

The meaning of sport and performance among amateur and professional athletes

Anthony Piermatteo, Grégory Lo Monaco, Gersende Reymond, Marc Eyraud,
Lionel Dany

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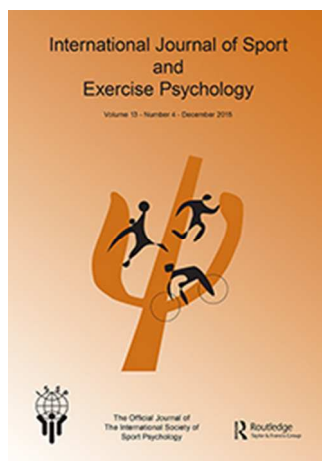
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The Meaning of Sport and Performance Among Amateur and Professional Athletes

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The Meaning of Sport and Performance Among Amateur and Professional Athletes

Abstract

This paper investigates the meaning of sport and performance for amateur and professional athletes through the social representations theory. From this perspective, this study focuses on the content associated with sport and performance through word association tasks conducted with 421 amateur athletes and 64 professional athletes. Prototypical and similarity analyses showed that concerning amateur athletes, hedonism and health constitute important components of these representations. Concerning professional athletes, while sport is mainly structured around hedonism and togetherness, performance appears to be articulated around an effort/reward dichotomy. Moreover professional athletes' social representations of sport and performance only encompass a marginal reference to health. These results help to identify the motivations which may underpin the practice of sport among amateur and professional athletes.

Keywords: sport; performance; social representations; amateur athletes; professional athletes.

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3 What are sport and performance? What is the meaning of these two concepts? While
4
5 most of the studies focused on the meaning of sport and performance consist of theoretical
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7 reflections about these **concepts** (Frey, 1991; Segrave, 2000), this **study** aims to answer these
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9 questions by drawing on the social representations theory (Moscovici, 1961/2008). **In line**
10
11 **with this social psychological theory “concerned with meaning and its interpretation”**
12
13 **(Wagner et al., 1999, p. 104), the object does not matter and understanding the relationship to**
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15 **it is more important (Moscovici, 1982). From this perspective we will focus on the study of**
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17 **social representations (SR) of sport and performance among amateurs and professional**
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19 **athletes. In fact, considering these two different groups could enable us to study these two**
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21 **concepts as the result of a social construction. Indeed, the investigation of the meaning of**
22
23 **sport and performance has not been extensively documented in the field of sport psychology,**
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25 **while in the field of the social representations theory, only a few contributions can be noted**
26
27 **(Lacassagne, Bouchet, Weiss, & Jebrane, 2004; Lacassagne, Pizzio, & Jebrane, 2006; Stewart**
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29 **& Lacassagne, 2005). Moreover, the results of these studies, which were only focused on the**
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31 **SR of sport, indicate that performance may be a complementary concept to sport and could be**
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33 **underpinned by specific values. Thus, through drawing on the theoretical and methodological**
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35 **framework of the social representation theory, this study aims to update the results related to**
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37 **the study of the meaning of sport (Mrazek and Schäfer, 1988). It also aims to extend the**
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39 **results highlighted in the field of the SRs’ theory (Lacassagne, et al., 2004, 2006; Stewart &**
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41 **Lacassagne, 2005) by taking into account the concept of performance and the population of**
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43 **professional athletes for whom this object is an important issue in the practice of sport**
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45 **(Douglas & Carless, 2009).**
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52 **The Theory of Social Representations**

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3 SRs can be defined as “systems of opinions, knowledge and beliefs particular to a
4 culture, a social category, or a group with regards to objects in the social environment”
5 (Rateau, Moliner, Guimelli, & Abric, 2011, p. 478). SRs are not an objective definition of
6 reality, they rather constitute a socially constructed and shared knowledge, “a created reality
7 appropriated by a group and integrated into its system of values” (Stewart & Lacassagne,
8 2005, p. 723). In more simple terms, they refer to the way individuals see the various social
9 objects of their environment (e.g., family, work, health, etc.). However, more than just images
10 of these objects, SRs are involved in individuals' and groups' behaviors and position taking
11 toward them as they provide guidelines regarding what to say or what to do with regard to the
12 object (Abric, 1993; Moscovici, 1982; Rateau et al., 2011). Thus, the way one pictures an
13 object such as a sport determines, to some extent, one's practices related to this activity.
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26 As for their organization, according to the central core theory (Abric, 1993, 2001) SRs
27 can be considered as an interconnected set of cognitive elements that are structured around a
28 central core and a peripheral system, these two subsets being characterized by specific
29 properties (Abric, 1993). The first of these subsets, the central core, includes the most
30 consensual content. This content generates and organizes the meaning of the overall
31 representation, and is characterized by high stability as it is relatively insensitive to context
32 variations (Abric, 1993; Rateau et al., 2011).
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42 Beyond the central core, the peripheral elements allow SRs to be adapted to different
43 contexts. Peripheral elements can vary easily and are also characterized by interindividual
44 variations (Abric, 1993). This distinction between central and peripheral elements helps to
45 explain the fact that although various contents (i.e., knowledge, opinions or beliefs) are
46 widely shared among the members of a given group, there are also differences from one
47 individual to another. This also accounts for the fact that although these shared aspects seem
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3 almost immutable, the way a group represents a given object can still evolve (Abric, 1993;
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5 Guimelli, 1993).
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9 **Social Representations of Sport and Performance**

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11 As Mrazek and Schäfer (1988) noted, trying to explain “the rising amount of time
12
13 spent on sporting activities and the growing popularity of the words ‘athletic’ and ‘fit’ in
14
15 everyday life [...] inevitably leads to the question of what is actually meant by sport” (p.
16
17 109). Even though this statement about the trend of fitness was published in the late 1980’s,
18
19 the same phenomenon of a growing culture of fitness and wellness seems to be current
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21 (Johansson & Andreasson, 2014; Kickbusch & Payne, 2003; Sassatelli, 2011, 2013). In this
22
23 context, the assumption that "sport is good for health" is commonplace (Murphy &
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25 Waddington, 1998; Safai, 2008; Scambler, 2005). However, while the fact that health and
26
27 well-being are associated with sport appears to be consensual (Murphy & Waddington, 1998),
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29 other elements may compose the general definition of this object. Thus, as defined by
30
31 Coakley and Donnelly (2004), sport encompasses notions of competition, rigorous physical
32
33 exertion and complex physical skills. However, such a definition, as formulated by experts in
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35 a specific field, may not match the representation held by other groups, such as athletes
36
37 themselves, be they amateur or professionals. Indeed, as defined by Rateau et al. (2011) an
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39 SR is specific to a particular group. As a consequence, there is not just one definition of sport
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41 and the meaning of this activity may be different from one group to another.
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46 Yet, the investigation of meaning has not been extensively documented in the field of
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48 sports psychology (Mrazek & Schäfer, 1988; Seippel, 2006). However, a few contributions
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50 can be noted (see Table 1). Among these, the research of Seippel (2006), which is based on
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52 1660 questionnaires focused on the meaning of sport, showed that sport was mainly
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54 associated with “fun”, the desire to “keep fit”, to benefit from “mental recreation” and to
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3 enhance “social relations”. Moreover, for the participants of this study – who were amateur
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5 athletes – competition was one of the least important reasons for doing sport. These findings
6
7 and the comparisons between different groups of amateur athletes led Seippel (2006) to
8
9 conclude that people experience their sports activities very differently. However, the
10
11 questionnaires used in Seippel’s study consisted in a list of various reasons for doing sport
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13 and participants were asked to rate these reasons regarding their own sports activity. This type
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15 of procedure restricts responses to a pre-established set of choices while some reasons that
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17 were not anticipated by the author may exist among the studied sample. In order to establish
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19 the meaning associated with sport on the basis of participants’ responses, Mrazek and Schäfer
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21 (1988) used a word association task (Authors, 2015; Authors, 2016). According to this task,
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23 participants were asked to associate the words that came to their mind when thinking about
24
25 the word “sport”. On this basis, Mrazek and Schäfer (1988) showed that six categories of
26
27 associations were associated with sport: (a) the sports activities that participants had in mind;
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29 (b) the positive evaluation of this activity; (c) game, play and leisure; (d) training and effort;
30
31 (e) achievement and competition; and (f) school. However, such results may need to be
32
33 updated. Indeed, this research was conducted in two high schools in the USA and the Federal
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35 Republic of Germany almost 30 years ago. Moreover, as the word association task was just
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37 one measure among others in their study, the authors did not conduct an extended analysis of
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39 participants’ associative responses (see Authors, 2016 for a presentation of the methods for
40
41 studying word associations in the field of SRs).
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48 *Insert Table 1 about here*
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52 In the field of SRs two contributions focused on sport can be noted: a comparison
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54 between French and Moroccan students in the field of sport (Lacassagne et al., 2004; Stewart
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3 & Lacassagne, 2005) and a comparison between athlete and non-athlete students (Lacassagne,
4 et al., 2006). Two of these studies (Lacassagne et al., 2004, 2006) used word association
5 tasks. They concluded that the SR of sport among French students in the field of sport is
6 composed of two dimensions: A hedonistic dimension where training and competition are
7 linked to pleasure and leisure and a dimension related to professional sport where
8 performance is associated with performance enhancing drug use. These results are partly
9 similar to those of Seippel (2006) who also observed that participants tend to associate
10 competition with pleasure. However, unlike the results of the other studies on the meaning of
11 sport, the theme of performance appeared in participants' answers. For Lacassagne et al.
12 (2004), this result is related to modern values of sport. These modern values are focused on
13 competition and performance as a way to improve individuals both at the psychological and
14 physiological level. They are the consequence of a competitive logic associated with high-
15 level sports and their large-scale media coverage. On this basis, performance seems to be a
16 complementary concept to sport. Indeed, although linked to sport, performance seems to be
17 underpinned by specific values and could therefore diverge from the meaning of sport which
18 tends to be associated with pleasure and health (Murphy & Waddington, 1998, Seippel,
19 2006). From this perspective, performance, as well as sport, may be studied as an SR,
20 especially for professional athletes for whom this object is an important issue in the practice
21 of sport (Douglas & Carless, 2009). However, although the results of Lacassagne et al. (2004,
22 2006) refer to professional athletes, no study focused on the meaning of sport or performance
23 seems to have been conducted on such a population.

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48 Consequently, this study aims to study the meaning of sport and performance among
49 amateur and professional athletes. From this perspective, we used the theoretical and
50 methodological framework of SRs to address the way in which these populations perceive
51 these two objects. More precisely we investigated the content associated with sport and
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3 performance and the way this content is organized. Moreover, we can draw the hypothesis
4 that this content and its organization may differ from one group of athletes to another. Indeed,
5 Seippel (2006) observed that competitive levels could affect the meaning attributed to sport
6 and Lacassagne et al. (2006) showed that sport is not represented in the same way by sports
7 students (i.e., students of the sciences and techniques of sport and physical activities) and
8 non-sports students (i.e., students of business management). Thus, on the basis of the results
9 of previous studies (Lacassagne et al., 2004, 2006; Mrazek and Schäfer, 1988; Seippel, 2006)
10 content related to health and hedonism should be more associated by amateur athletes while
11 professional athletes' social representations of sport and performance should be more oriented
12 toward competition and the ways to achieve performance.
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26 **Material and Methods**

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28 The sample of this study consisted of 64 professional athletes registered in different
29 sports clubs such as basket-ball, volley-ball and rugby (41 men, 23 women, $M_{age} = 19.70$
30 years, $SD = 4.45$) and 421 participants in a French amateur running race (10km, 298 men, 123
31 women, $M_{age} = 44.67$ years, $SD = 10.84$). The amateur athletes were asked by the organizers
32 of the event, a local sports association, to complete an online questionnaire while professional
33 athletes had to complete a printed version.
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41 The first section of the questionnaire dealt with participants' characteristics (i.e.,
42 gender, age and sporting practice). On the basis of these questions, it appeared that amateur
43 and professional athletes differed significantly in terms of training times per week. Indeed,
44 while amateurs had on average 3.77 training sessions per week ($SD = 2.11$), professional
45 athletes had 5.66 training sessions ($SD = 2.08$), $F(1, 481) = 44.30$, $p < .001$, $\eta p^2 = .08$. This
46 difference was also found regarding the average number of hours per week and indicates a
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3 more intense practice for professionals ($M = 11.43$, $SD = 3.65$) than for amateurs ($M = 5.50$,
4 $SD = 3.21$), $F(1, 481) = 180.79$, $p < .001$, $\eta^2 = .27$.

7 The second section of the questionnaire was focused on the gathering of the SRs of
8 sport and performance. Participants had to answer a word association task. Word association
9 tasks are widely used in the field of SRs (Authors, 2015; Ernst-Vintila, Delouvé, & Roland-
10 Lévy, 2011; Jung & Pawlowski, 2014, 2015; Authors, 2016; Mäkineniemi, Pirttilä-Backman, &
11 Pieri, 2011; Lebrun, 2014; Authors, 2013; Authors, 2014; Pozzi, Fattori, Bocchiaro, & Alfieri,
12 2014; Roland-Lévy, Lemoine, & Jeoffrion, 2014; Tavani, Zenasni, & Pereira-Fradin, 2009).
13 This task consisted in asking participants to associate three words concerning the term “sport”
14 and then three words regarding the term “performance”. More precisely, “sport” and
15 “performance” were given to participants as priming words and they were asked to write the
16 three words “that came to their mind” in reference to each of these two terms (see Authors,
17 2015; Authors, 2016). As for data analysis, this method allows prototypical analyses and
18 similarity analyses to be conducted (see Authors, 2016 or Jung & Pawlowski, 2014, 2015 for
19 a recent example of similarity analysis).

37 **Prototypical analysis.**

38 Based on the central core theory (Abric, 1993, 2001), the prototypical analysis
39 (Authors, 2015; Bonnac, Roussiau, & Vergès, 2002) aims to highlight the salience of certain
40 elements of the representation (i.e., the words associated by participants) by cross-tabulating
41 two independent criteria: the frequency of occurrence of an element and its appearance
42 ranking (Authors, 2015). On the basis of the distinction between the high and low values
43 relative to these two criteria, one can build a 2 x 2 table¹. Thus, the most common elements

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54 ¹ Within the framework of a double-entry table, two other cases can be considered (i.e., low frequency/low
55 appearance ranking, low frequency/high appearance ranking). However, as these cases tend to present more
56 ambiguous information (Bonnac et al., 2002) for the sake of clarity we chose to focus on the cells characterized
57 by a high frequency.

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3 and those among the first to be mentioned in the associative chain (low appearance ranking)
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5 are considered as the most salient and are part of the central zone of the table (Danermark,
6
7 Englund, Germundsson, & Ratinaud, 2014). This cell encompasses the elements that are most
8
9 likely to be part of the central core of the SR under study. Conversely, the elements with a
10
11 high frequency and a high appearance ranking are considered as potential peripheral
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13 elements².
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15 16 17 18 **Similarity analysis.**

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20 This method is based on a conception of SRs as a set of cognitive elements
21
22 interconnected with each other (Authors, 2016). It therefore aims to show the relationships
23
24 between the elements of a given SR. These relationships can be expressed through an index of
25
26 co-occurrence which quantify the extent to which two words are connected. It refers to the
27
28 number of participants who, among their answers to the verbal association task, associated the
29
30 same pair of words. Thus, two words characterized by a high value of co-occurrence can be
31
32 considered as highly connected as a large number of participants associated these words with
33
34 the inductive term (i.e., in the case of this contribution: sport or performance). This analysis
35
36 allows a graphic representation of this organisation called the *maximum tree* to be established.
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38 This graph constitutes the socio-cognitive structure of the object under study.
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44 **Results**

45 46 47 48 **Prototypical analysis.**

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54 ² The term "potential" means that, in order to conclude that a representational element is central or peripheral,
55 the verbal association task is not sufficient and must be completed by a questionnaire dedicated to the diagnostic
56 of the structural status (Guimelli, 1993; Moliner, 2002). However, within the framework of this research our aim
57 was not to confirm the structural status of the elements but rather to investigate the content of the SRs.
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3 For the first step of our analysis, following the recommendations formulated in the
4 literature (Bonnet et al., 2002; Authors, 2016) the content related to word association tasks
5 was grouped into categories on the basis of semantic proximity and processed through a
6
7 prototypical analysis. The results are reported in Table 2 and 3.
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13 *Insert Table 2 about here*
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18 Concerning amateur athletes (see Table 2) the results show that content associated
19 with sport by amateur athletes is mainly focused on the topic of health. Thus, “health” and
20 “well-being” along with “pleasure” are part of the central zone of the table which regroups the
21 potentially central elements of amateur athletes’ SR of sport. As such, it appears that these
22 elements are likely to constitute the most consensual characteristics of sport for this
23 population (Abric, 1993). Moreover, another element linked to health can be observed in the
24 peripheral zone of the table (i.e., healthy body). **Other elements such as “surpassing oneself”**
25 **(i.e., overcoming one’s own limitations)** and “togetherness” are also associated by
26 participants. As potentially peripheral, these elements are characterized by a high frequency
27 of association. However, contrary to the elements of the central zone of the table, these
28 elements are characterized by a higher appearance ranking (i.e., on average, they tend to
29 appear later in the responses to the word association task). As a consequence, although this
30 potential peripheral status may lead us to consider this content as less essential than “health”,
31 “well-being”, and “pleasure” in the way that amateur athletes see sport, they seem to
32 constitute a more concrete manifestation of these notions and help to specify their meaning
33 (Abric, 1993). Thus, on the whole, amateur athletes’ SR of sport seems to be composed of
34 four general categories of content: health, hedonism (for the elements of the central zone),
35 surpassing oneself and a social dimension (for the elements of the peripheral zone).
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3 Concerning the SR of performance, “pleasure” is also present in the central zone of the
4 table, as well as “escape”. It appears that, according to these two elements, the SR of
5 performance may be organized around content related to hedonism. As for the peripheral zone
6 of the table, secondary aspects of this representation refer to more practical content related to
7 the achievement of performance (i.e., surpassing oneself, training).
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16 *Insert Table 3 about here*
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20 Concerning the SR of sport of professional athletes, the results (see Table 3) indicate
21 that “pleasure” along with “effort” and various “sports activities” (e.g., soccer, volley-ball,
22 etc.) are potentially central elements of professional athletes’ SR of sport. In other words, in
23 line with the results of Mrazek and Schäfer (1988), for these participants, sport refers to a
24 large set of sports activities and seems to be mainly defined through a dichotomy between
25 hedonism and effort. At the peripheral level, sport refers to “togetherness”, “competition” and
26 “values”. Here, togetherness, which refers to a social dimension of sport, is reported by a high
27 frequency of participants but is generally considered as less salient in its appearance ranking
28 than other content. Thus, to professional athletes, this social dimension, as well as the values
29 pertaining to sport and competition, could be considered as secondary aspects of their
30 representation of sport.
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44 Concerning performance, professional athletes' SR seems to be articulated around an
45 “effort/reward” dichotomy where essential (central) aspects are related to the dimension of
46 effort (e.g., “training”, “effort”) and peripheral aspects to the dimension of reward (i.e.,
47 “results”). Moreover, while sport is perceived as a pleasing activity that encompasses a social
48 dimension (i.e., togetherness), performance seems to be more self-centered with a central
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3 zone which refers to surpassing oneself and the ways of achieving this goal (i.e., “training”
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5 and “effort”).
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9 **Similarity analysis.**

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11 Concerning amateur athletes, the results of the similarity analysis (see Figure 1)
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13 indicate that the SR of sport is mainly structured around the notions of “health” and
14
15 “pleasure”. This result is in line with the prototypical analysis which indicated that these two
16
17 elements may be characterized by a central status. Indeed, as central elements define the
18
19 general meaning of the whole SR, they are therefore expected to be characterized by a high
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21 associative value (i.e., a high number of connections with the other elements, Abric, 2001).
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23 These two notions which are strongly interconnected are themselves linked to other content of
24
25 the SR of sport. Thus, “health” is connected to similar notions such as “well-being”, “healthy
26
27 body and mind” but also to “escape” and “leisure”. These two last connections, as well as the
28
29 relationship between “release” and “well-being”, indicate that, for amateur athletes, part of
30
31 the positive impact of sport on health may come from its ability to offer a way of escape and
32
33 release. The other pole of the representation, “pleasure”, is connected to two classes of
34
35 content. On the one hand, to the social dimension of sport through the term “togetherness”,
36
37 but also to “surpassing oneself” and other content similar to the latter element. Thus, amateur
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39 athletes’ SR of sport includes notions such as “effort”, “competition”, “training” or
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41 “surpassing oneself”, however this content seems to be seen through the lens of pleasure.
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48 *Insert Figure 1 about here*
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52 Regarding the SR of performance, although the prototypical analysis identified
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54 “escape” and “pleasure” as potentially central elements, the similarity analysis indicated that
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3 the SR is structured around the notions of training and surpassing oneself. Indeed, these two
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5 elements are characterized by a high associative value. However, each of these notions is
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7 associated with one of the potentially central elements with a high level of co-occurrence.
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9 Thus, “training” is mainly associated with “escape” ($n = 35$) while “surpassing oneself” is
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11 mainly associated with “pleasure” ($n = 25$). On the whole, it appears that both of these two
12
13 poles are associated with content that refers to health (e.g., “health” is associated with
14
15 “training” while “well-being”, “healthy mind and body” are connected to “surpassing
16
17 oneself”). However, amateur athletes’ SR of performance mainly encompasses content
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19 oriented toward the achievement of performance such as “effort”, “improvement”, “results”,
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21 “pain”, “equipment” and “technique”. This content, as well as the terms “training” and
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23 “surpassing oneself” which seem to organize the whole SR, indicates that for amateur athletes
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25 performance is seen as a self-centered goal which can be achieved through training and effort.
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31 *Insert Figure 2 about here*
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35 With regard to professional athletes the results of the similarity analysis (see Figure 2)
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37 show an SR of sport structured around the notions of pleasure, competition and togetherness.
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39 While togetherness and pleasure are characterized by a higher connexity and thus seem to
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41 help generate the meaning of the whole representation, competition is strongly linked to each
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43 of these two notions. Moreover, togetherness is associated with “values” and, to a lesser
44
45 extent, with “effort” and “sports activities”. We can assume that, as the sample was composed
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47 of professional athletes in team sports, this aspect helps to regulate their SR, leading
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49 participants to represent sport as a team thing (in the word association task, mainly team
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51 sports were associated as sports activities). Thus, “effort” and “values” through their link with
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53 “togetherness” appear to be associated with this collective context. In the same way,
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3 “surpassing oneself” which tends to be, by definition, a self-centered concept, is also
4 associated with “togetherness”. As a consequence, teams may be seen as a means of
5 improving and excelling oneself.
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9 The other pole, “pleasure”, is associated with “leisure” and to a lesser extent with “pain”,
10 “training” and “health”. At this level, one should note that even though health related notions
11 are linked to both of these poles (i.e., “healthy-mind” is related to “togetherness” and “health”
12 to “pleasure”), they are characterized by a low frequency of association.
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18 Concerning the SR of performance, this is structured around the notions of “surpassing
19 oneself”, “training”, “effort” and “results”. In line with the effort/reward dichotomy observed
20 in the word associations, in this network, “surpassing oneself” is the most salient element, to
21 which are associated the means of achieving performance (i.e., “training” and “effort”) and
22 the “results”—which can be considered as the expression of performance. Thus, with regard
23 to the means, while “effort” is associated with “rigor”, “technique” and “training”, the SR of
24 sport is associated with “pleasure”, but also with “motivation”, “abilities” and “values”. As
25 for the expression of performance, “surpassing oneself” is associated with the notion of
26 “goal”, and also with other elements that seem to express performance such as “results”,
27 “improvement” and “competition”.
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43 **Discussion**

44 The research presented in the framework of this contribution aimed to identify how
45 amateur and professional athletes perceive sport and performance. Using the SRs’ approach
46 we were able to observe that each of these groups is characterized by a specific representation
47 of these two objects. Thus, hedonism is an essential component of amateur athletes’ SRs of
48 sport and performance, and health related content constitutes a major part of these SRs (some
49 of this content may be characterized by a central status), especially the SR of sport. These
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3 results are in line with those of Seippel (2006) who observed that “joy/fun” and “keep fit”, are
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5 two of the main elements associated with sport by participants from voluntary sport
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7 associations. Thus, amateurs’ SRs of sport and performance appear to be in line with a post-
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9 modern evolution of the meaning of sport toward a hedonistic perspective (Bodet, 2009;
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11 Lacassagne et al., 2004). Indeed, according to these authors the meaning of sport tends to be
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13 redefined. This redefinition implies a change from the Olympic motto “faster, higher,
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15 stronger” and de Coubertin’s philosophy focused on performance and competition to “an
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17 increasing aspiration for hedonistic, fun, natural, plural, self-determined and unconstrained
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19 practices” (Bodet, 2009, p. 227). Moreover, although performance, by definition, could be
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21 expected to have a meaning which would fit de Coubertin’s philosophy, the prototypical
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23 analysis revealed “hedonistic” content such as “escape” and “pleasure” as potential central
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25 elements of this SR.
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29 Similarly to amateurs’ SRs, which tend to fall within a post-modern definition of
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31 sport, the SRs of this activity among professional athletes also encompass the notion of
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33 pleasure as a potential central element. Moreover, considering the potential influence of the
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35 collective practice of sport of these participants, their SR of sport also encompasses an
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37 important social dimension which, as suggested by similarity analysis, could contribute to the
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39 organization of this representation and to the definition of its meaning. Indeed, in line with the
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41 theory of SRs (Rateau et al., 2011) these results show a specific perception which is
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43 associated with the context and issues which characterize professional athletes. Thus,
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45 participants’ intensive practice of collective sport may explain the important place given to
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47 togetherness in their SR of sport. While this content does not appear in the central zone of the
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49 table resulting from the prototypical analysis, the similarity analysis allows us to infer the
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51 potential central status of this element which may then contribute to the generation of the
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53 meaning of the SR as a whole. The numerous connections between this element and the other
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3 content of the SR indicate that togetherness may be essential in the way professional athletes
4 perceive and engage in sport and its various components such as effort and motivation, health,
5 values, surpassing oneself and competition.
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9 However, unlike amateur athletes, professional athletes' SRs of sport and performance
10 only encompass a marginal reference to health. This difference can be explained by the fact
11 that, while health may be an important motivation associated with sports activity for amateur
12 athletes (Johansson & Andreasson, 2014; Kickbusch & Payne, 2003; Sassatelli, 2011, 2013),
13 for professional athletes the practice of sport seems to be mainly motivated by performance
14 itself (Douglas & Carless, 2009) and personal achievement (Van-Yperen & Duda, 1999).
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16 Thus, for professional athletes, these goals as well as competitive practices may help to place
17 their SR of performance within the framework of a modern perception of sport associated
18 with de Coubertin's philosophy and focused on effort and competition. From this perspective,
19 performance, through surpassing oneself, is associated with a goal (see Figure 2) towards
20 which most of the content given by participants seems to be oriented. This result can be
21 explained by the fact that performance constitutes the core of the modern sport philosophy as
22 well as being a major issue in the practice of professional athletes. Within this framework,
23 contrary to the important social dimension which characterizes the SR of sport, the SR of
24 performance tends to be more self-focused as indicated by the important place accorded to
25 surpassing oneself as a performance goal. As a consequence, the whole SR of performance
26 appears to be articulated around an effort/reward dichotomy which associates the various
27 means of achieving performance with this goal of surpassing oneself.
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48 Thus, the results of this research have allowed us to update the data in the literature
49 regarding the perception of sport. Moreover, the study of the SR of performance has provided
50 extended information regarding this object but also regarding sport, as performance is an
51 important issue in athletes' practice of sport (especially professional athletes). From this
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3 perspective, we gathered information about the perceptions of professional athletes, a
4 population which is rarely approached in these kind of studies as it is not easily accessible
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7 (Lemyre, Roberts, & Stray-Gundersen, 2007).
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10 However, this research is characterized by some limitations. The first one relates to the
11 comparison of the results of amateur and professional athletes. Although it could be tempting
12 to compare these two populations' SRs of sport and performance, the characteristics of the
13 samples of this research limit this approach to the data. Indeed, the two groups of participants
14 are characterized by important differences regarding their mean age, and the type of sport
15 they practice. Thus, the observed divergences in terms of SRs may be attributed to these
16 differing characteristics of the samples. From this perspective, the presence of a social
17 dimension in professional athletes' SR of sport may be attributed to their practice of a
18 collective sport rather than to their professional status and could also have been found for
19 amateur athletes if they were practising a collective sport. As a consequence, even though
20 specific methodologies allow SRs to be compared (Authors, 2016), such analyses may be
21 inconclusive within the framework of this contribution. However, as SRs are shaped by the
22 history of the groups and their specific characteristics and contribute to "the taking of a
23 position or a course of action" (Abric, 1993, p. 76), it appears more informative to understand
24 the relationships between athletes (amateurs and professionals) and sport and performance
25 than to compare these two groups regarding their SRs of these objects.
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44 The second limitation relates to the accuracy of the similarity analyses regarding the
45 meaning of the words associated with sport and performance. Indeed, similarity analysis is
46 based on an index of co-occurrence which quantifies the extent to which two words are
47 connected (Authors, 2016). However, the same word can be characterized by different
48 meanings depending on individuals. Thus, although two words can be associated by a large
49 number of participants—and therefore be characterized by a large index of co-occurrence—
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3 we cannot be sure that the meaning of these words, and, in consequence, the meaning of their
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5 relationship, is the same for all of them. This inability to distinguish the different meanings
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7 attributed to the same word is also the main limitation of word associations tasks, which allow
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9 us to collect the verbal material used to perform similarity analyses. However, this issue has
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11 already been discussed in the literature and improvements to word association tasks are
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13 currently under study (Authors, 2016).
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16 Consequently, although these limitations call for further work in order to clarify these
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18 first exploratory results, this research provides the basis for the establishment of a link
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20 between the question of meaning and its social construction and the sporting practices of
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22 amateur and professional athletes. As SRs are conceptualized as a guide for practices (Abric,
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24 2001), the study of SRs of sport and performance enlighten the understanding of athletes'
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26 sporting practices. For instance, the results associated with amateur athletes confirm the
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28 evolution of sporting practices toward a more recreational practice which encompasses health
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30 oriented motivations (Johansson & Andreasson, 2014; Kickbusch & Payne, 2003; Sassatelli,
31
32 2011, 2013). These results help us to understand the motivations which lead individuals to
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34 practice sport and which could be used within the framework of preventive communication
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36 campaigns. Indeed, research in the field of SRs has shown that SRs' content may be used in
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38 connection with communication campaigns. More precisely, according to their structural
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40 status, on the one hand, they can improve the efficiency of these campaigns to elicit targeted
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42 behaviors (Souchet & Girandola, 2013), and on the other hand, authors (2016) have shown
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44 that threatening core cognitions produces more deleterious effects in terms of withdrawal
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46 behaviors than threatening peripheral ones.
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51 In addition, the marginal presence of health related content in professional athletes'
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53 SRs along with an SR of performance focused on surpassing oneself and barely mentioning
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55 hedonism leads us to hypothesize that this population may be more prone to adopt risky
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3 behaviors such as trying to return to sport as soon as possible after an injury even when it is to
4 the detriment of their physical well-being (Curry, 1993; Nixon, 1992; Podlog & Eklund,
5 2005), or using performance enhancing drugs (Donovan, Egger, Kapernick, & Mendoza,
6 2002 ; Simon, 1984). This hypothesis is in line with the assumptions of Pipe (2001) and Safai
7 (2008) according to which performance goals related to competition issues are a pressure
8 which may generate risky practices. From this perspective, future research could focus on the
9 study of the link between the SRs of sport and performance and the sporting practices of
10 athletes. In terms of applications in the field of prevention, identifying SRs of sport and
11 performance according to the specific characteristics of professional athletes (e.g., type of
12 sport, collective or individual sport, etc.) may help to identify risk factors which could allow
13 us to adapt preventive action and coaching to these populations. Such perspectives highlight
14 the relevance of the theory and methodologies of SRs in the field of sport psychology and the
15 study of sporting practices.
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Table 1

Synthesis of the studies focused on the meaning of sport

Authors	Population	Methodology	Main contents associated to sport
Mrazek and Schäfer (1988)	365 students from two American highschools and two West German highschools.	word association tasks	types of sports, positive evaluation, game/play/leisure, training/effort, achievement/competition, school.
Lacassagne, Bouchet, Weiss, and Jebrane (2004)	Students in the field of sport (92 French students and 120 Moroccan students).	word association tasks	competition, leisure, health, training, activity, performance, education, game, spirit of fair-play, discipline, pleasure, relaxation, doping, team, football.
Lacassagne, Pizzio, and Jebrane (2006)	92 French students in the field of sport and 152 French students in the field of management.	word association tasks	football, team, performance, doping, leisure, relaxation, pleasure, training, competition, tiredness, effort, health, togetherness.
Seippel (2006)	1660 members of Norwegian voluntary sport clubs.	list of various reasons for partaking in sport constructed on a theoretical basis	joy/fun, keep fit, mental recreation, social factors, achievements/competition, expressivity, body/appearance.

Table 2

Words associated with sport and performance as function of their potential structural status for amateur athletes

	Sport	Performance
Central zone	Pleasure (43.7%, 1.86) Health (42.8%, 1.75) Well-being (26.8%, 1.91)	Escape (28.5%, 1.11) Pleasure (20.4%, 1.44)
Peripheral zone	Self-surpassing (30%, 2.19) Togetherness (22.8%, 2.52) Healthy body (20%, 2.02)	Surpassing oneself (39.9%, 2.39) Training (35.9%, 2.24)

Note. Numbers between parentheses refer to the percentage of association and the average rank of appearance.

Table 3

Words associated with sport as function of their potential structural status for professional athletes

	Sport	Performance
Central zone	Pleasure (52.3%, 1.97) Effort (20%, 1.58) Sports activities (soccer, tennis, etc.) (20%, 1.46)	Surpassing oneself (55.4%, 1.67) Training (38.5%, 1.96) Effort (30.8%, 1.70)
Peripheral zone	Togetherness (55.3%, 2.08) Competition (33.8%, 2.00) Values (24.6%, 2.00)	Results (24.6%, 2.00)

Note. Numbers between parentheses are the percentage of association and the average rank of appearance.

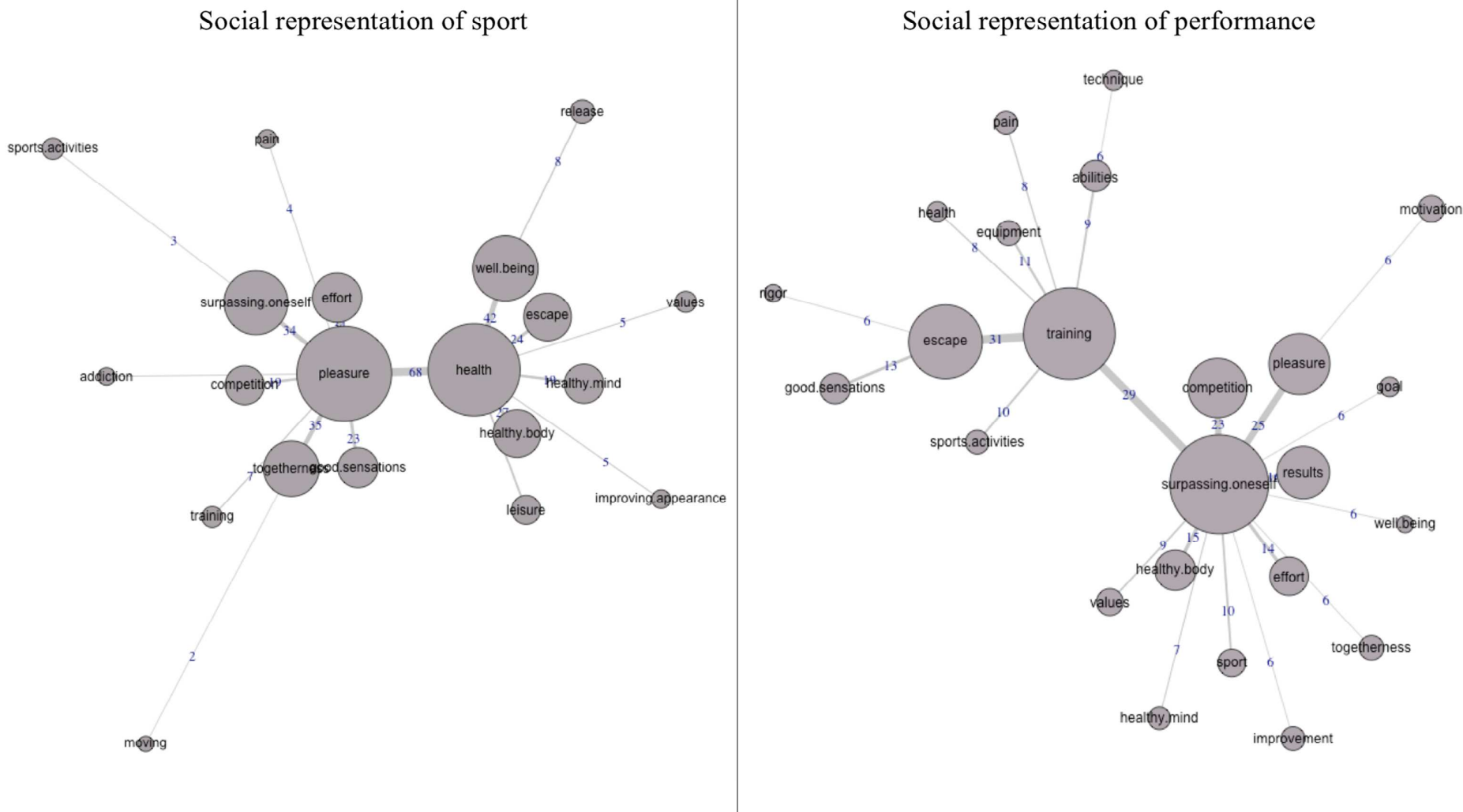
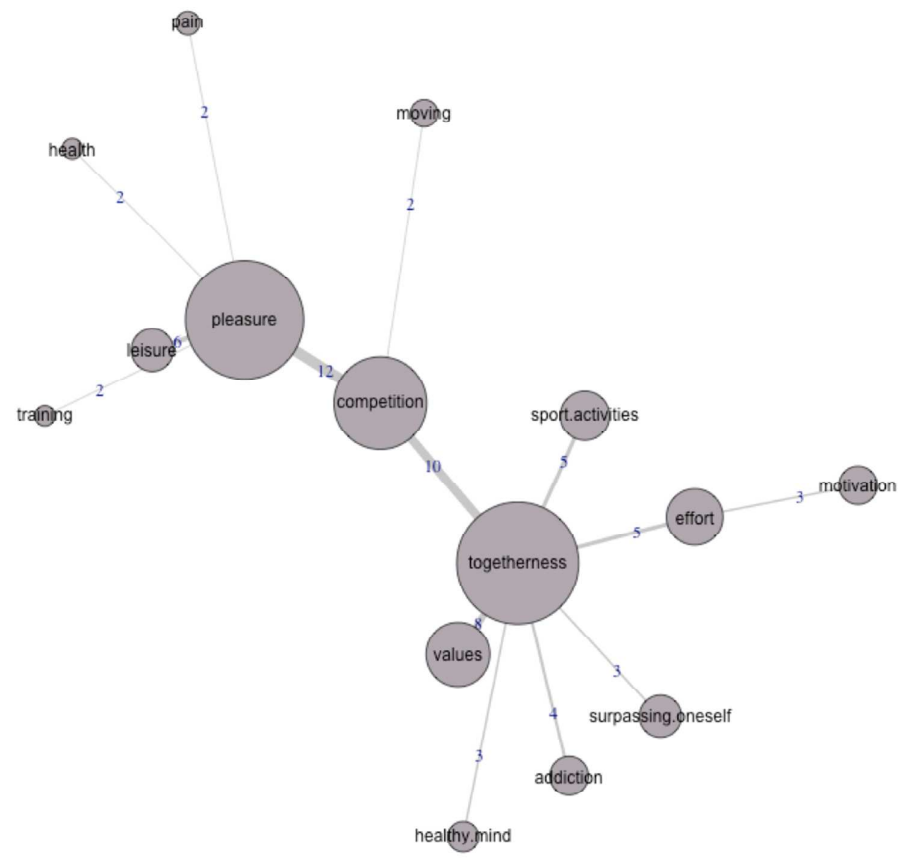


Figure 1. Social representation maps of sport and performance for amateur athletes

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Social representation of sport



Social representation of performance

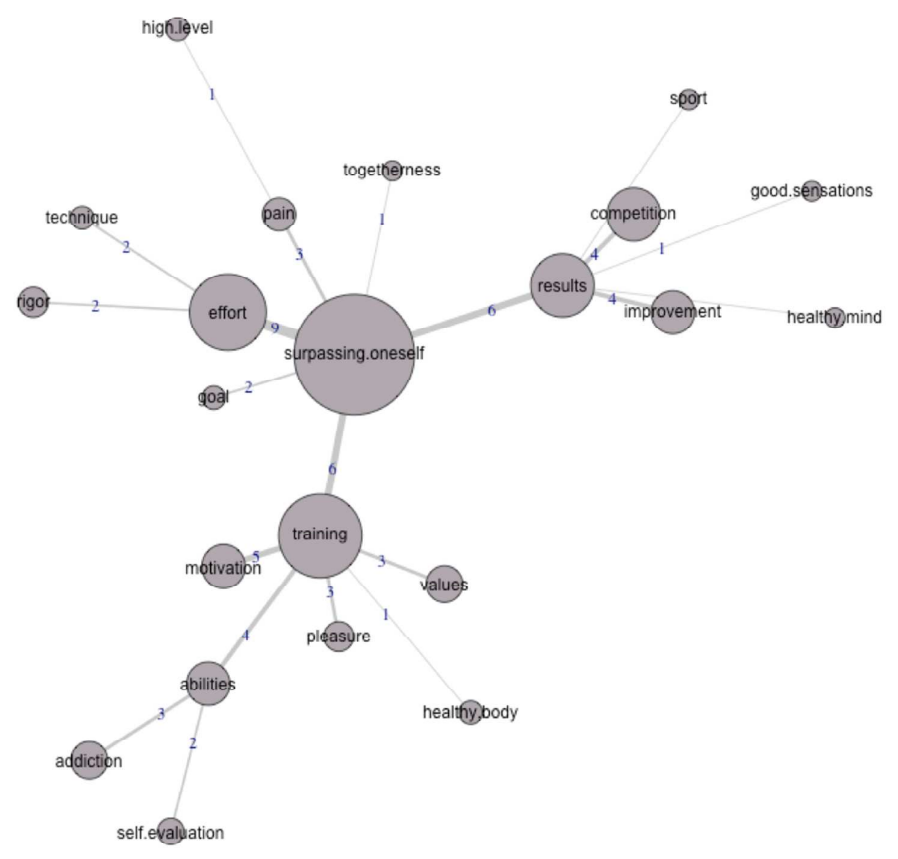


Figure 2. Social representation maps of sport and performance for professional athletes

Dear Mr. Chatzisarantis

First of all, we would like to thank you and the reviewers for the very useful feedback and suggestions concerning the article. We have now incorporated the modifications in the attached revised version. These are detailed point by point below (each feedback/suggestion is reprised and our response/modification follows directly):

Editor

I read your manuscript and I decided that you could improve it by making some changes. Specifically, you need first to check the manuscript for grammatical errors.

The manuscript has been checked and corrected by a native English speaker.

Second you do not have any hypothesis and therefore I invite you to make specific predictions about knowledge structures and interconnections that you expect to observe.

We added an hypothesis regarding the expected differing contents of social representations of sport and performance for amateur and professional athletes page 7: *“Moreover, we can draw the hypothesis that this content and its organization may differ from one group of athletes to another. Indeed, Seippel (2006) observed that competitive levels could affect the meaning attributed to sport and Lacassagne et al. (2006) showed that sport is not represented in the same way by sports students (i.e., students of the sciences and techniques of sport and physical activities) and non-sports students (i.e., students of business management). Thus, on the basis of the results of previous studies (Lacassagne et al., 2004, 2006; Mrazek and Schäfer, 1988; Seippel, 2006) content related to health and hedonism should be more associated by amateur athletes while professional athletes’ social representations of sport and performance should be more oriented toward competition and the ways to achieve performance.”*

Third, I also think that you need to emphasise in the introduction why and how your research advances knowledge in sport. Try to be very specific, for example, you may choose previous studies as criteria and demonstrate how exactly your method and research advances those studies and therefore knowledge.

In line with this comment, we added a paragraph (page 2): *“Indeed, the investigation of the meaning of sport and performance has not been extensively documented in the field of sport psychology, while in the field of the social representations theory, only a few contributions can be noted (Lacassagne, Bouchet, Weiss, & Jebrane, 2004; Lacassagne, Pizzio, & Jebrane, 2006; Stewart & Lacassagne, 2005). Moreover, the results of these studies, which were only focused on the SR of sport, indicate that performance may be a complementary concept to sport and could be underpinned by specific values. Thus, through drawing on the theoretical and methodological framework of the social representation theory, this study aims to update the results related to the study of the meaning of sport (Mrazek and Schäfer, 1988). It also aims to extend the results highlighted in the field of the SRs’ theory (Lacassagne, et al., 2004,*

2006; Stewart & Lacassagne, 2005) by taking into account the concept of performance and the population of professional athletes for whom this object is an important issue in the practice of sport (Douglas & Carless, 2009).”

Reviewer 1

This is a solid research work, which applied a social psychology theory to explore further how athletes and non-athletes think about the meaning of sport when they are trying to describe it. With minor modifications, I would recommend to accept this article.

Abstract: It reads well in general, but last sentence should be reconsidered. This research was about the meaning/associations of sport not how it matters to them. It is a bit of leap to say that motivation of this kind leads to the practice of sport. My understanding is that the meaning of sport expressed as per their practice experience rather than the other way round. State exact analysis conducted briefly.

We mentioned the analyses we conducted in the abstract. Regarding the last sentence, we suppressed the part which refers to the fact that our results help to understand how sport matters to participants. However, we kept the part related to the motivation and nuanced it: *“These results help to identify the motivations which may underpin the practice of sport among amateur and professional athletes.”* Indeed, as mentioned in the discussion of the manuscript (page 18), social representations are conceptualized as a guide for practices (Abric, 2001). Thus, while individuals’ practices can affect their representations, the reciprocal can also be considered. In this perspective, the study of social representations can help to grasp the determinants of individuals’ practices.

P.2 first paragraph- 2nd sentence, This research’s contribution? Is there another word that the authors prefer to use for ‘object’. It’s hard to think of sport as an object.

We replaced “contribution” by “study”. We also replaced “object” by “concept” when possible. However, the term “object” is usually employed in the theory of social representations. It is also part of the very definition of this concept: *“systems of opinions, knowledge and beliefs particular to a culture, a social category, or a group with regards to objects in the social environment”* (Rateau, Moliner, Guimelli, & Abric, 2011, p. 478)” mentioned page 3. In this framework, the term “object” refers to social objects such as family, work, health, and so forth. Therefore, we can’t see any alternative term which may be more appropriate.

There are a lot of typos in the text. Please double check.

The manuscript has been checked and corrected by a native English speaker.

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4 P.2. Sentence second last from end – first paragraph. What is the research is looking at;
5 representation or associations/meanings of sport & performance? Please clarify.
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8 The aim of this research is to study the meaning of sport and performance through the theory
9 of social representations. In order to clarify, we added a citation of Wagner et al. (1999)
10 which underline the link between meaning and social representations (page 2): *“In line with
11 this social psychological theory “concerned with meaning and its interpretation” (Wagner et
12 al., 1999, p. 104), the object does not matter and understanding the relationship to it is more
13 important (Moscovici, 1982). From this perspective we will focus on the study of social
14 representations (SR) of sport and performance among amateurs and professional athletes.”*
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18 P. 6 method. Material and methods section. It is best use the word complete an online
19 questionnaire rather than ‘fill’. Instead of sex, the usual ethical term is gender.
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21 Both terms have been replaced as suggested by the reviewer.
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26 In general there needs to be more information about the word association task. A person
27 should read this article and learn from in a stand alone form. They shouldn’t go and have to
28 look up another paper to be able to understand the method used. It can be presented briefly
29 and then refer the reader to the more detailed description, but there must be a description
30 included. For example, were the priming words given to the participants or they had to do free
31 associations? Such essential information should be included in the text in this article.
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34 We added more details in the description of the word association task. As the instructions of
35 the word association task are very basic. The other papers mentioned do not really present
36 more details about the procedure but rather the various forms that this procedure can take.
37 Therefore, we also corrected our reference to these papers (page 8): *“More precisely, they
38 were asked to associate the three words “that come to their mind” concerning the term
39 “sport” and then three words regarding the term “performance” (for an extended
40 presentation of the procedure see Authors, 2015; Authors, 2016)”* replaced by *“This task
41 consisted in asking participants to associate three words concerning the term “sport” and
42 then three words regarding the term “performance”. More precisely, “sport” and
43 “performance” were given to participants as priming words and they were asked to write the
44 three words “that came to their mind” in reference to each of these two terms (see Authors,
45 2015; Authors, 2016).”*
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50 P.10. Last line – what does actually self-surpassing really means here?
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52 This term has been replaced by “surpassing oneself”. We clarified its meaning of this page 10
53 (when it is mentioned for the first time): *“Other elements such as “surpassing oneself” (i.e.,
54 overcoming one’s own limitations) and “togetherness” are also associated by participants.”*
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3 The meaning of this category is the same for the two groups of participants or in the
4 framework of all the analyses (prototypic, similarity) we conducted.
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11 Reviewer 2

13 Although the article is well written, the overall design of the research project seem to be that
14 of synthesizing the findings of previous studies on amateurs and professional athletes. As
15 such, the design of the project should have taken the format of a single study with two groups
16 rather than two separate studies. Between-group analysis would have yielded a much clearer
17 picture of how the two differed.
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20 The two studies were merged into a single one. However, as we mentioned in the discussion
21 (page 17): *“Although it could be tempting to compare these two populations’ SRs of sport and*
22 *performance, the characteristics of the samples of this research limit this approach to the*
23 *data. [...] However, as SRs are shaped by the history of the groups and their specific*
24 *characteristics and contribute to “the taking of a position or a course of action” (Abric,*
25 *1993, p. 76), it appears more informative to understand the relationships between athletes*
26 *(amateurs and professionals) and sport and performance than to compare these two groups*
27 *regarding their SRs of these objects.”*
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32 Further more, as a project aimed at such synthesis, a more thorough systematic review or even
33 a meta-analysis of previous studies would have provided better context of the question that is
34 being addressed.
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37 The main aim of this research project is to update the results related to the study of the
38 meaning of sport and to extend the results highlighted in the field of the social representations
39 theory by taking into account the concept of performance and the population of professional
40 athletes for whom this object constitutes an important stake in the practice of sport. In this
41 perspective we conducted a thorough search of the references focused on the study of
42 meaning and/or social representations of sport and/or performance using the main databases
43 available. However, as we mentioned in our contribution (page 4): *“the investigation of*
44 *meaning has not been extensively documented in the field of sports psychology (Mrazek &*
45 *Schäfer, 1988; Seippel, 2006). However, a few contributions can be noted (see Table 1).”*. As
46 a consequence, we provided information about the methodologies and results of these few
47 studies in order to justify the necessity to extend them and consider the population of
48 professional athletes. In order to provide a better synthesis, we added a synthetic table page 5.
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