

**BEYOND NIHILISM?
—
ONKRAJ NIHILIZMA?**

PHAINOMENA

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UNDERSTANDING ADULT DRAWING

BETWEEN TRADITIONAL AND MODERN PERSPECTIVES OF DRAWING DEVELOPMENT

Jurij SELAN

University of Ljubljana, Faculty of Education, Kardeljeva ploščad 16, 1000
Ljubljana, Slovenia

Uršula PODOBNIK

University of Ljubljana, Faculty of Education, Kardeljeva ploščad 16, 1000
Ljubljana, Slovenia

jurij.selan@pef.uni-lj.si

Abstract

Drawing ability develops from childhood to adulthood and can be interpreted from two hermeneutic perspectives: traditional and modern theories of drawing development. Traditional theories are based on progression toward realism as a universal developmental characteristic, while modern theories emphasize the importance of cultural and societal influences, viewing realism as only one stylistic option. Although drawing expression has been thoroughly studied in children, there

is little research on the drawing expression of adults. Our study, therefore, focused on the drawing ability of young to middle-aged adults in the context of the contrasting positions of traditional and modern theories of drawing development. We evaluated how realistic ability and the presence of schemas can be interpreted. Our conclusions do not exclusively support either of the theories, but highlight the hermeneutic potential for combining traditional and modern views regarding drawing development in the context of understanding adult drawing.

Keywords: hermeneutics of drawing, drawing development, traditional theories on drawing development, modern theories on drawing development, adult population, progression toward realism, schemas.

Razumeti risanje odraslih. Med tradicionalnimi in modernimi perspektivami glede risarskega razvoja

Povzetek

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Sposobnost risanja se razvija od otroštva do odraslosti in jo je mogoče interpretirati z dveh hermenevtičnih vidikov: s stališča tradicionalnih in modernih teorij risarskega razvoja. Tradicionalne teorije temeljijo na napredovanju proti realizmu kot univerzalni razvojni značilnosti, medtem ko moderne teorije poudarjajo pomembnost kulturnih in družbenih vplivov, pri čemer realizem vidijo kot samo eno izmed stilističnih možnosti. Čeprav je risarsko izražanje bilo podrobno preučeno pri otrocih, obstaja malo raziskav glede risarskega izražanja pri odraslih. Naša študija se je zato v kontekstu nasprotnih stališč tradicionalnih in modernih teorij risarskega razvoja osredotočila na risarske sposobnosti odraslih mladih in srednjih let. Ocenjevali smo, kako je mogoče interpretirati sposobnost za realizem in prisotnost shem. Naši sklepi ne podpirajo samo ene izmed teorij, temveč podčrtajo hermenevtični potencial za združevanje tradicionalnih in modernih pogledov na risarski razvoj v kontekstu razumevanja risanja odraslih.

Ključne besede: hermenevtika risanja, risarski razvoj, tradicionalne teorije risarskega razvoja, moderne teorije risarskega razvoja, populacija odraslih, napredovanje proti realizmu, sheme.

I. Introduction

The value of drawing extends beyond the visual arts and plays an important cognitive role in exploring ideas across various fields of human endeavor (Brooks 2009). In the hermeneutic philosophical tradition, artwork is an expression of lived experience (Grondin 2003) and can be understood as a presentation of the participant's life world, experiences, and feelings (Bergbom and Lepp 2021). The hermeneutic perspective on art therefore emphasizes its cognitive role, which goes beyond its aesthetic value. As Hegel (1975) acknowledged in his lectures on aesthetics, art is not simply a matter of formal harmony or elegance, but a sensuous manifestation of human consciousness (Spirit). Thus, drawing as a form of art is deeply cognitive—a distinctively sensuous form of human self-expression and self-understanding.

As a cognitive tool, drawing develops from childhood to adulthood and can be interpreted from two hermeneutic perspectives: traditional and modern theories of drawing development. Traditional theories are based on progression toward realism as a universal developmental characteristic, while modern theories emphasize the importance of cultural and societal influences, viewing realism as only one stylistic option. The aim of our research was to confront these two traditions of understanding drawing development by studying the characteristics of adult drawings. While drawing expression has been thoroughly studied in children, there is little research on the drawing expression of adults. We, therefore, focused on the drawing ability of (young to middle-aged) adults in the context of the contrasting positions of traditional and modern theories of drawing development.

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Drawing and cognition

Drawing is a versatile cognitive tool that “makes the invisible contents of mental life visible” (Fan *et al.* 2023), contributes to the development of spatial representation, visualization, and orientation (Rački 2010), and supports language development (Imafuku and Seto 2021). The various ways, in which drawings are used, reveal the central role of visualization in human cognition as the most versatile cognitive tool for externalizing ideas (Fan *et al.* 2023).

As a cognitive tool, drawing has both generative (drawing to learn) and communicative (drawing to communicate) value (Fan *et al.* 2023). From a cognitive perspective, drawing is inherently a generative act, offering a valuable insight into how perception, thinking, memory, and motor processes interact in cognition. It is not only a product of cognition, but also influences every aspect of it, such as what a person thinks, notices, remembers, and believes (Fan *et al.* 2023). As Paul Valéry famously noted, there is a great difference between seeing something with and without drawing it (Valéry 1938). Valéry highlights three cognitive dimensions of drawing: drawing as a mode of perceiving reality, as a mode of intelligence, and as a mode or expression of being (Valéry 1938).

The other cognitive value of drawing is communicative. Drawing not only facilitates one's own learning, but also helps to share information with others, thereby supporting learning within the community. Using drawings to communicate effectively with others depends on, and strengthens, the connections between social cognition, memory, and visual perception (Fan *et al.* 2023).

350 The role of drawing in science is not only to illustrate ideas and theories, but to generate scientific discoveries. It can be used to generate hypotheses, design experiments, visualize and interpret data, and communicate results (Quillin and Thomas 2015). Drawing can serve as a catalyst for scientific breakthroughs, as it facilitates the learning of complex concepts across a wide range of scientific domains (Fan *et al.* 2023; Hegarty 2010). Numerous studies have examined the importance of drawing in scientific fields, such as physics (Kozhevnikov *et al.* 2007), chemistry (Coleman and Gotch 1998), geology (Orion *et al.* 1997), and mathematics (Casey *et al.* 1997; Plummer *et al.* 2022). In the history of science, there are many examples of how drawing has helped to catalyze scientific discovery. For example, Santiago Ramón y Cajal (Swanson *et al.* 2017), the father of modern neuroscience and a 1906 Nobel laureate in medicine, discovered neuron theory by drawing neuron structures observed under the microscope. Cajal's case is perhaps the most exemplary, as his drawings are not only among the most important discoveries in modern medicine, but are also, if regarded as art in themselves, astonishing examples of early 20th-century art that, by their complex abstract nature, preceded much of the modern art of the time.

Traditional perspectives on drawing development

Like other cognitive abilities, drawing develops during childhood and adolescence (Anning and Ring 2004; Golomb 1992). Lowenfeld's *Creative and Mental Growth*, published in 1947 (Lowenfeld 1981), became the standard reference for drawing development, outlining stages from the Scribbling stage through the Preschematic, Schematic, Dawning Realism, to the Pseudo-Realism stage (Wilson and Wilson 1981). Although Lowenfeld's progression toward realism has been extensively criticized (Wilson and Wilson 1981), it still identifies key features of drawing development relevant to our research; therefore, we present it in this subsection.

According to Lowenfeld (1981), drawing development begins with the chaos of scribbling (Scribbling Stage, 1–3 years old) and gradually progresses to a cosmos of meaningful forms. The scribbling stage is characterized by enjoyment of physical movement and mark-making, with no initial attempt at symbolic representation.

In the Pre-Schematic Stage (3–4 years old), children begin to recognize connections between the shapes they draw and the physical world. They create their first intentional representations, such as simple cephalopods or tadpoles representing a person or an animal (a circle for a head with lines for limbs), which are placed randomly on the page. 351

In the Schematic Stage (5–6 years old), children begin to draw a “schema,” a standard way of representing objects, and gradually develop the conventional form for depicting the human figure. At the same time, they develop an understanding of the picture format as a frame of reference, into which figures are placed. Their drawings show increasing awareness of space, typically featuring a defined baseline (ground) and skyline (sky). Common characteristics include exaggeration of important objects, “X-ray” drawings (showing inside and outside simultaneously), and objects drawn perpendicular to the baseline.

In the Dawning Realism Stage (7–9 years old), children begin to strive for greater realism and become more self-critical of their work. Increased awareness of proportion, detail (such as clothing and gender differentiation), and spatial elements (including perspective and overlapping) is evident. The

figure shifts from a rigid, standing posture to a more dynamic form with curved and bent limbs. Initially, the animal figure resembles the human figure, but as vertical and horizontal positioning are differentiated, it begins to display typical animal features, such as a tail, fur, and whiskers.

In the Pseudo-Naturalistic Stage (10–13 years old), the result becomes more important than the drawing process. Adolescents begin to experiment with value, light, and shadow to achieve more naturalistically complex shapes, and body proportions become more realistic. Children further deepen their understanding of spatial relationships and approach the concept of space using linear perspective.

Although Lowenfeld's account of linear progression toward realism has limitations (see later subsection), two important aspects are relevant to our study: first, Lowenfeld's conceptualization of schemas; second, his focus on critical self-awareness in preadolescents. In this way, Lowenfeld provides valuable insights into what may occur in drawing development during adulthood.

352 According to Lowenfeld and Brittain (1964) and Hurwitz and Day (2007), adult drawings are often difficult to distinguish from those of pre-adolescent children, as adults may retain or fail to develop drawing abilities after the pre-adolescent stage. This affects the prevalence of schematic representations in their drawings. Lowenfeld and Brittain (1964) described this as the crisis of adolescence. During adolescence, children lose their connection with pre-adolescent symbolic representation, but have not yet gained confidence in the naturalistic approach. They become more aware of their self-image, including body image, which leads them to replace schematic symbols with representations more closely related to nature (Lowenfeld and Brittain 1964). Adolescents' drawings of human figures typically reflect this desire for realism and the difficulties in achieving it (Figures 1 and 2).

However, as self-awareness increases, so does self-criticism, which reduces their confidence in self-expression. Adolescents attempt to draw realistically, but cannot meet their own critical expectations, resulting in frustration and demotivation for further artistic activity (Hurwitz and Day 2007). As a result, many adolescents stop drawing, causing their drawing development to stagnate and leaving adults at the schematic preadolescent stage (Lowenfeld and Brittain 1964).

Modern perspectives on drawing development

Although Lowenfeld's model remains a valuable framework and is relevant to our research, its position has been criticized. A particularly important aspect of criticism for our study concerns the schematic representations in drawings, as emphasized by Wilson and Wilson (1981).

The concept of stages in traditional theories is based on two assumptions. First, it assumes that drawing development is a universal innate process, uninfluenced by cultural and social context (Wilson and Wilson 1981). Second, it assumes that progress toward realism indicates advancement in the learner's cognition (Wilson and Wilson 1984, 1982b). If these assumptions were correct, children's drawing development would be essentially the same in any era and culture. However, Wilson and Wilson (1981, 1982b, 1984), and others following them, demonstrated two main points. First, features once seen as dominant patterns in drawing development in one era have disappeared in another. Second, children's drawings across cultures can be profoundly different.

Therefore, the crucial question is how to explain these differences. The realistic account claims that natural reality "tells" children how they should draw, leading drawing development universally toward realism (Wilson and Wilson 1984, 1982a). However, as there are groups of children in non-Western cultures who do not develop toward realism, this suggests that it is not natural reality that "tells" children how to draw, but rather society and culture (Wilson and Wilson 1984).

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In art history, a similar point was emphasized by Gombrich (1960; see also Strömberg 2020) with his schema theory, which claims that other artists influence representation more than actual perception of phenomena. This process is based on visual schemata—patterns in society that artists recognize, copy, transform, and use. Wilson and Wilson (1984) suggest that a similar process occurs in children's art. They argue that when children draw, they, like artists, also use artistic models. They are profoundly influenced by each other, by adults, and by images from the surrounding culture. Traditional theories ignore the existence of influenced and borrowed images (Wilson and Wilson 1981). However, all images produced by children and adults are, to some extent, borrowed and influenced.

Therefore, Wilson and Wilson (1984) propose that the key characteristic of drawing development is not realism, but style, which involves overcoming cognitive conflict between images produced by others and those one produces. Through cognitive conflict, each person develops a specific, subjective drawing style whose personal characteristics can persist into adulthood (Karmiloff-Smith 1990; Okada and Ishibashi 2016). From this perspective, progression toward realism is not a universal standard of the quality and complexity of drawing development, but merely one of the stylistic preferences in the Western context.

Contrary to traditional theories of drawing development, modern and contemporary theories have examined various factors influencing the stylistic differences in children's drawings. Some have further emphasized the importance of visual culture and visual models (Al-Saud 2019), while others attribute expressive variability to factors, such as frequency of creation, materials, stimulation, talent, and highlight the role of subjective choices (Golomb 2002; Handler Spitz 2006).

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Drawing development after adolescence

Research on the knowledge and skills of adults is largely dominated by issues specific to adults (Falk and Needham 2013). Consequently, most research on adult drawing has focused on its use as a neuropsychological assessment and diagnostic tool (Lin, Gurnani, and Gavett 2020) for mental health conditions, such as depression (Eun Jin Lee 2018), Alzheimer's dementia (Martinelli *et al.* 2018), Parkinson's disease (Srivastava *et al.* 2022), cognitive impairment (Cavalcanti de Noronha *et al.* 2018), memory performance (Dando 2013; Óttarsdóttir 2024), or as a sociological tool to assess stereotypes (Pate and Fugate-Whitlock 2022) and socio-demographic factors (Merims *et al.* 2018).

Despite the suggestions of Lowenfeld and Brittain (1964) as well as Hurwitz and Day (2007), only a handful of studies on drawing development extend to and include the adult population (Jolley *et al.* 2000; Taguchi and Noma 2005), and these are mostly limited to "special" cases, such as the visually impaired or blind (Kennedy and Juricevic 2006).

II. Research methodology

Research objectives and research questions

As there is a lack of studies on drawing development that include adults, our study aimed to investigate the characteristics of drawing in young to middle-aged adults from the contrasting perspectives of traditional and modern theories on drawing development.

Our objective was formulated into the following research questions:

RQ1: How are realistic tendencies and schematic representations reflected in participants' drawings?

RQ2: What is the relationship between participants' attitudes toward drawing (ATD) and their opinions of their own drawing performance (ODP)?

RQ3: What is the relationship between realistic tendencies and schematic representations, and participants' drawing performance (GADP)?

RQ4: What is the relationship between the characteristics of participants' drawings, realistic tendencies, and schematic representations, and participants' attitude toward drawing (ATD) and opinions of their own drawing performance (ODP)?

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RQ5: What is the relationship between participants' drawing performance (GADP), participants' attitude toward drawing (ATD), and opinions of their own drawing performance (ODP)?

RQ6: What is the relationship between participants' gender, age, education, frequency of drawing, intent of drawing, place of drawing, and participants' drawing performance (GADP), attitude toward drawing (ATD), and opinions of their own drawing performance (ODP)?

Participants

We focused on studying adults in young to middle adulthood (Halloran 2024), as their drawing ability in the Slovenian educational context can be viewed as a continuation of their childhood and school years. The school system in Slovenia, where the research was conducted, follows a uniform National Curriculum that includes art education as a compulsory part of primary school, attended by pupils from age 6 to 14. The participants in our

study belong to generations educated under this system; therefore, we assumed they received continuous art education during their schooling.

The sample comprised 453 young to middle-aged adults in Slovenia (86% women, 14% men; no option to declare as non-binary), aged 20 to 40+ years (14.3% were 20–30 years old, 67.5% were 31–40 years old, and 18.1% were older than 40).

It is important to acknowledge that our sample has limitations due to pragmatic decisions. As recruiting adults for such research and persuading them to draw is difficult, we approached parents of preschool children through kindergartens, as this provided the easiest access to an adult population willing to participate. We asked preschool teachers, with whom we often cooperate, to invite parents of preschool children to participate in our research. This is also why most participants in our sample were women, as in Slovenia mothers still predominantly bring children to kindergartens and participate in activities related to their schooling. It is also important to note that participants were mostly, but not exclusively, laypersons in art. Most participants' education (Table 14) was unrelated to art (89.2%); 5.3% had a direct connection to art (architecture, graphic design, etc.); and 5.3% had an indirect connection to art (confectionery, hairdressing, etc.).

Because of these limitations, we acknowledge that the findings of our study should be considered within the context of our sample and cannot be generalized to the entire population. However, we believe that our research may provide insight into the broader context of adult drawing despite these limitations.

Method and data collection

The study employed descriptive, non-causal, and non-experimental methods of social research (Hartas 2010). We used a combined qualitative and quantitative approach.

To collect data, we developed a questionnaire (see Appendix A),¹ in which we asked participants to:

¹ All the appendices appurtenant to the present paper are published at Zenodo (10.5281/zenodo.21339470).

(1) answer questions about their education, frequency of drawing, intent of drawing, place of drawing, attitude toward drawing (ATD), and their opinion of their own drawing performance (ODP);

(2) and to draw three objects—a tree, a human figure (a person), and an animal (a rabbit).

We used a tree as a common and relatively simple natural object, which is also employed in psychodiagnostic tests such as Koch's Baum test and the Groth-Marnat and Roberts House-Tree-Person test.

We used the human figure, as it is the most researched form in drawing development and is also the most predominant before adolescence. Figure drawing is widely used in other drawing diagnostics, such as Goodenough (Draw-a-Man), Goodenough/Harris (Draw-a-Person Test), and Burns-Kaufman (Family Drawing).

We chose a rabbit instead of another animal (such as a cat or dog), because it is less common, yet still familiar to everyone. Rabbits are often depicted in schematic forms in various cultural phenomena, such as cartoons (*Looney Tunes*, etc.), and frequently appear in children's drawings in typical anthropomorphic or snowman-like forms. We were, therefore, interested in how adults approach drawing a rabbit.

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Participants were instructed to draw objects, but we did not specify, whether they should draw from memory or use a model, template, or reference images (none were provided). Therefore, the decision on how to draw the objects was left to the participants.

Before the main study, we piloted the questionnaire with a sample of 39 preschool teachers, who assisted in distributing the questionnaires to participants, to evaluate any unclear instructions. Based on the pilot, only minor adjustments were made to the instructions in the questionnaire.

Measuring instrument

To evaluate participants' drawings, we developed categories for analysis and rating (see Appendix B), by which we assessed realistic ability and the presence of schematic representations. The analysis was divided into three parts:

(1) General characteristics of drawings. We evaluated the persuasiveness of the drawing, the effort invested, whether a model or template was used, and the drawing quality of each object.

(2) Artistic characteristics of drawings. We evaluated how proportions, artistic complexity, object shape, placement, color, texture, volume, and detail were used to achieve realistic complexity.

(3) General assessment of drawing performance (GADP) regarding the realistic complexity of all three drawings. The GADP evaluation was not derived from a combination of general and artistic characteristics, but was made as an overall assessment of all three drawings together, on a scale from 1 to 5 (classified as low (1–1.99), average (2–3.99), high (4–5)). With GADP, we aimed to rate how persuasive the participants’ drawing performance was in terms of realistic complexity, specifically concerning spatial, anatomical, and volumetric persuasiveness.

The two authors themselves rated the drawings. Each author rated the drawings independently, allowing us to assess inter-rater reliability (IRR). Cohen’s Kappa was calculated for the three drawings (tree $\kappa = 73\%$, human figure $\kappa = 77\%$, and rabbit $\kappa = 71\%$). The average value was $\kappa = 74\%$, which indicates substantial agreement, at the upper end of moderate inter-rater agreement (between 60% and 79%; McHugh 2012). We attribute the differences in ratings to the complexity of the categories and the qualitative nature of the drawing features assessed. Aware of these limitations, we reviewed the discrepancies in our ratings and reached agreement, upon which we made the combined ratings.

III. Results

The analysis of the general and artistic characteristics of the drawings, as well as participants’ responses to questions, is presented in Tables 1–38 (see Appendix C for tables). Examples of participants’ drawings for each analyzed category are presented in Appendix B, along with a description of each category.

General characteristics of drawings

Results for the general characteristics of drawings are presented in Tables 1–4.

The persuasiveness of the drawing (Table 1) is higher for the drawing of a tree (19.6%) and an animal (16.6%), and significantly lower for the drawing of a human figure (11.3%). This suggests that participants experience greater uncertainty regarding their ability to draw a human figure, which is also confirmed by the comparison with effort (Table 2). This shows that participants put much less effort into drawing a tree than into drawing a human or animal figure.

Regarding effort (Table 2), it should be noted that a considerable number of drawings were missing (tree 5.1%, figure 6.2%, rabbit 8.2%), suggesting that many participants did not make the effort to complete the drawings in our study. The most drawings were missing for rabbit and the fewest for tree, confirming that participants found the tree the most effortless to draw.

Results presented in Tables 1 and 2 therefore suggest that adults find drawing a tree less challenging than drawing human or animal figures.

Table 3 shows that participants were much more likely to follow a model (template) when drawing an animal figure (tree: 1.5%, human: 5.7%, rabbit: 19.0%), indicating that they were least autonomous in depicting animals. This may be partly, because a rabbit is not as familiar an animal form as others (such as a cat or dog), so participants followed a template to draw it.

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The drawing quality of each object in terms of realistic complexity is shown in Table 4. Generally, most objects were drawn very poorly and only a small amount excellently. Among the trees, 44.2% were drawn very poorly and 1.8% excellently. Human figures were drawn very poorly in 32.2% of cases and excellently in only 0.7%. For animal figures, 45.3% were drawn very poorly and 2.9% excellently.

Artistic characteristics of drawings

Results for artistic characteristics of drawings are presented in Tables 5 – 12.

Proportionality (Table 5) shows noticeable disproportionality in the objects. It was poorest in the rabbit (absent in 47.9%), slightly better in the tree (absent in 38.0%), and best in the human figure (absent in 20.1%) (Table 5). Very few drawings had completely consistent proportions, with only 2% of participants achieving this for all three objects.

The artistic complexity (Table 6) of the objects drawn was generally low in all three drawings (tree: 34.2%, human figure: 39.1%, rabbit: 31.8%). There were very few examples of more complex representations, and no more than 3% of participants were distinctly successful with any of the three objects.

The shape of the object (Table 7) showed that the drawings were mostly schematic. Tree drawings as a triangle (for needle trees) or cloudy crowns (for broadleaf trees) with a rectangular or conical trunk, appeared in more than half of the cases (52.3%). Among the animal figures, the schematic form (for example, a rabbit constructed in the shape of a snowman with anthropomorphic facial features; Figure 8) was also the most common (36.4%).

For the human figure, a poor and clumsy drawing was most common (34.0%), followed by an extremely clumsy form (16.3%), an unskillful form with a tendency to show movement (13.5%), and a schematic form (i.e., a geometrized “stick” figure) (13.2%).

360 As shown by the placement in format category (Table 8), participants performed best when drawing a tree and found drawing an animal figure most difficult. Similarly, diminution of the object (the feeling of being lost in the format) occurred significantly more often with animal drawings than with the other two objects (tree: 19.4%, human figure: 25.2%, rabbit: 40.4%). We assume that the rabbit was the least familiar of the three objects to the participants and that they scaled it down as a precaution (a smaller shape means less visible inaccuracy).

The color (Table 9) appeared slightly more often in drawings of trees (24.1%) and least often in drawings of animal figures (15%). At the same time, color occurred most often in the group of drawers with average GADP (Figure 4).

Texture (Table 10) was often absent. When present, it was mostly a decorative addition (tree: 35.1%, human figure: 37.1%, rabbit: 19.0%) and less frequently an essential artistic component (tree: 2.2%, human: 1.1%, rabbit: 1.1%). The latter was found only in the group of good drawers (Figure 5).

Volume (Table 11) was absent in most drawings, as the object appeared flat, especially in the human figure (tree: 54.3%, human figure: 59.2%, rabbit: 40.8%). An interesting phenomenon is that participants chose a more spatially demanding perspective when drawing an animal figure.

Details (Table 12), if present, were mostly decorative in all three objects. The tree drawings contained the fewest details, which is consistent with the high proportion of schematic shapes that represent only the most basic features of the object (Figure 3).

General assessment of drawing performance (GADP)

Table 13 presents the GADP for our participants. The results indicate that the level of drawing skills in achieving realism is quite low; more than half (54.2%) of the participants have low GADP (Figure 3). Slightly fewer participants (41.6%) have average GADP (Figure 4), and only a small proportion (3.8%) have high GADP (Figure 5). Among the latter, only women are represented, which may be due to the small percentage of men in the sample, as there are no statistically significant differences between GADP scores and gender ($V = .135$; $p = .750$) (Table 22).

Participants' education, frequency of drawing, intent of drawing, and place of drawing

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Most participants' education (Table 14) was unrelated to art (89.2%); 5.3% had a direct connection to art (architecture, graphic design, etc.); and 5.3% had an indirect connection to art (confectionery, hairdressing, etc.).

Most participants (59.8%) had drawn recently (in the last two weeks) (Table 15); 10.8% had drawn a few months ago; 4.6% had drawn more than a year ago; and 21.2% had last drawn a long time ago, during primary school.

Participants most frequently use drawing (Table 16) to illustrate or explain certain content to others (23.6%), for entertainment (20.1%), and as unplanned doodling (20.1%). They also use it to enhance understanding and improve memorization (13.3%). The least common use is professional, as part of their work (7.2%). The number of those who use drawing professionally roughly corresponds to those who have direct or indirect education in art (Table 26).

Participants most often draw at home (59.2%); 14.3% draw at work; 13% do not draw at all; and 11.5% draw both at home and at work (Table 17).

Attitude toward drawing (ATD)

Almost half (47.1%) of the participants reported they like to draw, 29.2% do not enjoy drawing, and 22.7% are undecided (Table 18). The age of participants had no significant influence on their attitude toward drawing ($V = .073$; $p = .600$) (Table 19). However, a comparison by gender (Table 20) showed that women are more inclined toward drawing activities. The differences between men and women regarding drawing were at the threshold of statistical significance ($V = .159$; $p = .012$).

Opinion of own drawing performance (ODP)

Participants assessed their own drawing performance (ODP) (Table 21) relatively critically, with more than half (55.1%) feeling weak at drawing (39.2% reported not drawing well and 15.8% stated they could not draw at all), 41.3% considered their drawing average, and only 2.9% felt they drew excellently. A comparison by gender showed that men were more often skeptical about their own drawing performance, with 45.2% stating they did not draw well, while most women believed they drew at an average level (42%). Nevertheless, the analysis showed no statistically significant differences between genders ($V = .91$; $p = .598$).

Correlation between ATD and ODP

We compared ATD with ODP. As shown in Table 18, 32.1% of participants who enjoy drawing (47.1%) believe they draw at an average level. Participants who are more reluctant to draw (39.1%) and believe they do not draw well are divided into three comparably sized groups: 11.5% who like to draw, 14.1% who do not like drawing, and 13.6% who are undecided. The correlation between ATD and ODP is statistically significant ($V = .398$; $p < .001$). The data indicate that participants generally enjoy drawing, and only those who reported that they cannot draw at all (16.2%) also stated that they do not like to draw (12.6%).

The comparison also showed that older participants are more skeptical about their drawing skills (Table 24), as they more often believe they do not

draw well (42.0%), while younger participants more often consider their drawing to be average (20–30 years, 42.9%; 31–40 years, 42.1%). However, there were no statistically significant differences between the groups ($V = .070$, $p = .930$). The comparison of GADP and age also showed no statistically significant differences ($V = .177$, $p = .248$) (Table 25).

Correlation between ODP and GADP

We compared ODP with GADP. Table 23 shows that the proportion of participants convinced of their good drawing skills is slightly lower (3.2%) than our assessment of the high GADP value (4.2%), suggesting that participants were more critical of their own drawing skills than we were when evaluating their drawings. The calculation of the correlation ($V = .279$, $p < .001$) showed statistical significance.

Correlation between GADP and participants' education

We compared GADP with participants' education. The correlation (Table 26) shows no statistically significant differences, indicating that participants with direct or indirect artistic education (architecture, graphic design, etc.) were evaluated similarly to those with no artistic education. This suggests that artistic education after adolescence is not significantly related to realistic ability.

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Correlation between GADP and shape of the object

We compared the GADP with the shape of the object (Table 7), which shows how realistic ability evaluated by GADP relates to realistic and schematic shapes in drawings. Tables 27–29 present correlations for each specific object (tree, figure, rabbit), all of which are statistically significant ($p < .001$). As expected, GADP positively correlates with realistic shapes and negatively with schematic shapes. This indicates that participants with average to high GADP make more realistic shapes, while those with low GADP draw shapes in a more schematic and stylized manner.

Correlation between ATD, ODP, and effort

We compared ATD, ODP, and effort. Tables 30–35 present correlations for each specific object (tree, figure, rabbit), all of which are statistically significant ($p < .001$). As expected, participants who expressed some or evident effort also mostly like to draw (Table 30–32) and regard themselves as good or average at drawing (Table 33–35). However, there are some interesting exceptions. Although some participants who did not complete the drawings and left them blank do not like to draw, there are participants who did not complete the drawings, but still like to draw, indicating that they simply did not feel like drawing at the time of our survey. Additionally, several participants who consider themselves weak at drawing showed some or evident effort, further supporting the claim that effort is not necessarily related to realistic ability and that those who like to draw are not exclusively those who consider themselves as good drawers or have high GADP.

364 *Correlation between ATD, ODP, GADP, and frequency of drawing*

We compared ATD, ODP, GADP, and frequency of drawing. Tables 36–38 present correlations, all of which are statistically significant ($p < .001$). As predicted, participants who like to draw also draw frequently (Table 36). However, there are also some participants who do not like to draw, but have drawn recently. The relationship between ODP and frequency of drawing is not straightforward (Table 37). Those who consider themselves excellent or average drawers do draw more frequently, but a considerable number of participants who consider themselves weak drawers also draw frequently. This indicates that good drawing ability (from a realistic point of view) is not the only factor influencing frequency of drawing, as also suggested by the correlation between ATD and ODP (Table 18). This is further confirmed by the correlation between GADP and frequency of drawing (Table 38), since not only participants with high GADP draw frequently, but also those with average and low GADP.

IV. Discussion

With reference to traditional and modern theories of drawing development, we can discuss the results of our study, while acknowledging the limitations of the sample due to the occasional nature of the participants, the gender and professional imbalance, and the context of participant recruitment, which was influenced by parental factors.

Results of our study regarding the traditional perspective on drawing development

First, regarding the progression toward realism. As our study was conducted in Slovenia and our sample can, therefore, be considered a Western population, we aimed to examine how the progression toward realism, as conceptualized by traditional perspectives on drawing development such as Lowenfeld's, is reflected in our participants' drawings. The Slovenian art education curriculum is based on the traditional progression toward realism (Butina 2003); therefore, we expected to observe some tendency toward realism in the drawings of adults who completed the Slovenian schooling system. In Slovenia, individuals should be able to approximate realistic spatial relationships in drawing after completing compulsory elementary school (Butina 2003), as shown in examples of Slovenian adolescents' drawings in Figures 1 and 2.

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However, our study showed that the participants' drawing skills in achieving realistic complexity were quite low. As indicated by our results, very few participants were able to draw objects in a realistically complex manner (Tables 4 and 6), with appropriate proportions (Table 5), texture (Table 10), and volume (Table 11). As Rački (2010) emphasized, understanding volume is crucial as the basis for successful realistic drawing. However, most participants' drawings were characterized by considerable simplification of the objects' basic features, neglect of proportions, and pronounced flatness.

As GADP (Table 13) shows, only 3.8% of participants can be considered good drawers from a realistic perspective. According to traditional theories, such a low percentage of realistically skilled adult drawers can be explained by two factors: either adults experience regression or a decline in drawing ability compared to their school years—which we cannot confirm, as we did not have

access to their adolescent drawings—or their drawing ability stagnates at the preadolescent stage, as suggested by Lowenfeld and Brittain (1964) as well as Hurwitz and Day (2007). Since, after adolescence, most children in Slovenia are no longer systematically educated in art within the school environment, this could result in a standstill of drawing skills in young adults, leaving them at the preadolescent schematic stage.

From the perspective of traditional theories on drawing development, realistic ability is inversely correlated with the presence of schematic representations in drawings. Therefore, if realistic ability is low, the prevalence of schematic representations would conversely, be high. This is confirmed in our study by the correlations in Tables 27–29.

366 The results presented in Table 7 indicate that most participants’ drawings featured schematic shapes, with only a small number being realistic. This could promote the traditional view that progression toward realism is halted in many adolescents at the schematic preadolescent stage. As a result, most adult drawings as suggested by Lowenfeld and Brittain (1964) as well as Hurwitz and Day (2007) cannot be distinguished from those of preadolescent children, and it is not possible to determine, whether a drawing was made by a child or an adult without that information. Indeed, if we examine the participants’ drawings with low and average GADP (Figures 3 and 4), they can hardly be distinguished from those made by preadolescent children.

Results of our study regarding the modern perspective on drawing development

The results of our study could be seen to support traditional theories of drawing development, which state that drawing development in many adults is halted at the preadolescent schematic stage. However, as the progression toward realism has been challenged by modern theories, which consider it only one of several stylistic options dominant in the Western context, the question arises: Could low ability in realistic drawing and the predominance of schematic shapes among our participants be also interpreted from perspective of modern theories? Should low (Figure 3) or average (Figure 4) realistic ability be viewed as an error or an inability to progress toward realism, as traditional perspectives suggest, or could it be interpreted as a

stylistic choice influenced by cultural and social factors, as modern theories propose?

According to traditional perspectives on drawing development, the emergence of critical awareness in adolescents dissatisfied with their realistic drawing ability is the reason why adults remain at the preadolescent schematic stage; adolescents would rather stop being artistically creative than produce drawings that do not meet their expectations. To assess this, we examined how satisfied participants in our study were with their drawing ability (ODP), how this correlated with their attitude toward drawing (ATD), and how often do they draw, as well as how satisfaction with their drawing ability (ODP) corresponded with general drawing performance (GADP). Are participants who appear to remain at the preadolescent schematic stage more dissatisfied with their own drawing performance than those whose drawing ability is more realistically complex? Conversely, are those whose drawings are more realistic more satisfied with their own drawing performance? Additionally, are participants who are more satisfied with their own drawing performance also more likely to enjoy drawing and draw more often?

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If progression toward realism was the decisive factor in drawing development, this would suggest that adults who are more proficient in realistic drawing are less likely to be critical of their drawing abilities, more likely to enjoy drawing, and also draw more often. However, our study revealed that the relationship between general drawing performance (GADP), participants' perception of their own drawing performance (ODP), their attitude toward drawing (ATD), and frequency of drawing is more complex and unpredictable than traditional theories suggest.

On the one hand, ODP positively correlates with GADP (Table 23). Very few participants believe they can draw well, and those who do are those we rated as having high GADP. However, on the other hand, ODP does not correlate with ATD (Table 18). Although most participants think they draw at an average level or poorly, the majority still enjoy drawing, have a positive ATD, and have drawn recently (Tables 36–38). Therefore, the question is how to explain this discrepancy. Why do adults enjoy drawing and draw quite often despite thinking they do not draw well?

The correlation between ODP and GADP can be explained perceptually, as traditional theories suggest. As Rački (2010) noted, the drawer has difficulty achieving the realistic accuracy of what they draw, while the viewer intuitively perceives whether something is correctly or incorrectly drawn from a realistic point of view. The viewer sees a realistic drawing exactly as they would see reality, so they intuitively and automatically consider all the parameters that the draftsman must laboriously work out (Rački 2010). Therefore, participants' ODP in our study correlates with GADP, because it is based on a natural connection within perception, which, according to traditional theories, arises in adolescence when children become self-aware and self-critical. From this perspective, adults' self-criticism is a continuation of the self-criticism developed in adolescence.

368 However, as modern theories would suggest, the positive correlation between ODP and GADP could perhaps also be attributed to cultural factors. It is important to note that such an interpretation cannot be explicitly deduced from our study's results, as we lack sufficient contextual information about why participants chose to draw in a particular way, and can only speculate based on assumptions from modern theories. The drawings themselves do not indicate, whether a participant intentionally chose schemas over realism due to limited skill or because of a familiar cultural cliché. Survey data are insufficient to distinguish between these possibilities and can only be interpreted through the lens of assumptions of modern theories.

As modern theories suggest, participants in our study may judge a “good drawing” as a “realistic drawing,” because, in the Western cultural context, realism is expected as a criterion for good drawing ability. Thus, when adolescents become self-critical and begin to judge their drawings realistically, this could not be due to their innate perception, but because they become aware of the cultural and historical expectations in their society. When comparing ODP and GADP, it is notable that participants in our study were more critical of their own drawing ability (ODP) than we were when assessing their GADP (Table 13). This may suggest that a culturally defined perception of “realistic drawing” as “good drawing” is rooted in our society and influences adolescents and, later, adults.

Since most participants (61.6%) reported having drawn recently (in the last two weeks) (Table 15), but only 10.6% had direct or indirect artistic education

(Table 14), this suggests that many adults draw frequently, although drawing is not part of their profession, nor do they aim to achieve realistic drawing. They mostly draw at home (59.8%), in private, without intending to show their drawings publicly, but simply for entertainment, as unplanned doodling, and other activities as indicated in Table 16.

This could be interpreted in the context of modern theories to mean that realistic complexity is not the predominant stylistic choice among adults, but one of the options they pursue, when it is expected of them. Table 26 also shows that realistic ability is not predominant among participants whose profession is related to art, as there are no statistically significant differences between realistic ability and participants' education.

Therefore, participants in our study are aware they do not draw realistically well (Table 21), but many do not mind and enjoy drawing despite this (Table 18). They recognize realistic ability as the criterion for "good drawing ability," but this is not a decisive factor in defining their affection for drawing, nor does it determine how often they draw. Most participants who draw frequently actually do not draw realistically. Therefore, the "standstill" in realism may not necessarily result from adolescents ceasing to draw during adolescence, as traditional theories suggest, but could instead, as modern theories propose, be a choice not to draw realistically.

Only those participants who truly believed they cannot draw at all also stated that they do not like to draw (Table 18). It should be noted that between 5% and 8% of drawings were missing among our participants (Table 2), suggesting that some participants who believe they cannot draw at all and do not like to draw did not complete the drawings in our study and left them blank (Tables 30–35). In some cases, it even appears that some participants "tricked" us by having their children complete the drawings instead of them (Figure 13).

That realistic ability may not be the decisive factor in affection for drawing is also suggested by comparing the results for effort (Table 2) and the drawing quality of each object (Table 4). The quality of the drawing is not significantly related to effort, as greater effort does not necessarily produce a more realistically complex drawing. This further suggests that many adults who do not draw well in a realistic manner put much effort into their drawings because they enjoy drawing, not because they are skilled at realistic drawing (Tables 30–35).

As shown by a comparison between persuasiveness (Table 1) and adherence to a template (Table 3), uncertainty when drawing a rabbit was lower than when drawing a human figure, and the tendency to follow a template was significantly higher when drawing a rabbit. This may suggest that the cultural effect led rabbit drawings to be the least realistic and to display more schematic forms than tree or human figure drawings. Since the rabbit is a less familiar form than a tree or a human figure, adults might rely less on the rabbit's natural anatomy and instead use cultural stereotypes and influences (such as cartoons) when drawing it, as seen in Figures 6 and 8. This may be interpreted as to support Wilson and Wilson's (1982a, 1982b, 1984, 2010) position, following Gombrich, that children (or adults), like artists, rely more on cultural models than on actual perception, especially when the object is not perceptually familiar to them.

370 According to Piaget, schemas can be used in two ways: through assimilation or accommodation. Assimilation means that a schema is applied without modification, while accommodation means that the schema is adapted to suit one's own needs (Strömberg 2020; Piaget 1952). In drawing development, assimilation suggests that a drawing convention, such as the stick-man, is used without transformation as seen in many examples of stick-man figures in our participants' drawings (Figure 10). Accommodation, on the other hand, suggests that some schemas are not simply received and copied from cultural influences, but are instead used as a basis or inspiration to solve a drawing task in a unique way. This can be seen, for instance, in the human figure drawing in Figure 7, where a person is creatively drawn from the back, perhaps to avoid the difficulties of drawing facial features. Common examples of accommodation also include transformations of schematic shapes, such as cloud-like trees and triangle-like figures, with the addition of various textures, colors, details, and background features (Figure 12). Comparison of the general and artistic characteristics of drawings in our study suggests that adults who are not strictly pursuing realism and have been evaluated with average GADP (Figure 4) emphasize artistic categories such as texture and color (Figure 12).

Schematic rendering in drawings can, according to Strömberg (2020), be further distinguished into visual building blocks and visual ideas. The former are practical conventions for representing different phenomena, while the

latter are less concrete notions about how we perceive various phenomena in art and life as the basis for visual representations. This may suggest that the schemas participants used in our study are not only concrete templates, but also subtle ideas shaped by the way society influences our perception of the world. Falk and Needham (2013) noted that adults acquire knowledge through books, magazines, the internet, videos, documentaries, social media, and so on. One might interpret that adults' drawing ability and the schemas they use are also influenced in such diverse and subtle ways.

Confronting traditional and modern perspective on drawing development based on the results of our study

The strength of traditional theories that emphasize progression toward realism is that they provide clear parameters and standards for drawing development, giving researchers well-defined, distinctive categories useful for research, such as proportions, spatial plausibility, anatomical plausibility, and confident or unconfident drawing execution. However, this robustness makes traditional theories less sensitive to other cultural and individual influences on drawing development. In contrast, the strength of modern theories is that they rightly highlight that progress toward realism is culturally and historically conditioned, and that other stylistic options should also be considered within drawing development. However, an important negative aspect of such cultural relativization is that, by relativizing the parameters and standards, by which drawing could be considered "complex" and drawing development "progress," modern theories risk diffusing the verifiable drawing norm of the traditional model into interpretation biased by purely subjective taste.

Our aim, therefore, was not to support exclusively either traditional or modern theories of drawing development, but to explore the possibilities of effectively interpreting characteristics of adult drawings by recognizing the weaknesses of both approaches and using their strengths. As can be deduced from the results of our study—which show that progression toward realism is present in the drawings of our participants, but does not exclude other styles or determine whether adults enjoy drawing or how often they draw—, both approaches may be considered complementary rather than mutually exclusive. Progression toward realism is an important developmental norm, but it must

also be properly evaluated within the historical and cultural context, alongside other stylistic expressions.

Similarly, Milbrath *et al.* (2015) suggest that drawing development follows universal cognitive development, part of which is progression toward realism. However, they propose that two additions highlighted by modern theories should be considered (Podobnik *et al.* 2021). First, desire for realism is not entirely innate and perceptual, but is also environmentally (socially and culturally) and individually conditioned (Quaglia *et al.* 2015; Matthews 2003; Antoniou and Hickman 2012). Although drawing development starts spontaneously, it develops into various symbolic forms only through human interaction with surroundings—on one hand with natural perception, and on the other with society and culture. Besides natural realism, also social rituals, popular culture, and mass media are factors that children perceive as “norms,” which are reflected in their drawings (Anning and Ring, 2014).

372 A second important aspect is that drawing development, although progressive, is not a fixed progression (Podobnik *et al.* 2021). The stages of drawing development are not mutually exclusive, but are choices one makes according to the task, stimulation, and instruction provided. Drawing is a problem-solving activity, and drawing “errors” are solutions to address when facing dilemmas (Quaglia *et al.* 2015). Therefore, Louis (2005) promotes the concept of developmental stages instead of phases. Children are cognitive agents who use their acquired cognitive repertoire variably, depending on their intentions and the task they face. In some situations, children may use cognitive strategies earlier than predicted by the developmental stages or, conversely, use lower-level abilities even after they have presumably outgrown them (Louis 2005).

Based on our research, we may suggest a similar perspective for understanding adult drawing. Adults, as cognitive agents, acquire their drawing repertoire through development and education. An important aspect of this repertoire is realistic drawing ability (or its absence). However, other drawing styles, influenced by cultural and social stereotypes, are also significant. Schemas acquired in childhood, such as cloud-like and triangular trees, stick figures, and snowman-like animal forms, could be regarded as such strategies persisting into adulthood. Therefore, when drawing, adults use their acquired cognitive repertoire in various ways and may employ different cognitive

strategies depending on their intentions and the task. As with children, the question for adults is not merely, whether they have acquired certain cognitive skills, but how they use the skills they possess. In some situations, adults, like children, may choose not to use some advanced cognitive strategies, either because they do not find them practical or due to inertia. In this sense, various styles of schematic shapes in adults' drawings may not necessarily be errors in pursuing realism, but stylistic choices influenced by their motivation, or lack thereof, and by cultural and societal factors, such as preferences for specific genres. For example, if participants in our study preferred comic-style drawing, they used certain types of schematic forms as might be seen in cases where a drawing could be categorized as "witty" (Table 7; Figure 11; see also Appendix B) and in cases where stylization and sketchiness are clearly part of the drawer's intention (Figure 9).

As stated above, it is important to note that our study lacks sufficient contextual information about why participants chose to draw in a particular way; therefore, we can only speculate based on assumptions from different theories. Without knowing the context of the drawing or the motivation behind it, it is impossible to determine why a particular drawing employs certain stylistic expressions—whether the participant intentionally chose schemas over realism due to limited skill, pragmatic inertia, subjective preference, or cultural stereotypes. Therefore, conversation with the artist, whether child or adult, is important to properly assess, from a hermeneutic perspective, the reasons behind stylistic choices in drawings by children and adults, as shown in other studies (Podobnik *et al.* 2024).

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Implications for further research

We recruited adults for our study through kindergartens, as this is an effective way to reach the adult population. In addition to kindergartens being a useful means of accessing adults, this approach offered another benefit that presents an opportunity for further research. Specifically, the adults we reached through kindergartens were also parents of preschool children.

As parents, adults often find themselves teaching their children to draw or believing they can accelerate their child's drawing development. However, not

everyone who likes to draw is also an expert in drawing, according to Rački (2010). When drawing with their child, parents' own expression can profoundly influence the child's, but parents are often unaware of these influences, although they genuinely believe they are helping with good intentions (Bandura and Carroll 1987). Therefore, the crucial dilemma is as follows: since subjectivity should play an important role in children's drawing (Golomb 2002), what kind of influence—positive or negative—could adults have on children's drawing?

Several questions arise from this dilemma. How should parents influence their children through drawing? Should they follow a "realistic model" and encourage realistic progression in drawing development, or adopt the modern perspective on culturally influenced stylistic choices? If so, should parents present their children with schematic representations and transfer the schemas they use in drawing to their children, or should they avoid this? Should parents even teach children how to draw, or simply just encourage them to draw (without teaching them how to draw)?

374 This is not to say that parents should be discouraged from drawing with their children, but to remind them that their influence can be significant and that children should be artistically creative independent of them. Therefore, our next research will aim to determine, whether, and what kind of, influences exist between parents' drawing and that of their child, and what these influences relate to.

Limitations of the study

Our study had several limitations that we must acknowledge:

1. The sampling strategy. For reasons of convenience and easier access to the adult population, we recruited participants for our study from the preschool environment. This led to a demographic imbalance (86% women, 14% men), raising questions about representativeness. The absence of non-binary participants should also be noted. The high proportion of women and low proportion of men indicate that our study is gender biased and may be most applicable to women.

2. Our study, although it has a relatively large sample, is culturally centered on a population of adults in Slovenia. Therefore, it is influenced by Slovenian culture, history, and the educational system.

3. Choice of method. A drawing exercise under controlled conditions would be preferable to a survey, where the time spent on the drawing could not be controlled. However, the survey we conducted was the only way to include so many participants and to gain access to the adult population, who may otherwise be reluctant to participate in such studies.

4. Nature of method. Developmental research should ideally rely on longitudinal studies, which are methodologically difficult to conduct, particularly with large samples. Our study presents only a cross-section of participants' drawing ability at a single point in time, without information on how their cognitive development through drawing progressed previously, as we did not have access to their childhood and adolescent drawings. Therefore, we could not gain insight into the actual drawing development of participants from childhood onward, but only into their drawing ability at one point in time. Nevertheless, we believe that even this limited perspective provides important insight into adult drawing, as we could contextualize it within theories of drawing development.

5. In the drawings, we analyzed some characteristics that are processual in nature and cannot be properly evaluated without insight into the drawing process. One such characteristic is the amount of engagement in drawing (i.e., effort; Table 2). We could only evaluate effort based on the appearance of the drawings (see Appendix B and examples under "effort") and not in relation to the actual drawing process, isolating it from other factors, such as differing schedules and reliance on technological supports. Nevertheless, we believe that our evaluation of effort is useful for understanding some aspects highlighted in the discussion part of the paper.

6. The subjectivity of drawing evaluation. The reliability of drawings in research depends greatly on the subjectivity of interpreters. A particular feature in a drawing may support different interpretations depending on who is interpreting it (Merriman and Guerin 2006). Although we sought to minimize this by developing a well-structured coding system and ensuring strong inter-rater reliability, this subjectivity should be acknowledged.

V. Conclusion

The value of drawing extends beyond the visual arts and plays a significant cognitive role in exploring ideas across various fields of human endeavor. While drawing development has been thoroughly studied in children, little research exists on the drawing expression of adults, as most studies do not extend beyond adolescence, therefore our study focused on the drawing ability of young to middle-aged adults.

The hermeneutic context of our study was the contrast between traditional and modern theories of drawing development. Traditional theories are based on the idea that progression toward realism is a universal developmental characteristic, while modern theories emphasize the influence of cultural, historical, and societal factors on drawing development, viewing realism as just one stylistic option, predominantly found in the Western context. We were therefore interested in how realistic ability and the presence of schemas in adult drawings could be evaluated within the contrasting perspectives of traditional and modern theories of drawing development.

The results and discussion revealed two main points regarding the drawing ability of participants included in our study: (1) from a realistic ability perspective, drawing skills were low to average, and most drawings included schematic shapes; (2) most participants were critical of their realistic drawing ability, but nevertheless enjoyed drawing (except those who believed they could not draw at all and therefore did not like to draw), had a positive attitude toward it, and also drew quite often.

The aim of our study was not to promote either traditional or modern theories of drawing development, but to contrast them and analyze the characteristics of adult drawings within their complementing frameworks. The overall evaluation showed that progression toward realism is present in the drawings of our participants and is an important standard for evaluating drawing ability, but does not exclude other styles or determine, whether adults enjoy drawing or how frequently they draw. Other styles that adults practice may be influenced by cultural, historical, and societal factors, and subjective preference.

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Figures



Figure 1:
Drawing by a 14-year-old student from Slovenia (personal archive).

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Figure 2:
Drawings by 14- and 15-year-old students from Slovenia (personal archive).



Figure 3:
Examples of drawings of low GADP score 1.00 to 1.99.



Figure 4:
Examples of drawings of average GADP score 2.00 to 3.99.



Figure 5:
Examples of drawings of high GADP score above 4.00.



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Figure 6:
Examples of drawings of a rabbit influenced by cultural stereotypes
(such as cartoons).

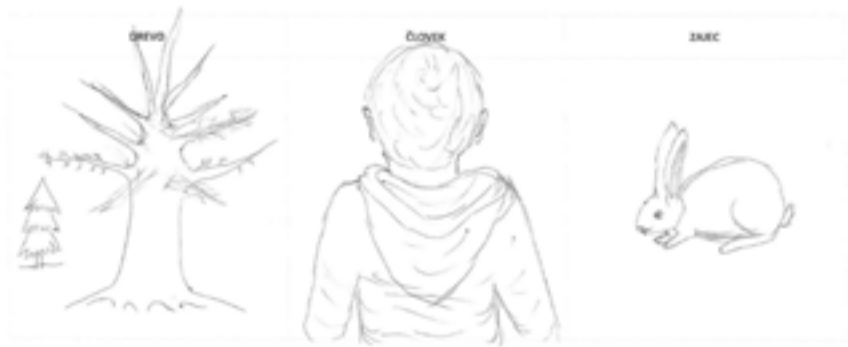


Figure 7:
Example of a drawing of the human figure from the back.



Figure 8:
Examples of drawings of the rabbit in snowman-like shape with
anthropomorphic facial features



Figure 9:

Examples of drawings where stylization and sketchiness are part of the drawer’s intention.

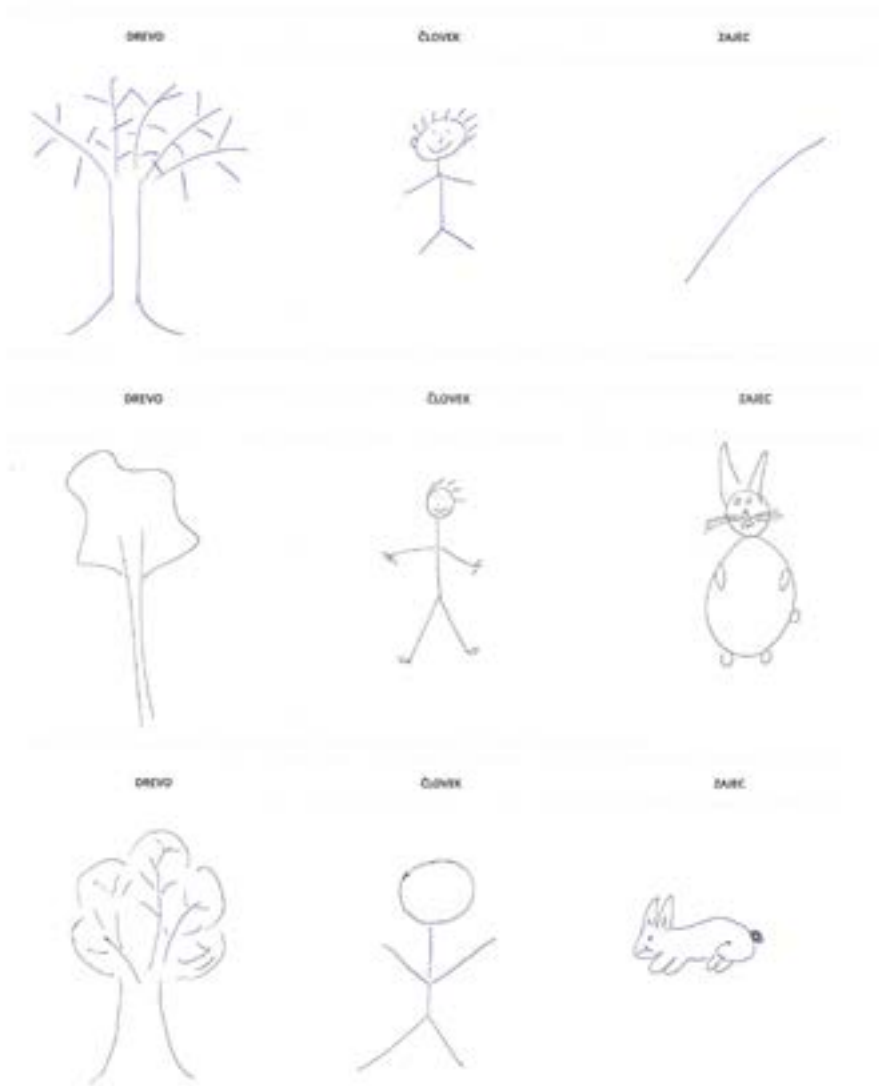


Figure 10:
Examples of stick-man figures



Figure 11:
Examples of drawings characterized as “witty.”



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Figure 12:
Examples of cloud-like trees and triangle-like figures, with the addition of various textures, colors, details, and other features.



Figure 13:
Example where a participant’s child appears to have made the drawing.



Phainomena 34 | 134-135 | November 2025

Witold Plotka – Andrej Božič (Eds.)

The Thought of Leopold Blaustein in Context. Critical Essays and Materials

Witold Plotka | Aleksandra Gomulczak | Amadeusz Citlak
| Wojciech Starzyński | Hicham Jakha | Daniele Nuccilli
| Magdalena Gilicka | Filip Borek | Filip Gołaszewski | Leopold
Blaustein | Małgorzata Hołda



Phainomena 34 | 132-133 | June 2025

Transitions | Prehajanja

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vid-Augustin Mândruț | Manca Erzetič | Dragan Prole | Min-
daugas Briedis | Irakli Batiashvili | Dragan Jakovljević | Jo-
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Phainomena 33 | 130-131 | November 2024

Dean Komel – Alfredo Rocha de la Torre – Adriano Fabris (Eds.)

Human Existence and Coexistence in the Epoch of Nihilism

Damir Barbarić | Jon Stewart | Cathrin Nielsen | Ilia Inishev
| Petar Bojanić | Holger Zaborowski | Dragan D. Prole | Su-
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Josef Estermann | Chung-Chi Yu | Alfredo Rocha de la Torre
| Jesús Adrián Escudero | Veronica Neri | Žarko Pačić | Werner
Stegmaier | Adriano Fabris | Dean Komel

