

SCHEMATIC CONNECTIONS BETWEEN TWO ARTISTIC MODES: AN EMPIRICAL STUDY OF MUSIC AND VISUAL ART

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ABSTRACT

Background. This paper investigates classroom compositional activities when children are exposed to a certain form of visual art, that is, a painting. The main line of argument mirrors the author's supposition that a provocative visual stimulus, in the present case a painting, may affect mental representation positively and may result in producing more developed music compositions in the Swanwick and Tillman Spiral Model (1986). The theoretical framework supporting the above draws together pertinent philosophical and psychological literature on music and painting.

Aims. The author's research sought to identify shared schematic properties between two artistic modes, namely music and painting in a proposed classroom methodology, through the examination of children's music compositions given verbal instructions on one hand, and children's music compositions given verbal instructions and exposed to a painting on the other. Children's responses towards both approaches were also examined.

Method. Fieldwork was carried out in primary and secondary schools in Nicosia, Cyprus. Triangulation was employed and the data collected included children's music compositions, children's written documents and children's interviews. A random selection of children's compositions drawn from 298 items of control and experimental groups was assessed by outside assessors using Swanwick and Tillman's Spiral Model (1986). Both the consistency of the assessors' reliability and the assessors' ratings were analysed quantitatively. Children's written documents and interviews were analysed qualitatively.

Results. Compositions of the experimental groups were placed higher in the Spiral Model. In addition, children's written documents and interviews reflected positive responses towards the approach involving the painting stimulus since music composition was facilitated and motivation was increased.

Conclusions. The findings reinforce the author's argument and further ascertain the need to explore similar possible connections between music and other art forms, as music making in school can be informed and revived by the experience of stimulation in another art form.

1. INTRODUCTION

The educational system of Cyprus has witnessed radical changes over the last fifteen years. More specifically, there have been shifts from traditional teacher-centred methodologies to progressive child-centred ones. In the teaching of music education there is a strong influence by the U. K. As a result, the integrated model of composing, listening and performing is at the core of the music curricula. Nonetheless, performing and listening activities are predominant in the teaching of music in Greek-Cypriot schools, while work on composing is rather limited or neglected. Even though it has been suggested that composing helps to develop children's musical thinking, composing being the highest indicator of their musical understanding (Silva, 1998; Swanwick and França, 1999), the present condition implies that the chances for children to develop are limited. The issue gives rise to seeking ways of teachers facilitating music composition: the possibility of connections between the arts appears an attractive idea (Dewey, 1958; Ferguson, 1960; Reid, 1969; Abbs, 1989a; Abbs, 1989b). Hence, it is argued that, although music and painting are two different symbolic modes, they may share common perceived qualities – time, space, movement and weight. This relationship may be illuminated through an investigation of children's response to paintings, verbally, in their music compositions and their discussion about the process.

2. RATIONALE

Most of the author's teaching has been connected with the teaching of music in secondary schools in Cyprus and at the University of Cyprus where she taught compulsory music education courses in the Bed degree (primary education). Her current position at the Cyprus Pedagogical Institute involves teaching on pre-service and in-service courses for teachers in primary and secondary education. Having experienced the transformations and implementations of the new music curricula, the author particularly concentrated on children's compositional activities and on exploring strategies that may promote these as important musical experiences for children. Moreover, the author's personal interest in painting set off the ideas for the study. In view of the above, the present research focuses on the investigation of possible connections between music and painting through the examination of two classroom methodological approaches. The main study was carried out in primary and secondary schools in Nicosia, Cyprus.

3. AIMS

The aim of the research was to investigate the possibility of schematic properties between two artistic modes, namely music and painting in a proposed classroom methodology. Hence, the following questions were identified:

- Is there evidence of shared schematic properties in children's compositions when exposed to paintings?
- Do the two classroom methodological approaches – composing given verbal instruction and composing given verbal instruction and exposure to painting – result in different kinds of composition?
- Are children's reactions towards these approaches different?

4. THEORETICAL FRAMEWORK

The theoretical framework is constructed upon two main strands: First, the status of music and painting as discrete symbolic forms is examined from the perspective of philosophical analysis. This literature suggests that these two symbolic forms, although different, may share common dynamic qualities. Second, the relationship between the two domains can be seen through a psychological prism. Psychological evidence supports the possibility of schematic connections between responses to music and paintings.

Modern philosophers have been asking questions about the nature of the arts and the notion of expressiveness in them. According to some views, which have been discussed extensively, music and art in general comprise a symbol system or systems (Langer, 1951, 1953, 1957; Gardner, 1973; Goodman, 1976; Gardner, 1982; Abbs, 1989a; Abbs, 1989b; Bowman, 1998). These ideas have attracted both support and criticism, though to review this formative work is out of the scope of this paper. Nonetheless, in order to take further the idea of art as a symbolic form conveying meaning, it is essential to briefly refer to the stimulating writings of the American philosopher Susanne Langer.

When discussing symbolization Langer makes an eloquent distinction between *signs* or *signals* and *symbols*. Human beings share with animals the ability to comprehend *signs* or *signals* even though we are a 'symbol-making' and therefore a 'symbol-operating' species. This indicates that human beings can deal with and understand the world in symbolic ways. It should be emphasised at this point that '*symbols* can be operated, manipulated and organized to enable reasoning in the abstract and communication of ideas and feelings to take place' (Swanwick, 1968). According to Langer, the arts are presentational symbols, where the symbol is understood in context 'as a whole', since it does not possess fixed definitions being untranslatable, in contrast to linguistic utterances that are discursive symbols with conventionally assigned meanings. This view brings on the notions of expression and meaning. Langer directs her arguments to support a theory of the arts representing the general *form* of our feeling life, implying that the arts do not *directly* express certain

emotions or affective states, but rather that they are expressive of them. In the case of music and painting the following may be considered: Although they are two distinct symbolic forms, there are certain dynamic features inherent to aesthetic experiences of both arts that may be common to one another, namely, time, space, movement and weight. These dynamic qualities are linked with and unveil the expressive character of both arts. The expressive character that one perceives in music or paintings is intimately connected with his/her conception of an emotional/affective state or feeling. It appears that this connection cannot be seen merely in terms of visible materials, since it can be viewed and be enhanced through a psychological prism.

Psychological evidence may shed light on connections between the two domains. This involves mental representation and in particular the notion of *schema* or *schemata* that according to Piaget refer to mental structures employed by the individual in order to adapt to and organise the environment and hence construct reality. In other words, *schemata*, being 'complex forms of conceptual organization' (Godinho, 2000: 61), are cognitive 'frames' through which sensory information is taken in and meaning is communicated. Swanwick (1979/1992, 1999) maintains that the idea of *schema* is vital regarding music as a mode of communicating meaning and therefore informing our understanding of the world. He establishes that there are common 'patterns, *schemata* or traces of felt-experience' found in music and feelings, the fusion and reorganization of which seem to be at 'the root of the most powerfully felt aesthetic experience'. In this way, music can be said to have meaning in that it is '*a way of knowing the affective and knowing through feeling*' (Swanwick, 1979/1992: 37-39). Equally, it appears germane to the present study that painting stimulation may have an effect in musical production suggested by a shared *affective schema* or *schemata* in the two artistic modes that may inform and enhance the construction of meaning. This relationship may be illuminated through the investigation of children's compositions and their verbal responses when exposed to paintings.

5. METHODS

Multi-method enquiry was employed in order to enhance the credibility of the research. In particular, three different research methods were employed for the empirical work linking quantitative and qualitative research: experiment (post-test only, two group design), written texts analysis and semi-structured interviews. The research methods employed were rehearsed and tested in pilot studies that were carried out before the main empirical work.

The main study took place in the Spring 2001 in two primary and two secondary schools in Nicosia, Cyprus using a multi-stage sampling method. It was addressed to consist of children in their fourth year of primary education (9+) and of children in their second year of secondary education (13+). In each case the investigation concerned a comparison between two groups of children. It had three stages. One group (control) produced compositions with no reference to any painting given verbal instructions, while a second group (experimental) produced compositions given verbal instructions and after exposure to a painting. It should be noted at this point that in pilot studies that had been conducted before the main study, different paintings

of non-representational twentieth century art were used and the children's reactions were explored. The final choice favoured Kandinsky's *Red Oval*, a painting that was rich in possibilities and could be interpretable at any age. Further evidence was provided by children's written documents following the activity of composing. Those children who composed music with reference to the painting were also subsequently asked in group interviews about their compositional process. This was to give additional evidence concerning the relationship between the two art forms. Independent assessors rated a random selection of children's recorded compositions (48) drawn from 298 items of control and experimental groups using Swanwick and Tillman's Spiral Model (1986). The Spiral Model had been tested in numerous cases and evidence had been established regarding both the validity and reliability of its criterion statements and its robustness as an assessment instrument (Swanwick, 1991; Hentschke, 1993; Swanwick, 1994; Silva, 1998; Cheung-Yung, 2001; Runfola and Swanwick, 2002). Both the consistency of the assessors reliability and the assessors judgements were analysed quantitatively. Children's documents and interviews were analysed qualitatively.

6. MAIN RESULTS

Inter-judge reliability was tested by the intraclass correlation coefficient (MacLennan, 1993). The resulting *average measure intraclass correlation* = 0.9591 and this value was highly significant at less than 0.0001. We can therefore confidently conclude that there was consistency among the assessors' judgements and that they exhibited significant agreement over their ratings of the 48 compositions. Consequently, the assessments of the nine judges were combined for subsequent analysis. Figure 1 below illustrates the proportion of the combined ratings of the assessors corresponding to the layers of the Spiral Model made on the musical productions of both control and experimental groups. Layer 8 is not included since no composition was assigned to this layer.

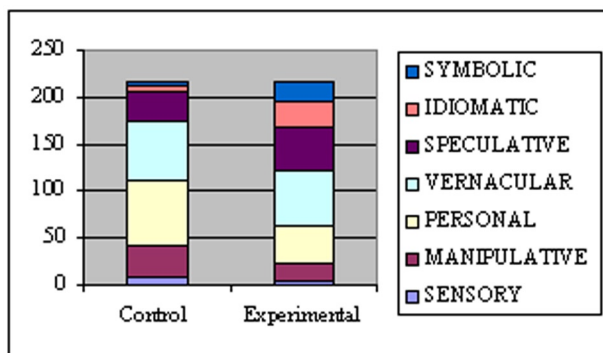


Figure 1: Combined ratings of all nine assessors

A *chi-square* test was used to discover whether the distribution of the assessors' ratings was significantly different from what was expected, in other words, if painting exposure had made no difference. It was found that $\chi^2 = 40.55$ with the degrees of

freedom = 6, $P < 0.0001$. Thus, we can be confident in stating that there was a statistical significant association between the control and experimental groups and the seven developmental layers. Consequently the null hypothesis that painting exposure makes no difference to composing was rejected.

It can be observed that there are qualitative differences between the compositions of each group. The children of the control group appear to be confident in the personal and vernacular modes while showing lower level of achievement in the higher modes. Regarding the children of the experimental group, the painting exposure appears to have resulted in them showing higher level of achievement in the higher modes of the Spiral Model, that is in the speculative, the idiomatic and the symbolic.

Children's written documents and group interviews produced a considerable body of illuminating evidence regarding their responses towards the two classroom methodological approaches and the relationship between the two art forms. Table 1 below summarises the key findings emerging from the verbal responses of the children of the experimental group.

Composing without reference to the painting	Composing with reference to the painting
Difficulties in composition	Composition facilitated
Little motivation due to lack of ideas	Increased motivation due to visual stimulation
Dependency of musical thinking on task set	Independence of musical thinking
Lack of concentration	Increased concentration
Boredom-fatigue	Enjoyment

Table 1: Children's verbal responses

The following extract from a group interview reflects some of the views summarised above.

Interviewer: How did you feel about the compositional activity having the painting as a stimulus?

Gregory: It was strange at first. The picture was very rich. After a little while I was feeling relaxed. It was very helpful.

Interviewer: Yes?

Gregory: The colours were wonderful. But there was a lot of tension, especially right there at the centre ... I tried to give an agitated character to my music.

Antonia: I mostly feel bored when I have to do this [composition]. The painting gave me ideas. I felt happy. It was like magic!

Interviewer: Magic?

Antonia: Yes, all these lines and shapes that mix with each other and others that hide behind them. My music is magic!!

7. CONCLUSIONS

Evidence from this research reinforces our argument and further establishes the necessity to explore the intimate bridges between music and other symbolic forms. Music making in school can be enlightened and revitalised by the experience of stimulation in another art form. Music teachers might think about initiating similar strategies into classrooms as it seems that the visual experience – in this case the experience of being exposed to a visual art form – may come as complementary to the ‘purely’ musical experiences of listening and performing that may influence musical production. The common properties of the two art forms may be the basis of opening ‘windows’ or channels in children’s minds where appropriate transactions enhance their compositional process and their musical understanding in general. Consequently, teachers may act as facilitators in the process and certainly learn from the process themselves. In showing care for children’s music making music teachers may help children widen the boundaries of their experiences. In doing so, suitable organisation, time and space may be provided in the school time table for introducing and supporting such activities and in order to form the necessary conditions. The above is suggestive of implications regarding teachers’ training in developing appropriate skills. Finally, there are implications regarding the educational material produced by the curriculum development sectors. It is proposed that vivid visual material may be introduced, though in a thoughtful and structured way.

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