# **Original Article**

# Is there a "Mourinho" effect over the psychological performance profile of elite soccer players?

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#### **Abstract**

Problem statement: When a team achieves success, how much of it depends on the coach and/or of the players profiles. In this paper we identify the performance psychological profile of elite soccer players from Chelsea and Benfica, assessing their profiles to discover a Mourinho effect, while he is a nowadays special coach and coached most of these players.

**Approach**: We applied an international and national validated questionnaire to the players and we complement the analysis with a qualitative approach with data collected through specific interviews (29 professional players - 21 from Chelsea and 8 from Benfica). Statistical procedures consider descriptive, comparative and correlation analysis.

**Results:** The overall sample values are: Motivation (27.55+2.097), Self-confidence (26.83+2.494), Competitive Attitude (26.03+2.758), Positive Thoughts (25.10+2.160), Attention (25.07+3.046), Visualization (23.55+3.429) and Negative Thoughts (22.24+2.824). Concerning the comparative analysis between the players that were trained by Mourinho and other, we could not identify significant statistical differences; however, some of the phenomena indexes emerge showing that Mourinho players present higher levels in self confidence, attention, motivation and weaker effect of the negative thoughts.

**Conclusions and recommendations**: As the success of the teams where Mourinho coached is an evidence, we suspect that the main reasons for success should rely upon collective either than individual characteristics of the players. This will be the next step in our research on the coaching process.

**Keywords**: Performance profile; soccer player; psychological skills, elite soccer, mental training, competitive attitude, self-confidence, scientific knowledge, psychological performance, fundamental

## Introduction

#### Rationale

Integration of individuals in society depends largely on their compatibility, the way they are satisfied or not by their work and involvement, leading to the achievement of individual ideals. Mass or performance sport is one of the most important ways that positively influence behavior integration necessary to solve environmental situations, thereby the part becoming a functional element of the system [11]. In elite soccer we can consider higher levels of similar physical, technical, tactical skills show up among athletes. However, it is difficult to train successful players already with high performance. One of the elite players interviewed in this 2010 study, Didier Drougba (Chelsea FC player) said that "psychological training of an elite soccer player is immensely decisive". This kind of perspective is also referred by a number of other interviewed players such as Hilário (2nd Chelsea goalkeeper) when he states that "mental preparation is very important for every player and it will be more decisive when he represents a top level team, because the pressure and overall requirements are even higher". Paulo Ferreira (Chelsea defender) said "I think the psychological dimension is fundamental in order to achieve the team and the athlete performance; when the athlete does not feel psychologically comfortable it will affect his field performance for sure". Yet, if the majority of the coaches and athletes recognize the importance of the mental factors in order to maximize their performance, we may question how they integrate it successfully within the daily training processes?

The most plausible answer could be: there is no much consistent and scientific knowledge on how to do it, and it still belongs to the coaching black secret box? The development of scientific knowledge in this area is very delicate within the complexity dimension of human mental behaviour. The improvement of the set of mental skills is then a fundamental concern in human performance improvement. The higher the self conscience and knowledge of elite athletes the better they will feel themselves with competences to reach their limits and transcend themselves to achieve higher sportive performances [10, 14, 24].

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José Mourinho is a worldwide phenomenon. He started as primary coach in Portugal - Sport Lisboa e Benfica almost ten years ago World and European Cups. After winning the major leagues and European cups he went to the UK - Chelsea Football Club, then to Italy - Inter of Milan and actually he coaches Real Madrid in Spain. Before he started as a Benfica couch, Mourinho, showed his beliefs and stated for several times he will reach success for sure: "I am not afraid of the future because I trust a lot on me and on my knowledge, I know that I can do the difference and I will win". Ten years after Mourinho really got success; he has done and does the difference in the worldwide soccer panorama with a great curriculum: European Champions League (2): 2003-2004 e 2009-2010; UEFA Cup (1): (2002-2003); Portuguese I League (2): 2002-03 e 2003-04; Portuguese Cup (1): 2002-03; Portuguese Supercup (1): 2003-2004; England Premier League (2): 2004-2005 e 2005-2006; England Cup (1): 2006-2007; England SuperCup (1): 2005; England League Cup (2): 2004-2005 e 2006-2007; Italian Championship (2): 2008-09 e 2009-10; Italian Cup (1): 2009-10 and the Italian SuperCup (1): 2008. For him, the most important success are the collective titles, the "ALL" as he says, although at a personal level he already received several important nominations like the one of the Best World Coach (2004, 2005 and 2010) – which is a nomination under the responsibility of the International Federation of Football History e Statistics (IFFHS). In the UK he is known as the Special One, in Italy "Lo Speciale", in Spain "El Especial".

For the purpose of this paper we wanted to understand if there's a "Mourinho" effect at the Psychological Performance Profile (PPP) in elite soccer players?

Literature review

The psychological profile is used to study different psychological competencies; according to [18], one should know if there is an optimal psychological state of mind to reach complete executions. Although there are incredible individual differences in most of the cases it follows a pattern like: Self-reliance; Positive worry for sports (imagination and thought); Determination and commitment; Self-regulation of the activation level (energy, relaxed and not fearful); Concentration and Natural Self-control.

Ravizza (1977) quoted in [13, 23], interviewed 20 athletes in several competitive levels that reported their experiences in 12 different sports; from these, 80% communicated they felt integrated and unified perception of the Universe; loss of fear and absence to fear failure; time-space disorientation; absolutely immersed in the activity; unique experience, temporal and unwanted; they do not think about execution; very selective focus; absolute control feeling and effortless execution. After interviewing hundreds of elite sportsmen Garfiel and Bennett in 1984 *apud* [23] identified eight mental and physical conditions that the athletes described as characteristics of the feelings they experienced in those moments and that make them feel very well: mentally relaxed, physically relaxed, confident and optimist, focused on the present, full of energy, extraordinary conscience, under control and concentration. In [7, 9] we can also look at these aspects.

Still according to [23], negative psychological emotions such as frustration, fear or worries usually lead to the reverse. Thus, we can assume that performance levels are a direct reflex of the way individuals feel and think. The main problem for coaches is on how can they provide the needed conditions for their players maximize and develop their self-confidence.

During our interview, Shéu Han (former Benfica player and actual manager) said that "self-confidence allows executing certain tasks without added levels of concentration". Peter Cech (Chelsea goalkeeper) refers that self-confidence "is the confidence each one has on their own abilities and skills". Hilário (Chelsea 2nd goalkeeper says that it is "the capacity to believe in himself, in their qualities and be not afraid to make mistakes". These last sentences agree with [20, 21, 21, 24] perspective, defining self-confidence as the conviction that individuals have on their abilities to be successful in sports, although it can have different meanings according with the stage of the athlete career. It also depends on the goals and objectives each player intends to achieve through sports competition [12, 16] conceptualized self confidence in sports in the context of a "continuum" varying with the absence of or overconfidence. Self-confidence is therefore influenced by variables connected to:

- a) the competence or ability levels;
- b) the situation/context and
- c) personal factors.

A great deal of the interest that self-confidence concept is being influencing sport performance is related with the self - efficacy theory developed by [2, 3]. He said that the concept depends on the judgments people do on the organization capacities and the action plans required in order achieving a certain goal. In other words, self - efficacy plays a predictive role for future action. The perceived self - efficacy refers to the perception of capacities for certain performances in determined situations, activities and domains, recognizing these perceptions may vary from one situation / task to another [5, 7]. Self-confidence is not what we intend to do but what realistically we hope to do [14, 19] Athletes only control part of the process because they depend on their colleagues and opponents' performances. The absence of the self confidence is mostly evidenced through negative expectations and doubts on their own performances [21]. Still according to the same view, [15, 16] states that individuals with higher levels of self confidence tend to work harder in the training processes, revealing higher persistence and ability to improve.

Emotions can inspire or inhibit sport performances. However, when all the excitement transforms in anxiety, the athlete can probably experience failures. According to [10] negativism can play a special role that inducts athletes to error thinking and low performance levels [10, 19]. However, [11] state that negativism can play a motivational role, which confirms [4] findings. The main question about negative thoughts is that sport coaches and psychologists should incentive their athletes to think, controlling their thoughts [23]. Attention is something that could be expressed with Cruyff words in 1989: "All the coaches talk about movement and that players should run a lot. I say do not run too much, soccer is played with the brains and you have to be in the right place in the right time; not before and not after". Didier Drogba (2010) said that "after training I frequently work alone some of the technical gestures that I use regularly use during the games". Visualization or imagery are complementary training. Mental training, specifically visualization can, by itself, produces significant improvements in motor skills learning process. Combined with other physical, technical and psychological training methods they can have an added value to results [1, 2].

# Materials and methods Sample characterization

The choice of the players that should integrate our sample was restrained by Mourinho past as a coach. So, we went to look for Chelsea and Benfica players. The instrument used was a questionnaire applied to the players, complemented with several interviews with coaches and old players with experience in the subject. In table 1 we show the distribution of the sample among the different clubs.

Table 1 - Origin Clubs

Clubs	Frequency	Percent
S. L. Benfica	8	27.6
Chelsea F. C.	21	72.4
Total	29	100.0

In Table 2 we have the share of players once coached by Mourinho. More than a half was one day/season coached by Mourinho.

Table 2 - Mourinho Influence

	Frequency	Percent
Once coached by Mourinho	17	58.6
Never coached by Mourinho	12	41.4
Total	29	100.0

## **Instruments**

We used the already validated questionnaire known as PPP – Performance Psychological Profile, originally developed by [10] and translated to be applied in Portugal by [10, 23]. This instrument is composed by a set of 42 questions, designed to measure the 7 psychological variables in performance, with 6 questions for each of the 7 variables referred to in the literature: self confidence, negative thoughts, attention, visualization, motivation, positive thoughts and competitive attitude. The respondents had 5 options to answer: almost never, rarely, sometimes, frequently and almost always. The answers were classified in a *Likert* scale from 1 to 5 points. The variable values are obtained from the sum of the following answers:

- **Self-Confidence** Items belonging to the Self Confidence variable: 1,8,15,22,29,36 (6 items);
- Negative thoughts Items belonging to the Negative thoughts variable: 2,9,16,23,30,37 (6 items);
- Attention Items belonging to the Attention variable: 3,10,17,24,31,38 (6 items);
- **Visualization** Items belonging to the Visualization variable: 4,11,18,25,32,39 (6 items);
- **Motivation** Items belonging to the Motivation variable: 5.12,19,26, 33,40 (6 items);
- **Positive Thoughts** Items belonging to the Positive Thoughts variable: 6,13,20,27,34,41 (6 items);
- **Competitive Attitude** Items belonging to the Competitive Attitude variable: 7, 14, 21,28,35,42 (6 items).

To quantify the parameters we respected a sequence of inverted items respectively: 1, 2, 3, 9, 10, 14, 15, 16, 20, 23, 24, 30, 31, 33, 38. All the values that he players pointed out to these items were reverted (1=5, 2=4, 3=3, 4=1 e 5=1). The maximum value is then 30 points for each of the parameters, which is also defined as ideal value. In [9] the possible values in several levels are subdivided, giving them meanings as we can see in the table 3. In table 3, values until 19 points represent a psychological fragility that turns out inconsistent the performance and raises the need of an immediate intervention. Values between 20 and 25, the athletes do prepare themselves mentally but in a inefficient and inconsistent way. Values above 26 mean that, in this parameter, the players do have an adequate psychological preparation. When all the values are above 26 we can say we face a consistent training process.

## Procedures and data collection

The Basic questionnaire was applied individually where the respondents were conducted to respond to all the questions. Before answering, all participants read the whole set of instructions. There was no limit for the time to answer and they could have an example for one or two questions before the definitive filing process. The average time for response was between 7 to 15 minutes. The answer was done with a circle around the number of the item that better corresponded to the respondent choices. They usually did it in a space without distractions or external interferences, after which we collected the questionnaires.

The places for gathering data were (i) the Chelsea Football Club Training Centre in Cobham – London and the players were Didier Drogba, Frank Lampard, John Terry, Michael Ballack, Nicolas Anelka, Michael Essien, Ashley Cole, Petr Cech, Deco, Saloman Kalou, Florent Malouda, Ricardo Carvalho, Joe Cole, José Bosingwa, Yury Zhirkov, John Obi Mikel, Ivanovic, Alex, Hilário, Belletti and Paulo Ferreira; (ii) Estádio da Luz – Lisboa for Óscar Cardozo, Nuno Gomes, Javi García, César Peixoto, Carlos Martins e Alan Kardec.

## **Statistical Analysis**

To organize the data base and the statistical analysis we used SPSS (Statistical Package for the Social Sciences) version 18.0.

We assumed the value of p=0.05 in order to assess the reliability of the variable tests and the Cronbach Alpha to assess the internal consistency. For the hypothesis tests we applied the non parametric statistics U of Mann-Whitney for independent samples and K=2; for independent samples the Kruskal-Wallis test for K>2.

## Results

# Instrument Consistency of "PPP"

PPP reliability was studied with the Alfa Cronbach coefficient in a total of 42 items. The obtained value reaches the 0.828 which is higher than the reference value of 0.80, therefore considered a very good internal consistency.

In table 4, we present the descriptive statistics for each one of the 7 variables in PPP of the sample.

The variables with higher median are motivation  $(27.55\pm2.097)$ , self confidence  $(26.83\pm2.494)$ , competitive attitude  $(26.03\pm2.758)$  and positive thoughts  $(25.10\pm2.160)$ . The lowest median are attention  $(25.07\pm3.046)$ , visualization  $(23.55\pm3.429)$  and negative thoughts  $(22.24\pm2.824)$ .

If we attend to the values established in [10], 4 out of 7 are in between 20 and 25, recommending the need to incorporate mental training in a regular and systematic way close to the sample athletes. However, the variables of self confidence, motivation and competitive attitude show values between 26 and 30, meaning that the athletes evidence excellent psychological skills, representing an adequate systematic training.

## Hypothesis verification

Ho1 – There are no statistical differences between the players coached by Mourinho against other in different PPP variables.

There are no statistical differences at the p level (0.05) we established, therefore we must accept Ho1. But if we look (Table 5) at the median we can state that those players that once in their lives were coached under Mourinho leadership these show higher values for self confidence (27.29 $\pm$ 1.611), negative thoughts (22.71 $\pm$ 3.016), attention (25.47 $\pm$ 2.183) and motivation (27.59 $\pm$ 1.805). Those players that never were coached under Mourinho leadership show higher values in the other three psychological performance variables: visualization (23.83 $\pm$ 3.664), positive thoughts (25.92 $\pm$ 2.275) and competitive attitude (26.50 $\pm$ 3.205).

#### Discussion

Self confidence, negative thoughts (reverse signal), attention and motivation seem to be the strengths of soccer players that once in their lives were coached by Mourinho. In a more detailed analysis these players show evidence of excellent psychological skills, which means that they follow a methodical and systematic mental

training process, facing all the games with an excellent self confidence and motivation. We can conclude they have an enormous belief that they will achieve the collective goals, they have the sense of the group, against individual focus. These concluding remarks are also complemented using the interviews we did to different international players in 2010, such as KáKá when he declares "with Mourinho we can win everything" or present very high levels on motivational indexes when we listen to Higuain, the international Argentinean player saying "Mourinho is a winner, he did it in all the clubs and we expect he can repeat it in Real Madrid; he asks our best and we will give it for sure". Only very high motivated players can give this kind of answer facing the maximum a coach requires from them to achieve the team collective goals. We also observed that José Mourinho coached players presented a reasonable level for negative thoughts and attention, although not at na excellent and systematic levels. In fact Mourinho gives enormous importance to his players' attention/concentration during their daily work. Here we quote some of his well documented sentences: "elite players' concentration can and must be trained, but when we do specific training programs following a certain game philosophy is constantly training concentration" through "building exercises requiring that concentration, exercises where the players are obliged to think hard, communicate among them, exercises with permanent complexity". He defends that "the exercises should never be very easy and when the players solve problems they face easily, I have to search for new ones". José Mourinho does care a lot about concentration because he wants the players to be permanently focused on the game.

In the sport context, a good performance is frequently connected to the capacity to be fully concentrated on the execution of the sportive action [16]. The control over the attention is nothing but the athlete's ability to stay "linked" to the most important aspects of his sport action at the same time he disconnects from the non important aspects. The more the athlete immerge in the most relevant aspects of his sport the deeper he will go into his concentration too [9]. Attention refers to concentration and focus of all the mental effort upon the most relevant information in detriment of the irrelevant information for the specific performance. But if Mourinho pays so much attention to his athlete's concentration why they did not scored high punctuation in attention variables? One of the possible explanations can be related to the 3 years of break in the work with the players in the study. During these 3 years those players were coached by different coaches, each one of them with this specific methodologies and leadership, which could attend to different variables.

Considering the players never coached under Mourinho leadership they also can be considered well prepared in positive thoughts and competitive attitude; however this not applies to visualization.

## Conclusion

This study is seminal and constitutes a basis for future studies of players trained under Mourinho leadership. We want to study the PPP in subsequent seasons and different types of teams in order to reach a pattern of Mourinho effect over the players. The psychological performance profile is an important instrument available for coaches that want to know more about the mental training areas revealing player handicaps that need to be trained. In fact, practical Mourinho curriculum worth to be deeply approached once he proved it is possible to radically change the sports performance of his players. It is neither a physical question nor a technical/tactical one. He really touches the core of the human beings he coach, which we can capture through performance assessment and personal interviews with his players. Moreover we want to research about collective profiles of the teams once it looks like they can be the distinctive proficiency of this coach.

The limitation of the study relies on the sample size that will be growing for the next years and will allow following the same players longitudinally.

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# References

- [1] Alves, J., Lúcia, G. e Passarinho, J. (1999). Imagery in Basketball: Contribution to Free Throw Accuracy. *Actas of the International Congress of Sport Psychology*. Praga: FEPSAC.
- [2] Alshamasin, Mahdi S. (2009). Optimization of the Performance of Single-Phase Capacitor-Run Induction Motor. *American Journal of Applied Sciences*, 6: 745-751. DOI: 10.3844/ajassp.2009.745.751.
- [3] Bandura, A. (1990). Perceived self-efficacy in the exercise of personal agency. *Journal of Applied Sport Psychology*, 2, 128-163.
- [4] Caylak, Dr. E. 2010. The Studies about Phonological Deficit Theory in Children with Developmental Dyslexia: Review. *American Journal of Neuroscience*, 1: 1-12. DOI: 10.3844/ajnsp.2010.1.12.

- [5] Cervone, D., & Scott, W. D. (1995). Self-efficacy theory of behavioral change. InW. O'Donohue&L. Krasner (Eds.), *Theories of behavior therapy* (pp. 349–383). Washington, DC: American Psychological Association.
- [6] Dagrou, E., Gauvin, L., & Halliwell, W. (1992). Effets du langage positif, negatif, et neutre sur la performance motrice [Effects of positive, negative, and neutral self-talk on motor performance]. *Canadian Journal of Sports Sciences*, 17, 145-147.
- [7] Dias, I. Tavares e Carvalho, Pedro G. (2011) A qualidade percebida em programas municipais de actividade física para idosos: validação estatística para Portugal. *Motriz*, *Revista de Educação Física*, vol 17, nº 1. (forthcoming).
- [8] Elforgani, Mohamed S. and Rahmat, Ismail, 2010. An Investigation of Factors Influencing Design Team Attributes in Green Buildings. American Journal of Applied Sciences, 7: 976-986. DOI: 10.3844/ajassp.2010.976.986.
- [9] Leone, Matthew and Tian, Robert G., 2009. Push Vs Pull: Factors Influence Student Retention. American *Journal of Economics and Business Administration*, 1: 122-132. DOI: 10.3844/ajebasp.2009.122.132.
- [10] Loehr, J. (1986). Mental Toughness training for sports: Achieving athletic excellence. Lexington: The Stephen Greene Press.
- [11] Martens, R. (1987). Self-confidence and goal-setting skills: Coaches guide to sports psychology. Champaign: Human Kinetics.
- [12] Martens, R., Vealey, R. e Burton, D. (1990). *Competitive Anxiety in Sport*. Champaign: Human Kinetics. [XXX] Modarres, Farzin, Malik A. Hassan and Wah J. Leong, 2009. Memoryless Modified Symmetric Rank-

One Method for Large-Scale Unconstrained Optimization. *American Journal of Applied Sciences*, 6: 2054-2059. DOI: 10.3844/ajassp.2009.2054.2059.

- [13] Perkos, S., Theodorakis, Y. e Chroni, S. (2002). Enhancing performance and skill acquisition in novice basketball players with instructional self-talk. *The Sport Psychologist*, 16, 368-383.
- [14] Redzuan, Ma'rof, Juhari, Rumaya B., Yousefi, Fayegh, Mansor, Mariani B. and Talib, Mansor A. (2010). The Relationship between Gender, Age, Depression and Academic Achievement. *Current Research in Psychology*, 1: 61-66. DOI: 10.3844/crpsp.2010.61.66.
- [15] Ryska, T. (2002). Effects of situational self-handicapping and state self-confidence on the physical performance of young participants. *The Psychological Record*, 52 (4), 461 478.
- [16] Simion Gheorghe, Mihăilă Ion, Crelu Marian, Rosu Daniel (2010) Sport as Means Of Social Integration For Less Favored Ethnic Groups, *Journal of Physical Education and Sport*, Vol 26, no 1, March.
- [17] Van Raalte, J., Brewer, B., Lewis, B. e Linder, D. (1995). Cork! The effects of positive and negative self-talk on dart throwing performance. Journal of Sport Behavior, 18 (1), 50-59.
- [18] Vasconcelos-Raposo, J. (1993). Os factores psico-sócio-culturais que influenciam e determinam a *busca da excelência pelos atletas de elite desportiva portuguesa*. Dissertação de Doutoramento, Vila Real: UTAD.
- [19] Vasconcelos-Raposo, J. (1994). Manual de treino para a definição de objectivos. Vila Real: UTAD.
- [20] Vealey, R. (1986). Conception of sport-confidence and competitive orientation: Preliminary investigation and instrument development. *Journal of Sport psychology*, 8, 221-246.
- [21] Vealey, R., Hayashi, S., Garner-Holman, M. & Giacobbi, P. (1998). Sources of sport confidence: Conceptualisation and instrument development. *Journal of Sport & Exercise Psychology*, 20, 54-80.
- [22] Vealey, R. e Walter, S. (1993). Imagery training for performance enhancement and personal development. In J. Williams (Ed.), *Applied Sport Psychology*. Mountain View: Mayfield.
- [23] Williams, J. e Bunker, L. (1991). Tecnicas cognitivas para la mejora de la ejecucion y la construccion de la confianza. In J. Williams (Ed.), *Psicologia Aplicada al Deporte*. Madrid: Biblioteca Nueva.
- [24] Yahaya, Azizi, Jamaludin Ramli, Shahrin Hashim, Mohd. Ali Ibrahim and Zurihanmi Zakaria (2009) The Relationship between School, Class and Co-Curriculum Absenteeism on the Academic Performance of Selected Secondary School *Journal of Social Sciences* 5 (4): 355-361