

The Role of Discrete Emotions on Athletes' Religiosity

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Abstract

The purpose of the present study was to investigate the influence of discrete emotions in sport settings on religiosity athletes', as well as the effect of gender, experience, and type of sport in shaping religiosity and discrete emotions. For the purpose of the study 258 athletes (male, n = 180; female, n = 78) were used. They participated a at team and individual sports, with their age ranging from 18 to 27 years (M = 19.78, SD = 1.87) and their experience ranged from 2 to 18 years (M = 10.19, SD = 3.23). Participants filled out three questionnaires: Sport Emotion Questionnaire (SEQ), Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ), and Religious Schema Scale (RSS). Results did not show any influence of emotions on the strength religious faith of athletes' except on religious styles that are related to fairness, tolerance & rational choice, and xenophobia & inter-religious dialog.

Key words: Discrete emotions, Religious faith, Religious schemas, Sport

Introduction

According to Jones (2003) sport is an emotional experience for many athletes. Possibly this is the reason why emotions in sport have received increased attention in research and practice (e.g., Hanin, 2000; Lane, Beedie, Jones, Uphill, & Devonport, 2012; Lazarus, 2000a; Martinek & Ferrand, 2009; Nicholls, Polman, & Levy, 2012).

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In psychology and philosophy emotion is a subjective, conscious experience characterized primarily by psycho-physiological expressions, biological reactions and mental states. Lazarus (2000a) defined emotions as “an organized psycho-physiological reaction to ongoing relationships with the environment, most often, but not always, interpersonal or social” (p. 230). While, Cognitive-Motivation Relational (CMR) theory states that emotions are generated by the evaluation a person makes about his or her environment in relation to personal goals (Lazarus, 1991, 1999, 2000a, 2000b). This refers to the cognitive element of the CRM theory of emotions.

Sporting experience is characterized by positive (e.g., joy, hope) and negative (e.g., anxiety, disappointment) emotions (Hanin, 2007; Jones, 2003; Lazarus, 2000b). The significance of most discrete emotions in cognitive outcomes such as judgment and decision making attracted the interest of researchers concerning their assessment (for more information, see Angie, Connelly, Waples, & Kligyte, 2011). Thus, Jones, Lane, Bray, Uphill, and Catlin (2005) developed the Sport Emotion Questionnaire (SEQ) for the assessment of emotions in sport settings. They claimed that at least five emotions are particularly related to sport settings, which cover a range of pleasant (happiness and excitement) and unpleasant states (anger, anxiety and dejection).

Emotions as a psychological notion with cognitive elements are a central topic in the study of religion. Emotions may lead to changes in a range of cognitive functions (Jones & Uphill, (2004). Fuller (2007) mentions that “Humans are a complex mixture of emotions and all would play some part in shaping our overall religious sensibility” (p. 36). Research on discrete emotions helps us appreciate the evolutionary-adaptive reasons why humans are motivated to adopt an apocalyptic orientation to life (Fuller, 2007), as the religiosity of individuals.

Religion is a multidimensional construct that has been variously defined. Religion involves the co-presence of beliefs, ritualized experiences, norms, and groups connected to what people perceive as a transcendent entity (e.g., Koenig, 2012; Saroglou, 2014). The genesis of religious beliefs has occupied quite intensely the researchers on religion who investigate its relation to emotions (Fuller, 2007). Research on the relation between religiosity and emotions has showed mixed results, with some providing consistent support for a positive association (e.g., Abdel-Khalek, 2006; Myers, 2002), while others have not (e.g., Abdel-Khalek & Nacuer, 2007; Janssen, Banziger, Dezutter, & Hutsebaut, 2006). Such a contradiction of results may be due to the variety of different measures of religiosity (Lewis & Cruise, 2006).

In an attempt to avoid such methodological concerns in the present study, two different approaches for the examination of religion were used. The first, that of religiosity, will be done through the assessment of the strength of religious faith through the use of Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ; Plante & Boccaccini, 1997a,b). The SCSRFQ is a brief 10 item self-report measure assessing strength of religious faith and engagement suitable for use with multiple religious traditions, denominations, and perspectives (Plante, 2010). The second approach will take place through the assessment of religious schemas through the Religious Schema Scale (RSS; Streib, Hood, & Klein, 2010). The study of religious schemata is rather interesting since it presents us with a cognitive interpretation pattern which a person seeks and prefers in order to cope with everyday issues.

In the sport domain emotions as a cognitive element, according to CRM theory, have occupied researchers mainly for their relation to performance (e.g., Lane, Devonport, Soos, Karsai, Leibinger, & Hamar, 2010, Nicholls et al., 2012) and morality (e.g., Cameron, Linquist, & Gray, 2015; Proios, 2012, 2014a,b; Sarkar, Hill, & Parker, 2015; Stanger, Kavussanu, Willoughby, & Ring, 2012). The importance of the present study is focused on how discrete emotions affect the way that a person's mode of religiosity affects his. The way religiosity is formed is important since it holds an important role in enhancing sport performance and contributes to personal growth and well-being (Dillon & Tait, 2000; Vernacchia, McGuire, Reardon, & Templin, 2000). Since this is a cognitive element it may

contribute in the shaping of psychological and social processes. Frijda, Manstead, and Bem (2000) stressed the existence of scant attention in the study of influence of emotion on cognition, a fact that further strengthens the present study.

The purpose of the present study is to investigate the influence of discrete emotions in sport settings on religiosity athletes'. In addition, this study investigates the impact of gender, experience and type of sport in shaping religiosity and discrete emotions. The main hypothesis in the present study is the existence of a relationship between the examined variables of religiosity and discrete emotions as well as the differences in the religiosity and discrete emotions in relation to gender, experience and type of sport. Smith and Denton (2005), Wallace, Forman, Caldwell, & Willis (2003) supported that gender is a variable where religiosity seems to show differences in adolescents. Cerin, Szabo, Hunt, and Williams (2000) suggest that gender (personal factor) and type of sport (situational factor) are factors that moderate emotional states.

Method

Participants

The participants were 258 athletes (male, $n = 180$; female, $n = 78$) who were involved in competitive sport at the time of data collection. More specifically, 163 athletes in team sports (football, basketball, volley and rowing), and 95 in individual sports (track and field, swimming, gymnastics, martial arts, tennis, cycling, sailing, ski, and weightlifting). Their age ranged from 18 to 27 years ($M = 19.78$, $SD = 1.87$). Experience of athletes ranged from 2 to 18 years ($M = 10.19$, $SD = 3.23$). For the needs of the present study years of experience were divided in two categories: small (2-10 years) and large (11-18 years).

Procedures

The questionnaires were given to the athletes during team practices with coach permission. Before the athletes completed the questionnaires, we told them that their participation was voluntary and that there was no right or wrong answers to the questions. Furthermore, we assured them that their answers would remain confidential and anonymous and that their

coaches would not be permitted to see their responses. Therefore, we asked the athletes to answer the questionnaire honestly and ask for assistance if needed. Most of the athletes took 20-25 min to complete the questionnaire.

Measurements

Emotions. A validated Greek version (Proios, 2014a,b) of the Sport Emotion Questionnaire (SEQ; Jones et al., 2005) was used to measure the emotions appearing during the competition. The SEQ contains 22 items that are scored on a 5-point Likert-type scale ranging from 0 (not at all) to 4 (extremely). This scale has shown good validity and reliability when used after competition, with internal consistency scores for the five emotions ranging from .77 to .94 and .77 to .91 (Allen, Jones, & Sheffield, 2010; Dewar & Kavussanu, 2011). Participants were asked to read each of the items and indicate the extent to which they experienced each emotion during the round of golf they had just played. The statement was “During competition I usually feel . . . ,” and the emotions measured were happiness (four items; e.g., “pleased”), excitement (four items; e.g., “exhilarated”), dejection (five items; e.g., “unhappy”), anxiety (five items; e.g., “nervous”), and anger (four items; e.g., “furious”). The reliability of the SEQ was calculated using alpha coefficient. Alpha coefficients for happiness were ($\alpha = .80$), excitement ($\alpha = .60$), anger ($\alpha = .86$), anxiety ($\alpha = .73$), and dejection ($\alpha = .83$), indicating good reliability for each. The aforementioned value (.60) can be considered as satisfactory, as this factor comprises of fewer than 10 items (viz., three items; Ntoumanis, 2001; Pallant, 2010).

Religiosity. A validated Greek version (Dianni, Proios, & Kouthouris, 2014) of the Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ; Plante & Boccaccini 1997a, b) was used in order to assess religiosity. SCSRFQ is a 10-item self-report measure. The SCSRFQ uses a 4-point Likert response format, ranging from (1) Strongly disagree to (4) Strongly agree. The SCSRFQ was found to have high internal reliability, with Cronbach’s alphas ranging between .94 and .97 and split-half reliability correlations between .90 and .96. In the present study, the alpha coefficient was ($\alpha = .94$).

Also, a validated Greek version (Proios, 2015) of the Religious Schema Scale (RSS; Streib et al., 2010) consisting of three subscales of 5 items each was used. The RSS uses a 5-point Likert-type format from strongly agree to strongly disagree. Reliabilities of the three subscales in the current sample are: $\alpha = .85$ for subscale truth of texts & teachings (ttt), $\alpha = .63$ for fairness, tolerance & rational choice (ftr) and $\alpha = .57$ for xenosophia & inter-religious dialog (xenos). The alpha value for attraction ($\alpha = .63$ and $.57$) appeared low, but is considered as relatively acceptable (Tabachnick & Fidell, 2007).

Data Analysis

Descriptive statistics were obtained and preliminary data analyses were conducted to estimate the responses of athletes' on constructs such as religiosity and emotions in sport settings. Simple correlations were calculated to test the relationships between variables. Inferential statistics (univariate and multivariate analysis of variance [ANOVA and MANOVA]) were used to analyze the extent to which the perception of the athlete's religiosity and emotions varied with gender, experience, and type of sport. η^2 values were used to control for the level of effect of gender, experience and type of sport. Finally, a series of hierarchical multiple regressions were conducted in order to investigate the influence of several emotions (predictors) in a sequential way, within a criterion (religious faith and religious schemas; B. H. Cohen, 2001; Wampold & Freund, 1987). All analyses were completed using SPSS for Windows version 15.0.

Results

Descriptive Statistics and Correlations

Table 1 provides means and standard deviations for all the investigated variables. Regarding religiosity, on average, athletes exhibited moderate scores in the religious faith, and preferably on religious schema fairness, tolerance & rational

Table 1 - Descriptive Statistics, Cronbach α , Differences Sig.

Variables	Gender		Type of sport		Experience		Total	Cronbach
	Males	Females	Team	Individual	Small	Large		α
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	
<i>Religiosity</i>								
Religious faith	2.29 (.72)	2.27(.69)	2.36 (.69)	2.15(.72)	2.24(.72)	2.34 (.69)	2.28(.71)	.94
<i>Differences (Sig.)</i>	$p = .87$		$p < .05$		$p = .24$			
Religious schema								
ttt	2.65 (.86)	2.55(.79)	2.73 (.83)	2.44(.82)	2.60(.81)	2.64 (.87)	2.62(.84)	.85
ftt	3.96 (.54)	3.94(.59)	3.95(.58)	3.96 (.51)	3.94(.56)	3.99 (.53)	3.95 (.55)	.63
xenos	3.15 (.60)	3.08(.57)	3.13 (.59)	3.12(.59)	3.11(.57)	3.17 (.61)	3.13(.59)	.57
<i>Differences (Sig.)</i>	$p = .77$		$p < .05$		$p = .86$			
<i>Emotions</i>								
Happiness	2.65 (.81)	2.37(.87)	2.62 (.83)	2.48(.86)	2.53(.84)	2.62 (.85)	2.57 (.84)	.80
Excitement	2.34 (.67)	2.29(.76)	2.32(.71)	2.35 (.70)	2.37 (.71)	2.29(.68)	2.32(.70)	.60
Anger	.97 (.98)	.81(.92)	.95 (.99)	.89(.92)	.97 (.95)	.84(.96)	.93(.97)	.86
Anxiety	1.99(.78)	2.12 (.79)	1.90(.79)	2.24 (.74)	2.13 (.79)	1.91(.75)	2.03(.78)	.73
Dejection	.67 (.80)	.64(.63)	.62(.75)	.74 (.76)	.77 (.79)	.52(.70)	.67(.75)	.83
<i>Differences (Sig.)</i>	$p < .01$		$p < .001$		$p < .05$			



choice. They also exhibited higher scores in pleasant emotions (happiness) and lower in unpleasant emotions (dejection). Correlations among measures are shown in Table 2. Results indicated that similar variables showed medium to high correlation, while different ones showed none to very low correlation.

Differences in religious faith, religious schemas and discrete emotions in relation to gender, experience, and type of sport

Regarding religious faith, first the descriptive statistics (Table 1) showed that scores of males dominate over these of females. Nevertheless, univariate analysis did not show significant differences in scores ($F(1, 257) = .02, p = .87$). Second, the descriptive statistics revealed a dominance of the scores of team sports over scores of individual sports, with statistically significant differences in scores ($F(1, 257) = 5.04, p < .05, \eta^2 = .019$). According to J. Cohen (1988), guidelines for interpreting an eta-square value (η^2) is that .01 indicates a small effect, .09 indicates a moderate effect, and .25 indicates a large effect. Therefore, our finding $\eta^2 = .019$, indicates that 1.9% of the total variance in variables of religious faith is accounted for by type of sport differences and as such it can be classified as a small effect. Third, the scores of large experience were higher than ones of small experience without though these differences in scores being statistically significant ($F(1, 257) = 1.36, p = .24$).

Table 2 - Correlations among for all the variables

Variables	1	2	3	4	5	6	7	8
1. Religious faith	-	-	-	-	-	-	-	-
2. ttt	.78**	-	-	-	-	-	-	-
3. ftr	.25**	.25*	-	-	-	-	-	-
4. xenos	.31**	.41**	.53**	-	-	-	-	-
5. Happiness	.11	-.07	.00	.03	-	-	-	-
6. Excitement	.01	.11	-.03	.10	.50**	-	-	-
7. Anger	.06	.04	.06	.16**	.15*	.01	-	-
8. Anxiety	-.05	.09	-.01	.03	.62**	.69**	.22**	-
9. Dejection	.03	.10	.14*	.13*	-.08	-.15*	.69**	.06

Note: Statistical significant * $p < .05$, ** $p < .01$

Regarding religious schemas, first the descriptive statistics (Table 1) showed that scores of males in all three schemas dominate over those of females. The multivariate test did not reveal significant main effects for gender (Wilks' $\lambda = .996$, $F(3, 254) = .37$, $p = .77$). Second, the descriptive statistics revealed a dominance of the scores of team sports in schemas ttt and xenos over scores of individual sports, while the dominance of scores in schema ftr was opposite. The multivariate test revealed a significant main effect for type of sport (Wilks's $\lambda = .967$, $F(3, 254) = 2.89$, $p < .01$, $n^2 = .033$). The finding $\eta^2 = .033$ indicates that 3.3% of the total variance in variables of religious schemas is accounted for by type of sport differences and as such it can be classified as a small effect. Subsequent univariate analyses showed that type of sport diversified religious schemas only on ttt schema ($F(1, 257) = 5.14$, $p < .01$, $n^2 = .028$). Third, the scores of large experience were higher than those of small experience without though these differences in scores being significant (Wilks's $\lambda = .997$, $F(3, 248) = .25$, $p = .86$).

Finally for emotions, first the descriptive statistics (Table 1) showed that scores of males in happiness, excitement, anger and dejection dominate over those of females, while in scores of anxiety the dominance is the other way round. The multivariate test revealed a significant main effect for gender (Wilks's $\lambda = .941$, $F(5, 252) = 3.18$, $p < .01$, $n^2 = .059$). The finding $\eta^2 = .059$ indicates that 5.9% of the total variance in variables of emotions is accounted for by gender differences and as such it can be classified as a small effect. Subsequent univariate analyses showed that gender diversified only the emotion happiness ($F(1, 257) = 6.53$, $p < .01$, $n^2 = .025$). Second, descriptive statistics revealed a dominance of the scores of team sports in happiness and anger over scores of individual sports, while dominance of scores in excitement, anxiety and dejection was the other way round. The multivariate test revealed a significant main effect for type of sport (Wilks's $\lambda = .900$, $F(5, 252) = 5.62$, $p < .001$, $n^2 = .100$). The finding $\eta^2 = .100$ indicates that 10% of the total variance in variables of emotions is accounted for by type of sport differences and as such it can be classified as a moderate effect. Subsequent univariate analyses showed that type of sport diversified only the emotion anxiety ($F(1, 257) = 11.87$, $p < .001$, $n^2 = .044$). Third, the scores of small experience $\sigma\alpha$ emotions excitement, anger, anxiety and dejection showed higher of large experience, while

dominance of scores in happiness was the other way round. The multivariate test revealed a significant main effect for experience (Wilks's $\lambda = .952$, $F(5, 246) = 2.49$, $p < .05$, $\eta^2 = .048$). The finding $\eta^2 = .048$ indicates that 4.8% of the total variance in variables of emotions is accounted for by experience differences and as such it can be classified as a small effect. Subsequent univariate analyses showed that experience diversified only anxiety ($F(1, 251) = 4.68$, $p < .05$, $\eta^2 = .018$) and dejection ($F(1, 251) = 6.90$, $p < .01$, $\eta^2 = .027$).

Religious faith, Religious schemas and Emotions

A series of hierarchical multiple regression analyses (Table 3) were performed to test the ability of pleasant and unpleasant emotions in sport settings in the formation of religiosity of athletes. First hierarchical multiple regression: In the first step, two predictors were entered: happiness and excitement (pleasant emotions). This model was not statistically significant, $F(2, 255) = 2.67$, $p = .07$. After the entry of unpleasant emotions (angry, anxiety, and dejection) at Step 2 this model once again was not statistically significant $F(5, 252) = 1.93$, $p = .09$. Finally, this analysis revealed that emotions (pleasant and unpleasant) were not contributed in the predicting of the strength of religious faith. Nevertheless, in the final model, one out of five predictor variables were statistically significant, with happiness showing a Beta value ($\beta = .19$, $p < .05$).

Table 3 - Hierarchical Multiple Regression

Variable	<i>R</i>	<i>R</i> ²	<i>R</i> ² <i>Change</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>t</i>
<i>Religious faith</i>							
Step 1	.14	.021					
Happiness				.16	.07	.19	2.30*
Excitement				-.12	.09	-.12	-1.41
Step 2	.19	.037	.016				
Happiness				.16	.08	.19	2.11*
Excitement				-.13	.09	-.13	-1.43
Anger				.10	.07	.14	1.41
Anxiety				-.12	.07	-.13	-1.57
Dejection				.03	.08	.03	1.41
<i>ttt</i>							
Step 1	.11	.011					
Happiness				.13	.09	.13	1.54
Excitement				-.05	.10	-.04	-.52
Step 2	.23	.052*	.040*				
Happiness				.13	.09	.13	1.50

Excitement							
Anger							
Anxiety							
Dejection							
<hr/>							
<i>fr</i>							
Step 1	.14	.020					
Happiness							
Excitement							
Step 2	.15	.021	.01				
Happiness							
Excitement							
Anger							
Anxiety							
Dejection							
<hr/>							
<i>xenos</i>							
Step 1	.16	.026*					
Happiness							
Excitement							
Step 2	.22	.047	.021				
Happiness							
Excitement							
Anger							
Anxiety							
Dejection							

Note: Statistical significant $*p < .05$

Second hierarchical multiple regression: In the first step, two predictors were entered: happiness and excitement (pleasant emotions). This model was not statistically significant, $F(2, 255) = 1.44, p = .24$. After entering unpleasant emotions (angry, anxiety, and dejection) at Step 2, the total variance explained by the model as a whole was 5.2%, $F(5, 252) = 2.74, p < .05$. The introduction of unpleasant emotions explained an additional 4% variance in tt schema, after controlling for angry, anxiety, and dejection ($R^2 \text{ Change} = .04, F(3, 252) = 3.58, p < .05$). In the final model, one out of five predictor variables was statistically significant, with anxiety presenting a Beta value ($\beta = -.20, p < .05$).

Third hierarchical multiple regression: In the first step, two predictors were entered: happiness and excitement (pleasant emotions). This model was not statistical significant, $F(2, 255) = 2.65, p = .07$. After the entry of unpleasant emotions (angry, anxiety, and dejection) at Step 2 this model and once again it was not statistical significant $F(5, 252) = 1.10, p = .36$. Finally, this analysis revealed that emotions (pleasant and unpleasant) were not contributing

in the prediction of ftr schema. Nevertheless in the final model, one out of five predictor variables were statistically significant, with happiness showing a Beta value ($\beta = .19, p < .05$).

Fourth hierarchical multiple regression: In the first step, two predictors were entered: happiness and excitement (pleasant emotions). This model was statistically significant, $F(2, 255) = 3.43, p < .05$, and explained 2.6% of the variance in xenos schema. After the entry of unpleasant emotions (angry, anxiety, and dejection) at Step 2 the total variance explained by the model as a whole was 4.7%, $F(5, 252) = 2.47, p < .05$. The introduction of unpleasant emotions explained an additional 2.1% variance in xenos schema, after controlling for angry, anxiety, and dejection ($R^2 \text{ Change} = .021, F(2, 252) = 1.18, p = .15$). In the final model, one out of five predictor variables were statistically significant with dejection presenting a Beta value of ($\beta = .21, p < .05$).

Discussion

Jones and Uphill (2004) supported that an emotion can be thought of as a response to an event or stimulus. They also suggested that emotions could lead to changes in an individual's cognitive functioning. Thus, the aim of this study was to investigate, through retrospective self-report, any possible affect of discrete emotions in sport settings on cognitive functioning of religiosity. The present study also examined the existence of developmental changes in discrete emotions and religiosity of athletes.

A first finding of the present study through descriptive statistic was the dominance of pleasant emotions among athletes. Similar findings have been supported from other studies as well (e.g., Allen et al., 2010; Lane, Devonport, Soos, Karai, Leibinger, & Hamar, 2010; McCarthy et al., 2013; Proios, 2014a). This finding is possibly due to the fact that emotions such as happiness, excitement and enjoyment permeate successful endeavor in sport (McCarthy, 2011; Uphill & Jones, 2012). Finding also revealed that the strength of religious faith of athletes is found at a medium level, something enhanced by findings of other studies that revealed that religious faith ranges between low and medium level (e.g., Bell, Johnson, & Petersen, 2009; Storch, Roberti, Bravata, & Storch, 2004). The medium level of religious

faith is possibly due to the age of athletes (teenagers). Other findings supported that religiosity relents from early adolescence to late adolescence (Proios, Under review), or after the age of 17 (Smith & Denton, 2005).

Within the frame of examining athletes' religiosity through religious schemas, it seems that the cognitive pattern that is preferred by athletes in order to deal with issues of everyday life is the one expressed by the religious schema of fairness, tolerance and rational choice (ftr). This finding combined with that of the medium level of religious faith, reveals a limited presence of a religious fundamentalism amongst athletes. Nevertheless the absence of other empirical proof does not allow further discussion of this finding.

The findings of the present study on the effect of developmental variables in the formation of the aspects of religiosity and emotions of athletes, did not fully confirmed the initial hypotheses. Regarding the strength of religious faith and religious schemas, these were not found to be affected by gender and experience but only by the type of sport at a small size. Regarding gender, the present finding is enhanced by those of other studies that revealed no main effect on the three dimensions of religiosity (organizational, non organizational, and intrinsic) (Storch, Storch, Kolsky, & Silvestri, 2001) and no significant effect on religious schemas (Streib et al., 2010). The finding of type of sport strengthens the claim that the strength of religious faith may differ as a function of the type of sport (Storch et al., 2004). For experience, the significant shortage of literature assessing religiosity in athletes does not allow further discussion on this finding (i.e. the lack of effect on athletes' religiosity).

On the contrary for emotions, findings revealed that these are affected by gender, type of sport and experience at a small to moderate size. Specifically for gender, this finding enhances the claim that emotions are important across gender (Proios, 2014a; Shweder & Haidt, 2004). By separately investigating any possible differences in discrete emotions that are gender-related, they were established to be significant only in happiness. This finding leads to the assumption that gender is a weak factor in controlling emotions. Daniels, Haynes, Stupnisky, Perry,

Newall, and Pekrun (2008) established that gender was a non-significant covariate in all analyses except boredom.

Regarding type of sport, findings revealed a moderate size affect on emotions, mostly focused on anxiety. This finding strengthens findings of other studies that supported that different types of individual and team competitions elicited different levels of anxiety and anger (Proios, 2014a), enjoyment and anxiety (Cooke, Kavussanu, McIntyre, & Ring, 2013). Also, the present finding agrees with the one showing that anxiety was decreased from individual to team competitions (Martin & Hall, 1997).

Finally, the findings of the present study showed that athletic experience has a significant by small in size effect on the formation of emotions. Nevertheless, this small size effect was found to affect anxiety and dejection. Athletic experiences are special kinds of *social experiences* which for example consist of “role-taking” experiences. A result of these experiences is the development of concepts as a knowledge and appraisal which are related to emotions (Lazarus, 1991). But as was revealed by the present finding as these experiences increase anxiety and dejection are reduced.

People are possessed by a complex mixture of emotions that can play an important role in the shaping of overall religious sensibility (Fuller, 2007). Nevertheless, the findings of the present study supported in part the above mentioned claim. More specifically, the present findings revealed that emotions were independent from the strength of religious faith, with the exception of the positive relation of happiness with the strength of religious faith. This finding supports previous literature which has shown that happiness positively predicts religiosity (e.g., Abdel-Khalek, 2006; Lewis & Cruise, 2006). It is understood that discrete emotions, as an organized psychophysiological reaction to ongoing relationships with the environment, cannot affect the formation of athletes’ religious beliefs with the exception of happiness that showed small effect. Up to date and from a psychological perspective no clear view has been stated on the relation between the two constructs, religious and happiness (Lewis & Cruise,

2006). Theological writings though, make an attempt to approach this relation through a series of reports (for a review, see Lewis & Cruise, 2006).

On the contrary, the present finding supported that religious schemas, i.e. the way people deal with everyday issues, show some dependence on emotions. More specifically, the finding revealed that emotions (pleasant and unpleasant) predict schemas related to truth of test and teaching (ttt) and xenosophia, inter-religious dialog (xenos), except the schema fairness, tolerance and rational choice (ftr). This finding strengthens the claim that “Emotions have a profound effect on perception and cognition insofar as they prioritize our goals and direct our attention to environmental objects that appear most relevant to our vital interests” (Fuller, 2007, p. 29). The existence of a negative relation of anxiety-ttt and the positive relation of happiness-ftr and dejection-xenos were revealed. The finding enhances the claim that emotions affect the content and strength of an individual’s beliefs (Frijda et al., 2000).

Regarding the relation between religiosity and anxiety, previous studies show mixed results. On the one hand, several studies have found negative associates (see: e.g., Davis, Kerr, & Kurpius, 2003; El-Jamil, 2003). On the other hand, a number of studies have reported the absence of significant correlations between religiosity and anxiety (Francis & Jackson, 2003) and social anxiety (Kalkhoran & Karimollahi, 2007). Other studies carried out in different cultures have yielded the above mentioned results. Vasegh and Mohammadi (2007) with Muslim medical students found a negative association between religiosity and both anxiety and depression.

Happiness is a positive emotion and is characterized by the element of satisfaction which in sports refers to the satisfaction of winning (Lazarus, 2000) as a life goal with the religious schema ftr is characterized by fairness, tolerance and rational choice, which has found to have a positive correlation to purpose in life (Streib, 2010), which in religion is human happiness. This identification of the concepts of happiness and ftr is confirmed by the finding of the present study, i.e. the relation of happiness-ftr.

The finding of the positive relation of dejection with a perspective of religiosity may be accounted for the fact that people who are experiencing high levels of depressive symptoms may find a lack of pleasure in former religious involvements, which may over time erode their public and even private engagements with their religious faith (Smith, McCullough, & Poll, 2003). Especially the finding of the relation of emotion dejection with a religious style as a xenos, where way of life and habits are determined by the inter-religious dialox, may be due to the fact that people presenting depressive symptoms may present lack of energy resulting to religious pursuits (Smith, McCullough, & Poll, 2003).

Limitations

The present study presents a series of limitations. The relatively small number of sample does not allow the generalization of results. The use of various measures for religiosity as well as emotions in all studies up to date, does not allow the formation of a clear view on what exists among athletes for the above mentioned notions. It should be noted that the assessment of emotions was based on self-reports for a set of preceding settings/ competitions. Up to present, the assessment of emotions concerned how the athletes felt pre-or post competition. The absence of similar studies in sports, i.e. on the affect of emotions on athletes' religiosity, does not allow the conducting of any comparison among the present and other findings.

Conclusions

The present findings showed a series of conclusions. Strength of religious faith in athletes is found to be on a medium level, with the religious style of athletes, based on the dominant religious schema supported in fairness, tolerance and rational choice, while the dominant emotion among athletes is happiness.

The formation of religiosity of athletes seems to be affected only by the type of sport and not by gender and experience. Nevertheless, the above mentioned developmental factors seem to affect, at a small up to a medium level, affect the formation of discrete emotions in sport.

The expected influence of discrete emotions on the religious faith of athletes was not confirmed. An exception was the influence of happiness. The formation of religious schemas (ftr and xenos) of a perspective of religiosity seems to be affected by discrete emotions. The conclusion of non-influence, weakens the claim that religiosity consists a moral emotion (intuition) (Graham & Haidt, 2010), at least in sport settings. The diversity among the present conclusion and the claim of Haidt and colleagues, is probably due to different measures of religiosity. Graham and Haidt measured religiosity on just the element of purity/sanctity, which they believe that it is the psychological foundation of the ethic of divinity (see Haidt, 2006, ch. 9). Finally, it is concluded that each discrete emotion seems to affect in a different way each perspective of religiosity of athletes.

References

- Abdel-Khalek, A. M. (2006). Happiness, health, and religiosity: Significant relations. *Mental Health, Religion and Culture*, 9, 85–97.
- Abdel-Khalek, A. M., & Naceur, F. (2007). Religiosity and its association with positive and negative emotions among college students from Algeria. *Mental Health, Religion & Culture*, 10(2), 159–170. Retrieved from <http://dx.doi.org/10.1080/13694670500497197>
- Allen, M. S., Jones, M. V., & Sheffield, D. (2010). The influence of positive reflection on attributions, emotions, and self-efficacy. *The Sport Psychologist*, 24, 211-226. Retrieved from <http://journals.humankinetics.com/tsp>
- Angie, A. D., Connelly, S., Waples, E. O., & Kligyte, V. (2011). The influence of discrete emotions on judgment and decision-making: A meta-analytic review. *Cognition and Emotion*, 25, 1393-1422.
- Bell, N. T., Johnson, S. R., & Petersen, J. C. (2009). Strength of religious faith of athletes and nonathletes at two NCAA Division III institutions. *The Sport Journal*, 12(1). Retrieved from the web <http://thesportjournal.org/>
- Cerin, E., Szabo, A., Hunt, N., & Williams, C. (2000). Temporal patterning of competitive emotions: A critical review. *Journal of Sports Sciences*, 18, 605-626.

- Cameron, C. D., Lindquist, K. A., & Gray, K. (2015). A constructionist review of morality and emotions: No evidence for specific links between moral content and discrete emotions. *Personality and Social Psychology Review*, doi: 10.1177/1088868314566683
- Cohen, B. H. (2001). *Explaining psychological statistics* (2nd ed.). New York, NY: Wiley.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cooke, A., Kavussanu, M., McIntyre, D., & Ring, C. (2013). The effects of individual and team competitions on performance, emotions, and effort. *Journal of Sport Exercise Psychology*, 35, 132-143.
- Daniels, L. M., Haynes, T. L., Stupnisky, R. H., Perry, R. P., Newall, N. E., & Pekrun, R. (2008). Individual differences in achievement goals: A longitudinal study of cognitive, emotional, and achievement outcomes. *Contemporary Educational Psychology*, 33, 584-608. doi:10.1016/j.cedpsych.2007.08.002
- Davis, T. L., Kerr, B. A., & Robinson-Kurpius, S. E. (2003). Meaning, purpose, and religiosity in at - risk youth: The relationship between anxiety and spirituality. *Journal of Psychology and Theology*, 31(4), 356-365.
- Dewar, A. J., & Kavussanu, M. (2011). Achievement goals and emotions in golf: The mediating and moderating role of perceived performance. *Psychology of Sport and Exercise*, 12, 525-532. doi:10.1016/j.psychsport.2011.05.005
- Dianni, M., Proios, M., & Kouthouris, C. (2014). Structure validity of Santa Clara Strength of Religious Faith Questionnaire in Greek sample. *Religions*, 5(1), 157-164. doi:10.3390/rel5010157
- Dillon, K. M., & Tait, J. L. (2000). Spirituality and being in the zone in team sports: A relationship? *Journal of Sport Behaviour*, 23(2), 91-100.
- El-Jamil, F.M. (2003). Shame, guilt, and mental health: A study on the impact of cultural and religious orientation. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 64, 1487.

- Francis, L.J., & Jackson, C.J. (2003). Eysenck's dimensional model of personality and religion: Are religious people more neurotic? *Mental Health, Religion & Culture*, 6, 87–100.
- Frijda, N. H., Manstead, A. S.R., & Bem, S. (2000). The influence of emotions on beliefs. In N. H. Frijda, A. S.R. Manstead, & S. Bem (Eds.), *Emotions and beliefs: How feelings influence thoughts* (pp. 1-9). Cambridge: Cambridge University Press.
- Fuller, R. C. (2007). Spirituality in the flesh: The role of discrete emotions in religious life. *Journal of American Academy of Religion*, 75(1), 25-51. Retrieved from <http://www.jstor.org/page/info/about/policies/terms.jsp>
- Graham, J., & Haidt, J. (2010). Beyond beliefs: Religions bind individuals into moral communities. *Personality and Social Psychology Review*, 14(1), 140-150. doi: 10.1177/1088868309353415
- Haidt, J. (2006). [*The happiness hypothesis: Finding modern truth in ancient wisdom*](#). New York: Basic Books.
- Hanin, Y. L. (2000). *Emotions in sport*. Champaign, IL: Human Kinetics.
- Hanin, Y. L. (2007). Emotions in sport: Current issues and perspectives. In G. Tenenbaum, & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 31-57). New York: Wiley & Sons.
- Janssen, F., Banziger, S., Dezutter, J., & Hutsebaut, D. (2006). Religion and mental health: Aspects of the relation between religious measures and positive and negative mental health. *Archive for the Psychology of Religion [Archiv für Religionspsychologie]*, 27, 19–44.
- Jones, M. V. (2003). Controlling emotions in sport. *The Sport Psychologist*, 17, 471-486. Retrieved from <http://journals.humankinetics.com/tsp>
- Jones, M. V., & Uphill, M. A. (2004). Emotion in sport: Antecedents and performance consequences. In D. Lavallee, Thatcher, J., & M. V. Jones (Eds.), *Coping and emotion in sport* (pp. 9-28). New York: Nova Science Publishers, Inc.
- Jones, M. V., Lane, A. M., Bray, S. R., Uphill, M., & Catlin, J. (2005). Development and validation of the sport emotion questionnaire. *Journal of Sport & Exercise Psychology*, 27, 407-431. Retrieved from. <http://journals.humankinetics.com/jsep>

- Kalkhoran, M. A., & Karimollahi, M. (2007). Religiousness and preoperative anxiety: a correlational study. *Annals of General Psychiatry*, 6(17), 1-5. Retrieved from <http://www.annals-general-psychiatry.com/content/6/1/17>
- Koenig, H. G. (2012). Religion, spirituality, and health: The research and clinical implications. *ISRN Psychiatry* 2012. doi:10.5402/2012/278730.
- Lane, A. M., Beedie, C. J., Jones, M. V., Uphill, M., & Devonport, T. J. (2012). The BASES expert statement on emotion regulation in sport. *Journal of Sports Sciences*. 30(11), 1189-1195. Retrieved from <http://dx.doi.org/10.1080/02640414.2012.693621>
- Lane, A. M., Devonport, T. J., Soos, I., Karsai, I., Leibinger, E., & Hamar, P. (2010). Emotional intelligence and emotions associated with optimal and dysfunctional athletic performance. *Journal of Sports Science and Medicine*, 9, 388-392.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. New York: Springer.
- Lazarus, R. S. (2000a). How emotions influence performance in competitive sports. *The Sport Psychologist*, 14, 229-252. Retrieved from <http://journals.humankinetics.com/tsp>
- Lazarus, R. S. (2000b). Cognitive-motivational-relational theory of emotion. In Y. L. Hanin (Ed.), *Emotions in sport* (pp. 39-63). Champaign, IL: Human Kinetics.
- Lewis, C. A., & Cruise, S. M. (2006). Religion and happiness: Consensus, contradictions, comments and concerns. *Mental Health, Religion & Culture*, 9(3), 213-225. Retrieved from <http://dx.doi.org/10.1080/13694670600615276>
- Martin, K.A., & Hall, C.R. (1997). Situational and intrapersonal moderators of sport competition state anxiety. *Journal of Sport Behavior*, 20, 436-446.
- Martinent, G., & Ferrand, C. (2009). A naturalistic study of the directional interpretation process of discrete emotions during high-stakes table tennis matches. *Journal of Sport and Exercise Psychology*, 31, 318-336.
- Martinent, G., Campo, M., & Ferrand, C. (2012). A descriptive study of emotional process during competition: Nature, frequency, direction, duration and co-occurrence of discrete emotions. *Psychology of Sport and Exercise*, 13, 142-151. doi:10.1016/j.psychsport.2011.10.006

- McCarthy, P. J. (2011). Positive emotion in sport performance: Current status and future directions. *International Review of Sport and Exercise Psychology*, 4(1), 50-69. doi: 10.1080/1750984X.2011.560955
- McCarthy, P. J., Allen, M. S., & Jones, M. V. (2013). Emotions, cognitive interference, and concentration disruption in youth sport. *Journal of Sport Sciences*, 31(5), 505-515. Retrieved from <http://dx.doi.org/10.1080/02640414.2012.738303>
- Myers, D. G. (2002). Human intuition: The brain behind the scenes. *Cerebrum*, 4(3), 100-113.
- Nicholls, A. R., Polman, R. C.J., & Levy, A. R. (2012). A path analysis of stress appraisals, emotions, coping, and performance satisfaction among athletes. *Psychology of Sport and Exercise*, 13, 263-270. Retrieved from doi:10.1016/j.psychsport.2011.12.003
- Ntoumanis, N. (2001). *A step-by-step guide to SPSS for sport and exercise studies*. London and New York: Routledge.
- Pallant, J. (2010). *SPSS Survival manual: A step by step guide to data analysis using SPSS for Windows* (4th ed.). Maidenhead, Berkshire: Open University Press.
- Pekrun, R., Elliot, A. J., & Maier, M. A. (2006). Achievement goals and discrete achievement emotions: A theoretical model and prospective test. *Journal of Educational Psychology*, 98(3), 583-597. doi: 10.1037/0022-0663.98.3.583
- Plante, T.G., & Boccaccini, M.T. (1997a). The Santa Clara Strength of Religious Faith Questionnaire. *Pastoral Psychology*, 45(5), 375-387. doi: 10.1007/BF02230993
- Plante, T. G., & Boccaccini, M. T. (1997b). Reliability and validity of the Santa Clara Strength of Religious Faith Questionnaire. *Pastoral Psychology*, 45, 429-437.
- Plante, T. G. (2010). The Santa Clara Strength of Religious Faith Questionnaire: Assessing faith engagement in a brief and nondenominational manner. *Religions*, 1, 3-8. doi:10.3390/rel1010003
- Proios, M. (2012). The relation between the emotion of “anger” and the cognitive processes in gymnastics athletes. *International Quarterly of Sport Science*, 2012/1, 10-18. Retrieved from iqss.eu/issue.php
- Proios, M. (2014a). Achievement goal and discrete emotions in sport. *Psychology and Behavioral Science*, 3(5), 151-157. doi: 10.11648/j.pbs.20140305.12

- Proios, M. (2014b). Relationship between discrete emotions and moral content judgment in sport settings. *Ethics & Behavior*, 24(5), 382-396. doi:10.1080/10508422.2013.869746
- Proios, M. (2015). Structure validity of the Religious Schema Scale of Religious Faith Questionnaire in Greek sample. *Journal of Social Science Studies*, 2(1), 343-353. doi:10.5296/jsss.v2i1.6844
- Proios, M. (under review). Religiosity: Development religious cognitive schemas and religious faith.
- Sarkar, M., Hill, D. M., & Parker, A. (2015). Reprint of: Working with religious and spiritual athletes: Ethical considerations for sport psychologists. *Psychology of Sport and Exercise*, 17, 48-55. Retrieved from <http://dx.doi.org/10.1016/j.psychsport.2014.09.001>
- Saroglou, V. (2014). Introduction: Studying religion in personality and social psychology. In V. Saroglou (Ed.), *Religion, personality, and social behavior* (pp. 1–28). New York, NY: Psychology Press.
- Shweder, R. A., & Haidt, J. (2004). The cultural psychology of the emotions: Ancient and new. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (pp. 397-414). New York: Guilford Press.
- Smith, C., & Denton, M. (2005). *Soul searching: The religious and spiritual lives of American teenagers*. New York: Oxford University Press.
- Smith, T. B., McCullough, M. E., & Poll, J. (2003). Religiousness and Depression. Evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin*, 129(4), 614-636. doi: 10.1037/0033-2909.129.4.614
- Stanger, N., Kavussanu, M., Willoughby, A., & Ring, C. (2012). Psychophysiological response to sport-specific affective pictures: A study of morality and emotion in athletes. *Psychology of Sport and Exercise*, 13, 840-848. Retrieved from: <http://dx.doi.org/10.1016/j.psychsport.2012.06.004>
- Streib, H. (2010). Conceptualizing and measuring religious development in terms of religious styles and schemata – New considerations and results. In P. Y. Brandt (Ed.), *Psychologie du développement religieux: questions classiques et perspectives*

contemporairnes. Lausanne: French. Retrieved from <http://pub.uni-bielefeld.de/luur/download?func=downloadFile&recordId=2276876&fileId=24844>
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- Streib, H., Hood, R. W., & Klein, C. (2010). The religious schema scale: Construction and initial validation of a qualitative measure for religious styles. *The International Journal for the Psychology of Religion*, 20, 151-172. doi: 10.1080/10508619.2010.481223
- Storch, E. A., Roberti, J. W., Bravata, E. A., & Storch, J. B. (2004). Strength of religious faith: A comparison of intercollegiate athletes and non-athletes. *Pastoral Psychology*, 52(6), 485-489.
- Storch, E. A., Storch, J. B., Kolsky, A. R., & Silvestri, S. M. (2001). Religiosity of elite athletes. *The Sports Psychologist*, 15, 346-351.
- Tabashnick, L. S., & Fidell, B. G. (2007). *Using multivariate statistics* (5th ed.). New York, NY: Pearson.
- Uphill, M. A., & Jones, M. V. (2012). The consequences and control of emotions in elite athletes. In J. Thatcher, M. V. Jones, & D. Lavallee (Eds.), *Coping and emotion in sport* (2nd ed., pp. 213-235). London: Routledge.
- Vasegh, S., & Mohammadi, M.-R. (2007). Religiosity, anxiety, and depression among a sample of Iranian medical students. *International Journal of Psychiatry in Medicine*, 37, 213-227.
- Vernacchia, R. A., McGuire, R. T., Reardon, J. P., & Templin, D. P. (2000). Psychosocial characteristics of Olympic track and field athletes. *International Journal of Sport Psychology*, 31, 5-23.
- Wallace, J. M., Forman, T. A., Caldwell, C. H., & Willis, D. S. (2003). Religion and American youth: Recent patterns, historical trends and sociodemographic correlates. *Youth and Society*, 35, 98-125.
- Wampold, B. E., & Freund, R. D. (1987). The use of multiple regression in counseling psychology research: A flexible data-analytic strategy. *Journal of Counseling Psychology*, 34, 372-382.