Exploring the role of motivation on the development of sport involvement

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Abstract: The present study aimed to investigate the influence of motivation on the development of sport involvement in the context of recreational tennis. Two hundred recreational tennis players (N = 200), who were members of a tennis club in Greece, participated in the study. The multi-dimensional model of motivation [extrinsic and intrinsic motivation and amotivation (Pelletier et al., 1995)] and the self-determination theory (Deci and Ryan, 1985) were used for the measurement and conceptualisation of motivation, while the three-dimensional model of involvement [attraction, centrality and self-expression (Kyle et al., 2004)] was used for the measurement of involvement. The results of the study indicated: (a) the scores in the sport involvement scale were increased with the frequency of participation; (b) the intrinsic and extrinsic dimensions of motivation made significant contributions to the prediction of the attraction and centrality dimensions of involvement; (c) amotivation significantly predicted the attraction dimension. The theoretical and applied implications of these results are discussed.

Keywords: sport involvement; motivation; self-determination theory; Greece.


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1 Introduction

Involvement is recognised today as key variable in consumer decision-making, since it is associated with positive consequences on purchase and communication behaviour (Laurent and Kapferer, 1985). In terms of the purchase behaviour, the level of involvement influences a consumer’s length and intensity of the searching process (Mano and Oliver, 1993), their satisfaction level (Richins and Bloch, 1991), and the development of consumer loyalty (Beatty and Kahle, 1988). In terms of communication behaviour, a highly involved consumer is more willing to have an active and positive reaction towards marketing and communication information (Laurent and Kapferer, 1985), and is more likely to become an opinion leader (someone who spreads positive word of mouth about a product) (Schmidt and Frieze, 1997). Studies in the sport and leisure literature have mainly focused on the consequences of involvement on the purchase behaviour (sport and leisure participation). It is well documented today that leisure involvement leads to positive behavioural and attitudinal outcomes, such as commitment, attachment, increased participation levels and loyalty (Alexandris et al., 2008; Beaton et al., 2011; Iwasaki and Havitz, 2004; Kyle et al., 2004).

While the positive consequences of involvement are well documented, the identification of the antecedents of involvement is still an under-researched issue in the leisure and sport literature (Beaton et al., 2011; Kyle et al., 2006). As Beaton et al. (2011) noted: “a construct becomes practically and theoretically useful when delineated from its antecedents and outcomes so the relationships among these can be investigated” (p.129). Subsequently, the answer to the question on what leads to a leisure participant being highly involved can improve our theoretical understanding of leisure participation decision-making. This answer has also practical implications, since, as previously noted, involvement is associated with positive behavioural and attitudinal consequences (Alexandris et al., 2008; Beaton et al., 2011; Iwasaki and Havitz, 2004; Kyle et al., 2004).

On discussing a theoretical model of leisure decision-making, Iwasaki and Havitz (2004) proposed several social and personal factors as antecedents of involvement. Motivation was included within the personal variables, which is in line with definitions of involvement, such as “an unobservable state of motivation, arousal or interest” [Havitz et al., (1994), p.39] and “a person’s perceived relevance of the object based on inherent needs, values, and interests [Zaichkowsky, (1985), p.342]. The relationship between motivation and involvement, which was proposed in Iwasaki and Havitz’s (2004) model in the context of leisure, has had little empirical verification so far. The studies of Kyle et al. (2006) in the context of active leisure (US campers) and Funk et al. (2004), in the context of passive leisure (sport fan behaviour), are among the very few recent ones that provided evidence for the positive role of motivation on the development of involvement.

The present study contributes to the literature, by providing empirical results for the relationship between motivation and sport involvement; this relationship has been theoretically proposed (Iwasaki and Havitz, 2004), but it has had little empirical verification so far (Kyle et al., 2006). The multi-dimensional model of motivation [intrinsic, extrinsic motivation, amotivation (Pelletier et al., 1995, 1997)] was used to measure motivation. Involvement was measured using the three-dimensional model [attraction, centrality, self-expression (Kyle et al., 2004)]. The following section provides
a conceptual discussion on sport involvement and motivation and discusses its application in sport and leisure participation.

2 Involvement

Involvement has been defined as “a person’s perceived relevance of the object based on inherent needs, values, and interests” [Zaichkowski, (1985), p.342]. There are several types of involvement that have been discussed in the literature. A first distinction is between enduring and situational involvement (Laurent and Kapferer, 1985). Enduring involvement reflects a general and permanent concern with a product (activity), while situational involvement refers to a specific situation, such as purchase occasion or selection of a specific product (activity). Enduring involvement is usually a more stable attitude, which is developed based on a product (activity) being associated with personal values. On the other hand, the situational involvement is developed when a consumer feels perceived risk, before a specific purchase. In a similar distinction, Zaichkowski (1985) proposed two categories of involvement: product involvement and brand-decision involvement. Product involvement refers to a consumer’s interest for a specific product. Brand-decision involvement is the interest developed by a consumer in making the selection of a specific brand. Product involvement has been found to have a direct effect on consumer satisfaction (Richins and Bloch, 1991).

Two of the models that were originally developed to measure involvement were: the personal involvement inventory (PII) (Zaichkowski, 1985) and the consumer involvement profile (CIP) (Laurent and Kapferer, 1985). While originally the PII was one dimensional, it was later revised by McQuarrie and Munson (1987), who proposed the dimensions of importance and pleasure, and by Zaichkowski (1994), who proposed the dimensions of cognitive and affective involvement. The cognitive dimension corresponds to the importance dimension, while the affective dimension corresponds to the pleasure one. For the development of cognitive involvement a consumer uses a rationale process (e.g., cost-benefit ratios), while for the development of affective involvement, a consumer uses mainly feelings and emotions. The CIP (Laurent and Kapferer, 1985) proposed five facets of involvement:

a. the perceived importance of the product
b. the risk importance, which is expressed by the perceived importance of negative consequences associated with purchase of the product
c. the risk probability, which is expressed by the perceived probability of making a poor purchase decision
d. the sign, which is expressed by the symbolic or sign value attributed by the consumer to the product
e. the pleasure, which expresses a hedonic value or pleasure provided by the product.

Both PII and the CIP were used for the development of adjusted involvement models in leisure settings. While there is still a disagreement on the nature and the number of the dimensions that should be used for the measurement of leisure involvement (Havitz and Dimanche, 1997; Beaton et al., 2011), it seems that the dimensions of attraction, centrality and self-expression (or sign) are common in the majority of the studies.
conducted in leisure settings (for a detailed review of leisure involvement see Havitz and Dimanche, 1997). Attraction refers to the perceived importance that an activity holds for an individual, and the pleasure that derives from participation in the specific activity (McIntyre and Pigram, 1992). Centrality has a social content, expressed by the importance that an activity has for an individual’s friends and significant others. Furthermore, it refers to the role that an activity has on an individual’s overall life (Iwasaki and Havitz, 2004). Finally, self-expression refers to the “self-representation or the impression of the self that individuals wish to convey to others through their participation in the activity” [Kyle and Chick, (2004), p.245]. This tri-dimensional model has been repetitively shown to be reliable and valid in a variety of leisure contexts (Kyle et al., 2004; Kyle and Chick, 2004; Alexandris et al., 2008).

3 Motivation

Motivation refers to “the psychological mechanisms that govern the direction, intensity and persistence of behavior” [Iso-Ahola, (1999), p.40]. In the present study, we used the self-determination theory (Deci and Ryan, 1985), which proposes a multi-dimensional approach to the study of motivation, extending the early intrinsic/extrinsic categorisation (Ryan and Deci, 2007). According to the self-determination theory (Deci and Ryan, 1985), there are three psychological needs that are important in energising human action: the needs for autonomy, competence, and relatedness. The development of intrinsic motivation is facilitated in exercise environments that support feelings of perceived competence and autonomy. On the other hand, exercise environments, which discourage perceived competence and autonomy, undermine intrinsic motivation. Furthermore, the relatedness need is developed when participants feel that they are, in some way, connected with the activity and the environment and have the feeling of belonging developed (Ryan and Deci, 2007). These are psychological mediators that influence motivation through cognitive processes. Furthermore, the self-determination theory suggests that the socio-cultural environment and the individual values can positively or negatively influence some of these psychological mediators. By incorporating elements of the self-determination theory in motivation research, Vallerand and Losier (1999) suggested that social factors influence the psychological mediators; these mediators influence the types of motivation, which in their turn cause behavioural consequences.

According to the self-determination theory, there are several types of motivations, which are developed across a self-determination continuum, as an individual moves from intrinsically motivated to extrinsically motivated behaviour, and finally to amotivation. Intrinsic motivation refers to doing an activity for its own sake, for the pleasure and satisfaction derived simply from participating in it (Deci and Ryan, 1985). In this case, behaviour is performed in the absence of external rewards (Deci and Ryan, 1985). Intrinsic motivation theory has been widely applied to a variety of leisure related settings (Palen et al., 2011; Roark and Ellis, 2009; Kim and Trail, 2010; Walker, 2008, 2010; Weissinger and Bandalos, 1995; Weissinger et al., 1992). On the other hand, extrinsic motivation refers to taking part in an activity for external rewards (Deci and Ryan, 1985). Despite the free of choice nature of leisure participation, it has been shown that recreational sports represent contexts in which extrinsic motivation might be present (Alexandris et al., 2002, 2007). Finally, amotivation refers to the absence of any of
the two forms of motivation (Fortier et al., 1995). There might be several sources of amotivation, such as feelings of incompetence, not leading to desired outcomes, no values related to the activity, negative experiences, and lack of perceived benefits (Ryan and Deci, 2007).

On further developing the measurement of intrinsic and extrinsic motivation, Pelletier et al. (1995) developed the sport motivation scale (SMS), in which intrinsic motivation consists of three sub-dimensions: intrinsic motivation to know (e.g., learning new techniques during my active leisure), intrinsic motivation toward accomplishment (e.g., achieving personal goals); and intrinsic motivation to experience stimulation (e.g., having fun). On the other hand, extrinsic motivation is built by the sub-dimensions of: external regulation (e.g., social recognition), introjected regulation (e.g., feelings of guilt if someone does not participate in certain leisure activities), and identified regulation (e.g., personal identification with the values of a specific activity). Research conducted in several contexts, including sport, recreation and exercise, has given support for the validity and reliability of extrinsic and intrinsic motivation dimensions and amotivation (Alexandris et al., 2007; Caldwell et al., 2010; Watts and Caldwell, 2008; Pelletier et al., 1995, 1997; Vallerand and Losier, 1994, 1999).

4 The relationship between motivation and involvement

On proposing a leisure decision-making model, Iwasaki and Havitz (2004) proposed social and personal factors as antecedents of involvement. Social support, social norms and structural constraints were included within the social antecedents, while values, attitudes, motivation, needs and intrapersonal constraints were included within the personal antecedents. The relationship between motivation and involvement is also supported by the definitions of involvement. Rothschild (1984) defined involvement as a state of motivation, arousal, or interest. In this line, the same authors propose that it is influenced by both external (e.g., situation, product etc.) and internal variables (ego, central values etc.). Among the internal values, the perceived personal relevance is a central one, which expresses the degree to which a product will help an individual to achieve personal goals and meet personal values. In this line, Schmidt and Frieze (1997) proposed that research should aim to link motivation with involvement in order to examine which motivational dimensions lead to the development of high involvement.

The relationship between motivation and involvement has had empirical verification so far in the studies of Kyle et al. (2006) in the context of campers, and Funk et al. (2004) in the context of passive leisure (sport fans). Kyle et al. (2006) used an adjusted version of the recreation experience preference scale (Manfredo et al., 1997) for the measurement of motivation, which includes the dimensions of escape, nature, bonding, learning, and social, while involvement was measured with the dimensions of attraction, centrality, social bonding, identity affirmation and identity expression. The results of the study confirmed the positive relationship between motivation and involvement. Significant positive relationships were found between the dimensions of attraction and escape, centrality and learning, social bonding and escape, identity affirmation and nature, identity expression and learning. The positive relationship between motivation and involvement was also supported in the study of Funk et al. (2004) in sport fans. Four dimensions of involvement (attraction, risk, centrality and self-expression) and five
dimensions of motivation (entertainment, knowledge, vicarious achievement, wholesome environment, and escape) were utilised in this study. As it is clear by reviewing the above studies, the measurement of motivation and the theoretical framework used, is one of the issues that make any attempt to directly compare results of the studies difficult.

5 Study hypotheses

In the present study, we used the three dimensional model of extrinsic and intrinsic motivation and amotivation (Pelletier et al., 1995) in order to explore the relationship between motivation and involvement. This model has not been previously examined in relation to sport involvement. Subsequently, the hypotheses of the study were set as follows:

Hypothesis 1 More involved tennis players will have a higher frequency of participation.

Hypothesis 2 The intrinsic and extrinsic dimensions of motivation will have positive influences on the attraction dimension of involvement and amotivation will have a negative influence on it.

Hypothesis 3 The intrinsic and extrinsic dimensions of motivation will have positive influences on the centrality dimension of involvement and amotivation will have a negative influence on it.

Hypothesis 4 The intrinsic and extrinsic dimensions of motivation will have positive influences on the self-expression dimension of involvement and amotivation will have a negative influence.

6 Methods

6.1 Participants and procedures

The data were collected by members of a private tennis club in an urban area in Greece. The choice of the specific club was made because of its size (one of the biggest in the area) and for accessibility reasons (permission was given by the management to collect the data). It has to be emphasised that the objective of the study was to test a theoretical model and not to provide representative results of the all the tennis club members in Greece. Two hundred members (N = 200) participated in the study; this is a small and convenience sample, and subsequently, the results cannot be generalised. The distribution of the questionnaires was made by a team of three researchers, who were familiar with the club and tennis, during a one week period. The members of the club filled the questionnaires in the cafeteria of the club, after their tennis sessions. In terms of demographics, the majority in the sample was males (58%), single individuals (58%), educated at the university level (38%), belonging to the age group of 36–45 (38%), private sector employees (32%), and with perceived good financial situation (48%). All the demographics are presented in Table 1.
Table 1  Socio-demographic information of the sample

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Family status</th>
<th>Job status</th>
<th>Financial situation</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males:</td>
<td>18–25:</td>
<td>Single:</td>
<td>University student:</td>
<td>Very bad:</td>
<td>Primary level: 2%</td>
</tr>
<tr>
<td></td>
<td>57%</td>
<td>58%</td>
<td>8%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Females:</td>
<td>26–35:</td>
<td>Married:</td>
<td>Private sector: 32%</td>
<td>Just bad:</td>
<td>Secondary level:</td>
</tr>
<tr>
<td></td>
<td>43%</td>
<td>42%</td>
<td></td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>36–45:</td>
<td>Public sector: 22%</td>
<td>Average: 39%</td>
<td>Vocational level: 6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>38%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>46–55:</td>
<td>Entrepreneurship: 24%</td>
<td>Good: 48%</td>
<td>Technological education: 17%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>56–65:</td>
<td>Unemployed:6%</td>
<td>Very good: 5%</td>
<td>University graduate: 38%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;65: 1%</td>
<td>House wife: 6%</td>
<td></td>
<td></td>
<td>Post-graduate:16%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other: 2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.2 Research instruments

- **Involvement**: It was measured with Kyle et al.’s (2004) involvement scale. This tri-dimensional model has been successfully tested in a variety of leisure contexts and has been shown to be reliable and valid in North America (Kyle et al., 2004; Kyle and Chick, 2004), but also in Greece (Alexandris et al., 2008) Centrality and self-expression were measured with three items each, while attraction was measured with four items. A seven-point Likert type scale was used.

- **Motivation**: SMS (Pelletier et al., 1995) was used for the measurement of motivation. This is composed of three sub-scales assessing the three motivational constructs, that is:
  a intrinsic motivation (12 items): measuring intrinsic motivation to know (e.g., ‘for the pleasure it gives me to know more about the sport that I practice’), to accomplish things (e.g., ‘for the satisfaction I experience while I am perfecting my abilities’), and to experience stimulation (e.g., ‘for the pleasure I feel in living exciting experiences’)
  b extrinsic motivation (12 items): measuring external regulation (e.g., ‘because people around me think it is important to be in shape’), introjected regulation (e.g., ‘because I must do sports to feel good about myself’), and identified regulation (e.g., ‘because it is a good way to learn lots of things which could be useful to me in other areas of my life’)
  c amotivation (four items, e.g., ‘it is not clear to me anymore; I do not really think my place is in sport’, ‘I used to have good reasons for doing sports, but now I am asking myself if I should continue doing it’).

Respondents were asked to evaluate each item on a Likert-type scale, ranging from always true (7) to never true (1). The SMS has been used in a variety of sport and exercise settings in different countries (including Greece) and has been shown to be valid and reliable (Alexandris et al., 2002, 2007; Pelletier et al., 1997).
Frequency of sport participation (playing tennis) was measured in four categories: Almost every day, 3–5 times per week, 1–2 times per week, less than once per week.

7 Results

7.1 Reliability analysis and descriptive statistics

Both the involvement (attraction, centrality, and self-expression) and motivation scales (extrinsic and intrinsic motivation and amotivation) had acceptable values of alpha (>0.70, Table 2). In terms of involvement, the attraction dimension had the highest mean score, followed by the centrality dimension (5.8 and 4.8, respectively). In terms of motivation, the intrinsic dimension had the highest mean score (5.3), followed by the extrinsic dimension (5.3 and 3.8, respectively, Table 2).

Table 2 Descriptive statistics and reliability analysis

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>Alpha scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic motivation</td>
<td>5.3 (1.0)</td>
<td>.91</td>
</tr>
<tr>
<td>Extrinsic motivation</td>
<td>3.8 (1.3)</td>
<td>.90</td>
</tr>
<tr>
<td>Amotivation</td>
<td>2.4 (1.1)</td>
<td>.75</td>
</tr>
<tr>
<td>Attraction</td>
<td>5.8 (1.0)</td>
<td>.91</td>
</tr>
<tr>
<td>Centrality</td>
<td>4.8 (1.4)</td>
<td>.91</td>
</tr>
<tr>
<td>Self-expression</td>
<td>4.4 (1.4)</td>
<td>.84</td>
</tr>
</tbody>
</table>

7.2 Frequency of participation and involvement

The mean scores of the four frequency of participation groups were calculated in each of the four involvement dimensions; the significance of the differences revealed were tested with ANOVA, followed by Scheffe’s post-hoc analyses. The results are presented in Table 3. As seen, statistically significant differences among the four groups were revealed in the attraction (F = 6.4, p < .001), and Centrality (F = 6.5, p < .001) dimensions. In terms of the attraction dimension, the least frequent group (participation less than once per week) had significantly lower scores than the most frequent (participation almost every day) and the second most frequent (participation 3–5 per week) groups. In terms of the centrality dimension, the most frequent group had significantly higher scores than the least frequent and the second least frequent groups. Furthermore, the least frequent group had significantly lower scores than the second most frequent group. No statistically significant differences were revealed for the self-expression dimension. These results provide partially support for the first hypothesis. In all the cases, scores in the involvement dimensions were higher in the most frequent participant groups. The results of the post-hoc analyses are presented in the last column of Table 3.
Table 3  ANOVA for the frequency of participation groups in terms of the involvement dimensions

<table>
<thead>
<tr>
<th></th>
<th>Attraction</th>
<th>Centrality</th>
<th>Self-expression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>Group 1: almost every day (12%)</td>
<td>6.3</td>
<td>5.8</td>
<td>5.3</td>
</tr>
<tr>
<td>Group 2: 3–5 times per week (38%)</td>
<td>6.2</td>
<td>5.3</td>
<td>4.6</td>
</tr>
<tr>
<td>Group 3: 1–2 times per week (37%)</td>
<td>5.6</td>
<td>4.4</td>
<td>4.0</td>
</tr>
<tr>
<td>Group 4: less than once per week (14%)</td>
<td>5.0</td>
<td>3.7</td>
<td>4.2</td>
</tr>
<tr>
<td>Scheffé’s post-hoc analyses</td>
<td>F = 6.4, p &lt; .001</td>
<td>F = 6.5, p &lt; .001</td>
<td>n.s.</td>
</tr>
<tr>
<td></td>
<td>*1–4, 2–4</td>
<td>*1–3, 1–4, 2–4</td>
<td></td>
</tr>
<tr>
<td>Note: *Indicates statistically significant differences between frequency of participation groups.</td>
<td></td>
<td></td>
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</tbody>
</table>

7.3 Regression analyses for the prediction of the involvement dimensions

Multiple regression analyses were performed aiming to examine the degree to which each of the four involvement dimensions can be predicted by the three motivation dimensions. The involvement dimensions were the dependent variables and the motivation dimensions were the independent variables (Table 4). The regression model was significant for the Attraction dimension (R^2 = .29, F = 11.0, p < .001). The intrinsic dimension (t = 3.0, p < .005, beta = .35) and marginally the amotivation dimension (t = –2.0, p < .05, beta = –.23) made significant contributions, partially supporting the second hypotheses. In terms of the centrality dimension the regression model was once again significant (R^2 = .32, F = 13.2, p < .001). The intrinsic dimension offered the most significant contribution (t = 2.9, p < .005, beta = .35), followed by the extrinsic dimension (t = –2.3, p < .05, beta = –.23), partially supporting the third hypothesis. The regression model was finally significant in the self-expression dimension (R^2 = .35, F = 14.9, p < .001); however, only the extrinsic dimension made a significant contribution (t = 4.4, p < .001, beta = 4.4, partially supporting the fourth hypotheses.

Table 4  Multiple regression analyses for the prediction of involvement dimensions from motivation

<table>
<thead>
<tr>
<th></th>
<th>Attraction</th>
<th>Centrality</th>
<th>Self-expression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B = .36, t = 3.0, p &lt; .005</td>
<td>B = .35, t = 2.9, p &lt; .005</td>
<td>n.s.</td>
</tr>
<tr>
<td>Intrinsic motivation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extrinsic motivation</td>
<td>n.s.</td>
<td>B = .30, t = 2.3, p &lt; .05</td>
<td>B = .45, t = 4.4, p &lt; .001</td>
</tr>
<tr>
<td>Amotivation</td>
<td>B = –.23, t = –2.0, p &lt; .05</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td></td>
<td>R^2 = .29, F = 11.0, p &lt; .001</td>
<td>R^2 = .32, F = 13.2, p &lt; .001</td>
<td>R^2 = .35, F = 14.9, p &lt; .001</td>
</tr>
</tbody>
</table>
8 Discussion

This study aimed first to test the degree to which the frequency of tennis participation increases with higher level of involvement, and further explores the role of motivation on the development of sport involvement in the context of recreational tennis. The discussion will start with the role of involvement on the frequency of sport participation, and it will continue with the influence of motivation on the development of involvement.

8.1 Involvement and frequency of sport participation

The results support the value of research on sport involvement in the context of recreational tennis. Statistically significant differences were found between and among the frequency of participation groups in the two of the three involvement dimensions (centrality and attraction). Means for the involvement dimensions significantly increased with frequency of participation, indicating that more involved recreational tennis players are more likely to play tennis more frequently. These results support previous research that has shown that involvement is associated with positive behavioural consequences (Alexandris et al., 2008; Beaton et al., 2011; Iwasaki and Havitz, 2004; Kyle et al., 2004; Vlachopoulos et al., 2008). As previously discussed, attraction is developed based on an individual’s perception of an activity as being fun, pleasurable and excited, while centrality relates to the degree to which an activity has a central role to an individual’s life, in relation to the social environment (Iwasaki and Havitz, 2004; Kyle and Chick, 2004). Subsequently, the importance of the attraction facet is justified by the recreational nature of playing tennis (e.g., a fun and enjoyable sport activity). On the other hand, it could be argued that the importance of the centrality dimension relates to the specific context of recreational tennis. Tennis clubs operate in the form of having members, who socialise in and outside the club, and of course tennis is a common theme for their interaction. In this line, the activity is extended to their every day life, and becomes part of it. The notion of ‘social worlds’ (Kyle and Chick, 2004), which are promoted by the development of social groups and networks, is applicable in order to understand how membership clubs operate. Subsequently, tennis club managers should support this social interaction with the building of a ‘family atmosphere’ in the club, the organisation of tournaments, socials, parties etc.

The lack of significant differences between the frequency groups’ scores in the self-expression factor is a final issue that should be noted. This suggests that the value of this facet within the involvement construct should be re-examined. Previous findings in the literature are contradicted, since there have been studies that supported the relationship between the self-expression and positive behavioural consequences (e.g., Kyle et al., 2007), while other research failed to establish this relationship (e.g., Alexandris et al., 2008). This is an issue that needs further investigation.

The answer to the question on what leads to the development of sport involvement was in a degree given in our study, by analysing the relationship between motivation and involvement, which is discussed below.

8.2 Motivation and involvement

As previously noted, in the present study we used the Self-determination theory (Deci and Ryan, 1985) and the multi-dimensional model of motivation [intrinsic and
Exploring the role of motivation on the development of sport involvement

extrinsic motivation and amotivation (Pelletier et al., 1995, 1997)] to examine the relationship between motivation and involvement. The results provided support for the positive relationship between motivation and involvement, supporting the findings of Kyle et al. (2006) and Funk et al., (2004), and indicating that a good understanding of the factors that motivate recreational sport participants’ behaviour holds both theoretical and applied interest. Each of the three types of motivation is discussed below, in relation to the self-determination theory, identifying at the same the management/marketing implications.

8.3 Intrinsic motivation and involvement

The results indicated that intrinsic motivation was the most important predictor of the attraction and centrality dimensions of involvement. As previously discussed, these two dimensions were shown to be associated with increased frequency of participation. As previously discussed, the attraction dimension of involvement is developed when an activity is perceived as fun, pleasurable and enjoyable for an individual. This dimension represents the affective component of attitudes. Intrinsic motives are, therefore, important for the development of attraction, since intrinsic motivation refers to doing an activity for its own sake, for the pleasure and satisfaction derived simply from participating in it. The positive relationship between intrinsic motivation and centrality suggests that individuals, who are intrinsically motivated, are more likely to look for information about the activity (tennis) in their everyday life, increase their knowledge about the activity, and consider the activity as part of their daily social life. Once again, the nature and strength of intrinsic motivation is a key factor in this process.

These results partially support the findings of Kyle et al. (2006), who examined the relationship between internal motives (escape, nature, bonding, learning and social) and involvement in the context of recreational camping. In this study, they found that all these internal motives had statistical significant relationships with both the attraction and centrality dimensions. However, Kyle et al. (2006) also reported that motivation significantly influenced the identity expression facet of involvement, which is contrast to the results of the present study, which found no statistical significant relationship between intrinsic motivation and self-expression. It should be noted, however, that Kyle et al. (2006) used an adjusted version of the REP scale (Manfredo et al., 1997) to measure motivation; this scale does not directly categorise motives into intrinsic and extrinsic. The categorisation can only be made conceptually.

The important role of motivation in the development of involvement, which was found in the present study, confirms previous research conducted in recreation, exercise and competitive sport settings, in which, it was found that intrinsic motivation leads to positive behavioural and attitudinal consequences, such as customer loyalty, exercise adherence, athlete satisfaction, and improved sport performance (Markland and Inglede, 2007a, 2007b; Vallerand and Losier, 1999; Watts and Caldwell, 2008). As discussed in the literature review, Ryan and Deci (2007) emphasised on the role of competence, autonomy and relatedness needs for the development, maintenance and enhancement of intrinsic motivation. All these three needs are particularly applicable in the context of recreational tennis. Perceived competence relates to players’ perceptions about their skills to play tennis and fitness levels; autonomy relates to player’s choice to select their tennis partners and competition; while relatedness needs are met when players feel that they belong to the club and its associated activities. If a tennis player feels rejected or distal
from the activities of the club, intrinsic motivation will be diminished. The managerial implications of these findings are clear. The management of the club should create an environment in which players feel competent, autonomous and familiar in order to increase their members’ involvement levels. Subsequently, issues such as the quality of teaching sessions, organisation of well-balanced (in terms of skill level) tournaments, the interpersonal communication between recreational tennis players and instructors, as well as the creation of a ‘family’ environment, are important ones. It should be particularly emphasised that the ‘club’ concept, which can promote a ‘family’ environment (relatedness need), should be taken advantage by the management.

8.4 Extrinsic motivation

The results also indicated that extrinsic motivation contributed to the prediction of the centrality and self-expression dimensions. Subsequently, individuals who have high levels of extrinsic motivation are likely to invest time and effort on learning about the activity and incorporating it in their every day life and social interactions. While the nature of leisure and recreation assumes the participation is on a voluntary basis, and the choice of activities is free, previous studies have also behaviour (Alexandris et al., 2002, 2007). As previously noted, Kyle et al. (2006) did not include any external motives in their study of recreational campers. According to the Self-determination theory (Deci and Ryan, 1985), some forms of extrinsic motivation can be volitional or autonomous, while others represent external forces; in this line, the different types of extrinsic motivation can range from those, which are controlled externally, to those which are volitional and autonomous (Ryan and Deci, 2007). In the first case (externally regulated), exercise behaviour is externally guided by rewards and externally defined goals (e.g., social recognition, and goals which are set by the tennis instructor). A second type of extrinsic motivation is introjected regulation. In this case, there are still rewards, which, however, are now controlled by the participant (e.g., self-defined goals by the tennis player). The last type of extrinsic motivation is identified regulation, which is relatively autonomous, and it is closer to intrinsic motivation. In this case, individuals engage in an activity because they identify with the values of the activity (e.g., expectations for health benefits associated with playing tennis). These external rewards, such as social recognition, identification with the activity’s image, fit with the definition of self-expression, which is developed when individuals identify with the values of an activity and views it as a way to promote their self-identity. On the other hand, the results suggest that in order for the attraction dimension of involvement to be developed, the extrinsic motives do not have a real influence. This is once again explained by the nature of extrinsic motivation, which, in contrast, to intrinsic one involves external rewards, as discussed above. On the other hand, the attraction dimension of involvement represents affective attitudes and feelings.

According to Ryan and Deci (2007), the importance of extrinsic motivation can vary according to the type of sport activity. For example, it has been reported that in exercise settings (e.g., fitness) extrinsic motivation can play an important role in an individual’s decision to start taking part in the activity. Based on the results of our study, and the positive relationship between extrinsic motivation and involvement, it could be argued that recreational tennis is among the sport activities, in which extrinsic motivation plays a role in recreational behaviour. There are many external reasons that might drive an individual to start playing tennis, such as health, appearance, social recognition, and even competition (tennis tournaments). Ryan and Deci (2007) emphasised on the role of the
Exploring the role of motivation on the development of sport involvement

social environment (e.g., parents, instructors, friends etc), which many times create external rewards for the participant (e.g., social recognition).

In conclusion, the results of the present study indicated that extrinsic motivation is also related to the development of sport involvement in the context of recreational tennis. Subsequently, tennis club managers and instructors should aim to develop a recreational environment, which promotes intrinsic motivation but also well-internalised extrinsic motivation, if involvement is to be built.

8.5 Amotivation

The results also showed that amotivated individuals are less likely to develop the attraction dimension of involvement. This is a finding that it was expected. As previously discussed, according to the self-determination theory, amotivation is the stage in which an individual is neither intrinsically nor extrinsically motivated. Individuals, who are amotivated, are more likely that they will soon drop out of the activity, as a result of low involvement. Several sources of amotivation have been proposed in the literature (Pelletier et al., 2007; Ryan and Deci, 2007). Feelings of incompetence to do an activity, failure to lead to desired outcomes, no perceived value of the activity, but also negative experiences and consequences. Tennis club managers and instructors should avoid to create environments and situations that develop the above negative perceptions and experiences. The non-relationships between amotivation and centrality and amotivation and self-expression are findings that need further investigation. These results might be due to the specific nature of the sample. Those who participated in the study were all members of a tennis club, who had a certain level of intrinsic and extrinsic motivation. As seen from Table 2, the mean score of the tennis players in the amotivation dimension was relatively low; this lack of variability in the amotivation dimension scores might have affected the results in the regression analyses.

9 Limitations and future research

While the results of the study provided clear support for the role of motivation on the development of sport involvement, several limitations of the study should be noted, which also indicate the need for future research. First of all, the results of the study are based on a small sample of recreational tennis player. It has been proposed (Kyle et al., 2004) that both leisure motivation and involvement can vary by the recreational context. Although it is not evident that the relationship between motivation and involvement is contextual (Kyle et al., 2007), testing this relationship in different sport recreational activities could show if results can be generalised across a range of recreational settings.

The results of the study provided evidence that motivation contributes to the development of involvement. However, considering the percent of variance predicted in the involvement dimensions, it should be noted that there are more internal and external factors that might contribute to the development of involvement. Constraints and service quality are examples of internal and environmental factors that have been shown in previous studies to be antecedents of involvement (Alexandris et al., 2007, 2012). They can all be incorporated in an integrated model, in order to have a better understanding of the development of involvement.
A final issue that should be noted relates to the measurement of the constructs. The three-dimensional model of leisure involvement was used in the present study, since it has been previously used in similar contexts in the same country, and was shown to be reliable and valid. However, there have been studies that proposed more dimensions of involvement, such as the dimensions of social and risk; these facets could be tested in similar recreational sport contexts. Measurement issues should also be noted about the motivation construct. As previously discussed, intrinsic motivation was suggested to be a multi-dimensional concept, consisting of motivation to know, motivation to experience stimulation and motivation toward accomplishment. Furthermore, extrinsic motivation consists of external regulation, introjected regulation, and identified regulation. Future studies could investigate the relationships between these sub-dimensions and the facets of involvement. There might be different patterns of interactions between the sub-dimensions of motivation and involvement than those found with involvement and the global motivation dimensions.

References
Exploring the role of motivation on the development of sport involvement


