Szűcs, *Rajzelemzés*.

²⁷ Vass, *A psychological interpretation*.

Another sign of social relationships is the gaze of the figure. Some of the figures give the impression of an existence beyond the picture plane, looking at the viewer searching for contact. We were able to identify a pattern of a lonely figure next to an empty chair or bank looking ‘out’ of the picture, as though waiting for someone. Figures depicted in the frontal view seem more open than those in profile, while arms crossed make the figure more closed.

The handle of the wheelchairs also serves as a ‘meeting point’, through which we can initiate contact with the person depicted.

B. Active or Passive Social role

Active and passive social roles appear in many aspects of the drawings, and wheelchairs are important symbols. Some of the chairs can be used by the owner, while others – for example, those with four small wheels at the bottom of the chair – can be pushed by another person. In some drawings, there are figures with missing lower limbs sitting in a simple chair. There are figures missing both upper and lower limbs, but in one drawing, one of the figures has an electric chair. In some pictures, a dependent social status is reinforced by a facial expression or open arms, while people talking or making expressive gestures are associated with agency and self-advocacy. Other signs of an active role include emphasis of the wheels, depicting the wheelchair user with fitness gloves. Happy or satisfied facial expressions are also a sign of an active social role. Wheelchairs are associated with security and support. Some of the chairs are depicted as big and comfortable, but the chair is bigger than its user. Extension of the body parts of wheelchair-users (especially the lower limbs) is also typical in the sample. These pictures are associated with security, but also with an unchangeable inactive or dependent status, signifying the ongoing need for help.

In drawings associated with independence, movement is more dominant than form. Quickly drawn lines are characteristics of motion-dominated pictures that create the impression of mobility and activity. In contrast, the dominance of form, which is a more controlled graphic expression, cause the picture to be more static. According to Vass,²⁸ in form-dominated pictures, intellectual aspects dominate; whereas movement-dominated pictures are more spontaneous and indicate the involvement of emotions, fantasy, and creativity.

²⁸ Vass, *A psychological interpretation*.

C. Equal or Underprivileged Social Status

Disability as an underprivileged social state is highly dominant throughout the whole sample. Faceless figures, drawings missing important facial features, bizarre non-human body-parts, or asexual depictions cast doubt on the humanity of the figure. In many of the drawings, the contour of the body and the wheelchair run one into the other. Others depict a mythical figure in a bizarre environment. As one of the professionals described these drawings, 'It is not a human with thoughts and emotions, it is *the disabled*.' A lack of hair can also be a sign of humiliation. For example, forced hair shaving is known as a dehumanizing procedure especially in the case of women.²⁹ Bald figures or child-like renderings may be associated with a childlike social state. Grotesque and caricature-like figures can be indicative of making fun of disabled people or using disability as a comedic trope.

Signs of equal social status are as follows: The figure typically stands and the empathic quality of the depicted person is as strong, healthy, and independent. The disability is visible, but not dominant. The quality of the lines can be firm and unhesitating, without interruptions or hesitant strokes. The optimal use of space, the central position of the drawing, and the stability and balance of the figure and the entire composition is typical in the sample. The emotional aspect of the drawing is happy or playful. Qualities associated with active social states and identification are also prevalent.

D. Disability as Unbearable Burden

Disability depicted as unhappiness, sadness, and ongoing grief was also typical in both the drawings and the post-test narratives. Pictorial signs of unhappiness were small and uncomfortable wheelchairs, in which it would not be possible to remain in for a lifetime and live a quality life. Word clouds with unfulfilled desires, downturned mouths, sad faces, and loneliness were typical in the sample. Frequently, responses have a depressing, empty, or cold emotional quality with dark colors or the use of only lead pencil, which was not officially offered for the test.

²⁹ Elanie Webster, "Degradation: A Human Rights Law Perspective," In *Humiliation, Degradation, Dehumanization Human Dignity Violated*, ed. Paulus Kaufmann, Hannes Kuch, Christian Neuhaeuser, and Elanie Webster (London: Springer, 2011), 67–84.

E. Problem-centered or Person-centered Approach

Some of the drawings are more problem-centered, while others are person-oriented. Interesting features that correspond to the attitude of the drawer are the relation of the wheelchair to the person both in size and quality. There are big or detailed chairs with a simple, faceless individual or a stick figure. In others, the disability is visible, but not the central narrative of the picture. The focus of the viewer's spontaneous attention is also important. In some pictures, the stump of a limb is dominant due its central position or multiple reinforcement of the line usually using another color. By contrast, in other drawings, the wheelchair is behind the person, as a sign of his or her disability, but the figure is standing in front of the chair. In some pictures, there is a harmony between the lines of the chair and the body of its user, creating the impression of wholeness. In the cases where the user can push his or her wheelchair yet it also has a handle, it is interesting to note which these is more dominant in the picture.

2.3.3 The Drawer's Emotions

According to Vass,³⁰ the overall emotional quality of the drawing reflects the emotional state of the drawer. This includes additional aspects not covered by the global quality. In many of the drawings, the wheelchair is unstable regardless of the emotional quality of the depicted figure or the global quality of the picture. Professionals identified the pattern of unstable or 'rocking' chair in the sample, that could reflect the examinee's insecurity. As previously mentioned, helpless and weak figures are also possible signs of the drawer's emotions. The quality of the lines is also significant. Weak, insecure, interrupted, and hesitating lines with light pressure can be signs of insecurity.³¹

There are aggressive figures with angry or frightening facial expressions and with open or shouting mouths. A few of these figures are drawn with rigid lines and a line created with heavy pressure; while weak, insecure, sketchy lines and light pressure are typical in others. A fearful emotional quality and anxiety are common characteristics of these drawings. In our research professionals agreed that these images are possible signs of negative personal experiences.

Low global quality is also typical of the sample. In addition to the adolescent's possible opposition towards drawing tests, strong emotional involvement can also result in the poor quality of drawings. Di Leo described the so-called 'see-saw effect,' according

³⁰ Vass, *A psychological interpretation*.

³¹ Vass, *A psychological interpretation*.

to which affective involvement frequently interferes with cognitive achievement.³² Vass added that 'if the examiner requests the subject to draw a single person, he usually gets a quantitatively and qualitatively higher level of drawing than of a single figure in family drawing.'³³ It is also possible that strong emotional influence can cause a decreased level of global quality. In individual cases, a control drawing could help to decide the matter.

Large, head-only figures can be associated with strong emotional involvement; however, the professionals rarely agreed on whether these emotions were positive or negative.

2.4. Action Research - Third Circle:

After the first round of testing, two more questions were added to the post-test for clarification. In this circle, 30 drawings by 11th-grade students were examined. Each participant was asked to choose a title for his or her picture and to describe the feeling of the person who they depicted. Furthermore, the testers requested a control drawing to collect more information on the drawers' visual language. While in this round the previously described categories had not changed, the post-test proved to be of value in so far that it provided information about the emotional involvement of the drawer (in some cases there was a significant difference at the levels of spontaneous and prescriptive drawing). Comparing the narrative information and the drawing was useful in clarifying emotional tone, and/or useful in assisting in the interpretation of the picture. The difference between the impression of visual and narrative information can be beneficial in discovering contradictory thoughts and emotions.

3. 1 Perspectives: Benefits of DAP with a Disability

The main benefit of using projective drawing tests is the opportunity to express multi-dimensional aspects of attitudes, including unspoken difficulties and contradictions. A wide variety of the described patterns can be presented in a single picture. In one of the pictures, friendship and equality provide the central narrative, while many signs of a childlike social state are presented in the disabled figure. It is important to consider both the verbal narrative and the pictorial expression. If possible, it is also important to compare the picture with other drawings, especially drawings produced by the same creator. In the present form, the test's most important advantage is that it assists in exploring the unspoken

³² Joseph H. Di Leo, *Interpreting children's drawings* (New York: Brunner and Mazel Gardner & Winner, 1983).

³³ Vass, *A psychological interpretation*, 67.

dimensions of attitudes towards disability, either as a preparation for or an evaluation of disability awareness projects.

3.2 Drawing as an Opportunity for Re-thinking and Changing Attitudes

The most prevalent figure is the so-called circle-double line scheme, which is a primitive level of human figure drawing. The body parts are not differentiated, limbs are depicted with double lines, and the head and trunk are oval, circular, or rectangular.³⁴ However, at this level, doubling figures, erasing, and crossing out pictures are typical. These reactions are important, because these are signs that the drawer was not satisfied with his or her work or faced something unacceptable from his or her inner world. Vass describes the phenomenon of dynamic interactivity as being:

...based on the depiction [which is] considered as a process where the progress is influenced by the part of the picture already completed. The line, as soon as it is marked on the paper, is divorced from the internal world of the individual and becomes a part of the external world. It is transformed from reaction into a stimulus which will influence the subsequent development of the picture'.³⁵

Erasing and crossing out motifs are a sign of ambivalence and conflict with the particular motif, person, or body part.³⁶ When drawers judge something 'ugly' or 'incorrect' in their own picture and try to correct it, they simultaneously re-structure their inner image of disability. Different reactions are associated with this process of 'beautifying' the original picture by adding ornaments, more elegant clothes such as cuffs and collars, and reinforcing these ornaments with multiple lines, colours, or shading. The phenomenon of paradox smiling, when the smile is not congruent with the overall expression of the figure, was identified by our expert examiners as a sign of pity. Ornamentation undoubtedly requires more time and energy; thus, was associated with a positive approach, benevolence and an openness toward disability.

In its present form, the test could be valuable for educational and therapeutic purposes. Unique and innovative approaches, such as the socially engaged approach of art practice play an important role in understanding others.³⁷ Using the draw-a-person with a disability test could be particularly beneficial in exploring and changing attitudes towards

³⁴ Vass, *A psychological interpretation*; Hárdi, *A dinamikus*.

³⁵ Vass, *A psychological interpretation*, 799–800.

³⁶ Vass, *A psychological interpretation*.

³⁷ Kim Hyungsook, "Socially engaged art practice and character education: Understanding others through visual art," *International Journal of Education through Art* 10, no.1 (2014): 55–69.

disability. Both the drawing tasks and the subsequent interview questions proved helpful in facilitating verbal and non-verbal personal expressions.

3.3 Drawing for Opening a Space for Words

Projective drawings could be utilised in a disability awareness project in Makó, Hungary. We were asked to prepare the 8th grade students of Szent István Ecclesiastical Grammar and Elementary School. This was the first step in a month-long disability awareness project.

The one-and-a-half-hour project commenced with the task outlined above, that is 'draw a person with disabilities.' We asked each student to work alone and to remain silent throughout the task. When all the students had finished the task, the students were given a short break. The break, gave the students an opportunity to share their feelings, and, allowed us, the researchers, to prepare an exhibition of the drawings. The second step, was to invite the students to view the drawings of their peers. While they perused the images, the students were invited to select one image which they felt they could work with.

When all had chosen a drawing, they were instructed to do something to the image that would make the figure happy. After this task, we set up another exhibition. In the first drawings, most of the figures were rather small, without any natural or social context. In the following stage, many of the students added symbols that added depth to their selected image. Computers, as well as television proved popular additions. There were also students who drew the natural environment, pets or close relationships: friendship and/or love. Interestingly, alcohol and cigarettes also appeared in the final images.

The students were asked to contemplate the drawings in silence. For the final task, they were instructed to devise a title for both of the drawings they were working with. The workshop appeared to be beneficial in helping students to progress, and provided unusual, but sharable experiences for the participants.

In conclusion, a free and open conversation was instigated prior to which the students prepared questions about their feelings, impressions and experiences during the different steps of the process, and the pictures and the meaning of happiness. Although the students were not forced to talk about disability, they shared their personal experiences, questions, reflections about this topic as well.

4.1 Drawing test and research

When using the drawing test as a tool for research, the categories, patterns, and signs would require reinforcement and refinement by way of a larger sample. The above-men-

tioned method of configuration analysis for projective drawings is based on the heuristic analysis of identified patterns in drawings with the use of artificial intelligence. The SSCA method represents the strategies of professional thinking by creating meaning through concurrent consideration of the whole configuration and the pertinent details at the same time. The heuristic analysis ‘increases psychological certainty using the heuristic combinations of uncertain knowledge items’.³⁸ Although the SSCA model is based on the detailed analysis of more than 35000 drawings, in more specific topics configuration analysis proved to be effective in establishing valid categories associated with different meanings. For example, Vass used configuration analysis to discover the graphic expressions of aggression in projective drawings.³⁹ Antos and Vass described the same process with the ‘draw a monster’ test. Involving more drawings and artificial intelligence, DAP with disability appears to be a valid research tool providing a promising way to develop a scientifically objective measure of attitudes.⁴⁰ In its present form, the described categories and meaningful patterns could prove a strong foundation from which to derive configurations of relationships between individual components.

5 Conclusion

The draw-a-person with disability test was examined in two samples – first in 116 drawings by 7th- and 10th-grade students, then in 30 drawings by 11th-grade students. Both the drawing tasks and the subsequent interview questions are beneficial in uncovering hidden dimensions of participants’ attitudes towards disability. Moreover, this task was helpful in expressing uncomfortable emotional states and verbalizing them through visual metaphors associated with different stereotypes. While these tests reveal some of the unspoken dimensions of attitude, it is essential to consider and comprehend the drawers’ interpretations without forcing them to confront difficult or shameful aspects of their attitude.

Significant patterns could be extrapolated from the simple stick-figures to complex symbolic and personal narratives. Moreover, different patterns emerged related to different stereotypes of disability such as social status, active or passive social role, and social isolation or inclusion. The test also provided us with the possibility to reveal the personal- or problem-centered approach of the drawer, the emotional aspect of his or her attitude.

³⁸ Vass, *A psychological interpretation*, 805.

³⁹ Vass, *A psychological interpretation*.

⁴⁰ Zsolt Antos and Zoltán Vass, ‘Szörnypszichológia a projektív rajzok tükrében,’ *Magyar Tudomány* 172, no. 10 (2011): 1154-1163, http://epa.oszk.hu/00600/00691/00094/pdf/mtud_2011_10_1154-1163.pdf.

In order to develop the test for measuring attitudes, more research is needed involving larger samples and configuration analysis in order to establish the test's validity and reliability. For use of the method in educational settings, we would recommend cooperating with an art therapist. It can be helpful to support and encourage students to reflect upon their visual narratives, even those not considered acceptable according to unspoken social norms. The test maybe used as a preparation or evaluation of disability awareness projects. Students might collaborate on the same drawing, a task which could help establish a deeper conversation on the topic.

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