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## Aesthetic Experience of Dance Performances

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In this study the aesthetic experience of dance performances is investigated. The study includes construction of an instrument for measuring the aesthetic experience of dance performances and an investigation of the structure of both dancers' and spectators' aesthetic experience. The experiments are carried out during eight different performances of various dance forms, including classical ballet, contemporary dance, flamenco and folklore. Three factors of aesthetic experience of dance performances are identified: Dynamism, Exceptionality and Affective Evaluation. The results show that dancers' aesthetic experience has a somewhat different factorial structure from that of the spectators'. Unlike spectators' aesthetic experience, dancers' aesthetic experience singles out the Excitement factor. The results are discussed within the context of dancers' proprioception and spectators' exteroception since these findings confirm the idea of a significant role of proprioception in dancers' aesthetic experience.

Keywords: *aesthetic experience, dance, dancers, spectators, proprioception*

In this paper, we attempted to provide an answer whether aesthetic experience of a dancer performing a certain dance and aesthetic experience of spectators watching the performance is the same or similar. The term "dance" in this paper, is specified as an artistic dance. Artistic dance can be defined as a specific type of human, complex and highly articulated movement, i.e. that is, as a system of organized and formalized movements that convey certain meaning (cf. Layson, 1994; Jowit, 1994; Carter, 1998; Blom & Chaplin, 2000; Meekums, 2005; Duncan, 1981; Stevens, McKechnie, Malloch, & Petocz, 2000; Tufnel, & Crickmay, 2006). A critical assessment of dance starts with a choreographer, is then done by a performer and finally the dance is assessed by the spectators watching it (Adshead et al., 1982; Kogan, 2002). Keeping in mind this artistic aspect, we may conclude that, apart from its historical development, form and performance (Layson, 1994) and specific dancing context (McFee, 1992; Layson, 1994), dance aims to affect aesthetically not only performers but also spectators. Thus, the aesthetic experience of dance will include the aesthetic experience of dancers as well as that of the spectators.

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Unlike other artistic disciplines, dance is characterized by specific features including the fact that dancers do not create in the same medium through which spectators receive their work of art (Arnheim, 1966) and that dance is spatially and temporally defined (Laban, 1960; McFee, 1992; Layson, 1994; Hutchinson-Guest, 1973; Brown Martinez & Parsons, 2006; Repp & Penel, 2004; Luck & Sloboda, 2009), which means that the role of proprioceptive and exteroceptive senses in the aesthetic experience of dance is different. Due to these features, we will consider previous studies related to both dancers' and spectators' aesthetic experience of dance. Since music is an integral part of most dance performances, in this paper it will be considered that dance performance is accompanied by music.

The purpose of this paper is to study the aesthetic experience of dance performances and to investigate the structure of both dancers' and spectators' aesthetic experience. In the present paper aesthetic experience is defined as an exceptional state of mind that is characterized by a strong focus on a certain object which engages and fascinates a subject, whereas all other objects and actions in the environment are excluded from consciousness. Proposed definition is based on wide spectrum of definitions of similar states of mind, such as aesthetic focussing (Beardsley, 1982; Cupchik & Winston, 1996; Ognjenović, 2003), concept of flow (Csikszentmihályi, 1990), peak experience (Maslow, 1968), absorption (Telegan & Atkinson, 1974), pleasures of the mind (Kubovy, 1999), aha experience (Koestler, 1970) and the like.

On the other hand, aesthetic preference includes affective or hedonic evaluation, that is to say, the level of pleasure we feel while observing external objects (Berlyne, 1971, 1974; Osgood, Miron & May, 1975; Kawabata & Zeki, 2004; Cela-Conde, Marty, Maestú, Ortiz, Munar, Fernández, Roca, Rosselló, & Quesney, 2004; Di Dio, Macaluso, & Rizzolatti, 2007; Nadal, Munar, Capó, Rosselló, & Cela – Conde, 2008; Vartanian & Goel, 2004). In other words, the difference between aesthetic experience and aesthetic preference lies in the fact that aesthetic experience, is not necessarily accompanied by pleasant feelings. Both pleasant and unpleasant contents can be equally aesthetically fascinating (cf. Silvia, 2005). A recent factor analytic study by Marković (2010) has revealed that the judgments of how the stimuli were fascinating and exceptional are not significantly correlated with their hedonic tone. This finding is in line with the traditional distinction between interest and pleasure (cf. Berlyne, 1971, 1974).

## DANCERS' AESTHETIC EXPERIENCE IN DANCE

Most studies on dancers' aesthetic experience during the act of dancing deal with the role of kinaesthetics and the vestibular system, not only in dance but also in the aesthetic experience of dance, emphasizing the importance of proprioception in different ways (Thomas, 1980; Glomer & Dupui, 2000; Montero, 2006; Hugel, Cadopi, Kohler, & Perrin, 1999; Walker, 2007; Fenemor, 2003). In several studies (Montero, 2006; Hugel et al., 1999) it has been argued that dancers' aesthetic experience of dance involves proprioception, that is

the kinaesthetic and vestibular system, since the dancers who participated in these studies stated that they assess the aesthetic quality of their movements through the sensations they feel inside their muscles, tendons and joints while dancing. Due to the fact that a dancer is not allowed to use a mirror during a performance, proprioception is the main channel through which it is possible for dancers to judge their movements aesthetically. Although the sense of sight is particularly important to dancers when correcting themselves while practising in front of the mirror, this sense is not their sole support, especially when they are in performance (Montero, 2006; Hugel et al., 1999). When judging the aesthetic quality of the movements they perform, trained dancers “trust” and rely on proprioception rather than their sense of sight (Hugel et al., 1999). The results of a theoretical study by Ivar Hagendoorn (2003) also contributed to this conclusion since he stated that dancers practise a certain movement from the moment they begin to create proprioceptive “good feeling” while performing it.

Additionally, Hugel et al. (1999) refer to another specific characteristic of dance. Unlike a painting that can be experienced through the sense of sight by more than one person at a time, movement can be experienced only by the person performing it with the support of the kinaesthetic and vestibular system. Although dancers with similar training and abilities agree on the proprioceptive quality of a certain movement, only one person, the dancer, experiences that movement through the proprioceptive senses (Montero, 2006). Neuroaesthetic studies on dancers’ aesthetic experience in dance are related to the previous discussion and concern the parts of the brain which are active during dance (Brown et al., 2006; Dale, Hyat, & Hollerman, 2007).

In accordance with the definition of aesthetic experience in this paper, it should be emphasized that the essence of aesthetic experience is specifically present in dance. Aesthetic experience is a special state of mind, as Ognjenović (2003, p.124) suggested, “...in the consciousness there is only one object, one event, which strongly occupies the subject and thus shadows all other events in the environment.” Therefore, the dancer acts both as the subject having the aesthetic experience and as the object of aesthetic experience.

## SPECTATORS’ AESTHETIC EXPERIENCE OF DANCE

One important aspect of dance is the presence of spectators. Freeman (1995) assumes that dance as an art form began to be practised when it was revealed that dance equally creates satisfaction and sense of belonging to the community either while observing it or participating in this activity.

Most studies relating to the aesthetic experience of dance deal with spectators’ aesthetic experience of dance (Arnheim, 1966; Montero, 2006; Thomas, 1980; Hugel et al., 1999; Golomer & Dupui, 2000; Glas & Stevens, 2005; Stevens, McKechnie, Glass, Schubert, & Chen, 2007; Calvo-Merino, Jola, Glaser, & Haggard, 2008; Fenemore, 2003; Arnold, 2005; Turner, 2008). The results of these studies and research have provided numerous interesting

answers to the questions about the aesthetic experience of spectators observing a dance. In classical psychological terms, spectators' experience of dance may be defined as a case of vicarious experience, that is imagined participation or projection in the experience of observed dancers.

Spectators' aesthetic experience of dance may be observed from the perspective of somaesthetic studies (Shusterman, 2000, 2005; Fenemore, 2003; Arnold, 2005; Turner, 2008), from the perspective of neuroaesthetic studies (Cross, Hamilton, & Grafton, 2006; Calvo-Merino, Glaser, Grezes, Passingham, & Haggard, 2005; Calvo-Merino, 2009), and from the perspective of cognitive-oriented research on dance and aesthetic experience of dance (Stevens, McKechnie, Malloch, & Petocz, 2000; McKechnie, 2002; Glass & Stevens, 2005).

Some authors (Montero, 2006; Cross et al., 2006; Calvo-Merino et al., 2005) suggest that spectators' aesthetic experience of dance can be related to the mechanism of "mirror neurons" (Montero, 2006), which means that the observation of dance may create an "internal" experience as if the spectator himself was dancing (Cross et al., 2006; Calvo-Merino et al., 2005; Calvo-Merino, 2009). Such an impression can be explained by the system of "mirror neurons" where the observer during the act of observation is placed in the same "internal" situation as if actively executing the same action (Umiltà, Kohler, Gallese, Foggasi, Fadiga, Keysers, & Rizzolatti, 2001; Gallese, 2005). It has been argued that the previous physical experience in performing certain dance movements has an important role in the intensity of the activation of "mirror neurons" (Calvo-Merino et al., 2005) and that there is a role of physical embodiment in action simulation (Cross et al., 2006). These results of neuroaesthetic studies are supported by studies which showed that those with experience in dancing aesthetically assess, understand and use dance in everyday life in a different way than people without such experience (Thomas, 1980; Hugel et al., 1999; Golomer & Dupui, 2000; Glas & Stevens, 2005; Stevens et al., 2007).

However, it has been argued that the nature of "mirror neurons" is rather contentious, because there is not enough evidence to support the discovery that mirror neurons are evolved in our understanding of the meaning and intentions of observed actions (Dinstein, Thomas, Behrmann, & Heeger, 2008). In the case of dance performances, Hagedoorn (2011) points to the difficulties of applying "mirror system" to the perception of concurrent movements of multiple dancers, and also to our understanding of the simultaneous pushing and pulling in a duet.

After conducting research on participants who observed contemporary dance Glass (2005) identified the action of numerous factors affecting the aesthetic experience of dance, such as visual elements, characteristics of dancers, movement, choreography, interpretation, emotional recognition, novelty, spatial/dynamic, intellectual and emotional stimulation and previous experience.

One of the interesting specific characteristics of spectators' aesthetic experience of dance, as suggested by Hagedoorn (2005), is the possibility of spectators to focus freely on internal qualities of movement rather than pursuing the aim and purpose of its performance.

## PURPOSE OF THE STUDY

There are three aspects of dance important for this paper which are (1) the presence/absence of spectators, where the aesthetic experience of dance in the context of both dancers and spectators was investigated; (2) choreography or the form of performance, where the aesthetic experience of performing different forms of dance was investigated; (3) form of artistic dance, where aesthetic experience of four different forms of artistic dance, including classical ballet, contemporary dance, flamenco and folklore, was investigated. They were selected to encompass as wide a range of dances as possible which are diverse in terms of their formal characteristics.

As suggested in the previous discussion, aesthetic experience is defined as a particular state of mind that characterizes focusing on a certain object which engages and fascinates a subject, whereas all other actions in the environment are excluded from consciousness. Because dance is a specific form of art due to the fact that a dancer, while creating a work of art, relies on proprioception whereas the spectators perceive the work of art through exteroceptive sense, the aim of this research is, firstly, to investigate what dancers' aesthetic experience of dance is. Secondly, the aim of this research is to investigate what the spectators' aesthetic experience is and, lastly, to determine if there is a common coherent factor joining the aesthetic experience of dancers and spectators.

As previously mentioned, it can be assumed that dancers' aesthetic experience is different from that of the spectators' in terms of quality, so there are differences in the structure of dancers' and spectators' aesthetic experience.

Our approach to studying aesthetic experience of dance performances is quantitative and factorial. The approach itself goes back to the time when Tucker (1955) studied subjective judgement of paintings using bipolar seven – point scales with opposite adjectives on the poles. A similar technique is applied Charles Osgood (Osgood, Succi, & Tannenbaum, 1957; Osgood, May, & Miron, 1975) to measure connotative or affective meaning of the words. Later the instrument called Semantic Differential (Osgood et al., 1957, 1975) was applied in the series of studies by other researchers to investigate judgements of paintings (Berlyne, 1971; Cupchic, 1974), judgement of photographs (Libby, Lacey, & Lacey, 1973) and miscellaneous visual patterns (Berlyne, 1974; Ertel, 1973; Evans & Day, 1971). In order to extract the more general dimensions, in all of these studies, factor analysis of elementary judgements was applied. Factor analysis of elementary judgements showed great similarities of extracted factors.

In the previous study dealing with aesthetic experience of artistic paintings (Polovina & Marković, 2006), the authors examined the structure of aesthetic experience as well as the relationship of aesthetic experience with other dimensions of subjective experience of paintings, among which are Regularity, Arousal, Attractiveness, Relaxation (Radonjić & Marković, 2005). The results indicated that aesthetic experience which was operationalized through descriptors (fascinating, irresistible, unique, eternal, profound, exceptional, universal and ineffable) is the unique phenomenon that cannot be separated

into independent components. The results also indicated a weak correlation of aesthetic experience with the factors of subjective experience of the painting. It was suggested that Regularity, Attractiveness and Relaxation are not significant predictors of aesthetic experience, whereas the prediction of Arousal factor is significant, with a small extent of explained variance. The authors concluded that aesthetic experience is closer to the phenomenon of curiosity and non-homeostatic Evaluation than to hedonistic evaluation and regularity (Polovina & Marković, 2006).

This approach to investigate aesthetic experience of dance performances perhaps is not the ideal way to study aesthetic experience but it is the most precise since it is based on an attempt of quantification. Aesthetic experience can be operationalized through a series of descriptors, which further enables the comparison of objects.

In order to reveal the structure of dancers' aesthetic experience and then the structure of spectators' aesthetic experience and to determine whether there is a common coherent factor connecting the aesthetic experience of dancers and spectators, a factor analysis study was conducted. The objective of this study consisted of specifying the factorial structure of the assessment based on a set of descriptors of the aesthetic experience of dance performance and determining whether the descriptors of aesthetic experience are grouped into one, two or more factors. The selection of the descriptors (i.e. scales on which the stimuli were judged) of aesthetic experience will be elaborated on in more detail.

## PRELIMINARY STUDY: THE SELECTION OF DESCRIPTORS OF AESTHETIC EXPERIENCE OF DANCE PERFORMANCES

Starting from the existing descriptors of aesthetic experience suggested by Polovina and Marković (2006), which are *fascinating*, *irresistible*, *unique*, *eternal*, *profound*, *exceptional*, *universal* and *ineffable*, and due to the specific characteristics of dance, the preliminary study aimed to supplement the instrument that would be used in the research of the aesthetic experience of dance performance.

### Method

*Participants:* One hundred and four non-dancers, including students from the departments of English and Psychology at Faculty of Philosophy in Novi Sad, as well as thirty-five professional dancers (with eight years or more of experience) who perform different forms of dance.

*Stimuli:* Ten audiovisuals of different forms of dance which were shown to the participants by a video projector. The recordings of different forms of dance, including contemporary dance, flamenco, classical ballet, modern ballet, folklore and tango, were chosen at random on the internet (The websites are listed in Appendix A).

*Procedure:* Both groups of the participants (non-dancers and professionals) were given the same two tasks. The first task was to list as many adjectives as possible that could be used

for describing a wide range of different forms of dance. The second task was to note down as many adjectives as possible for describing their experience of each dance they had observed in the recordings presented.

## Results

Four samples of descriptors were obtained. The first and second group consisted of descriptors produced by the non-dancers, whereas the third and fourth group included descriptors produced by the dancers. In each group, the descriptors which were not adequate for describing the aesthetic experience of dance were eliminated, along with those used for the subjective experience of dance in the previous studies (Vukadinović, 2008). The mutual category included those which were synonymous or similar to each other (for example, interesting and appealing, gracious and elegant, lively and effervescent, etc.).

The frequencies of the occurrence of particular descriptors were calculated in all lists. The descriptors were compared and those with the highest frequencies were singled out. When we compared the list of the most frequent descriptors produced by the dancers with the list of the most frequent descriptors produced by the non-dancers, we noticed that the only difference was that the list from the dancers included the adjectives *powerful* and *expressive*. We compiled a common list containing 27 adjectives, or descriptors, of dance. Then, we created pairs of adjectives with opposite meaning using these descriptors: *clumsy – elegant*; *boring – interesting*; *slow – fast*; *ugly – beautiful*; *lethargic – energetic*; *cold – passionate*; *reserved – erotic*; *sorrowful – happy*; *hard – soft*; *odious – seductive*; *insensitive – sensitive*; *easy – difficult*; *prosaic – romantic*; *restrained – sensual*; *imbalanced – balanced*; *sluggish – lively*; *relaxing – exciting*; *static – dynamic*; *stiff – agile*; *weak – strong*; *controlled – free*; *raw – subtle*; *apathetic – enthusiastic*; *discordant – rhythmic*; *untrained – trained*; *infirm – powerful* and *expressionless – expressive*.

Finally, the 27 most frequent descriptors of dance were specified, along with the 8 descriptors suggested by Polovina and Marković (2006). In sum, a set of 35 descriptors served as the basis for the construction of definite instrument for the measurement of the aesthetic experience of dance performances.

## EXPERIMENT

This experiment aimed at investigating the factor structure of the dancers' and spectators' aesthetic experience of different forms of dance performances.

### Method

*Participants:* Two groups of participants took part in the experiment. Group of dancers: Seventy-three dancers who participate in performances of different forms of dance. The basic criterion for selecting the dancers was having eight or more years of experience in professional dancing. Group of spectators: Thirty-three students from the Faculty of Philosophy in Novi Sad.

*Stimuli:* Performances of different forms of dance delivered live by the participants in front of the spectators. Dance performances which were included in the repertoire at the time of

this research were selected, and all of them are accompanied by music written exclusively for these performances.

#### Classical ballet

1. *The Lady of the Camellias*, Giuseppe Verdi, Libretto: Krunislav Simić, Choreographer and director: Krunislav Simić, Jovan Đorđević Stage, performed by the ensemble of The Serbian National Theatre, Novi Sad.
2. *Sylvia*, music: Léo Delibes, choreographer: Boris Tonin, Gala concert marking the 60<sup>th</sup> jubilee of the School of Ballet, Jovan Đorđević Stage, The Serbian National Theatre, Novi Sad.

#### Contemporary dance

3. *Metamorphosis*, Director: Jan Mahan; Choreographer: Saša Krga, Art klinika, Novi Sad.
4. *Divine Comedy*, inspired by Dante Alighieri, Choreographer and director: Staša Zurovac, Jovan Đorđević Stage, performed by the ensemble of The Serbian National Theatre, Novi Sad.

#### Flamenco

5. *Los recuerdos flamencólicos*, Choreographer: Maria Keck, Music: traditional, performed by "La Sed Gitana", Jazz Wheels Club, Novi Sad.
6. *La búsqueda del Felahmengu*, Choreographer: Tamara and Milena Verežan, Arijana Luburić – Cvijanović, Dajana Damjanović, Music: Nenad Patković and "Šinobusi", Annual Concert of the group "La Sed Gitana", Main Stage of the Youth Theatre, Novi Sad.

#### Folklore

7. *Ivanjsko cveće*, Choreographer: Milorad Lonić, performers AKUD "Sonja Marinković", Trg Slobode, Novi Sad.
8. *Vilinska planina*, the head of performers, costume designer and screenwriter: Dragan Milivojević, the Annual Concert of KUD "Svetozar Marković", Jovan Đorđević Stage, performed by the ensemble of The Serbian National Theatre, Novi Sad.

*Instrument:* A list of unipolar and bipolar seven-point scales with descriptors was used for measuring the aesthetic experience of the dancers and the spectators observing the dance performances. Some of the descriptors (unipolar seven-point scales: fascinating, irresistible, unique, eternal, profound, exceptional, universal and ineffable) were taken from a preliminary study (Polovina & Marković, 2006). The rest of the descriptors used in this experiment had been extracted in the preliminary study of the research (bipolar seven-point scale: *clumsy – elegant; boring – interesting; slow – fast; ugly – beautiful; lethargic – energetic; cold – passionate; reserved – erotic; sorrowful – happy; hard – soft; odious – seductive; insensitive – sensitive; easy – difficult; prosaic – romantic; restrained – sensual; imbalanced – balanced; sluggish – lively; relaxing – exciting; static – dynamic; stiff – agile; weak – strong; controlled – free; raw – subtle; apathetic – enthusiastic; discordant – rhythmic; untrained – trained; infirm – powerful and expressionless – expressive*). Thirty-five scales in total were used as the descriptors of the aesthetic experience of dance performances.

*Procedure:* Procedure for group of dancers: Having performed their dance, the dancers then rated their own aesthetic experience. The task of the dancers was to rate the experience of their performance on the seven-point scales containing the descriptors of the aesthetic experience of dance. The time allotted for the rating was ten minutes. Procedure for group of spectators: Having observed the dance performance, the spectators then rated their aesthetic experience of the performances observed on seven-point scales containing the descriptors of the aesthetic experience of dance performances. The participants were told at the beginning of



each performance to direct their ratings of aesthetic experience to the dance movements. The time allotted for the ratings was ten minutes.

## Results

A factor analysis was performed on a data matrix created according to Osgood's string-out method (Osgood et al., 1975). The aim of the factor analysis was to reveal the factors underlying the ratings of the aesthetic experience of dance performances.

### *Dancers*

Eight factors with eigenvalues above one were obtained through the principal component analysis. Table 1 shows the percentage of the variance explained by the first four factors. The total variance for these four factors is 56.66%. The other factors were too weak and could not be interpreted so they were not taken into consideration. The isolated factors were placed into Promax (oblique) rotation and interpreted according to scales matrices. Table 1 shows four extracted factors with the percentage of the explained variance and the loading indexes of the most loaded scales.

Table 1. The factors extracted according to the assessment of the dancers in all performances. Four extracted factors with the percentage of the explained variance and the loading indexes of the most loaded scales

	F1		F2		F3		F4
	34.54 %		9.37 %		6.89 %		5.48 %
expressive	0.96	ineffable	0.87	soft	0.90	erotic	0.83
agile	0.89	universal	0.81	subtle	0.72	exciting	0.75
dynamic	0.85	profound	0.81	romantic	0.61	easy	0.75
powerful	0.82	exceptional	0.81	seductive	0.44	free	0.37

The first factor explains the highest percentage of variance and includes the adjectives referring to Dynamism. The scales *expressive*, *agile*, *dynamic*, and *powerful* are most loaded by this factor.

The second factor includes the adjectives referring to Exceptionality. The scales *ineffable*, *universal*, *profound* and *exceptional* are most loaded by this factor.

The third factor includes the adjectives referring to Affective Evaluation. The scales *soft*, *subtle*, *romantic* and *seductive* are most loaded by this factor.

The fourth factor includes the adjectives referring to Excitement. The scales *erotic*, *excited*, *easy* and *free* are most loaded by this factor.

The results of the factor analysis show that the structure of dancers' aesthetic experience comprises four, relatively independent dimensions: Dynamism, Exceptionality, Affective evaluation and Excitement. These factors are relatively independent because there is inter-correlation between the factors, especially between the first and second ( $r = .49$ ) and the first and third ( $r = .34$ ).

The other inter-correlations are low. Dynamism is similar to Excitement, and this factor has already been considered close to aesthetic experience (Polovina & Marković, 2006).

### *Spectators*

A factor analysis carried out on the data matrix including all the performances of all dance forms in order to obtain the factors which were essential for the ratings of the descriptors of aesthetic experience of dance performances. The matrix was formed according to Osgood's *string-out* method (Osgood et al., 1975).

Five factors with eigenvalues above one were extracted by the results of the principal component analysis. Table 2 shows the percentage of variance that explains the first three factors. Overall variance explained by these three factors is 61.04%. The other factors were too weak or they could not be interpreted so they were not taken into consideration. The isolated factors were placed into Promax rotation and interpreted according to scales matrices. Table 2 shows three extracted factors with the percentage of the explained variance and the loading indexes of the most loaded scales.

Table 2. The factors extracted according to the assessment of the spectators in all performances. Three extracted factors with the percentage of the explained variance and the loading indexes of the most loaded scales

	F1		F2		F3	
	47.58 %		8.37 %		5.09 %	
powerful	0.83	eternal	0.92	soft	0.95	
expressive	0.83	ineffable	0.90	romantic	0.82	
strong	0.82	unique	0.86	subtle	0.76	
passionate	0.77	exceptional	0.81	elegant	0.57	

The first factor explains the highest percentage of variance and includes the adjectives referring to Dynamism, and the scales *powerful*, *expressive*, *strong*, and *passionate* are most loaded by this factor.

The second factor includes the adjectives referring to Exceptionality. The scales *eternal*, *ineffable*, *unique* and *exceptional* are most loaded by this factor.

The third factor includes the adjectives referring to Affective Evaluation. The scales *soft*, *romantic*, *subtle* and *elegant* are most loaded by this factor.

The results of the factor analysis show that the structure of spectators' aesthetic experience comprises three, relatively independent dimensions: Dynamism, Exceptionality, and Affective Evaluation. There is an inter-correlation between the first and second factor ( $r = .64$ ) and the first and third

( $r = .59$ ), whereas the inter-correlation between the second and third factor is  $r = .44$ . The factors are relatively independent because there are inter-correlations between all of them, which could show that Dynamism, Exceptionality and Affective evaluation are related to one another.

Owing to the fact that one of the basic aims of this paper is to show whether there is a common coherent factor connecting dancers' and spectators' aesthetic experience, the results of the first and second experiment will be elaborated on in more detail.

#### *Joint factor analysis for dancers and spectators*

The results obtained from the ratings on the scales of descriptors of dancers' and spectators' aesthetic experience have already been analyzed and discussed. Factor analysis was used to determine the factor structure of aesthetic experience of dance separately in the case of dancers and spectators. The results showed that in both cases there are three similar factors making up the structure of aesthetic experience of dance performances. In addition, the scales with the most loaded factors are different (cf. Table 3).

Table 3. Comparative overview of the factors of aesthetic experience of dance in the case of dancers and spectators with the four most loaded scales

DANCERS			SPECTATORS		
DYNAMISM	EXCEPTIONALITY	AFFECTIVE EVALUATION	DYNAMISM	EXCEPTIONALITY	AFFECTIVE EVALUATION
expressive	ineffable	soft	powerful	eternal	soft
agile	universal	subtle	expressive	ineffable	romantic
dynamic	profound	romantic	strong	unique	subtle
powerful	exceptional	seductive	passionate	exceptional	elegant

In order to investigate whether there is a common coherent factor connecting dancers' and spectators' aesthetic experience, a joint factor analysis was used.

The ratings of spectators and dancers were joined on the data matrix. The matrix was formed on the principle of Osgood's *string-out* method (Osgood et al., 1975). Joint factor analysis was used to investigate whether there is a common coherent factor joining dancers' and spectators' aesthetic experience.

Six factors with eigenvalues above one were extracted by the principal component analysis. Table 4 shows the percentage of variance that explains the first three factors. Overall variance explained by these three factors is 59.75%. The other factors were too weak or they could not be interpreted so they were not taken into consideration. The isolated factors were placed into Promax rotation and interpreted according to scales matrices. Table 4 shows three extracted factors with the percentage of the explained variance and the loading indexes of the most loaded scales.

Table 4. The factors extracted according to the assessment of the dancers and spectators in all performances. Three extracted factors with the percentage of the explained variance and the loading indexes of the most loaded scales.

F1		F2		F3	
46.39 %		8.27 %		5.09 %	
expressive	0.89	eternal	0.90	subtle	0.76
powerful	0.87	ineffable	0.88	elegant	0.56
strong	0.83	unique	0.88	seductive	0.47
exciting	0.76	exceptional	0.83	sensitive	0.38

The first factor explains the highest percentage of variance and includes the adjectives referring to Dynamism, and the scales *expressive*, *powerful*, *strong*, and *exciting* are most loaded by this factor.

The second factor includes the adjectives referring to Exceptionality. The scales *eternal*, *ineffable*, *unique* and *exceptional* are most loaded by this factor.

The third factor includes the adjectives referring to Affective Evaluation. The scales *subtle*, *elegant*, *seductive* and *sensitive* are most loaded by this factor.

The results of the joint factor analysis for dancers and spectators show that the structures of dancers' and spectators' aesthetic experience comprise three dimensions: Dynamism, Exceptionality, and Affective Evaluation. There is a moderate inter-correlation between dimensions: the first and second factor,  $r = .63$ ; first and third,  $r = .57$ , and the second and third factor  $r = .42$ .

## DISCUSSION

Results of the experiments have shown that the structure of the dancers' aesthetic experience comprises four, relatively independent dimensions (Dynamism, Exceptionality, Affective Evaluation and Excitement), whereas the structure of the spectators' aesthetic experience is made up of three relatively independent dimensions (Dynamism, Exceptionality and Affective Evaluation). The comparison between the results of the first and second experiment demonstrated that the aesthetic experience of dance performances in the case of dancers and spectators partially differs in their structures, although the first three factors of aesthetic experience of both dancers and spectators are relatively similar. However, the scales which are most loaded with the same factors are different. The Excitement factor, present in the dancers' aesthetic experience of dance performances, does not emerge in the structure of the spectators' aesthetic experience.

On the one hand, the Excitement factor, which is the most loaded with the adjectives *erotic*, *exciting*, *easy* and *free*, can be related to a certain form of eroticism that has historically accompanied the performance of dance (Hanna, 1988). Since a body engaged in dance is the main instrument of expression, and due to the fact that the body is the central instrument for expressing sexuality, it could be expected that the dimension referring to the engagement of the body in

dance is the one that distinguishes in terms of the quality between dancers' and spectators' aesthetic experience.

On the other hand, according to Arnheim (1966, p. 261), dance is defined as an "art of the muscular sense", and the performance of dance is accompanied by a set of experiences relating to the strength of the body, its position and movement as well as its spatial orientation and internal physical senses of its muscles, joints and tendons (Thomas, 1980; Hamby, 1984; Glomer & Dupui, 2000; Montero, 2006; Hugel et al., 1999; Fenemor, 2003; Mullis, 2006). Therefore, it may be assumed that the Excitement factor relates to these specific characteristics of dance performance. Therefore, the result of this research contributes to the studies dealing with the importance of proprioception to dancers' experience in dance (Montero, 2006; Hugel et al., 1999; Hagendoorn, 2003).

Through findings confirming that there is an Excitement factor on the part of dancers which is not present in the structure of the spectators' aesthetic experience, this paper appears to stress the specific characteristic of dancers' experience of dance which was emphasized by Barbara Montero (2006) and meaning that, unlike a painting which can be experienced through the sense of sight by more people at the same time, due to proprioception, a movement may be experienced only by the person performing it.

It could be concluded that a partial qualitative difference between dancers' and spectators' aesthetic experience can be related to the aspect of body activity in dance, which emanates from the specific characteristics of dance, meaning that while creating their work of art, dancers use their body and proprioception the most, whereas spectators receive this work of art "passively" through the sense of sight and use exteroception the most (Arnheim, 1966; Hangedoorn, 2003; Montero, 2006).

The factors of Dynamism, Exceptionality and Affective Evaluation lie in the basis of the aesthetic experience of dance performances. They are also present in the structure of dancers' and spectators' aesthetic experience of dance performances. These results probably refer not only to the specific characteristics of dance but also to certain qualities that define it. Thus, dance is a specific type of activity (Layson, 1994; Jowitt, 1994) which is different from other activities in terms of its context (McFee, 1992). Artistic dance would mean human, highly articulated movement (Layson, 1994) and the context of artistic dance would include the presence of spectators in addition to the type of stage, lighting or scenery. Beside specific characteristics of dance referring to its spatial and temporal synchronization and definiteness, the presence of the spectator is the characteristic that determines dance as a performing art at the moment intended for the dance performance (McFee, 1992). Unlike other artistic disciplines which are atemporal (McFee, 1992), the final creation of dance is completed at the moment of performance.

It would appear that the dimension of Dynamism, which is present in both dancers' and spectators' aesthetic experience, relates to movement and body activity, i.e. the specific type of activity characterizing dance. Since the function of this activity is to express certain meaning (Jowitt, 1994; Layson, 1994; Arnold, 1995) and the dimension of Dynamism includes the adjectives *expressive*, *strong*,

*powerful* and *exciting*, it could be assumed that this dimension also relates to the expressiveness characterizing dance (Jowitt, 1994; Arnold, 1995). In short, the dimension of Dynamism pertains to the expressiveness of movements.

The dimension of Exceptionality in the aesthetic experience of dance is not only the result of the action of the overall, often original or at least unusual, context of dance performance, but also admiration for the skill needed for performing a dance movement. In addition, it is worth mentioning that the adjectives *eternal*, *ineffable*, *unique* and *exceptional* relating to the dimension of Exceptionality are also the descriptors of the aesthetic experience of paintings (Polovina & Marković, 2006), so the dimension of Exceptionality is not likely connected to any artistic discipline, but rather to the aesthetic experience of artistic content in general and thus to dance. These adjectives are also likely to be significant descriptors for the aesthetic experience of music, architecture or sculpture. However, empirical research would be necessary to confirm this.

The dimension of Affective Evaluation can be connected to the way in which highly articulated and expressive movement specific to dance is performed. For example, one would be more likely to say that a dancer, rather than a gymnast or master of martial arts, moves graciously, elegantly, seductively or sensitively.

As previous research (van Weiringen, van der Veer, van der Meulen, & Adèr, 1982) has demonstrated, the use of Osgood's semantic differential (Osgood et al., 1975) is a reliable instrument for measuring connotation posture in dance. In these studies, three factors similar to Osgood's factors of activity, evaluation and potency (Osgood et al., 1975) were also obtained, meaning that the results of our research can be considered comparable to previous results.

The dimension of Dynamism represents a combination of Osgood's dimensions of activity and potency, whereas the dimension of Affective Evaluation is similar to Osgood's evaluation. The dimension of Exceptionality does not correspond to any of Osgood's dimensions, most likely due to the fact it relates to a type of artistic stimuli, whereas Osgood and collaborators used verbal stimuli (concepts).

One of the benefits of this research is that an instrument for measuring aesthetic experience of dance performances can be constructed on the basis of the results. This instrument would have three factors:

- Dynamism (*expressive, powerful, strong, exciting*);
- Exceptionality (*eternal, ineffable, unique, exceptional*);
- Affective Evaluation (*subtle, elegant, seductive, sensitive*).

Furthermore, this instrument could be applied in future research focused on addressing the questions that have remained unanswered in this study.

Before the questions that have remained unanswered are addressed in more detail, it is necessary to mention that there are methodological problems faced in this research, which among others include: difficulties to define stimuli, control of all the variables, problems with transferring the experience into the verbal expression and making assessment on the scale.

In spite of all difficulties encountered in the research this study has provided a better insight into the structure of the aesthetic experience of dance performances and has also pointed out the qualitative differences between dancers' and spectators' aesthetic experience of dance performances. The questions arising from this study refer to the relationship between dancers' and spectators' aesthetic experience and also to the complexity of the stimuli.

As far as the relationship between dancers' and spectators' aesthetic experience is concerned, it would be well worth investigating whether there are any quantitative differences between the experience of dancers and the experience of spectators by using the instrument constructed on the basis of the results of this research, and what, if any, features that relationship has. Likewise, it would be useful to research whether the relationship between dancers' and spectators' aesthetic experience of dance performance is characterized by any correlation or regularity.

In the case of the complexity of the stimuli in this research, the results were obtained through assessments of different dance performances. These ratings in addition to the choreography characteristic to certain dance forms, include scenery, costumes, visual effects, an ensemble of dancers and a libretto. Some of the recent research (Stevens et al., 2000; McKechnie, 2002) has showed that these factors not only shape the aesthetic experience of dance performances but also a personal interpretation of dance. Future studies should investigate what dancers' and spectators' aesthetic experiences are when short choreographies for certain dance forms or solo dances are performed. Further studies should ascertain whether there are differences in aesthetic experience when dance is being performed when proprioception, i.e. the kinaesthetic and vestibular system, has the key role, and when dancers observe their own taped dance when exteroception has the key role. Likewise, it should be investigated whether or not there are differences in spectators' aesthetic experience when they observe the dance live or in a recorded form.

Generally, we can conclude that the aesthetic experience of dance performance is a multi-dimensional phenomenon. The articulation of dancers' aesthetic experience is important for spectators' aesthetic experience (Dale et al., 2007) because it has been demonstrated that there are dimensions underlying both dancers' and spectators' aesthetic experience. Finally, we can conclude that dance as a performing art that requires spectators (Arnold, 1995; Jowitt, 1994; McFee, 1992) achieves through its expressiveness the function of being communicative (Arnold, 1995) or, in other words, dance does not only contain but also convey meaning.

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## Appendix A

The list of the dances downloaded from the Internet for the preliminary study

1. Folklore: "Čačak kolo"  
<http://www.youtube.com/watch?v=eisq2319P7U>
2. Contemporary Dance: "Philia"  
<http://www.youtube.com/watch?v=ysG2dyV3Vt4>
3. Flamenco: "Farruca"  
<http://www.youtube.com/watch?v=y5triYK92IA>
4. Giselle „Duet”  
<http://www.youtube.com/watch?v=WyShMJxep7c>
5. „Kolo – Great Final of the Balkan Odyssey”  
<http://www.youtube.com/watch?v=YFOU87LAnfM>
6. Swan Lake „Odette Variation”  
<http://www.youtube.com/watch?v=d3jAD4Dr7BI>
7. Flamenco: „Solea por Bulerias”  
<http://www.youtube.com/watch?v=plTTJFP7YY0>
8. „Duet – Srodne duše”  
<http://www.youtube.com/watch?v=YWCwMGnGbQU&feature=Playlist&p=9CF4C2BA82377382&>
9. „Tango Fire – Verano Portenas”  
<http://www.youtube.com/watch?v=cFeAwZslAHY>
10. Contemporary dance: „Why”  
<http://www.youtube.com/watch?v=qaKJNs3cSLcž>