Psychotic Diagnosis and Artist Pathology: Schizophrenic Art’s Influence on the Identification of the Disorder

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Psychotic diagnosis and artist pathology:
Schizophrenic art’s influence on the identification of the disorder

Danielle E.A. Watson

HONORS PROJECT

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Abstract

The use of artwork created by schizophrenic individuals is unique in its contextual elements, including bizarre imagery, strong border lines, and desexualized features. The uniqueness of schizophrenic art lends itself to the possibility of being identified as such, therefore, opening the possibility for it to be used as a diagnostic tool in the clinical setting. Presently, schizophrenic art is used in art therapy, but is not widely employed in diagnostic practices. The current study aimed to test the possible identification of schizophrenic art in contrast to normal art and no art. Three questionnaires were created and randomly distributed to participants. The questionnaires included verbal descriptions of dissociative identity disorder, schizophrenia, and anti-social personality disorder. The participants were asked to identify schizophrenia when being told that the picture may or may not be helpful in their selection. After sampling 126 undergraduate students in an Introduction to Psychology course, the data was analyzed through a 2x3 and a 2x2 chi-square analysis. It was found that the presence of schizophrenic art significantly enhanced a verbal description of the disorder, thus, supporting the main hypothesis. Prior knowledge was also considered in the results; while the result was still significant, prior knowledge could not be ruled out as a predictor of correct identification. This research is a preliminary step into determining the diagnostic validity of schizophrenic art when identifying the disorder in individuals.

Keywords: schizophrenia, schizophrenic art, diagnosis, diagnostic tools, art, art analysis
Introduction

For years, psychologists and art historians alike have attempted to discover what motivates people to create art. There has been speculation about how much of the artist’s individual unconscious emotions, impulses, and/or psychopathology are presented in their artistic productions. From this, there have been numerous speculations and theoretical discussions about pathography and diagnosis. Pathography, though used mostly in art history, was most famously employed by Freud as theory of analyzing art for the pathological clues to an artist’s mental state (Spitz, 1983). Whether or not pathographical analysis would aid in diagnosis has yet to be determined. Empirical research on this question may provide some insight into the relationship between pathography and clinical diagnosis. In fact, if an individual’s pathology or unconscious processes are dispersed into their art, then it would not only help art historians analyze art in a new theoretical context but also allow psychologists and clinicians to analyze the art for clues to possible psychopathology within the artist.

When thinking of mental illness in the context of art making, many think of psychotic disorders, which are defined by the presence of delusions, hallucinations, impairments in judgment and decision making, and perceptions of reality that interfere with daily functioning; the most well-known and studied illness being schizophrenia. Schizophrenia is a serious psychotic disorder that is characterized by all of the above and by social isolation, disorganized speech, and intrusive and repetitive disturbing thoughts (Oltmanns, Martin, Neale & Davison, 2009). Thus, schizophrenia can greatly affect the individual’s daily functioning as the sufferer becomes unable to effectively adapt to external reality. Nonetheless, as disruptive as they are, the symptoms can be treated, and many persons with schizophrenia lead near normal lives. However, in order to treat the disorder, clinicians need to first identify and correctly diagnose the
individual, a task that is not as clear-cut as it may appear (Bleuler, 1955). Although many methods are used for diagnosis, such as DSM criteria, psychological tests, and clinical knowledge, additional diagnostic aids are always welcome. Perhaps the analysis of art can provide such an aid.

One characteristic of schizophrenia that is unique to the disorder is the creation of highly bizarre artwork. Schizophrenic art refers to art that has been created directly by the hand of a person suffering from schizophrenia. Such work has many contextual elements that separate it from normal art; this could be because the pathology of the artist is reflected in the art h/she produces demonstrating the symptoms of the disorder from which they suffer. Therefore, an analysis of artwork that aims at discovering the presence or absence of schizophrenic characteristics may prove useful in the diagnosis of the disorder. There has been limited research on the validity of the claim that art can be labeled “schizophrenic,” and on the value of using artwork produced by schizophrenics as a diagnostic tool. Thus, there is a need for preliminary research exploring the possibility that artwork produced by a schizophrenic individual can be identified as such. The following project represents a first step toward discovering the possible uses of schizophrenic artwork in the diagnostic process, and the theoretical validity of pathology being present in the art of a select population. This was done by attempting to determine if art produced by schizophrenic persons could enhance the correct identification of a verbal description of the disorder.

**Literature Review**

**Visual Learning**

When conducting research on the effect of viewing art on the identification of a verbal description of psychopathology, it is important to understand whether or not images enhance judgments. It is often thought that people remember pictures better than words, which is referred
to as the Picture Superiority Effect. This effect holds that when thoughts, words, or other information is associated with an image, it will be recalled easier than information alone; yet, there is no agreement on the reason for this phenomenon. Therefore, Hockley and Bancroft (2011) created a series of tests to attempt to discover one reason for this effect. They conducted four experiments to test different aspects of the Picture Superiority Effect (PSE) in associative tasks. Experiment 1 and 2 were designed to replicate PSE for associative and item recognition using the 5-PAR test procedure to ensure that associative recognition decisions are not influenced by item recognitions. Using 52 picture pairs, line drawings, and 52 word pairs, they randomly assigned and tested thirty undergraduate students. The results for experiment one confirmed that the PSE for item recognition is a mirror effect, showing a higher rate of correct responses and lower rate of false alarm responses, whereas the PSE for associative recognition showed only a higher number of correct responses.

Next, Experiment 2 was conducted in order to account for memorization from previous tasks, which may have impacted the results but reported the same results as experiment 1. Experiment 3 tested whether or not the PSE for associative recognition could only be done with picture-picture pairs using line drawings. After testing 124 students, the researchers found that PSE is still evident in picture-word associations. Lastly, Hockley and Bancroft (2011) conducted a fourth experiment to test the strength of the PSE for associative tasks with images other than line drawings. They used 22 word pairs, 22 line drawings, and 22 object picture pairs and found that PSE is for associative recognition is present in both line drawings and pictures of objects. When a picture was present, the researchers proposed that PSE could be a function of the fact that semantic meanings of pictorial images are simply processed faster than are words (Hockley and Bancroft, 2011). Thus, their work constructed a wider view on how the artwork created by a
schizophrenic patient, especially a drawing, may enhance the identification of the presence of the disorder in the artist.

In addition to identification enhancement by the inclusion of artwork, Noy (2013) discussed art as defined in psychoanalytic terms by Freud and others. He primarily looked at art as an aesthetic experience and he questioned why it evokes emotional responses from viewers. From this perspective, art is defined by its form, organization, and content. However, if art only has content, but no form, or if it has form, but no content, then it is not art. Instead, according to the author, art is only art when it includes a meaning (Noy, 2013). This analysis of artwork in the psychoanalytic context would position art produced by schizophrenic individuals as a possible medium for viewers to attain some meaning. If art produced by persons with schizophrenia contains meaning, as it would if defined by Noy (2013), then it may reflect the pathology of the artist; in other words, the meanings behind art produced by schizophrenic persons should reflect aspects of the disorder that influence the individual’s perception of the world. If this is the case, art produced by schizophrenic individuals should enhance the identification of the disorder within the artist. That is, it should provide additional information about the artist’s mental health.

**Art Historical Perspectives of Pathography**

Pathography is a concept that has been applied by art historians when analyzing unconscious motives of artists and the possible pathologies that may be observed in their artwork. That is to say that an artist’s pathology may be evident through their artwork without the artist being aware of its presence. In one famous example of pathography, Freud attempted to pathographically type Leonardo da Vinci in biographical form by analyzing his writings and artwork. Spitz (1983) defined Freud’s use of pathography as related to Leonardo’s art as the interpretation of the artist’s pathological tendencies as well as a picture of the artist’s
unconscious conflicts. Freud’s use of pathography was, of course, different from how the concept is applied today. He focused on Leonardo’s sexual motives, instead of on historical, cultural, or environmental determinants.

Because Freud focused on Leonardo’s sexual motivations and dismissed other areas of theoretical approach in art history and psychology, many scholars see Freud’s biography of Leonardo as a biography of Freud himself rather than a pathographical analysis (Herding, 2000). There have also been multiple critiques of Freud’s pathographical approach to Leonardo’s art, and art in general. He was criticized for looking at art in a literary sense instead of as image, thus, disregarding the artists interaction with the artwork (Kuspit, 2000). This is to say that Freud interpreted art as a narrative rather than as a medium for understanding how and why an artist painted in a particular style. Even so, Freud’s use of pathography using the psychoanalytic model opened the doorway to other psychologists and art historians to examine art to discover the possible unconscious motives or the psychopathology of the artist.

Not only is pathography used by art historians to analyze the artwork of the “masters” or deceased artists but it also used to examine contemporary works by those suffering from mental illness. Art historians and psychologists have been interested in the reasons why individuals with mental illness make art and how their cognitive processes are visible through the product. Shaddock (2006), a clinical psychologist, analyzed the five steps to producing art—visual and written—preparation, inspiration, realization, completion, and objectification, and how individuals who put forth this creativity are more likely to show signs of mental illness, like depression, addiction, and social isolation. Kohut (1976) theorized that creative individuals do not always suffer from “structural defects,” but, instead, are more vulnerable to mental illness due to the transformation of narcissism from childhood to adulthood in the form of the creative self (as
cited in Shaddock, 2006, p. 422). Shaddock (2006) supported this theory through case studies of art therapy patients and his experience as a poet. This is to say that creativity and art production may be linked with mental illness, although neither is causal or mutually exclusive.

More specifically, White (2007) proposed that art created by those with mental illness is a product of socio-cultural and historical implications of treatment and stigma. He also asserted that individuals with mental illness who create artwork are attempting to “reclaim reason from the depths of unreason” (White, 2007, p. 27). This means that artwork may be created by individuals suffering from mental illness as a coping mechanism in order to identify their perceived reality in comparison to actual reality; thus, helping them cope with the delusions and/or hallucinations that impair their daily functioning; problems addressed in the treatment of schizophrenia. From an art historical perspective, White (2007) believed that artwork produced by schizophrenic individuals is influenced by their pathology. However, he wanted viewers to understand the artwork as art and to ignore the pathological underpinnings. This is an interesting stance from an art historical perspective—valuing the artwork that is produced and not the disorder, therefore, reducing stigma or associations the viewer might bring with them; however, psychologists would use this artwork in treatment—thus, requiring them to understand the pathological influences. Regardless, if White’s (2007) assertions are true regarding the cognitions and efforts that are put into the meaning of art, then art produced by individuals thought to have schizophrenia could be a useful diagnostic tool in the clinical setting.

Identifying Schizophrenic Artwork

There has been significant debate as to whether or not schizophrenic artwork can be differentiated from normal art. Langevin, Raine, Day, and Waxer (1975) attempted to address this issue by analyzing formal elements of artwork. In two studies, these researchers asked nine
schizophrenic patients and nine “normal” individuals to create four different artworks, which were then judged for formal elements, such as line work, composition, etc. Taking into account the subjects’ artistic background and intelligence, they found that there were no significant differences in the artworks on a formal level. However, they pointed out that content may be a more useful level of analysis when examining artwork for signs of psychosis. The content is what tends to be most different from normal artwork, and it is strange, unusual or bizarre content that reflects the schizophrenic process. Like artists free of mental disorder, individuals with schizophrenia often use a creative process to produce art. This is essential to understanding whether or not the schizophrenic’s artwork will reveal the artist’s pathology. Barnett (1981) focused on art therapy with schizophrenic children in the 1930s and early 1940s. She emphasized the creative process involved when individuals with schizophrenia produce artwork; stating that schizophrenic art represents the individual’s perception of themselves in a certain place and time within their level of maturation (Barnett, 1981).

While all artwork evokes a creative process, schizophrenic art is presumably unique and contains characteristics that define it as schizophrenic. Cohen (1981) argued that persons with psychosis or schizophrenia use artwork to express ideas or emotions that they are incapable of expressing verbally. To him, these persons often depict reality as they wish it to be, rather than how it is; thus, incorporating into the work bizarre delusions or hallucinations. Elaborating on Cohen (1981), Crespo (2003) described the key features of schizophrenic artwork, including desexualized figures, strong border lines, symmetry, and especially misidentification and fusion of objects or figures, as probably being synonymous with the artist’s delusions and hallucinations. These features are not seen in normal artwork and are indicative of schizophrenic
pathology. Therefore, it is reasonable to consider that schizophrenic art is recognizable as such as a function of its content.

**Current Uses for Schizophrenic Art**

Even though schizophrenic art has been shown to contain bizarre imagery that makes it discernible from normal art, it is not currently used widely for diagnostic purposes. Instead, schizophrenic artwork is most commonly used for art therapy. Amos (1982) was interested in the uses for schizophrenic art in the 1980s; after analysis of artworks and synthesis of research, the author concluded that schizophrenic art was not currently used for diagnostic purposes, but to enhance the therapist’s understanding of a patient. This understanding is usually achieved through insight oriented therapy (Crespo, 2003). However, this is not the only clinical use for schizophrenic art. Supportive therapy aims at teaching schizophrenic patients how to formally create normal art in order to raise their self-esteem (Crespo, 2003). This type of therapy has often been associated with a schizophrenic individual regaining the ability to use symbols in their art, which increases their sense of reality (Wilson, 1987). Young (1975) conducted an experiment in which ten schizophrenic individuals were assigned to supportive art therapy, ten to insight therapy, and ten to a control group. The results suggested pros and cons to both art therapy styles and unsurprisingly emphasized that a different approaches should be utilized depending on the individual receiving treatment.

As indicated above, schizophrenic art is not widely used for diagnostic purposes. Yet, one psychologist, Judith Rubin, used art as an interview mechanism with children, adolescents, and adults to aid in the diagnostic process by allowing them to freely associate as much as possible (Rubin, 1973). This practice utilized a psychoanalytic approach to recognizing symbols, interpreting colors, and taking into consideration the patient’s chosen media and behavior while
creating. She was searching for signs of psychological dysfunction in the productions (Rubin, 1973). Perhaps more famously, Margaret Naumberg, who worked with children using the psychoanalytic approach, studied the use of art in therapy. This work led her to be a strong advocate for the use of art in the diagnostic process (as cited in Rubin, 1987).

Many other psychologists in the past century have also looked into the importance of art as a tool for interpreting and understanding schizophrenia. Prinzhorn (1923) considered art as a structuralized expression of the inner life of the artist, while, in 1950, Reitman concluded that factors of brain functionality could eventually be recognized in art. This would help discriminate psychotic art from non-psychotic art (as cited by Kramer & Iager, 1984). Kramer and Iager (1984) asserted that art could be used as a diagnostic tool because it is enjoyable to the patient, who would very rarely refuse to draw. Most importantly, they note that “… spontaneous art production is purely a product of the patient’s mental and physical efforts reflecting affects, thoughts, perceptual-motor coordination, or deficits of the above” (Kramer & Iager, 1984). If this were to be shown true, then the use of schizophrenic art as a diagnostic aid would prove to be extremely helpful to the clinician in the diagnostic setting.

Kramer and Iager (1984) were not the only researchers to speak of the possibility of art as a diagnostic tool. Cohen (1981) also recognized that schizophrenic artwork is so bizarre and different from normal art that it could be used in such a role. Additionally, Young (1975) called for more research to determine whether or not schizophrenic art has a role to play in the diagnostic process. That is where the present preliminary research began: discerning if schizophrenic art can enhance the identification of a verbal description of the disorder, schizophrenia.
Purpose of the Present Research

This project represents a preliminary step in exploring the proposition that schizophrenic art can be used as a diagnostic indicator. To this end the research evaluates the effectiveness of such art as an aid to correctly identifying the verbal description of schizophrenia. Therefore, the study focused on answering the specific question:

1. Does the presence of schizophrenic art enhance the correct identification of a verbal description of schizophrenia?

   In practical application outside of the study, it will be interesting to see if the results can aid in answering more complex questions about the field of psychology and art history:

2. Could schizophrenic art be used to aid in the diagnosis of schizophrenia?

3. Is the pathology of the artist revealed in the artwork?

Research questions two and three are broad in implication and cannot be directly addressed by the present work. However, this preliminary research will begin to shed some light on these more general issues.

With research showing that schizophrenic artwork has various characteristics that establish it as unique in comparison to other artworks done by persons suffering from other pathological conditions, it is reasonable to assume that such artwork would aid in the identification of schizophrenia as represented in a verbal, descriptive format. Therefore, the present hypothesis is:

H₁: The presence of schizophrenic artwork will lead to a higher proportion of correct identifications of a verbal description of schizophrenia when compared with descriptions including normal art or no art at all.
This research is potentially applicable to diagnostic problems in psychology. Additionally, this study may reveal the importance of artwork in reflecting the pathology of the artist. By providing examples of schizophrenic artwork, normal artwork, and no artwork, the findings may show whether or not the pathology of the artist can be correctly identified. This information is interdisciplinary and applicable in art history for it may aid historians in analyzing historical artworks within a psychopathological context.

**Methodology**

Questionnaires, along with basic questions regarding demographics (i.e., age, sex, year in college, prior knowledge of schizophrenia), were distributed to participants via BGSU’s Qualtrics with a link and password. Because this research was meant to address the question of whether or not schizophrenic art may have any enhancing impact on diagnosis of schizophrenia, it would have been preferable to use professional clinicians as participants in a format different from current procedures. However, because resources were limited, and the research was preliminary, undergraduate students with limited knowledge regarding schizophrenia were employed. These participants were selected from a Bowling Green State University Introductory Psychology course; thus, providing a modicum of control for limited knowledge of schizophrenia. The link and password to the study was distributed to the entire class via email. From there, 126 students participated in the questionnaire. Each participant was randomly assigned, by computer, to one of the three different types of art questionnaires through a function on the Qualtrics tool.

**Procedure**

In order to determine whether or not schizophrenic art enhances the identification of a verbal description of schizophrenia, three questionnaires were constructed. The experimental
questionnaire contained a picture of schizophrenic artwork (See Appendix A.), followed by three written descriptions of pathological conditions: dissociative identity disorder, schizophrenia, and anti-social personality disorder. These descriptions were created from the DSM 5’s diagnostic criteria. The schizophrenic art questionnaire stated: “Please circle which definition below represents schizophrenia. You may or may not find the picture helpful in your selection.” Each participant selected the description they believed represented schizophrenia. The two control questionnaires had the same definitions for the disorders as the experimental questionnaire; however, one contained a picture of normal art (See Appendix B.) with the same directions as the questionnaire with schizophrenic art, and one had no art (See Appendix C.), stating in the directions that the participants should: “Please circle which definition below represents schizophrenia.”

The schizophrenic artwork was selected from the Amos (1982) work, which analyzed schizophrenic artwork and discussed the aesthetic qualities most often seen therein. The selected image was chosen because it included the most common contextual elements of schizophrenic art: desexualized figures, strong border lines, symmetry, and especially misidentification and fusion of objects or figures (Crespo, 2003). The image for the normal art control questionnaire included an ink drawing titled, “Morning Rush Hour,” by Marvin Franklin (2004). This artwork was chosen because it is not a well-known or highly recognizable piece; however, it is also a drawing of people or figures, just as the schizophrenic drawing, but these figures are clearly “normal.”

Once the data was collected, it was entered into a chi-square analysis using calculated expected frequencies (three levels of art X correct or incorrect identification). As discussed below, a further Chi-square analysis was conducted to clarify results. Prior knowledge of
schizophrenia from classes and/or courses was also analyzed to determine what other relationships may be present between prior knowledge of schizophrenia and responses to the questionnaires.

**Results**

Using the data that was collected from the questionnaire, two statistical tests were conducted to determine whether or not there was a significant variance between the expected frequencies of possible answers in the three questionnaires and the observed frequencies and another test to determine if the expected frequencies for the correct identification of schizophrenia varied significantly from the observed. After filling out the questionnaires through the BGSU qualtrics site, 125 responses were recorded for data analysis. One response was not used because the questions regarding the definition of schizophrenia was not completed (n = 125). Other demographic variables such as age, class year, and prior knowledge of schizophrenia were collected (See Table 1).

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18.59</td>
<td>1.27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Percentage of N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>34</td>
<td>28%</td>
</tr>
<tr>
<td>Female</td>
<td>89</td>
<td>72%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class Year</th>
<th>N</th>
<th>Percentage of N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>97</td>
<td>79%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>20</td>
<td>16%</td>
</tr>
<tr>
<td>Junior</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Senior</td>
<td>4</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prior knowledge of schizophrenia</th>
<th>N</th>
<th>Percentage of N</th>
</tr>
</thead>
<tbody>
<tr>
<td>From classes and/or courses</td>
<td>56</td>
<td>46%</td>
</tr>
<tr>
<td>From independent research/curiosity</td>
<td>12</td>
<td>10%</td>
</tr>
<tr>
<td>From entertainment</td>
<td>38</td>
<td>31%</td>
</tr>
<tr>
<td>No prior knowledge</td>
<td>17</td>
<td>14%</td>
</tr>
</tbody>
</table>

*Some items were left blank by participants*
A chi-square analysis was conducted in order to determine the variance between the type of art on each questionnaire and the expected and observed frequencies of the answers provided by the participants. The chi-square with calculated expected frequencies was chosen because it factored in not only the relationship between the variables but also random chance and guessing. Because the sample was college students with limited knowledge of schizophrenia, taking into account random chance was important for this analysis. The 3x2 chi-square test reported a chi-square statistic of 67.289 (df = 5; p < 0.0001). This result showed that there was statistical significance in the variation of observed frequencies and expected frequencies. The chi-square tabulation can be seen in Table 2.

<table>
<thead>
<tr>
<th></th>
<th>Normal Art</th>
<th>No Art</th>
<th>Schizophrenic Art</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Correct</strong></td>
<td>25</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td><strong>Correct</strong></td>
<td><strong>14</strong></td>
<td><strong>14.33</strong></td>
<td><strong>13.33</strong></td>
</tr>
<tr>
<td><strong>Incorrect</strong></td>
<td>18</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td><strong>Incorrect</strong></td>
<td><strong>28</strong></td>
<td><strong>28.67</strong></td>
<td><strong>28.67</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>42</td>
<td>43</td>
<td>40</td>
</tr>
</tbody>
</table>

This high statistical significance then led to another chi-square test in order to narrow down the results to determine if the type of art and the observed correct identification of schizophrenia varied from the expected frequencies. Using a 2x2 analysis, the results indicated a

---

1 A chi-square of calculated expected frequencies was chosen over a chi-square contingency analysis because it factored in random chance or guessing, which was determined more applicable to the collected data and intended purpose of the study. A chi-square contingency analysis was run, which reported a chi-square statistic of 3.914 (df = 4; p = 0.417702). Therefore, the chi-square contingency analysis reported that there was no significant variation in the contingency between the type of art and the identification of schizophrenia. Because the chi-square contingency analysis only factors in the observed data and relationship, but does not factor in randomness, it was not chosen for this research.
chi-square statistic of 66.154 (df = 3; p < 0.0001). Therefore, the observed frequencies varied significantly from the expected frequencies. This chi-square tabulation can be seen in Table 3.

Table 3

<table>
<thead>
<tr>
<th>2x2 Chi-square table</th>
<th>Non-Schizophrenic Art</th>
<th>Schizophrenic Art</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct (Observed)</td>
<td>54</td>
<td>30</td>
</tr>
<tr>
<td>Correct (Expected)</td>
<td>28.33</td>
<td>13.33</td>
</tr>
<tr>
<td>Incorrect (Observed)</td>
<td>31</td>
<td>10</td>
</tr>
<tr>
<td>Incorrect (Expected)</td>
<td>56.67</td>
<td>28.67</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>40</td>
</tr>
</tbody>
</table>

With the purpose of understanding where the variation occurred, the proportions were converted into percentages to see the frequencies of correct identification vs. non correct identification with the presence of schizophrenic art and without the presence of schizophrenic art. The proportion of correct identifications of schizophrenia was significantly larger in the presence of schizophrenic art than in the presence of normal art and no art. Schizophrenic art questionnaires yielded a 75% correct identification of schizophrenia whereas the non-schizophrenic art questionnaires yielded a 63.53% correct identification. A breakdown of observed frequencies can be seen in Table 4.

Table 4

<table>
<thead>
<tr>
<th>Frequency of selected answers when asked to describe schizophrenia</th>
<th>No Art</th>
<th>Normal Art</th>
<th>Schizophrenic Art</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Descriptions of Pathology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissociative Identity Disorder</td>
<td>9</td>
<td>21%</td>
<td>15</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>29</td>
<td>69%</td>
<td>25</td>
</tr>
<tr>
<td>Anti-social Personality Disorder</td>
<td>4</td>
<td>10%</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>43%</td>
<td>40</td>
</tr>
</tbody>
</table>
Prior knowledge of schizophrenia was also taken into account during analysis. Although there were three options to choose from when reporting prior knowledge: from classes, entertainment, or independent research, only prior knowledge from classes and/or courses was factored in because of the large number of participants who reported this factor (n = 56). This type of knowledge attainment about schizophrenia would also be considered the most accurate and, thus, would have a higher probability of significantly impacting the results of this study. In order to test whether or not the results would still be significant without prior knowledge of schizophrenia from classes and/or courses, another chi square analysis was conducted without those individuals who reported this factor. This then led to a sample size of n = 68. A 2x2 chi-square analysis was run and the chi-square statistic was reported as 27.371 (df = 3, p < 0.0001). The results showed a significant variation among the expected and observed frequencies of correct identification of schizophrenia with prior knowledge obtained from classes excluded.

This chi-square tabulation can be seen in Table 5.

<table>
<thead>
<tr>
<th></th>
<th>Non-Schizophrenic Art</th>
<th>Schizophrenic Art</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct (Observed)</td>
<td>32</td>
<td>11</td>
</tr>
<tr>
<td>Correct (Expected)</td>
<td>17</td>
<td>5.67</td>
</tr>
<tr>
<td>Incorrect (Observed)</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Incorrect (Expected)</td>
<td>34</td>
<td>11.33</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>17</td>
</tr>
</tbody>
</table>

The proportions of correct identifications were then converted to percentages to see whether or not the presence of schizophrenic art yielded a higher proportion of correct identification than no schizophrenic art. Although the percentage difference was lower than the
previous analysis, it still showed that the schizophrenic art questionnaire resulted in a 2.1% higher proportion of correct identifications than non-schizophrenic art: 64.71% and 62.70%.

**Discussion**

The study was designed in order to determine if the presence of schizophrenic art yielded a higher proportion of correct identifications of a verbal description of the disorder when compared to the presence of no art and normal art. Results showed that the questionnaire with schizophrenic art resulted in a significant effect due to the presence of that artwork when compared to no art combined with normal art. While the result was clearly significant, the effect is not an overwhelming one.

This study, however, only addresses the question: Does the presence of schizophrenic art enhance the correct identification of a verbal description of schizophrenia? The obtained data show that when schizophrenic art was present, participants were more likely to correctly choose the definition of schizophrenia over the description of either dissociative identity disorder or anti-social personality disorder. Prior knowledge about schizophrenia that was obtained from previous courses might be expected to influence judgments matching descriptions with diagnostic labels. That is, knowledge of schizophrenia might be expected to increase the frequency of correct “matches.” However, when the “knowledge factor” is separated out, the significant effect for schizophrenic art still maintains. However, the difference due to art alone is somewhat weakened. Thus, prior knowledge about schizophrenia cannot be ruled out as a factor contributing to the present findings.

This research represents a preliminary step in understanding the diagnostic validity of schizophrenic art and the study of pathography. In the latter sense, the findings are consistent with the idea that artwork produced by schizophrenics may constitute a body of art that can
independently identified as “schizophrenic art” as elucidated by Crespo’s (2003) description of the features unique to schizophrenic art. However, the preliminary nature of this research must be emphasized.

Limitations and Suggestions for Future Study

One limitation of this study is that participants were undergraduates from an Introduction to Psychology class. However, in order to determine whether or not schizophrenic art has a place as a diagnostic tool in the clinical setting, further research must be conducted using clinicians as judges. This may lead to a better understanding of whether or not artwork could be used by experts as an aid in making diagnoses.

Additionally, choosing to use categorical rather than continuous data limited the analyses possible; thus, correlational exploration of the findings was not possible. To remedy this limitation, further research along the present lines might require participants to rate the degree to which the descriptions identified the artist’s pathology. And it might prove informative to ask judges to rate the certainty of their choices.

Conclusion

The present study suggests that schizophrenic artwork may be identifiable as such, and thus the findings are consistent with the previous work (Barnett, 1981; Cohen, 1981; Crespo, 2003). Therefore, artwork created by a patient may prove to be a valid diagnostic tool. This assertion is consistent with Prinzhorn (1923), Reitman (1950), Kramer and Iager (1984), Cohen (1981), Rubin (1973), Naumburg, and Young (1975). These studies have shown that schizophrenic art and other psychotic art could prove useful in the diagnosis of psychotic psychopathologies. The results are also interesting relative to pathography. This is a relevant and important theoretical approach to analyzing artworks in a psychological and art historical
context. Both clinical psychologists, like Shaddock, and art historians, like White (2007), have discussed the usefulness of pathography in the analysis of artwork. While there has been little recent interest in pathography, taking this approach to describe or understand the artist’s pathology—might provide art historians with a novel and interesting methodology with which to approach art in a context that may not have otherwise been considered.

More relevant to psychology, pathography may be used in the clinical setting with individuals who may present with psychotic features. That is, a clinician may be able to analyze the person’s artwork via pathography as an aid to sharpening diagnosis, and planning treatment. Thus, while the present study has limitations, it opens the door for future research in determining the viability of utilizing artwork as a meaningful assessment aid.
References


Appendix A.

Questionnaire with schizophrenic art.

Please choose which definition below represents schizophrenia. You may or may not find the picture helpful in your selection.

Schizophrenia

a. Disruption of identity characterized by two or more distinct personality states. This involves marked discontinuity in sense of self and sense of agency, accompanied by related alterations in affect, behavior, consciousness, memory, perception, cognition, and sensory-motor functioning. The symptoms cause clinically significant distress or impairment in important areas of functioning.

b. Characterized by delusions, hallucinations, disorganized speech and behavior, and other symptoms that cause social or occupational dysfunction. These may be manifested and observed through markedly low functioning in work or interpersonal relationships, odd beliefs, unusual perceptual experiences, paranoia, or catatonic psychomotor behavior.

c. Includes impairments in identity, self-direction, empathy, and intimacy. May also cause ego-centrism, goal-setting based on personal gratification, the use of dominance or intimidation to control others, and a lack of remorse after hurting or mistreating another. Also present are pathological personality traits including being manipulative, deceitful, callous, hostile, irresponsible, impulsive, and risk taking.

Note: Information about disorders and symptoms is taken from the Diagnostic and Statistical Manual of Mental Disorders V
Appendix B.

*Questionnaire with normal art.*

Please choose which description below represents schizophrenia. You may or may not find the picture helpful in your selection.

**Schizophrenia**

a. Disruption of identity characterized by two or more distinct personality states. This involves marked discontinuity in sense of self and sense of agency, accompanied by related alterations in affect, behavior, consciousness, memory, perception, cognition, and sensory-motor functioning. The symptoms cause clinically significant distress or impairment in important areas of functioning.

b. Characterized by delusions, hallucinations, disorganized speech and behavior, and other symptoms that cause social or occupational dysfunction. These may be manifested and observed through markedly low functioning in work or interpersonal relationships, odd beliefs, unusual perceptual experiences, paranoia, or catatonic psychomotor behavior.

c. Includes impairments in identity, self-direction, empathy, and intimacy. May also cause egocentrism, goal-setting based on personal gratification, the use of dominance or intimidation to control others, and a lack of remorse after hurting or mistreating another. Also present are pathological personality traits including being manipulative, deceitful, callous, hostile, irresponsible, impulsive, and risk taking.

*Note: Information about disorders and symptoms is taken from the Diagnostic and Statistical Manual of Mental Disorders V*
Appendix C.

*Questionnaire with no art.*

Please choose which definition below represents schizophrenia.

**Schizophrenia**

a. Disruption of identity characterized by two or more distinct personality states. This involves marked discontinuity in sense of self and sense of agency, accompanied by related alterations in affect, behavior, consciousness, memory, perception, cognition, and sensory-motor functioning. The symptoms cause clinically significant distress or impairment in important areas of functioning.

b. Characterized by delusions, hallucinations, disorganized speech and behavior, and other symptoms that cause social or occupational dysfunction. These may be manifested and observed through markedly low functioning in work or interpersonal relationships, odd beliefs, unusual perceptual experiences, paranoia, or catatonic psychomotor behavior.

c. Includes impairments in identity, self-direction, empathy, and intimacy. May also cause egocentrism, goal-setting based on personal gratification, the use of dominance or intimidation to control others, and a lack of remorse after hurting or mistreating another. Also present are pathological personality traits including being manipulative, deceitful, callous, hostile, irresponsible, impulsive, and risk taking.

*Note: Information about disorders and symptoms is taken from the Diagnostic and Statistical Manual of Mental Disorders V*