

**Exploring Art's Transformative Potential: An Inquiry into Pelowski and Akiba's Model
of Art Perception in Children and Adolescents**

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Abstract

This study explores the applicability of Pelowski and Akiba's (2011) model of art perception stages in children and adolescents aged 6 to 17. Participants engaged in an experiment where they presented meaningful objects and conversed about them with a chosen peer. The study aimed to explore whether and how the stages of the model of art perception unfold in children and adolescents. The sample comprised 63 participants in 32 dyads, with ages ranging from 6 to 17 ($M = 11$, $SD = 3.5$). Participants were instructed to bring a significant object and not share it beforehand. The study employed a qualitative approach, focusing on thematic analysis aligned with Pelowski and Akiba's stages. The primary measurement was conversation prompts. Results indicate unique patterns in the progression of art perception stages among adolescents, demonstrating non-linear pathways. The study found that the vocabulary limitations of children hindered a comprehensive analysis of their conversations. Future research is proposed to explore non-verbal communication in children to better understand their appreciation for art, as well as the factor of theory of mind which may influence the occurrence of the stages. The study provides novel insights into the nuanced ways adolescents progress through art perception stages, enriching our understanding of the interplay between age and the transformative potential of art experiences.

Keywords: art perception, children, adolescents, aesthetic experience, qualitative study

Introduction

From the Paleolithic era dating 40,000 years back until now, humans have had an immense need for self-expression, creativity which serves no survival function which marked the beginnings of creating art (Walling, 2006). From cave paintings found prehistorically depicting humans, animals, events, and spiritual rituals, to Van Gogh's famous "Starry Night", the fundamentals of creation of art remain relatively unchanged. Self-expression, sense of community, symbolism for life's shared existential givens, and depiction of our environments, have all been prominent purposes 40,000 years ago until now (Lorblanchet, 2007). Since art has been such an indispensable ingredient of the human experience, it is of great interest to explore what purpose it has been serving for all those thousands of years.

Art's Potential for Societal and Self-Transformation

When it comes to modern times, art still remains highly relevant and significant for all aspects of life. Art therapies have been shown to alleviate the burden of mental and developmental disorders such as schizophrenia (Richardson et al., 2007), autism (Jalambadani, 2020), and depression (Wang et al., 2011). Art has also showcased its significance by how it provides a sense of community for minority groups through art forms such as hip-hop, music, and writing (Travis et al., 2019) and LGBTQ+ communities through art projects aimed at reinforcing a sense of self-identity and empowerment (Boggan et al., 2018).

Additionally, an integral part of art is its inclination to provoke new ideas to the mass which challenge the prevailing status quo and collectively shifts the collective perspective within historical and cultural contexts. Take for example the artwork of Pablo Picasso "Guernica" which depicted the brutality of war and violence of the bombing of the Basque town of Guernica, which marked significant social and historical implications by serving as a

symbol of resistance to fascism and fostering international solidarity through the medium of art. (Held, 1988). The artwork was exhibited with the purpose to raise money for the antifascist causes in Spain. Another example is the artwork “The problem we all live in from 1964” by Norman Rockwell which conveys the political climate in America, filled with racism and injustice by portraying an African American girl being escorted to school by US marshals (Thomas, 1969). The concept of “artivism”, defined as the use of art in activism, has the potential to inspire change and revolutionize the ways we think around social issues (Nossel, 2016), impose political change (Mekdjian, 2017), support critical thinking, climate change awareness, new perspectives in youth (Ho, 2012) and create effective strategies for collective organized actions towards social change and justice (Ortega, 2014). Therefore, it appears that art possesses a profound capacity to instigate positive metamorphosis, as in transformation, within both the individual and the society it inhabits (Penfold, 2017).

The Impact of Social Influence on Development through Art

In regards to development, there is a wide range of theories that can be informative on how cognitive development progresses from early on and how children begin to understand their external environment from early on, focusing on different influential aspects. Theory of mind focuses on how children develop the ability to attribute mental states, such as beliefs and intentions, to oneself and to others and how that influences their understanding of other’s perspectives, emotions etc. (Bánáti et al., 2010). Vygotsky’s sociocultural theory emphasizes on the importance of social interactions and cultural context one is found in (Daniels, 2012), Bowlby’s attachment theory highlights the importance of early caregiver-child relationships in shaping a child’s emotional and cognitive development (Page & Norwood, 2007). Lastly, Bandura’s theory has an emphasis on the social environment as a significant factor in learning which suggests that children learn by observing the behavior of others, especially significant others such as peers, caregivers, parents. Building upon this element of observational learning

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through the social environment, children acquire new skills, knowledge, behaviors by watching other people interact in the world and the outcomes that their actions have (Schunk, 2012). Considering this theory which focuses on how the social environment influences the primitive ways of forming ideas, behaviors and thoughts from a young age and in relation to the current scope of this study, it can be suggested that exposure to diverse perspectives and novel thoughts when presented in social contexts may contribute to the formation of primary ideas, thoughts and behaviors.

Even though all aspects that are covered by the different theories are significant for a child's development, the focus of this study will be on the social influences on it. Specifically, the exploration will be involved around how children through perceiving art have the potential to experience processes of "aesthetic experience" as approached by the theory of Dewey (1951; 1980), which includes the significance of disruption and schema-change as key elements to aesthetic experience and transformative properties. The decision to explore this topic through the social aspect concerns the nature of this study which will be analyzed from the conversations the participants have with each other, thus analyzing the element of art perception through an interpersonal, hence social perspective. Additionally, the choice of investigating that through the domain of art is explained by the fact that perspective-taking and schema-change are elements that are deemed strong prerequisites for art perception, comprehension and appreciation.

Since the pathway towards potential transformative processes through art highly involves the elements of exposure and exploration to novel ideas and ideologies, it is of interest to investigate how these pathways can be established from early on in life. One way to investigate the potential for transformative processes and the impact of novel ideologies into schema change, is through art perception. One theory that associates art perception with its potential for transformative processes are of Pelowski and Akiba (2011).

Pelowski and Akiba's Model of Transformative Experiences with Art

The model by Pelowski and Akiba (2011) proposes an alternative and innovative approach to art perception. It suggests that there are five stages for art perception, which have the possibility of resulting in transformative aesthetic experiences.

The stages of the model follow the sequence of pre-existing expectations, cognitive mastery and introduction of discrepancy, secondary control, meta-cognitive re-assessment and aesthetic outcome, and new mastery. Within this study, all the stages are going to be analyzed and traced in the conversations in an attempt to explore how the stages manifest in a conversation. In Table 1, the overview of the five stages is presented.

Table 1

Overview of Five Stages

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Pre-expectations and the self-image	Cognitive mastery and introduction to discrepancy	Secondary control and escape	Meta-cognitive re-assessment	Aesthetic outcome and new mastery

Pre-existing Expectations

The first stage of pre-existing expectations discusses the prior expectations and beliefs that everybody holds at the beginning of the art perception process (Epstein, 1973). Besides the expectations and beliefs we people hold, we also hold established self-concepts and self-images which can also influence our relationship with the art being perceived (Carver, 1996).

Cognitive Mastery and Introduction to Discrepancy

In the second stage of cognitive mastery and introduction to discrepancy, viewers categorize the artwork based on existing beliefs, expectations, and schemata (Leder et al.,

2004). This process, called cognitive mastery, involves understanding the artist's suggested purpose and creating one's own interpretation. However, pre-existing knowledge creates a barrier, leading to a potential mismatch between beliefs and the presented new information which is a form of discrepancy. Viewers may either ignore or assimilate the discrepancy into their classification (Festinger, 1957).

Secondary Control and Escape

In the stage of secondary control and escape self-protection mechanisms and anxiety are prominent phenomena that occur in an effort of the individual to maintain integrity and control. The term “secondary control” refers to the attempt to covertly change the conditions of the environment so that a discrepancy can ultimately be assimilated or ignored (Rothbaum et al., 1982). At this stage, the viewers are motivated to engage in escape mechanisms such as mentally or physically escaping or disregarding an artwork as unsuccessful or meaningless.

Meta-Cognitive Re-assessment

In the stage of meta-cognitive re-assessment, after escape mechanisms and assimilation have failed in one way or another, there are opportunities for re-evaluation and re-assessment. The realization of uncontrollability dictates this stage, rendering the viewers liberated enough to potentially provoke expectational re-assessment. In other words, this stage provides for space re-evaluation that can lead to some sort of transformation and re-framing, so-called ‘second-order change’ by Torrance (1979). The outcome then constitutes of alteration in personal hierarchical self-image, able to achieve a kind of self-transformation (Rothbaum et al., 1982).

Aesthetic Outcome and New Mastery

In the final stage of aesthetic outcome and new mastery, a new approach is being utilized by the viewer, allowing them to observe an artwork in a different and new way which

is employed by new schemata and grants a refreshed outlook which in turn allows for deepened cognitive mastery (Duval & Wicklund, 1972)

The innovative and significant component of this model is that of discrepancy. Discrepancy suggests that there is a mismatch between a viewer's pre-existing expectations or viewpoints and the actuality of what they are viewing and experiencing (Dewey, 1980). That is resulting from novel elements and information that arise when perceiving something new for the first time. The current model is of significance since it provides a new perspective into how the result of an aesthetic experience can involve elements such as self-transformation, and feelings of "enlightenment", resulting from integrating the elements of discrepancy and schema-change that may arise during the process of art perception.

Dewey (1980) proposed that discrepancy plays a significant role into understanding how an interaction with an artwork can facilitate substantial change and schema-change when discrepant, or so called, new information triggers a state of reflecting on oneself and changing oneself. Suggestions provided by Dewey (1951), as well as Doll (1972), assume that this process of self-reflection and creating of new schema organizations through disruption can result in significant growth, insight and novelty in art experiences.

According to Carlston and Mae (2001) "Schemas (or schemata) are generic knowledge structures that summarize past experiences and provide a framework for the acquisition, interpretation, and retrieval of new information". Schemata are established in early childhood and they affect the foundations of the relationship with ourselves and the others. Throughout life our schemata are often revisited and adapted and that change constitutes a prerequisite for deep personality change (Žvelc, 2009). In regards to the conceptualization of schema-change in the current study, while the notion of schema-change, as also used in the model by Pelowski and Akiba (2011), generally denotes a foundational reorganization in established cognitive frameworks, this study primarily directs its focus toward the transient alterations in

the perception, interpretation, and evaluation of an object within the context of a conversation. The primary objective of this approach is to comprehend the occurrences of re-assessment, re-evaluation, and the adoption of novel perspectives toward another individual's meaningful object within conversational settings. This investigation seeks to shed light on how manifestations of schema-change, particularly induced by discrepancies of new information, might transpire in formal art perception settings, such as museums and exhibitions. These controlled environments inherently facilitate the exploration and examination of the processes underlying art perception, notably aligning with the aesthetic experience model posited by Pelowski and Akiba (2011). Consequently, this approach aims to offer nuanced and valuable insights into the ways through which profound schema-change may unfold in formal and controlled settings for art perception.

Present Study

In this study, participants from 6 to 17 years old were invited to the experiment to present objects that are meaningful to them and have a conversation about them with a partner of their choice. Specifically, the experiment consists of 1) pre-questionnaire after the artworks have been presented, 2) conversation prompts that are thought-provoking and encourage to engage in conversation about each other's meaningful items, and 3) a post-questionnaire after having the conversation about each other's meaningful objects.

This study aims to explore whether the stages for art perception outlined in the model proposed by Pelowski and Akiba (2011) are applicable to the experiences of children and adolescents. This investigation is of significance since so far there has not been any exploration of how this model could be potentially observed in children and adolescents and how the stages could manifest. The central exploratory research question guiding this investigation is: Do the stages for art perception suggested by Pelowski and Akiba (2011) resonate with children and adolescents? Specifically, this study aims to investigate whether

the proposed stages adequately capture the nuanced art perception experiences of individuals within the age range of children and adolescents.

Methods

Participants

The sample consisted of 63 participants, so 32 dyads, with one participant participating twice. Ages ranged 6 to 17 ($M = 11$, $SD = 3,5$). Convenience sampling was used for partly recruiting participants through the social network of the researcher group, as well as snowball and volunteer sampling. Recruitment methods included advertisement through the Zpanned Zernike festival, as well as directly contacting parents and collaborating with both primary and secondary schools in the northern Netherlands, particularly Groningen. Additionally, flyers were distributed and posted in some locations in the city. An incentive to participate was given in the form of a Pimm voucher of 10 euros offered to the participant. Participants were also given the choice to donate the money to a participating school instead.

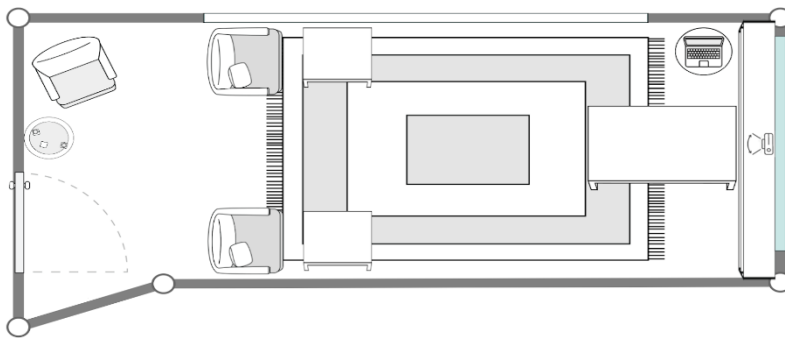
Materials

Materials were either in Dutch or English as indicated by the preferred language of the participants. Before the experiment started, the participants (or their parents, if the child was younger than 16 years old) were asked to give their informed consent via the registration form the form was created using Qualtrics (<https://www.qualtrics.com>). The registration form asked for basic demographic information such as the participant's name, the name of their fellow participant, as well as their relation to each other, and the language spoken. The surveys employed in the experiment were generated using Qualtrics. Each participant completed the questionnaire twice throughout the study. It's important to highlight that two distinct sets of questionnaires were developed—one tailored for participants aged 6 to 11 and another for those aged 12 to 17. The dissimilarity lies in the inclusion of graphics in the questionnaire for

younger participants, aiding in better comprehension of the questions. In regards to the technical materials used in the experiment, a laptop was used to connect to the camera (2-Logitech BRIO) and record the conversations, while the conversation prompts were displayed on a monitor for the participants to see. The layout of the experimental room had a certain set-up which is showcased in Figure 1.

Figure 1

Experimental room set-up



Note: On the left side of the map, it can be seen that there are two seats, which were the participants' spots to fill out the questionnaire. On the right side of the image is where the researchers were standing in order to guide the conversation for the participants along with a laptop showcasing the conversation prompts. In the middle of the room the participants could sit down or stand while their objects are presented in front of them on the table. This set-up was replicated for whichever space the experiment was conducted in.

Procedure

Preparation phase

The study was approved by the Ethics Committee Behavioural and Social Sciences of the University of Groningen (PSY-2223-S-0252) and is in line with the Dutch ethical standards for scientific research. The participants were asked to invite a peer (friend, family member,

colleague) to co-participate with them in the experiment, a so-called buddy. The experiment could be conducted in different agreed locations, such as the school in Helpman, the family homes and the Ambolatorium. Secondly, they were asked to bring an object/artwork that is meaningful to them. The definition for the object/artwork for this case has been adapted and broadened, in order to include anything that they can find meaningful, such as paintings, sculptures, a movie scene, poetry etc. Additionally, they were asked to not share their object with the participants beforehand. After the participants completed their registration, they received a referral guide which can help them choose their significant object. In the case of parents and caretakers, they were asked to help the child understand the reasons behind bringing the significant object.

Experimental Phase

Firstly, the experiment begins by the participants meeting the researchers in the relevant location with their significant objects. The experiment is consisted of three main parts, which are filling out the first pre-questionnaires for both their individual and their buddy's objects, then having a conversation about the brought objects of both participants and then filling in a post-questionnaire with the same content as the pre-questionnaire.

To begin with, the participants are seated some distance apart from each other and were asked to first spend at least 30 seconds familiarizing themselves with the object in front of them before starting on the survey. Then, they started filling out the first questionnaire about their objects. After they completed the first section of the questionnaire, they were prompted to exchange their objects and move on to the next section. Once both participants finished filling out their questionnaire, they were asked to relocate to the camera's field of view for the conversation phase of the study. Once the participants had settled for the conversation, the recording was started. In order for the conversation to be guided, 11 conversation prompts were presented, which allowed them to discuss their objects. Examples

of the conversation prompts are provided in Appendix A. For that part, the researcher in the experimental room read each prompt out loud to the participants and gave them two minutes to discuss each prompt. After all prompts had been discussed, the researcher in the control room stopped the recording and saved the encoded files. The participants were invited to sit and fill in the post-conversation questionnaires. The content and order of these questionnaires were the same as those of the questionnaires that were filled in before the conversation section. After both participants had filled in the post-questionnaire, the experiment was officially concluded.

Measures

The overall study investigated various variables, however not all of them are pertinent to this specific study, thus the only relevant measurement will be assessed, which are the conversation prompts. A qualitative approach was utilized for this specific study and a thematic analysis was conducted. Themes were identified in accordance with the stages explained by Pelowski and Akiba (2011) and the categories used for the creation of the coding scheme were the five stages and the subcodes were the characteristics of those stages.

The conversation prompts were based on emotions, semiotic strategies (i.e., perception, imagination, conceptualization and analysis) and self-referential patterns, to facilitate reflection. Examples of the prompts included “What do you think about the object your friend (or say their name) brought with them?”, “What do you notice about ...? (color, shape, texture, material, sound)” etc., also found in Appendix A. Since the conversations were conducted using both English and Dutch, all transcripts were translated so that every conversation was available for analysis in either language to facilitate its ease for search, identification, interpretation and citation. That way, data accessibility was facilitated as it promotes transparency and reproducibility in research (Göpferich, 2010). Transcripts and

backward translations of the recordings were written and translated by hand by one researcher, then translated back into the original language by another, to ensure that the meaning was not lost during translation, as well as to ensure the reliability of the data (Brislin & Freimanis, 2001).

Qualitative Analysis

In this study, I used the five stages of Pelowski and Akiba (2011) as coding groups, and for each group created subcodes that implicated the presence of main characteristics of the relevant stages which are explained in the article.

In accordance with Cognitive Discourse Analysis (Tenbrink, 2015) the data from the conversation were pre-processed via the following steps: transcription, segmentation, annotation. The process of transcription included transcribing the conversations from audio files into text, excluding information that is relevant to my research question such as questions that focused on the physical properties of the artworks. The step of segmentation was conducted by segmenting the full transcript into smaller portions considering the contextual information such as the relevance of the questions for the stages of the model. As for annotation, the segments of relevance were assigned the codes that represented the characteristics of the stages. For the aid of annotation, ATLAS.ti Web (version 5.8.0) was utilized.

Despite the intrinsic subjectivity associated with qualitative research, the focus was on ensuring transparency throughout the entire research process. Particular attention was given to maintaining transparency in data collection, as well as rigor in the subsequent analysis and interpretation of results. For that, the process of the creation of the coding scheme is analyzed.

For the formulation of the coding scheme, the reference points were found in the article of Pelowski and Akiba (2011), where the major stages are analytically explained along

with how their progression is manifested and which characteristics can be observed. To demonstrate, the third stage of “secondary control and escape” for the process of art evaluation includes the element of “Accusatory evaluation of art/artist, devaluation of artwork, art/artist, concept, or situational context. Evaluation of art that reduces potency, seriousness. Negative evaluation ‘bad’ or ‘ugly’.” Hence, when elements of negative evaluation of the other person’s object was observed, such as naming an artwork ‘ugly,’ or diminishing its importance by stating that it doesn’t appear to have any significance, the relevant subcode would be assigned to that text. Some examples of how the subcodes were assigned to segments of text can be shown in Appendix B.

Contextual cues were used in order to assign the segmented text into the relevant coding categories. Context and meaning were important in this case because to assign texts to the subcodes that characterized the presence of a stage, the concepts, ideas, and thoughts that are disclosed during the conversation need to be contextually understood. For example, to assign the subcode “resisting interpretations that challenge initial perceptions”, it is important to understand the content of the initial perceptions that are disclosed.

Results

The five stages of the theoretical framework by Pelowski and Akiba (2011) were applied for the analysis of the narratives of the five cases. Specifically, the five stages were coded into five code groups which included subcodes that represented the characteristics and features of the various stages. Table 2 shows a summary of my coding scheme and in the Appendix B the full coding scheme can be found.

Table 2

Summary of Code Groups and Subcodes

Code Groups	Examples of Subcodes
Pre-encounter	Accepting interpretations that only align with initial perceptions
Cognitive mastery and introduction to discrepancy	Attempt to create meaning consistent with both initial perception and new ideas
Secondary control and escape	Regarding the art as bad/meaningless/a mistake Minimizing the importance of the artwork
Meta-cognitive re-assessment	New approach/way of understanding the artwork
Aesthetic outcome and new mastery	Appreciating the physical qualities or new elements of the artwork

The decision to include this wide age range was grounded in developmental theories such as Piaget's theory (1971) which posits that cognitive and perceptual abilities evolve across childhood and adolescence. Even though the starting point for the capacity for abstract logic and reasoning, as well as the understanding of symbolic representation begins approximately at the age of 12, when children go through the formal operational stage, the inclusion of children younger than that aimed at exploring the ways that they interact with art in spite of the lack of those advanced skills. However, as the analysis progressed, it became evident that the data yielded comprehensive insights mainly among adolescents (ages 12-17).

Firstly, it appeared that conversations with children younger than 14 years old yielded results that could not be further investigated for this study. The reason for that is because their answers were most of the time one-syllable and their opinions about the artworks were

focused on their superficial elements, such as colors and shapes. Therefore, three cases have been chosen for this multiple case study that elucidates the patterns of the progression of the stages of art perception.

Case 1: Exploring Meta-cognitive Re-assessment in Art Appreciation

In this case of the conversation between two 17-year-olds (herein referred to as P019 and P020), all stages except for stage three of “secondary escape and control” have been observed. The most noteworthy observation in this conversation is the prominent occurrence of the stage “meta-cognitive re-assessment”. Not only the participants were integrating the new information that was provided by one another into their new schema and understanding of each other’s artworks, but also for their own, which was not observed in any other case. Since this case is the only one that went through all the stages except for one, it is interesting to delve into it slightly deeper, focusing on the stage of “meta-cognitive re-assessment”.

The conversation begins with both of them explaining why they have chosen their artworks and why they believe their buddy has chosen it. In the beginning, both of them had limited thoughts about why they think their buddy brought their artwork, focusing mostly on superficial elements of them such as their physical qualities, which constitute the initial perceptions of each other’s artworks. As the discussion goes on, they appear to provide long and elaborate explanations of their personal meanings attached to the artworks. What becomes evident during the progression and toward the ending of the conversation is that they seem to express different and renewed ways of understanding each other’s artworks in comparison with the expectations expressed in the beginning. In that way, it showcases what the stage of the model aims to explore, which is whether people will integrate the new information that is provided to them and accommodate them in a revised and more complete interpretation of an artwork. An example of this is when Participant P019 says at the end about her buddy’s

artwork: “Yes, it is indeed part of your piece that you have that camera at the end, how they used it to first let the people walk away and then just go up. That's a nice film technique. If I were to make a film, I would want to use that too, yes”. This segment, when taking into consideration the context from the context of the conversation, it reveals that the participant has been not only attentive to the ideas, personal meaning and importance of their buddy’s artwork, but has also shifted the way of perceiving it, having assimilated all the new information into a new manner of apprehending it and personally appreciating it.

Case 2: Exploring Resistance and Integration in Art Appreciation

A case is presented here where two participants (P021 and P022) are discussing the meaningful items they had brought, a personal diary, and a family picture from some holidays respectively.

Firstly, in this conversation, stages one, four, and five are present, while two and three are skipped. The case is of interest because even though the stage of “meta-cognitive re-assessment” is present, only one of the participants appeared to be engaged in it. Even more interestingly, they both seem to enter the last stage of “aesthetic outcome and new mastery”, even if the fourth mentioned stage was skipped.

At the beginning of the conversation, participants share the reasons behind bringing their artworks and their significance to them. What is observed in this case is that even though there are disclosures from both parties about the emotional significance of their artworks, there seems to be an ongoing resistance to integrating those novel thoughts and perspectives shared by each other. This element is part of the stage “pre-encounter” and is called “resisting interpretations that challenge their initial perceptions”. An example of that is when participant P021 says when asked about what they can do with that object: “actually nothing more [about the other object], you can only see it, and you can also think of things about it. Like oh, how

was the holiday, and what are your brothers' names...". This is an example of how a person in this stage does not revise or renew their ideas and perceptions after having heard about an artwork's meaning, significance and personal value.

However, as the conversation continues, it seems that Participant P021 starts to integrate some new incoming information about the personal significance of their buddy's artworks and finishes the conversation by saying: "yes I think with you too, that you can also fall back on this or if you ever have an argument with your family...and that photo brings everything back together in that moment. Just go back to that holiday." Thus, it seems that after having heard additional explanations and new ideas, they seem to have integrated the significance of that picture into their renewed perception of it. Lastly, even though only one of them seems to have been present in the stage of meta-cognitive re-assessment, they both go through the last stage of aesthetic outcome and new mastery. This is an example of progression from stage one to stage four and subsequently stage five, having skipped stages two and three.

Case 3: Non-linear Progression and Art Appreciation

The last case revolves around two 16-year old friends (P035 and P036). The first Participant P035 brought a bag that they made themselves and Participant P036 brought a painting that was a gift to their family.

In this conversation, only stages one and three have been observed. It is the only case where stage three of "secondary control and escape" has been evident. In the beginning, both participants share what they have brought and the first explanations of the reasons behind bringing them. As the conversation goes on, the most prominent elements that are detected are stage two named "resisting interpretations that challenge their initial perceptions", and stage three named "regarding the artwork as bad/meaningless/a mistake". Even though Participant

P035 has expressed that the item is personally significant because they made it themselves, their buddy seems to not regard this information as noteworthy to be inspected and challenged. In addition to that, both of them seem to express their dislike or lack of understanding towards each other's artworks. This is illustrated by those examples which mark the ending of the conversation with Participant P036 saying "this is not very beautiful" or "the beads (of the bag) seem unnecessary" and Participant P035 saying "I don't completely understand what it comes down to, that he made it like that". In conclusion, it appears in this case that the progression of the stages can be non-linear and abrupt by stages being skipped.

Discussion

This study aimed to explore whether and how the stages suggested by Pelowski and Akiba (2011) would manifest in children/adolescents. The analysis of the study focused on identifying the presence of the stages during the conversations that participants had about their meaningful objects. The outcomes of this multiple case study have yielded novel insights concerning the way that adolescents progress through the stages of art perception. Through the examination of the three cases, unique patterns emerged which exemplify that the stages can be progressed through in non-linear ways. Each case showcased different ways of progressing through the stages and the aim of the in-depth qualitative approach was to delve in the ways that they unfold in a conversation. Having outlined the key findings in the preceding section, it is imperative to transition to a comprehensive examination of the underlying factors and potential implications of these results. The discussion that follows delves into a speculative exploration, seeking to elucidate the nuances and intricacies that may have contributed to the observed patterns. This analytical phase aims to offer insights into the broader context and meaning behind the empirical outcomes, fostering a deeper understanding of the phenomena under investigation.

The study focused on only adolescents since the conversations from children could not contribute to a comprehensive analysis due to the limiting and short answers they gave. A possible explanation for this could be that the vocabulary of children is not that well developed to be able to express themselves in nuanced ways that accurately represent their thoughts. Thus, verbal communication may not be the most efficient way of understanding children's thoughts and emotions and other modes may be preferred. Eickhoff (1952) suggests that children may lack the sufficient vocabulary needed to express themselves in ways that reflect representatively their inner experiences. While the current study primarily focused on verbal responses, it is worth considering the potential impact of non-verbal communication in children. The limited verbal responses observed in our sample raise the question of whether non-verbal cues, such as facial expressions, gestures, or body language, might be more representative of children's expression. That is because non-verbal communication holds comparable significance to verbal communication and may serve as a more efficacious means for expressing emotions than words (Jokinen, 2009). Consequently, proposals for future research involve examining the comprehension of children's emotions and ideas through non-verbal means of expression to acquire a deeper understanding of whether children can manifest their appreciation for art through non-verbal means.

Theory of mind

Taking into consideration the analysis of the three cases, the commonality between them was that the discrepancy, the novel information during the process of perceiving the objects, was the emotional and personal significance that the participants disclosed for their personally meaningful items. In order to understand other people's personal reasons of significance and meaningfulness, it is important to comprehend their emotions, their intentions and their beliefs, an ability defined as theory of mind (Geangu et al., 2013). It appears that in the first two cases, where the final stage of "aesthetic outcome and new

mastery” was observed, meta-cognitive re-assessment and re-evaluation of the objects occurred after having understood the emotional significance they possess. On the other hand, in the third case, even after participants disclosed the reasons for personal value of their relevant objects, the final stage was not observed, neither the one of “meta-cognitive re-assessment”. That is in alignment with the suggestion of Dewey (1950), that the final stage which reflects the result of an aesthetic experience has to be preceded by schema-change and meta-cognitive re-assessment.

There are two significant reasons that theory of mind could be a potential variable worth investigating. Firstly, theory of mind is supposed to be a capability that improves in adolescence (Dumontheil et al. 2010). Secondly, Dewey (1980) explains that the outcome of an aesthetic experience is dependent upon creating a new organization of schemata after processing the discrepant information, in this case the emotional significance of the participants. The re-evaluation of the objects is a characteristic of the fourth stage “meta-cognitive re-assessment” and in those three cases it appeared that the genuine interest and ability for understanding each other’s emotions towards their objects marked afterwards the presence of that stage. In that way, theory of mind could be an element worth investigating when exploring the factors influencing the evolving into the fourth stage of “meta-cognitive re-assessment”.

For the first case, it appeared that participants progressed through all the stages except for one, that of “secondary control and escape” which is marked by behaviors such as attempts to minimize the importance of an artwork, or regarding it as meaningless and not exerting efforts to understand it. In this case, as showcased by the results, there was an immense tendency by both participants to engage with the incoming new information, thoughts, and ideas that they were sharing. That was evident by their continuous comments which validated and integrated the comprehension of the importance of the artworks for each

other into their new way of perceiving them, understanding them, and appreciating them. The presence of genuine effort to understand each other and comprehend their reasoning and significance behind their meaningful objects, which is a prominent element in this case, can be posited to reflect the ability for theory of mind since it is defined as the ability to understand and interpret other's emotions, behaviors and intentions (Bánáti et al., 2010). Another example can be found in the second case where the most note-worthy observation concerns the initial resisting of accepting new interpretations of participant P020 and then evolving into approaching the object in a renewed way. Interestingly, the evolving into approaching the object in a different and novel way resulted when their buddy disclosed the emotional significance that the object held for them.

Strengths and Limitations

One of the strengths of the study is the mixed-method approach. A mixed-methods approach in research offers the advantage of a more comprehensive understanding by combining the strengths of qualitative and quantitative methods. It enhances validity through methodological triangulation, allowing for diverse perspectives and improved interpretation of results. The sequential exploration and flexibility of this approach provide practical utility and adaptability, making it a valuable strategy for gaining nuanced insights into complex research problems (Almalki, 2016).

Secondly, a significant strength is the research design of a qualitative case study. In accordance with Riddoch and Lennon's (1991) discussion on the importance of case study designs, the utilization of a multiple case study approach in this research allowed for a comprehensive exploration of how the stages described by Pelowski and Akiba (2011) manifest in adolescents. The inclusion of multiple cases facilitated a more nuanced and in-

depth outlook on the different patterns that can emerge within the progression of the stages, aligning with the methodological principles advocated by Riddoch and Lennon (1991).

Thirdly, in the course of this research, a distinctive coding scheme was developed to examine the manifestation of the proposed stages of the model by Pelowski and Akiba (2011) for art perception within conversational data. This unique coding framework not only provided a specialized lens for analysis but also facilitated a nuanced understanding of the intricate dynamics at play during the stages for art perception through a conversation setting. However, it is imperative to acknowledge a notable limitation – the coding scheme devised for this study was not collaboratively agreed upon with other researchers. This lack of consensus introduces a potential challenge to the external validity and generalizability of the findings (Andrade 2018). The absence of inter-rater agreement may impact the robustness and reliability of the results, as different researchers might approach the coding process with varying interpretations. Consequently, caution should be exercised in extrapolating the outcomes beyond the specific context in which the coding scheme was developed. Additionally, another limitation was the sample size since only three cases were included in the final analysis. Even though small samples can offer valuable insights (Weis & Willems, 2017), the generalizability to larger populations can be limited (Kukull & Ganguli, 2012).

Implications and Future Directions

The findings of this study present implications for both theory and practice in the realm of art perception and the stages proposed by Pelowski and Akiba (2011). The notable influence of theory of mind on the progression through stages, particularly evident in the genuine efforts to understand and appreciate the emotional significance of meaningful objects, suggests the need for a more deliberate integration of social cognitive factors in the understanding of art perception. Future research could explore the role of theory of mind in a

more explicit manner, examining how it interacts with other cognitive processes in shaping the trajectory of art appreciation.

Furthermore, the mixed-methods approach and the utilization of a qualitative case study design demonstrated strengths in providing a nuanced understanding of the stages in adolescents' art perception. Building on this, future investigations could extend the study to a larger and more diverse sample to enhance generalizability and explore potential variations in the manifestation of stages across different demographic groups. Collaborative efforts in refining and standardizing the coding scheme for analyzing conversational data could enhance the methodological rigor and comparability of future studies in this domain.

Additionally, acknowledging the limitations of the current study, particularly the small sample size and the lack of consensus on the coding scheme, suggests avenues for improvement. Replication studies with larger and more diverse samples, along with interdisciplinary collaborations to establish consensus on coding methodologies, could address these limitations and contribute to the robustness and generalizability of future research in the field of art perception and cognitive processes. Overall, these implications pave the way for a more nuanced understanding of the intricate interplay between cognitive, social, and emotional factors in the perception and appreciation of art.

Conclusions

The study aimed to explore the manifestation of the stages proposed by Pelowski and Akiba (2011) in children and adolescents during conversations about meaningful objects. The analysis revealed unique non-linear patterns across three cases, showcasing varied ways of progressing through the stages. The discussion delved into potential contributing factors, emphasizing the role of theory of mind in understanding emotional significance. Theory of mind, seen as crucial in the final stage of "meta-cognitive re-assessment," suggests a need for

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explicit integration of social cognitive factors in art perception studies. The study focused on adolescents due to limitations in children's verbal expression, prompting consideration of non-verbal communication for future research. Considering the strengths, the mixed-methods approach provided a comprehensive understanding, and the qualitative case study design allowed nuanced exploration. However, limitations included the lack of consensus on the coding scheme and a small sample size. Future directions involve explicit exploration of theory of mind, larger and more diverse samples, and collaborative efforts to refine coding methodologies for enhanced rigor. Implications highlight the intricate interplay between cognitive, social, and emotional factors in art perception, paving the way for a nuanced understanding of this complex phenomenon.

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Appendix A**Conversation prompts examples**

General prompts	What do you think about the object your friend (or say their name) brought with them?
Perceptual strategy	What do you notice about ...? (color, shape, texture, material, sound etc.)
Imagination strategy	Can you think of other ways to use these objects?
Conceptualization strategy	What would you tell others they need to know about your object/artwork?
Analytical strategy	What do you learn about the world/yourself when you experience this...?
Theory of mind prompts	How do you think your buddy thinks about his/her art object?

Appendix B**Codebook**

Code groups	Subcodes	Examples
Pre-encounter	Accepting interpretations that only align with initial perceptions	“Well I think what you just said, that just a nice photo, fun photo, cozy photo”
	Resisting interpretations that challenge initial perceptions	“Yes, actually nothing more [about another object], you can only see it”
Cognitive mastery and introduction to discrepancy	Attempt to create meaning consistent with both initial perception and new ideas	Not found in the text
	Reflecting on the original intention/motive behind creation of an artwork	Not found in the text
Secondary control and escape	Regarding the art as bad/meaningless/a mistake	“I don't completely understand what it comes down to, that he made it like that.”
	Minimizing the importance of the artwork	Not found in the text
Meta-cognitive re-assessment	Revisiting initial expectations to re-assess established perceptions	Not found in the text

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	<hr/>	
	New approach/way of understanding the artwork	“Yes, your piece does indeed sound like, use of camera and such, and exactly what you said with the music.”
Aesthetic outcome and new mastery	<hr/> Appreciating the physical qualities or new elements of the artwork	“Just cool, amazing, and also inspiring, what you said.”
	<hr/> Feelings of harmony	“Then I am more grateful for the days I have now.”