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THE INFLUENCES OF EDUCATION ON AESTHETIC EMOTIONS AND AESTHETIC EVALUATION

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The major goal of the current study was to investigate the influences of education on aesthetic emotions and aesthetic evaluation. Two groups of art and non-art students and graduates participated in the study by watching an artistic and poetic short film and completing a survey (AESTHEMOS). Parametric and non-parametric techniques were employed to compare two groups in terms of their emotional responses and aesthetic evaluation of an aesthetic object. Overall, and unexpectedly, non-art students and graduates reported experiencing higher aesthetic emotional levels than that of the art students/graduates. Likewise, the film was rated higher by non-art students and graduates compared to art students and graduates. In other word, non-art students/graduates reported that they experienced higher aesthetic emotional response to the film and liked the film more in comparison with the corresponding group of art students/graduates. Art students/graduates also answered an open-ended question and stated that art education had transformed the way they felt, saw, heard and evaluated aesthetic objects and the entire world. The study also strived to explain why non-art students/graduates compared with art students/graduates felt more aesthetic emotions while watching the poetic short film that was assumed to be an aesthetic object. To do so, two reasons were examined that may account for such a difference. It was argued that the professional expertise and the type of art education may hinder one to experience aesthetic emotions. Moreover, three approaches to art education including, traditional art education, arts integration education and aesthetic education, were discussed.

Keywords: aesthetic emotions, aesthetic evaluation, aesthetic education, aesthetic object and art education

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Introduction

The goal of the current study was to investigate the influences of education on aesthetic emotions and aesthetic evaluation. To do so, art and non-art students and graduates were compared in terms of their aesthetic emotional responses and aesthetic evaluation of an aesthetic object.

Artistic involvement and performance are fueled by aesthetic emotions and aesthetic experiences. Artists feel aesthetic emotions as they create artworks and, similarly, their audience may experience the same or similar types of emotions when they are exposed to the works of art. Aesthetic emotions are not elicited solely by involvement with art, they can be aroused in response to a beautiful object, a natural beauty or even academic findings.

Research shows many factors play a role in the birth of emotional responses in viewing aesthetic objects. In additions to the specific situations and contexts that may affect immediate emotional responses, it seems there are other factors that shape emotions and thoughts. McManus and Furnham's study (2006) reveal that "education, background and personality" play a significant role in shaping "aesthetic activities and aesthetic attitudes" (p.555). Aesthetic emotions and aesthetic evaluations are tools that enable art encounters to deeply feel and evaluate works of art.

The general importance of aesthetic emotions is that they show a large number of emotions that represent one's sensitivity to feel and one's ability to judge aesthetic objects, and through such tools one can enjoy or dislike viewing aesthetic objects. Aesthetic emotions include "prototypical aesthetic emotion, epistemic aesthetic emotion, animation aesthetic emotion, nostalgia aesthetic emotion, relaxation aesthetic emotion, sadness aesthetic emotion, amusement aesthetic emotions, and negative aesthetic emotions" (Schindler et al. 2017, p. 28).

The level of Prototypical aesthetic emotions that one experiences, shows the extent to which one is moved, impressed or surprised by an aesthetic object. Furthermore, Epistemic aesthetic emotions imply to one's ability to sense a deeper meaning that an aesthetic object may have intended to convey. On the other hand, animation aesthetic emotions are the ones that energize individuals to act and show a reaction in response to viewing an aesthetic

object. Nostalgia and relaxation aesthetic emotions make one feel sentimental, nostalgic, relaxed or calmed. Amusement aesthetic emotions as its name suggest referring to the emotions that may result in a state of happiness and amusement. Although it may seem negative aesthetic emotions are not aesthetic motions at all, they reveal the degree to which one experiences and responds to the presence of ugly and oppressive elements in an aesthetic object, so they still can be indicators of emotional responses to beauties.

The specific importance of aesthetic emotions in educational context lies in an idea that emotions should be learned and educated (Macmurray as cited in McIntosh 2015). They do not come into existence by chance. Like other skills, to feel aesthetic emotions and to be able to evaluate aesthetic emotions thoroughly with great care, one needs to be exposed to beauty and notice the beauty. The role of art education is to allow students to encounter beauty, practice feeling aesthetic emotions and learn how to judge aesthetic objects. It was already Dewey (2005) that drew attention to the arts as an experience in his philosophy of art education. However, it seems traditional art education fall shorts in triggering aesthetic emotional sensitivity because its primary goal is to teach art students to acquire skills that are required to perform some tasks like painting or singing. Learning to notice details of aesthetic objects and paying attention to aesthetic emotions that may be aroused in response to aesthetic objects and during artistic activities has been neglected in educational contexts.

It was not until recently that the lack of such attention was noticed in art education. Traditional art education places emphasis on the acquisition of skills to perform the arts while the new approach (aesthetic education), which was developed by Greene (2001) turned attention to the experience of art as an eye-opening process. Stimulus that allow individuals to feel experience of art are imbedded in the arts, but it is demanded to be attended and to be noticed; it does not happen on its own. Aesthetic education provides authentic art experience which, in turn, makes people who are involved with the arts more receptive to feel aesthetic emotions. Some research shows how encountering with the arts and beauty transform the way one feels emotions (Oatley, 1999; Kuiken et al., 2004; Mar et al, 2006). In addition, being engaged with art activities can transcend one's spiritual self and makes one feel aesthetic emotions. For example, reading fictions may inspire people

to empathize more with the others and identify themselves through imagining to be a character of the fiction (Djikić et al. 2009).

Aesthetic education has been applied and practiced at Lincoln Center Institute since 1975. Aesthetic education is defined as "an intentional undertaking designed to nurture appreciative, reflective, cultural, participatory engagements with the arts by enabling learners to notice what is there to be noticed, and to lend works of art their lives in such a way that they can achieve them as variously meaningful" (Greene 2001, p. 6).

Having discussed different dimensions of the place and role of aesthetic emotions and aesthetic education, it seems it is important to learn how and to what extent involvement with the arts influences one's emotional responses to an aesthetic object. As mentioned above many studies have reported the impact of art exposure to the works of arts. However, a few studies have investigated the influences of art education and expertise on emotional response. Thus, firstly, the present study tries to find out what are the differences in the levels of aesthetic emotional responses of art and non-art students/graduates. Secondly, it will explore the nature of interaction between aesthetic emotions and aesthetic evaluations. Finally, an argument will be also set out to delineate the possible causes of differences in aesthetic emotional responses and aesthetic evaluation reactions of art and non-art students/graduates.

Literature Review

The literature review begins with by defining aesthetic emotion and categorization of aesthetic emotions. Then, it seeks to identify the origin of aesthetic emotions. Next, practice and methodology of aesthetic education are discussed. After that, the relationship between Aesthetic emotions and aesthetic education are explained. Then, a definition of aesthetic evaluation is presented, followed by a discussion of the connection between aesthetic emotions and aesthetic evaluation. Furthermore, it considers the impact of art on individuals and society. Finally, it provides information on theoretical models than can be applied as a framework by which one can explain the results of the present studies.

2.1 Aesthetic emotions

Aesthetic emotions encompass a spectrum of different emotions “which can arise when a person perceives and evaluates a stimulus for its aesthetic appeal or virtues” (Menninghaus, Wagner, Jacobsen & Koelsch, as cited in Schindler et al. 2017, p.2). In other words, when an individual is exposed to an aesthetic appeal, an aesthetic emotional response can take place and be felt. These include a wide range of emotions (e.g. sublime, awe, enchantment, boredom). Beyond this basic definition, an agreed definition on the ground of jointly adequate features is hardly found in exiting literature and the reason is that such emotions lack distinctive boundaries (Fehr & Russell, 1984; Shaver, Schwartz, Kirson, & O'connor, 1987).

Different categorizations of emotions have been suggested, however, there are features that most scholars attribute to prototypical aesthetic emotions. Schindler et al. (2017) based on reviewing so many articles sort aesthetic emotions into five broad subclasses of the prototypical aesthetic emotions, the pleasing emotions, the epistemic emotions, the negative emotions and the single self-forgetful emotion. Each subscale includes a different number of aesthetic emotions as follows:

“The prototypical aesthetic emotions are: (1) feeling of beauty, (2) liking/attraction, (3) captivation, (4) being moved, (5) awe, (6) enchantment/wonder, and (7) nostalgia/longing; the pleasing emotions are: (8) joy, (9) humor, (10) vitality/arousal, (11) energy, and (12) relaxation; the epistemic emotions are: (13)

surprise, (14) interest, (15) intellectual challenge, and (16) insight; the negative emotions are: (17) feeling of ugliness, (18) disliking/displeasure, (19) boredom, (20) confusion, (21) anger, (22) uneasiness/fear, and (23) sadness; and the single self-forgetful emotion is: (24) flow/absorption” (p.16)

Having looked at a categorization of aesthetic emotion, the question is that what role such emotions play in our experiencing of the arts. Our aesthetic pleasure to the great degree is dependent to the levels of feeling aesthetic emotions. In other word, “Emotions accompany and inform our experiences of art, literature, music, nature, or appealing sights, sounds, and trains of thought more generally” (p. 1). Indeed, our emotional responses account for how we perceive, process and feel aesthetic objects (see, for example, Freedberg & Gallese, 2007), we see and feel the world and its beauties through the eyes of aesthetic emotions.

It is also important to make a distinction between emotional states and emotional traits. Emotional states refer to temporary feelings while emotional traits and personality traits, according to Plutchik (1980), overlap and indicate more permanent personality characteristics. It is true that aesthetic emotions are temporary, but it is evident that permanent personality traits fuel one’s immediate emotional and appraisal responses.

Moreover, research shows that different forms of art induce different aesthetic emotions (Miu, Pițur, and Szentágotai-Tătar, 2016), for example, looking at painting is more attributed to “increased frequency of wonder” while listening to music is more associated to “decreased frequencies of joyful activation and power” (p.7). As a result, exposure and involvement with different forms of arts produce different aesthetic emotions and the impact of such involvement can be varied. Many artists reported the impact of being engaged with art activities in helping them to cope with hart times of their lives and feeling calmed and relieved after production or consuming of works of arts.

2.2 Origin of aesthetic emotions

Aesthetic emotions are created in emotional response to the congruence of colors, sounds, smells and harmonic movements. They differ from other types of emotion in that they do not aim to accomplish practical social functions. In other words, the pleasure is the means and the goals of the feeling of beauty. Although, we cannot apply our “standard of beauty” to animals, it is evident that even animals react to proportionate mixtures of color, sound and smell. However, their reaction is not derived by intellectual power and they are not able to distinguish consciously beauty from ugliness. Male birds make their feathers colored to attract females and the whole process seems to be derived by instinct faculty rather than conscious effort (Clay, 1908). Therefore, it seems aesthetic emotions are felt by all creatures in different ways.

Art overlaps natural beauty in many respects including the fact that both are shaped by combining color, sound and smell and both act as a stimulus and give us a sense of pleasure. However, here, the mind is in charge to find beauty in them. As asserted by Clay (1908) “The richer the mind, the wider the experience, the deeper the stored impressions of the memory, so the greater the response to beauty when once the emotion has been touched and the rich store of association tapped” (P.290). Not only human beings, but also animals, plants and all creatures are harmonized by feeling aesthetic emotions via conscious or instinctive processing of stimulus or an appeal.

2.3 Aesthetic education

There is a contrast between ‘artistic’ and ‘aesthetic:’ the former refers mostly to the production of artwork, while the latter is attributed to noticing, sensing and evaluating beauty embodied in artworks (Dewey 2005). A review of existing literature reveals that approaches toward art education fall into three distinctive categories (Bose 2008). However, there remains some areas of overlap, as well. The first approach places emphasis on “skill development and performance”, where students learn how to play a musical instrument or act in a play. They gain expertise through deliberate and constant practice (Ericsson, 2006). The second approach is the so-called “arts integration”, an interdisciplinary approach through which a variety of disciplines are integrated “to solve

problems and make meaningful connections within the arts and across all disciplines.” (Bose 2008, p. 49) The last approach is aesthetic education, which was developed by Greene and has been applied and practiced at Lincoln Center Institute since 1975. Aesthetic education is defined as "an intentional undertaking designed to nurture appreciative, reflective, cultural, participatory engagements with the arts by enabling learners to notice what is there to be noticed, and to lend works of art to their lives in such a way that they can achieve them as variously meaningful" (Greene 2001, p.6).

Greene believes that engagement with art requires a “specific kind of noticing, heeding and attending” which in turn stimulates wide-awakeness (2001, p.190). In other words, authentic art experience can awaken learners to their feelings, emotions, and thoughts. A close-knit construct to wide-awakeness, is mindfulness (Van Gordo, 2017). Wide-awakeness is a construct from education that seems to be linked to mindfulness, which is a construct from psychology that has recently received a great deal of attention. Mindfulness can be accomplished through many techniques:

“sitting, standing, walking, and lying down; using attitudes of not doing; deep listening, pondering, and radical questioning; guided imagery and active imagination; exercises with the body; focusing techniques such as those developed by Eugene Gendlin; concentrated language experiments with freewriting, poetry, and journals; beholding; and creation of visual images to represent such experiences” (Haynes, Irvine & Bridges, 2013).

Moreover, Aesthetic education can increase one’s savoring experience. Savoring is defined as the application of thoughts and actions in order to maximize the continuation and intensity of positive experiences and emotions. Positive psychology pays special attention to the potential benefits of savoring in promoting individual well-being. It is stated that “savoring is not merely the experience of positive emotions, but the deliberate effort to make a positive experience last” (Bryant et al. 2011). It is “the mental act or attitude of being sensitive to harmony and the activity to search for it is termed savoring” (Frijda and Sundararajan 2007, p.228)

It is also believed that feeling aesthetic emotions play a part in helping one to adjust to life difficult situations. For instance, feeling melancholy which is induced by combination of sadness and joy can constitute an aesthetic emotion that comes into play to alleviate one's pain and help one to become adjusted to and tolerate tragic situations (Brady & Haapala, 2003).

These broader effects may explain why Greene (2001) holds firmly to the belief that aesthetic education/contemplative practice should be central in all education. She asserts that aesthetic education does not only emphasize acquiring skills, but also enables students to notice nuanced, beautiful things and raise their awareness of the intellectual and emotional processes that are occurring in their mind. In other words, aesthetic education makes individuals sensitive to beauty and art, and increases the level of felt aesthetic emotions.

2.4 Aesthetic emotion and education

In his article, Fiske (1999) pinpoints the important role of doing artistic activities in facilitating students' learning and achievements. He maintains that extracurricular art activities outside schools of the US are not effective enough to let students practice and understand genuine aesthetic experience. The study describes positive effects of student's collaboration in the context of opera on their understanding of how works of arts communicate, concluding that involvement with art should gain a central role in learning experience. However, what is not yet clear from this research is why and how student's collaboration in the context of opera affected their understanding of the arts and what exactly were the elements that contributed to this outcome. Fiske (1999) believes further research is required to shed light into the mechanisms and processes of involvement with art that result in developing a taste to enjoy and capacity to appreciate meanings of intricate works of art.

Fayn et al. (2017) provide some insights on these issues in a study investigating the emotional responses of students/graduates ranging from broad experience in art and art activities to students/graduates with minimal experience of exposure to art. The results show that positive emotional differentiation relates to a tendency to inquiring uniqueness

and intricacy of art while negative emotional differentiation resulted from expertise and mastery in art. The results lend support to the view that deeper understanding of art is associated with more delicate emotional experience. On the other hand, experts are inclined to appreciate negative artwork. Negative artwork in this context refers to those artworks which contain unpleasant themes and styles.

One role of art education may therefore be to improve one's imagination and enhance one's ability to feel and evaluate emotions ("Aesthetic emotions," 2018). Macmurray (as cited in McIntosh, 2015) suggests that that emotional education should receive more attention in educational contexts and that arts education provides opportunities to do so. Emotions including the emotions or emotional experiencing, like a skill, are required to be learned through interaction and exposure to a wide variety of artistic forms and contents. "well-educated emotions are more likely than ignored, suppressed or uneducated ones to assist children in developing the ability to be self-motivated and to sustain long-term relationships" (p.59). Meaningful and purposeful art education can bring forth developing emotions that help individuals to live in harmony with environment. Acquiring artistic skills should therefore not be the main or only goal of art education and in addressing the focus should not be placed solely on developing stereotypical emotions within confined definition and scope of art thus allowing art education to transcend "adequate emotions and value judgements" (p.2013).

Bergmann (1994) draws a distinction between subjective and objective opinions, asserting that the goals of education are to "let students learn to 'give form' to their feelings as opposed to simply exploring them. The goal of the arts education program, then, is to help students experience the arts from the perspective of human subjects, yet still not lose sight of the objective qualities of the art's aesthetic qualities, for it is these qualities that make arts education possible." (P.17. 26)

Art students may become involved in analyzing a poem, for example, and simultaneously and subconsciously ignore noticing the art experience that is likely to be aroused in reading that poem. Or, art students may keep talking about social, cultural and religious values of art and not feel the subjective qualitative aesthetic experience of emotions. Therefore, some experiences of art may not lead to aesthetic emotional responses. "If one goal of education

is to improve the quality of life through aesthetic experiences, then it will be important to determine what such experiences feel like, focus on, and require” (“Aesthetic Experience,” 2018, p.5). Insights in such experiences may be obtained from looking at evaluation of aesthetic objects more closely.

2.5 Aesthetic evaluation

Aesthetic emotions are in fact “aesthetically evaluative emotions” (Menninghaus et al n.d. as cited in Schindler et al. 2017), and the reason is that aesthetic emotions coexist with aesthetic judgment (Goodman,1976). In other words, to aesthetically feel an aesthetic object, one needs to evaluate it upon which their feelings toward the object come into existence (Schindler et al. 2017).

Pouivet (2000) and Lazarus (1982) observe that aesthetic emotions are built upon aesthetic judgment and reject the view that aesthetic emotions are pure feelings. Pouivet (2000) contends that:

- * emotions are not purely private mental states
- * emotions are rational
- * certain emotions are cognitive (and may be experienced in the field of science as well as in the field of aesthetic experience)
- * aesthetic pleasure and the cognitive dimension of aesthetic experience have a direct connection (P.49).

Research shows that experts tend to appreciate negative artworks and distinguish negative emotions more than non-expert. “Thus, at least in the arts, in support of Kant’s beliefs in the priority of cognition, expertise lowers the immediacy of emotions influencing aesthetic appreciation” (Leder, Gerger, Brieber, & Schwarz 2014, P.1146).

2.6 The impact of art on individuals and society

Aristotle gives a description of how going to the theater has a considerable positive influence on audience. Kant’s philosophy sets out an argument that it is the quality and form of object itself not one’s apprehension of it that gives rise to receiving the pleasure.

Nonetheless, John Dewey (2005) calls attention to aesthetic experience and argues that “aesthetic experiences are the most complete, the richest, and the highest experiences possible. One is actively engaged and conscious of the world's effect on one but at the same time appreciative of one's possibilities for acting on the world. One senses an organization, coherence, and satisfaction as well as an integration of the past, present, and future that ordinary nonaesthetic experiences lack” (P.1). Theorists like David Hume (1987) and Frank Sibley (1959) assert that to be able to properly judge an aesthetic object, one needs to own sensitivity, talent, artistic taste and open-mindedness. Not everyone is capable of perceiving and valuing aesthetic objects.

Art experience can have altering and transcending impact on individuals and society. However, it is believed that although empirical studies have partly delineated the “cognitive and emotional mechanisms” behind such impact, as yet we have not taken a panoramic and complete picture that accounts for the complexity of aesthetic experience. Understanding the interplay between involvement with art and individuals helps to find out how the effects occur (Belfiore, & Bennett, 2007). “The ‘determinants of impact’ are divided into three groups: those that are inherent to the individual who interacts with the artwork; those that are inherent to the artwork; and those that are extrinsic to both the individual and the artwork, and which we might refer to as ‘environmental factors’” (p.261).

When one travels to another imaginary fairy world and experiences other fascinating living situations through reading a fiction, one develops a sense of dissatisfaction that probably stimulates one to take an action and make a change (Gaiman, 2013). In a study by Djikic, Oatley, Zoeterman, and Peterson (2009) fiction readers were compared with non-fiction readers to explore the effects of reading fiction in changing emotional experiences in a laboratory condition and the results revealed that the experience of reading fiction transforms emotional states. Even though the study was conducted under laboratory condition, it seems reasonable to accept the view that such exposure to this literary genre, if continued for a longer time, may lead to more significant changes in traits and attitudes. In short, reading fiction through imitation (Oatley, 1999) and self-identification (Kuiken et

al., 2004) can encourage positive qualities and better social behavior (Mar, Oatley, Hirsh, dela Paz, & Peterson 2006).

Some experimental studies have also been conducted to shed light to the effect of certain interventions under library conditions on emotions, thoughts, behaviors, attitudes, etcetera. For instance, in a study conducted by Martínez-Martí, Avia, & Hernández-Lloreda (2018), “randomized-controlled trial web-based intervention” was employed to explore the effect of exposure to beauty in increasing some dimensions of “appreciation of beauty and well-being” (p.11).

Another study (Proyer, Gander, Wellenzohn, & Ruch, 2016) examined the effect of “9 beautiful things” intervention on happiness and well-being. It was reported that the intervention increased happiness and alleviated depression at least for the short term. It was argued that aesthetic education can increase such interaction and maximize positive impact on personality strengths.

Nonetheless, the role of “education, personality and demographic factors such as social class, age and sex” should not be ignored when the impact of art activities on individuals is assessed. For example, a research reports the impact of some personality traits and social status on “aesthetic activity and aesthetic attitudes” (McManus & Furnham, 2006, P. 555).

In their research, Acer & Ömeroğlu (2008) tried to investigate the effect of aesthetic education on developing aesthetic judgment of children aged six-years-old. The results broadly support the view that aesthetic education can have a considerable impact on participants’ aesthetic judgment. Moreover, it was observed that a few months after the intervention children used more art-related concepts.

2.7 Theoretical Model

Even though personality types and traits largely determine differences in emotional responses (McManus & Furnham, 2006), experimental studies show that even under laboratory conditions, encounters with beauty and aesthetic objects can retain the positive impact of being exposed to the aesthetic objects (Martínez-Martí, et al. 2018; Proyer, et al. 2016)

Appraisal theories of emotion (Lazarus, 1991; Roseman & Smith, 2001; Scherer, 2001a as cited in Silvia, 2005) may help to shed light into the processes and mechanisms through which perceiving emotions and emotional responses to art take shape.

Appraisal theories of emotion underline the role of evaluation of events and cognition in experiencing emotions. Emotions are aroused not only because they are stimulated directly by events, but also because they occur simultaneously as they are evaluated by cognitions before being perceived or felt. Emotions also have ties with practical tasks of everyday life (Ekman, 1992; Duffy, 1934 as cited in Silvia, 2005). So, context is the key factor in the birth of emotions (Roseman & Evdokas, 2004 as cited in Silvia, 2005). Appraisal theories consider a wide spectrum of emotions such as “happiness, interest, surprise, awe, anger, fear, sadness, shame, guilt, disgust, contempt, and embarrassment” (Ellsworth & Scherer, 2003 as cited in Silvia, 2005, p.347) and reject the idea that “collation and arousal” are the only factors in the creation of emotions. Furthermore, the theory makes it clear that one can notice the complexity of stimulus only if one has the ability to identify the object as a complex matter, and hence shows an aesthetic emotional response to it. (Berlyne, 1971a).

It is believed that studying emotions is more troublesome than decoding concepts and the reason is that they are neither steadily fueled by commonsense, nor do they take place through consciousness. As a result, measuring aesthetic emotions is not easy at all (Perlovsky, 2014)

The previous studies have mostly shed light on the influences of education, background and personality on aesthetic activities and attitudes, as well as the correlation between personality traits and aesthetic emotions (see, for example, McManus & Furnham, 2006 and Fayn et al. 2005). However, only a few studies have examined the influences of education and expertise on aesthetic emotions. Therefore, the current study intends to answer the following research questions:

Research Questions

1. Is there a significant difference between art and non-art students and graduates in terms of their experience of aesthetic emotions?

2. Is there a significant difference between art and non-art students and graduates in terms of their aesthetic evaluation?
3. Does prior education change students and graduates' emotional responses to an aesthetic object?
4. How do students and graduates see the influence of prior education on their emotional responses to an aesthetic object?

Methodology

To carry out the study, two groups of art and non-art students and graduates participated in the study by watching an artistic and poetic short film, then completing a survey (AESTHEMOS). Aesthetic emotions scale (AESTHEMOS) (Schindler et al, 2006) was employed to assess the aesthetics emotions that were aroused while watching the video. The participants were also asked to grade the movie on the scale of 1 to 5 based on the extent to which they enjoyed the short film. Moreover, they answered an open-ended question regarding the influence of their exposure to art on their emotional responses to aesthetic objects, both art and natural beauty.

3.1 Participants

Twenty-three art students and graduates and 18 non-art students and graduates took part in the study. Most participants were completing their degrees at The Arts Academy of Turku and The University of Turku, in Finland. Some subjects from other countries participated in the study by watching the short film and responding to the questionnaire online. The participants were from Finland, China, Taiwan, Mexico, Georgia, Austria, France, the United States and Iran. Participant ages ranged from 19 to 48.

3.2 Materials and instruments

Aesthetic emotions scale (AESTHEMOS) (Schindler et al, 2017) was employed to assess the aesthetics emotions. The purpose of developing the scale was to capture a spectrum of general aesthetic emotions which became evident and that were linked to different forms of art, not a specific kind of art or genre in literature. Therefore, it can be applied to measure the general domain of aesthetics (Schindler et al, 2017).

Two parts were added to the original survey. First, a question was developed to find out how art and non-art participants evaluate an aesthetic object, which in this study was an artistic short film. Second, another question was added which triggered participants to reflect on the impact of art education or being involved with art activities on their emotional responses. To translate the questionnaire, it was first translated from English into Finnish

and then translated back to English by different translators. There were some inconsistencies in translations that were resolved by consulting with the translators. Some participants' mother tongues were neither Finnish nor English, in these cases they answered English version.

The scale consisted of forty-two questions, twenty-one subscales and the following seven superordinate subscales: prototypical aesthetic emotion, epistemic aesthetic emotion, animation aesthetic emotion, nostalgia aesthetic emotion, relaxation aesthetic emotion, sadness aesthetic emotion, amusement aesthetic emotions, and negative aesthetic emotions. the seven superordinate subscales include a wide variety of aesthetic emotions that are measured through 42 questions. The superordinate subscales and the items belong to them in the current scale can be seen in Table 1.

Table 1

Seven subscales of aesthetic emotions scale (AESTHEMOS)

<p><i>Prototypical aesthetic emotion:</i></p> <p>1. I found it beautiful 6. Liked it 7. Fascinated me 11. Baffled me 14. Felt deeply moved 29. Surprised me 34. Was impressed 36. Felt touched 40. Felt awe;</p> <p><i>Epistemic aesthetic emotion:</i></p> <p>2. Challenged me intellectually 5. Made me curious 10. I Was mentally engaged 13. Sensed a deeper meaning 21. Felt a sudden insight 38. Sparked my interest</p> <p><i>Animation aesthetic emotion:</i></p> <p>8. Felt something wonderful 9. Invigorated me 16. Energized me 18. Was enchanted 32. Spurred me on 41. Felt motivated to act</p>	<p><i>Nostalgia and relaxation aesthetic emotion:</i></p> <p>4. Calmed me 20. Relaxed me 26. Made me feel sentimental 28. Made me feel nostalgic</p> <p><i>Sadness aesthetic emotion:</i></p> <p>15. Made me feel melancholic 23. Made me sad</p> <p><i>Amusement aesthetic emotions:</i></p> <p>3. Delighted me 22. Amused me 39. Made me happy 42. Was funny to me</p> <p><i>Negative aesthetic emotions:</i></p> <p>12. I found it ugly 17. Made me angry 19. Bored me 24. Felt confused 27. Worried me 30. Felt oppressive 33. Felt indifferent 35. I found it distasteful 37. Was unsettling to me</p>
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To develop the scales the researchers considered some criteria upon which a group of aesthetic emotions were chosen. They chose only emotions that recipients not only perceive but also feel in response to an aesthetic object. Unlike utilitarian emotions (Scherer, 2004; Scherer, 2005), aesthetic emotions have genuine aesthetic appeal and are not elicited to meet any personal goals, this feature was considered in selecting aesthetic emotions. Moreover, the researchers excluded the contact senses of touch, taste, and smell because they may bring about feeling some emotions, but in a strict sense, they are not aesthetic emotions. (Chrea et al, 2008; King & Meiselman, 2010). Research shows that aesthetic emotions are felt through the use of aesthetic evaluation of a stimulus (Gerger, Leder, & Kremer, 2014; Wagner, Menninghaus, Hanich, & Jacobsen, 2014) and this was another feature which was considered in choosing aesthetic emotions.

The participants also answered to the questionnaire after watching a short film. The short film entitled "Reflections" (<https://vimeo.com/64537880>) was directed by Steven Blatter & William Morris. The caption of the film reads "'Reflections' is an 8-minute poetic celebration of one man's relationship with and respect for his environment and the lake beside which he lives. That man is Swiss stand up paddle champion Steeve Fleury, and his environment is the endlessly captivating Lake Geneva." The video was released by Vimeo which is a website and community that claims its major goal is to share high-quality videos. Some viewers gave their comments on the video, in the comments section of Vimeo too:

- “●Really enjoyed watching this, the foley really adds to the atmosphere, gorgeous :)
- GREAT VIDEO WHAT IS THIS SONG CALLED?
- I felt all the movement and your heartbeat. Thanks for the inspiration!
- Wouahhh....magnifique!
- Awful! really really AAAAAAwful!
- saw your film. Your work is amazing...
- quiet beauty”

To choose the video, a group of artists were asked to give their comments on its contents and style and their views were quite positive. In addition, people wrote comments on the

website where it was released and admired the work. A critical review of the short film may shed some light onto some aspects of the short film. A poem recited throughout the film. A part of it is as follows:

It spreads through me
Like a droplet flowing across the earth
Its water runs through my veins
It never leaves me
It helps me forget
It soothes me
It takes me to nearby lands
It is as broad as an ocean that can be crossed in a day
It surrounds me
It mirrors my gaze, yet takes it in
It is clear, it is cloudy
It asks for nothing
It is like a deserted highway...

A close look at the poem and the film reveals that there are visual equivalents for every verse of the poem. The lake is the metaphor which is used to describe the man's life. The film is divided into two parts when the lake is calm and when it rages, like life which has ups and downs and like our emotions that vary from time to time. The division is marked when the man dives into the lake and then steps on the island. The island can symbolize a transition in one's life or moods. The poem refers to the vastness of the lake and at the same time wide scenes are shown: "It is like a deserted highway/ Like a realm without borders". Like our emotions, the lake is clear and cloudy, which represents a contrast inside the man's soul.

The poem and the film celebrate the magnificence of nature, while at the same time it seems to celebrate the glory of eternity of man's soul; "Like a realm without borders/It belongs to no one." In the scenes that show restless lake, it reads aloud: "I am the lake/The lake is me." So, the lake can be considered a metaphor that is used by the film maker to describe the man's emotional experiences, and his interaction with his environment.

The music was like the sound of heartbeats, which may convey that while paddling and throughout life the heartbeats accompany us and keep us alive. One viewer commented on the Vimeo website as to its music: “the foley really adds to the atmosphere, it is gorgeous”. Foley means “of or having to do with the creation or editing of sound effects for the soundtracks of films” (“Collins dictionary,”1986).

The researcher did not use a famous or well-known short film because this could have had an impact on participants’ emotional responses. For example, if a movie by Steven Spielberg which was previously familiar to participants, it is likely that this may have affected their emotional responses. To summarize, we can claim that the movie had at least some elements of an aesthetic object and cannot easily claim that it was a low-quality movie.

3.3 Procedure

Participants in the study first watched an artistic video (<https://vimeo.com/64537880>) and after that answered to the questionnaire. The first part of the questionnaire (AESTHEMOS) Asked about demographic information. The second part included 43 questions and assessed the aesthetics emotions that were aroused while watching the video. The third part were two open-ended questions that asked the participants to reflect on the influences of prior education on their emotional responses in viewing aesthetic objects.

3.4 Reliability Statistics

It should be noted that in the first attempt to run reliability statistics with original items of AESTHEMOS, the results were not satisfactory for two subscales. Therefore, Items E22 and E42 of amusement subscale and Item E37, E24 and E27 of negative subscales were deleted to increase their reliability.

Cronbach's Alpha shows internal consistency in measurement. To be reliable it should be $p > .7$. The prototypical emotions consisted of 9 items ($\alpha = .84$), the epistemic emotions subscale consisted of 6 items ($\alpha = .85$), the animation emotions consisted of 6 items ($\alpha = .87$) and the nostalgia/relaxation consisted of 4 items ($\alpha = .82$). Cronbach's alphas for 2

sadness, 2 Amusement and 7 negative emotions items were .81, .72 and .71 respectively. Therefore, the 7 aesthetic emotions subscales were found to be reliable.

3.5 Data analysis

After the data were collected, a t-Test procedure and Mann-Whitney U were applied to compare art and non-art students and graduates in terms of their aesthetic emotional response to the short film. The reason to use Mann-Whitney U as a non-parametric method was that The Skewness and Kurtosis of some subscales were above the standard criteria. Mann-Whitney U was also used to analyze the aesthetic judgment rating question.

Some participants gave their perspectives on the influences of art education and training on their aesthetic emotional responses toward aesthetic objects. Content based analysis was utilized to categorize the themes that were evident among responses. Five themes were extracted through carefully reading and analyzing the answers by two participants. Two participants conducted analysis to increase the reliability of the procedure.

Results

4.1 Descriptive data

Table 2

Descriptive statistics for aesthetic emotions subscales

Aesthetic Emotions	Total			Art students			Non-art students		
	Md	Mean	Std. Dev.	Md.	Mean	Std. Dev	Md.	Mean	Std. Dev.
Prototypical	3.00	2.87	.756	2.56	2.63	.71	3.33	3.21	.698
Epistemic	3.00	3.01	.929	2.83	2.76	1.00	3.17	3.35	.721
Animation	2.67	2.62	.936	2.50	2.55	.94	2.67	2.73	.937
Nostalgia Relaxation	3.00	3.06	1.002	2.50	2.66	.96	3.50	3.62	.781
Sadness	1.50	2.02	1.151	1.50	1.75	1.04	2.50	2.41	1.215
Amusement	3.00	2.82	1.017	2.50	2.62	1.05	3.50	3.09	.939
Negative	1.43	1.50	.482	1.36	1.51	.51	1.43	1.50	.458

Table 2 shows means and standard deviation. for all participants, including both art and non-art students. The Skewness (-1.021) and Kurtosis (1.063) of prototypical emotions subscale for non-art students are each above 1. Similarly, Skewness (1.679) and Kurtosis (1.931) of sadness emotions subscale for art students and Skewness (1.954) and Kurtosis (3.821) of negative emotions subscale for the same group are also above 1. In addition, Kurtosis (-1.091) of nostalgia/relaxation for non-art students is above 1. These figures suggest that the data are not normally distributed, and therefore non-parametric techniques will be applied to compare art and non-art students in these cases. The data for Epistemic, Animation, and Amusement are all normally distributed, so parametric techniques will be employed these cases.

4.2 Comparing art and non-art students/graduates' aesthetic emotions using a parametric technique

Table 3

Comparing art and non-art students/graduates

Variable		art students (n=24)	non-art students (n=17)	t-value	df	p
Epistemic emotions	M	2.76	3.35	-2.083		.044
	SD	(.994)	(.721)			
Animation	M	2.55	2.73	-.591		.558
	SD	(.949)	(.937)			
Amusement	M	2.63	3.09	-1.457		.153
	SD	(1.045)	(.939)			

An independent-sample t-test was conducted to compare various types of aesthetic emotions (epistemic emotions, animation, nostalgia/relaxation and amusement) scores for art and non-art students. There was a significant difference between the scores of epistemic emotions for art students (M=2.76 SD=.994) and non-art students (M=3.35 SD=.721; $t(39) = -2.083$, $p = .044$). However, there was not significant difference between the scores of animation emotions for art students (M=2.55 SD=.994) and non-art students (M= 2.73 SD=.937; $t(39) = -.591$, $p = .558$, two tailed). Likewise, no significant difference was observed in scores of amusement emotions for art students (M=2.63 SD=1.045) and non-art students (M= 3.09 SD=.939; $t(39) = -1.457$, $p = .153$, two tailed).

4.3 Comparing art and non-art students/graduates' emotions using a non-parametric technique

A Mann-Whitney U Test revealed significant difference in prototypical emotions of arts (MD=2.56, n=24) and non-arts students (MD=3.33, n=17), $U=103.500$, $z = -2.665$, $p = .008$ $r = 0.42$. Correspondingly, significant difference was observed between nostalgia/relaxation emotions of arts (MD=2.50, n=24) and non-arts students (MD=3.50, n=17), $U=90.000$, $z = -3.027$, $p = .002$ $r = 0.47$. Likewise, A Mann-Whitney U Test revealed significant differences

between the sadness emotions of arts (MD=1.50, n=24) and non-arts students (MD=2.50, n=17), $U=129.500$, $z= -2.026$, $p: .043$ $r=0.31$. The r values for the above-mentioned aesthetic emotion types are more than .3, so they would be considered medium effect size according to the Cohen (1988) criteria. However, A Mann-Whitney U Test revealed no significant difference in negative emotions of arts (MD=1.36 n=24) and non-arts students (MD=1.43, n=17), $U=202.500$, $z= -.040$, $p: .968$.

4.4 Comparing art and non-art students/graduates' aesthetic evaluation using a parametric technique

A Mann-Whitney U Test also showed significant difference in the grade scores of arts (MD=3.00, n=16) and non-arts students (MD=4.00, n=15), $U=65.500$, $z= -2.278$, $p: .023$ $r=-0.41$. The r value for this variable is more than 0.1 so it would be considered medium effect size according to the Cohen (1988) criteria.

4.5 The influences of education on emotional responses

1. Do you think your prior education has changed your emotional responses when you view art? What about when you view natural beauty?
2. If It has, could you describe how your education has influenced your emotional responses?

Participants, both art and non-art students/graduates, who had some background in art activities, answered the above questions on the influences of education on their emotional responses to art and natural beauty. Their responses revealed interesting patterns and exceptions. Their responses can be categorized into four groups. That is, Three, seven, zero and two of art participants' responses and one, three, two and one of non-art participants' responses fit into these categories respectively. The four categories are as follows:

1. Those who believed involvement with art has not significantly affected them and it has only helped them to improve their sensitivity toward art and natural beauties. Some said they were always sensitive and emotional, and that this had nothing to do with art

involvements. In the following quotes, respondents are labeled with "A" (an art student respondent) or "NA" (a non-art student respondent).

A2. No, involvement with art has not changed and influenced my emotional responses. I think my strong inner aesthetic emotions and being passionate about natural beauty has directed my interest toward literature and art.

A4. No, I have always been emotional. Education has made it more interesting to think about emotional reactions, but the reactions themselves have always been strong. In my opinion, my emotional reactions primarily affect my life experience, memories and sympathies that are stimulated by art. Maybe training has improved the ability to concentrate on art and the resulting emotional reactions

A6. Art and experience in art have helped to better understand the world and feelings as art evokes feelings and it makes you wonder what emotions are just awake and why. Art education takes you through art from a variety of platforms, which will help you to understand it well, also at the level of the art. My feelings are now clearer to me and I understand them better through all my experience of life and art. With art I can also feel my feelings constructively.

2. Those who reported that art education or being involved in artistic activities even for a short time, have fundamentally transformed the way they respond to aesthetic objects.

A1. Nowadays I can express my emotions in a way just like art and I can differentiate between emotions.

A3. Current education has led me to better understand the art and its beauty. I feel that I am moved very easily. For example: listening to music or watching the theater moves. The way in which performers present something is beautiful to look at, especially if the performer surrenders completely to what he does

A7. Yes, I think so! Before this education I really didn't see or watch any art, but now I can, in a new way, respect and enjoy involvement with art

A8. I would give this grade 3. The video was beautifully made, but the content is quite superficial. Art has been learned to appreciate differently. I've learned that

through art I can express myself in so many different ways ...With all art, which is making the idea of the soul and involved in, is the ability to touch students and graduates. I feel that I have become a more sensitive person when I study art, or my natural sensitivity has just "been allowed to" come out. I currently have so many emotions for many different things.

A10. I think that the studies on theories of music and film studies trained me to view a piece of artwork more critically and analytically, whereas practices of arts such as musical performances and poetry writing triggered my emotional senses. When they, theories and practices, came together I got to learn how to fit myself in the balance between being critical and emotional (or expressive). Also, education on art has enabled me to better verbalize and articulate my feelings and emotions when appreciating a piece of artwork.

A11. Without a doubt, getting to know art and literature opens so many doors for me to experience imagination and to discover truth. It was new experience that increased my self-awareness. In short, involvement with art and literature uplift us somewhere beyond ordinary every day routines. Art has taught me not to be too materialistic and has encouraged me just to enjoy art and beauty.

A12. Yes, both age and studies of art have changed my perceptions and emotional responses toward what I read and watch. Thus, as a critic, I am not easily impressed by any piece of art or literature. Reading and watching many pieces of art with high quality and innovative ideas have made it difficult for me to give him a compliment for producing such an ordinary work.

NA13. I give 4 for this video since it is aesthetic and narrated in a special way. I agree that my prior art education changed my emotional responses. My prior art education aims for the use in kindergarten, color is always bright, and the mood is always high since the audience are mainly 3 to 6 years old. It also makes me more into bright color and optimistic stuffs. Even when viewing the natural beauty, I prefer in a more optimistic way, like bright sunshine, with green landscape and people happily enjoying the view. The given video is very aesthetic from adult's video, but not as aesthetic as in children's eyes.

NA14. Has helped me approach art that is somehow disturbing to me and smoothen the negative emotions raised by it. This happened simply by introducing me to various types of art.

NA15. I think that my education has enhanced my emotions and the perception of beauty. When I see natural beauty I always try to catch it by my eyes and remember it. Later on, when I am trying to relax, I am remembering those “captures” I have made while watching natural beauty. My BA was English language and literature. I read nearly all famous authors that were written, from Geoffrey Chaucer till James Joyce and Samuel Beckett etc. I was trying to perceive all the information from my point of view and was trying not only to write small essays but was painting some episodes. Now I do none of them, but I often catch myself that when I am communicating with a person/people (whom I met recently) I try to catch similarities between this person and one of the characters from books I have read. It does not concern to characters only, but it concerns to everyday situations.

NA17. I think it depends mostly on my parents’ attention to art (museums, operas, movie theatre, music festival) because I had no time when I was younger to take any art classes but now I would love to go to watercolor lessons. I think my parents gave me their interest to understand life and the world in general, but for art it is not only about understanding, but about feeling, letting it come, giving time as well. My mum was mostly attracted by science and sometimes took us to museums, but my dad made us discover strange music that would make me scared, happy or sad... He just confronted us with songs, pieces and asked for opinions and feelings. The classes I had at school were too analytic, and I think they have impacted my ability to feel something in viewing art works.

3. Those who state artistic activities have negatively altered their emotional responses. They do not enjoy viewing arts that much anymore because they pay more attention to technical aspects of creating arts.

NA19. Unfortunately, it (art education) has influenced me and it inhibits my immediate and automatic emotional responses. Art education has shaped my emotional responses in a way that I no longer enjoy the pleasure that art gives me

because for instance you learn to appreciate Bach music, and so you can not enjoy listening to sentimental pop music and you feel it is not quality music and cannot live up to your standards. May be that pop music could be soothing for one who has no knowledge of art, but I cannot enjoy it anymore and it is a pity.

NA20. My knowledge of paintings acts like a sieve and my evaluation of aesthetic objects influences my emotional responses and at times I show less emotional responses to art.

4. Those who have a faith in the impact of being involved with art in exceling and uplifting their spiritual life:

A5. Learning about views of prolific poets, authors, artists and philosophers and learning to analyze literary works were quite eyes-opening experiences. Now, I feel I can notice delicate things that may not appeal to scientists. Seeing the world through the eyes of artists gave me new perspectives and explicitly affected my emotional responses to literary works.

A9. Yes. It has. About beauty I feel and sense deeply the beauty and spirit of natural beauties. I have some experience working with colors. When I paint I feel I can sense trees, sky, and clouds and become enchanted.

NA16. Through a painting course that I took, I learnt that there are so many secrets and stories behind every wrinkle of the face of an old man. Unless I can grasp a solid understanding of life stories, I will not be able to depict real beauty through arts. I learnt to pay attention to details: unless I do notice a wave in a sea, I will not be able to paint the magnificent sea.

One person that majored in non-art subjects described that all fields of study have transformed emotional responses to aesthetic objects emotionally (this person was not considered as a separate category).

NA18. courses, I believe Though I have not taken many technical or practical art that even other courses, be they history, geography, science, etc., all have influenced the way that I see and understand things. The more I learn about something, the more likely I am to find it fascinating and beautiful. For example after reading a fascinating book about the life of trees, this increase in

understanding about the way trees grow and live in various climates and cultures changed the way I respond to trees emotionally. While I have always loved trees and found them wonderful, I feel even more attached to trees after reading the book, finding extraordinary peace amongst them since having furthered my understanding of them. The same is true of different cultures and their art; I am more emotionally responsive to the cultures which I have studied and have more knowledge of. Not to say that I only find cultures I know beautiful, however, I am more likely to have a strong emotional connection to the art and society of a culture which I have a bit of cultural or historical background knowledge of. Of course there will always be art/ natural beauty which I find to be breathtakingly beautiful and captivating, but it is more likely to be on a superficial level, I believe. Therefore, I do think that education is extremely influential in the way individuals view and respond to art.

Discussion

According to the results, the scores of prototypical emotions, epistemic emotions, nostalgia and relaxation emotions, and sadness are higher for non-art students and graduates while negative emotions, animation emotions and amusement emotions seem not to be affected by education and there are no significant differences between the scores of these emotions for art students and non-art students/graduates.

Over all, the scores of non-art students and graduates are higher and the reasons why some subscales like prototypical emotions, epistemic emotions, nostalgia and relaxation emotions, and sadness are higher for non-art participants while there is no significant difference in scores of negative emotions, animation emotions and amusement emotions between two groups cannot be precisely inferred via the current study 'data.

However, analyzing the stimuli may shed light to the roots of such differences. The short film was kind of poetic, abstract and metaphoric and as the answers by English literature students to open-ended questions reveal, it was interesting film for them to watch. It seems the film does not contain any negative elements as the stand-up paddle person celebrates his relationship with the beautiful environments (Lake Geneva) and because of that no significant difference was observed in the scores of negative emotions. likewise, the reasons why no differences were seen in the scores of animation emotions and amusement emotions might be attributed to the nature of monotonous rhythm and contents of the stimuli. Surprisingly non-art students' score of prototypical emotions, epistemic emotions, nostalgia and relaxation emotions, and sadness, which are considered by many scholars, real aesthetic emotions, were higher and the reasons as will discuss in greater detail in the following sections, might be due to the intervention of aesthetic evaluation. Because art participants found the film not quality one, so they did not like it and accordingly did not feel aesthetic emotions through watching it.

Nonetheless, it should be noted that the population of participants was so diverse regarding to their fields of studies, age groups and cultural backgrounds and only one specific stimuli (a short film) was employed in the study. Therefore, these factors may have affected the results.

Moreover, as it was mentioned earlier, the art participants received formal academic education, which is different from non-academic education like attending private art institutes or self-learning and formal academic education may decrease prior interest of students in the subject. So, the art participants of the current study were not necessarily passionate about art activities and may have considered it as a path to obtain a job. Further studies seem necessary to be conducted with groups of artists who have had authentic and meaningful art experience. In that case we can compare the effect of authentic and quality art education on emotions.

Art students and graduates reported experiencing lower aesthetic emotional levels than that of the non-art students/graduates. Likewise, the film was rated lower by art students and graduates compared to non-art students and graduates and these results are in line with the results of the studies (Menninghaus et al. n.d. as cited in Schindler et al. 2017; Goodman, 1976; Pouivet, 2000; Lazarus, 1982; Pouivet, 2000; Leder, Gerger, Briber, & Schwarz, 2014) that emphasized that aesthetic emotions act upon aesthetic evaluation/judgements. In other words, if one rates an object lower accordingly cannot respond emotionally to it.

Through answering the open-ended questions almost all art participants claimed that art education has transformed their emotional response to beauties. The details analysis of their responses are as follows....

5.1 Qualitative part

In the current study participants responded to a question on the influence of art education on their emotional responses to aesthetic objects. Their reports followed similar patterns. One non-art PhD student, (NA19) who had strong background in music, said: “Unfortunately, [art education] has influenced me and it inhibits my immediate and automatic emotional responses.” Some other participants had the same or similar response: “My knowledge of paintings acts like a sieve and my evaluation of aesthetic objects influences my emotional responses, and at times I show less emotional response to art” (NA20). These two responses report a negative impact of becoming master in an art form. Artists become less sensitive to the emotions that are aroused during the time they are

involved with creation of artworks or viewing artworks because they are focused more on technical aspects of artworks.

Additionally, A2 claimed that: “No, involvement with art has not changed and influenced my emotional responses. I think my strong inner aesthetic emotions and being passionate about natural beauty has directed my interest toward literature and art.”. A4 emphasized that: “No, I have always been emotional. Education has made it more interesting to think about emotional reactions, but the reactions themselves have always been strong.” Therefore, they report the impact of personality traits as a main factor in the way they respond to aesthetic objects, rather than art education.

A majority of art students and people who had strong back grounds in the arts reported that art education or being involved with artistic activities even for a short time fundamentally transformed the way they respond to aesthetic objects: “Current education has led me to better understand the art and its beauty. I feel that I am moved very easily [by aesthetic objects]” (A3). Another participant (A7) stated: “Yes, I think so! Before this education I really didn’t see or watch any art, but now I can, in a new way, respect and enjoy involvement with art. Another art student (A10) mentioned the balance he achieved through learning about theories of music and constant practice:

“I think that the studies on theories of music and film studies trained me to view a piece of artwork more critically and analytically, whereas practices of arts such as musical performances and poetry writing triggered my emotional senses. When they, theories and practices, came together I got to learn how to fit myself in the balance between being critical and emotional (or expressive). Also, education on art has enabled me to better verbalize and articulate my feelings and emotions when appreciating a piece of artwork.)

Furthermore, a group of participants pointed out to the impact of involvements with the arts on their spiritual self, they believed, creating and producing artworks can transcend everything in their life: “Yes. It has. About beauty, I feel and sense deeply the beauty and spirit of natural beauties. I have some experience working with colors. When I paint I feel I can sense trees, sky, and clouds and become enchanted” (A9). Some art students gave a poetic explanation of their art experiences:

Through painting courses that I took, I learned that there are so many secrets and stories behind every wrinkle of the face of an old man. Unless I can grasp a solid understanding of his life story, I will not be able to depict real beauty through art works. I learned to pay attention to details: unless I do notice a wave in a sea, I will not be able to paint the magnificent sea (NA16).

Surprisingly all participants included in this category were from Iran, where the researcher originally comes from. The reason might stem from the fact that Persian classic literature and the arts allocate a large proportion of works on connecting relationships with God, transcending spiritual self and paying attention to inner soul. Apparently, religion has also played a role in shaping such a tendency.

We did not ask the non-art participants to reflect on the effect of their academic disciplines on their emotional responses to aesthetic objects. However, a student (NA18) majoring in east Asian studies the University of Turku/Finland emphasized that not only practicing and contemplating works of art, but also learning about new cultures, merits, and values, transform one's character and emotional responses to beauties: She emphasizes that courses that she has taken like history, geography, science, etc. have also influenced the way she sees and understands the world. She states reading a fascinating book about the life of trees increase her understanding about the way trees grow and live in various climates and cultures and this changes the way she responds to trees emotionally. She adds she is more emotionally responsive to the cultures which she has studied and has more knowledge of. She concludes that education is extremely influential in the way that individuals view and respond to art.

In short, four categories were recognized from contents analysis: while participants in the first category emphasize that traits are leading, and education has not had influence on them that much, participants of second category believe involvement with the arts even for a short period of time has fundamentally transformed the way they respond to aesthetic objects. Third group of participants seem to have a view that their traits or at least that their cognitive have affected their art experiences and emotions. The fourth group of participants mostly from Iran assert that being involved with art activities has been effective in exceling

and uplifting their spiritual life and increasing their understanding of meanings and beauty of the arts and life.

5.2 Quantitative part

Unlike what was inferred by content analysis of art students and graduates' statements, the analysis of the quantitative portion of the present study shows that non-art students and graduates experienced higher aesthetic emotional levels than that of the art students/graduates. Likewise, non-art students and graduates rated the film higher than art students and graduates and the reason why art students reported less aesthetic emotional response can be justified by looking at some statements that criticized the quality of the short film, and hence reported less emotional involvement with it. One art participant gave the film a grade of two and reported rarely feeling aesthetic emotions while watching the short film. He said: "Yes, both age and studies of art have changed my perceptions and emotional responses toward what I read and watch. Thus, as a critic, I am not easily impressed by any piece of art or literature. Reading and watching many pieces of art with high quality and innovative ideas have made it difficult for me to give him a compliment for producing such an ordinary work" (A12). In addition, some participants found the contents of the video artificial and commercial. In line with existing literature on the relationships between emotion and cognition (see, for instance, Goodman, 1976; Pouivet, 2000 & Lazarus, 1982) the results of the study confirm that emotions are fueled by cognition. If one evaluates an aesthetic object as a poor production, simultaneously they feel no aesthetic emotion toward it.

It is believed that traditional art education is different from aesthetic education. The main goal of the former is to let art students master some specific skills, while the latter's goal is to bring about a mental state that is called wide-awakeness, as explained by Greene (2001). One argument against traditional art education is that not only does it not contribute to increased levels of felt aesthetic emotion in response to aesthetic objects, but is also has a negative impact too, meaning that it can inhibit aesthetic taste and emotions to be developed. Nonetheless, it is just a speculation and we do not have sufficient evidence to explain why non-aesthetic participants felt higher aesthetic emotions. Yet, there is no

evidence to identify reasons that account for such an impact. Additionally, the existing literature does not provide sufficient explanation of why art students/graduates in the present study reported less of an emotional experience in responding to aesthetic objects. Further studies should be conducted to find out whether only one's expertise deters feeling aesthetic emotions, or whether the art students/graduates have not received authentic emotion education.

There is another factor that seems to play an important role in eliciting aesthetic emotions—the quality of stimuli that was employed by the current study to stimulate aesthetic emotions. As was mentioned earlier, some participants did not see the video as a quality short film. One participant found its music disturbing and the other found the overall film attractive, but the content artificial. Still, the evaluation is quite subjective and based on personal taste and backgrounds, and one can call a work aesthetic or non-aesthetic based on personal preference. Kants ("Aesthetic Experience", 2018) believes an aesthetic object has objective form and contents by which one can judge while Dewey stressed the art experience (2005).

Conclusion

The results indicate that there is a significant difference in scores of epistemic emotions for art students/graduates and non-art students/graduates. However, there is not a significant difference in scores of animation emotions and negative emotions for art students and non-art students. Likewise, no significant difference is observed in the scores of amusement emotions for art students/graduates and non-art students/graduates. The results also reveal that there is a significant difference in prototypical emotions of arts and non-arts students/graduates. Correspondingly, a significant difference can be seen in nostalgia/relaxation and sadness emotions of arts and non-arts students/graduates. Moreover, the results show that there is a significant difference in the graded scores of aesthetic evaluations for arts and non-arts students and graduates.

On the other hand, the content analysis of the participants' answers to the open-ended questions revealed four categories. A large group of participants reported that their emotional responses had fundamentally been transformed, because of their education. Moreover, some participants said that education had nothing to do with their emotional responses to aesthetic objects. Some participants even claimed art education had negative influences on their experiencing of aesthetic emotions. one participant who majored in a non-art subject said that her field of study transformed the way she responds to aesthetic objects emotionally.

The major goal of the current study was to investigate the influences of education on aesthetic emotions and aesthetic evaluation. Overall, and unexpectedly, non-art students and graduates reported experiencing higher aesthetic emotional levels than that of the art students/graduates. Likewise, the short film was rated very highly by the non-art students/graduates. Hence, the study sought to explain why non-art students/graduates compared with art students/graduates felt more aesthetic emotions while watching the short film. Two reasons can explain such differences: One reason, which is in line with the results of so many studies as to relationship between emotion and cognition (see, for instance, Goodman, 1976; Pouivet, 2000 & Lazarus, 1982) argues that cognition precedes emotions. That is to say, one's emotional response to an aesthetic object is based on one's evaluation of it. Content analysis of participants' statements discloses that many art students/graduates

found the short film to be a low-quality object. As a result, their emotions were affected by these judgments and they gave it a low score overall. It can be concluded that participants' expertise and standards by which they judge aesthetic objects are so high and complicated that they only take interest and show emotional responses to sophisticated aesthetic objects. However, from some students and graduates' responses can be inferred that they don't think they are affected by cognition, however, perhaps they are more affected than they realize it.

To explore the second reason, it should be noted that exposure to art or even acquiring an artistic skill, like playing a musical instrument, may not suffice to produce a change in feeling aesthetic emotions. Consciously experiencing art may be required and will contribute to the creations of such emotions. Drawing attention through aesthetic education to the meanings, concepts, beauties, values, virtues, moralities and cultures could play a central role in changing emotional states. Art experience can invoke aesthetic emotions, which act like a filter, through which individuals feel changes in the manifestation of aesthetic objects in their eyes.

The importance of aesthetic education is that through aesthetic education students learn to interpret concepts in numerous ways, and their imaginations go beyond the boundaries of ordinary routines. They will be equipped with cognitive tools that make them able to make choices, to make meanings, and to enjoy being wide awake. Aesthetic education teaches harmony, and encounters with authentic art experiences develop a sense of aesthetic harmony. Harmony is felt through appreciation of beauty.

As a result, as it was said earlier, it can be speculated that art participants of the current study did not receive quality aesthetic education that lead to more emotional sensitivities to aesthetic objects. On the other hand, non-art participants who did not attend any technical courses in the arts but were party and naturally involved with art activities in schools or other places gained some traits that made them emotionally more sensitive to aesthetic pleasure that incited by viewing an aesthetic object. It seems too much involvement with technical aspects of production of arts may hinder one to experience aesthetic emotions, and consequently, aesthetic pleasure. Or as discussed earlier about the influences of aesthetic judgment on aesthetic emotions, it can be argued that professional

artists only experience aesthetic pleasure through viewing sophisticated aesthetic objects and not every simple aesthetic object make them the excited.

However, the current research cannot identify the true reasons that could account for the differences in the results. Further studies are required to compare two groups with greater details of participants' backgrounds, education and personality traits.

Aesthetic emotions reflect the degree to which one is sensitive to aesthetic objects, and aesthetic education can facilitate acquisition of such sensitivity. It seems aesthetic education and emotional education should receive more attention in schools and universities. One can enjoy creating and viewing arts only when one feel aesthetic emotions.

In other words, feeling aesthetic emotions signify the fact that one has developed an artistic taste that enable one to touch an aesthetic appeal and evaluate it as an aesthetic object as well. People who feel aesthetic emotions can subsequently feel savoring, meaning, and live in harmony with their environment.

6.1 Limitations

A major limitation to the research is variation in ages, university degrees and fields of study. The original plan was to compare new comers and senior students to explore the effect of art education on aesthetic emotional responses, but due to a difficulty in finding enough participants in these specific categories to take part in the study, a more general differentiation of participants (arts and non-art students) was adopted. Another limitation is that only one stimulus (video) was applied in the study, which means that the study is underdetermined in with respect to knowing whether differences in results are also caused by this specific stimulus.

6.2 Further research

More controlled comparisons can be done between art and non-art students/graduates to give more insight in the difference between what participants tell, and how they rate on the questionnaire and the 'quality' through their responses to the judgment rating questions.

Moreover, different stimuli and backgrounds can be considered, and the results will tell more about domain specificity or domain general effects of ‘education’.

It would be interesting research idea to examine the role of curriculum and teaching practice in nurturing aesthetic emotions, for instance, an explicit coursework in aesthetic education can be developed and implemented and then, the effect of such implementation can be measured. The results will indicate the effect of explicit application of esthetic education in developing aesthetic emotional responses.

The other study is recommended to be carried out with two groups of artists, one who has received academic education and one who has not attended any academies but has acquired artistic skills through attending art courses in evening institutes or working with a private tutor. Then, two groups’ emotional responses to aesthetic objects will be separately measured by Aesthetic emotions scale (AESTHEMOS) (Schindler et al, 2017) and compared. The results will shed light on the impact of formal and informal art education on aesthetic emotional responses.

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APPENDIX

Aesthetic emotions scale (AESTHEMOS)

Esteettiset tunteet asteikko (AESTHEMOS)

Age: Gender: Field of Study: Year of Study: (1st 2nd 3rd 4th)

Nationality:

Ikä: Sukupuoli: Opiskeluala: Opiskeluvuosi:

kansalaisuus:

Did you take any art courses in school (outside the normal class hours) or other places (outside of school) before starting your current education? (yes no)

Osallistuitko taidekursseille (normaalien koulutuntien ulkopuolella) tai muille kursseille (koulun ulkopuolella) ennen kuin aloitit nykyisen koulutuksesi. (kyllä ei)

If you answered yes to the previous question:

What kind of art course(s) did you take? Please shortly explain!

Jos vastasit kyllä edelliseen kysymykseen:

Minkälaisia taidekursseja kävit? Selitä lyhyesti!

How old were you when you started these?

Minkä ikäinen olit, kun aloitit nämä?

For how many years did you take these courses?

Kuinka monta vuotta otit näitä kursseja?

Instruction:

Dear student, please watch this artistic video (<https://vimeo.com/64537880>) and complete the questionnaire.

Thank you so much for your participation.

For each emotion listed below, please mark the response category that best matches your personal experience. Please only indicate how you actually felt. Do not characterize the emotions expressed in the video if you did not feel them yourself.

Ohjeet:

Jokaiselle alla luetellulle tunteelle, merkitse vastauskategoria mikä kuvaa parhaiten sinun henkilökohtaista kokemustasi. Merkitse ainoastaan mitä todella tunsit, ei niin, että kategorisoit tunteet, joita kuvailtiin videossa, ellet tuntenut niitä itse.

Emotional feeling Emotionaalinen tunne	How intensely did you feel this emotion? Miten intensiivisesti koit tämän tunteen?				
	Not at all En yhtään	Rarely Harvoin	Sometimes Joskus	Often Usein	Very often Todella usein
	1	2	3	4	5
1. I found it beautiful Koin sen kauniiksi					
2. Challenged me intellectually Se haastoi minua älyllisesti					
3. Delighted me Se ilahdutti minua					
4. Calmed me Se rauhoitti minua					
5. Made me curious Se teki minut uteliaaksi					
6. Liked it Pidin siitä					
7. Fascinated me Se kiehtoi minua					
8. Felt something wonderful Koin jotain ihanaa					
9. Invigorated me Se virkisti minua					
10. I Was mentally engaged Olin henkisesti sitoutunut siihen					

11. Baffled me Se häkellytti minut					
12. I found it ugly Pidin sitä rumana					
13. Sensed a deeper meaning Tunsin syvemmän tarkoituksen					
14. Felt deeply moved Liikutuin siitä syvästi					
15. Made me feel melancholic Se teki minut melankoliseksi					
16. Energized me Se antoi minulle energiaa					
17. Made me angry Se teki minut vihaiseksi					
18. Was enchanted Se kiehtoi minua					
19. Bored me Se tylsistyi minua					
20. Relaxed me Se rauhoitti minua					
21. Felt a sudden insight Koin äkillisen oivalluksen					
22. Amused me Se huvitti minua					
23. Made me sad Se teki minut surulliseksi					
24. Felt confused Tunsin itseni hämmentyneeksi					
25. Made me feel aggressive Se sai minut tuntemaan itseni aggressiiviseksi					
26. Made me feel sentimental Se sai minut tunteelliseksi					
27. Worried me Se huolestutti minua					
28. Made me feel nostalgic Se sai tuntemaan oloni nostalgiseksi					
29. Surprised me Se yllätti minut					

30. Felt oppressive Tunsin oloni alistetuksi					
31. I found it sublime Pidin sitä kunnianarvoisena					
32. Spurred me on Sain siitä kannustusta					
33. Felt indifferent Tunsin itseni välinpitämättömäksi					
34. Was impressed Olin vaikuttunut siitä					
35. I found it distasteful Pidin sitä vastenmielisenä					
36. Felt touched Liikutuin siitä					
37. Was unsettling to me se huolestutti minua					
38. Sparked my interest Se herätti kiinnostukseni					
39. Made me happy Se teki minut iloiseksi					
40. Felt awe Se herätti minussa kunnioitusta					
41. Felt motivated to act Tunsin itseni motivoituneeksi toimimaan					
42. Was funny to me Pidin sitä hauskana					

What grade do you give to this short movie from 1 to 5? (1 would be your least favorite and 5 would be your most favorite)

Minkä arvosanan antaisit tälle lyhytelokuvalle asteikolla 1-5? (1 on vain vähän kiinnostava ja 5 on erittäin kiinnostava)

Would you like to watch the video again or would like to watch another video by this artist?

Haluaisitko katsoa videon uudestaan, tai saman tekijän toisen videon?

1. Do you think your prior education has changed your emotional responses when you view art?

Onko aiempi koulutuksesi mielestäsi muuttanut tunteitasi (tai tunnereaktioitasi) katsellessasi taidetta?

2. If It has, could you describe how your education has influenced your emotional responses?

Jos on, voisitko kuvailla millä tavoin koulutuksesi on vaikuttanut tunnereaktioihisi?