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ORIGINAL

EVALUATION OF METAPERCEPTION OF GOAL ORIENTATION AND MORAL FUNCTIONING IN SOCCER SPECTATORS

EVALUACIÓN DE META-PERCEPCIÓN DE META Y FUNCIONAMIENTO MORAL EN ESPECTADORES DE FÚTBOL

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ABSTRACT

Soccer violence is a serious social problem. Some of its manifestations are related to competitive sport and its treatment by the mass media. The purpose of this study was to analyze the psychometric properties of two Spanish scales which measure the metaperception of goal orientation and moral functioning in soccer spectators. Participants ($N = 616$) reported the time spent viewing soccer sport programming, and rated metaperception of goal orientation and moral functioning. The scales exhibited adequate construct, convergent and

concurrent validity. These results indicate that the new scales have adequate psychometric properties, allowing a valid and reliable assessment in order to explain the processes that take place in sport spectators like soccer viewers.

KEYWORDS: Scale's validation, sport media entertainment, mass media, viewers, morality

RESUMEN

La violencia en el fútbol es un grave problema social. Algunas de sus manifestaciones están relacionadas con el espectáculo deportivo y su tratamiento en los medios de comunicación. La finalidad de este estudio ha sido analizar las propiedades psicométricas de dos escalas en español que miden la meta-percepción de orientación de meta y el funcionamiento moral en espectadores de fútbol. Los participantes fueron estudiantes universitarios ($N = 616$) que completaron cuestionarios valorando el tiempo dedicado al consumo de programas deportivos sobre fútbol, la meta-percepción de orientación de meta y el funcionamiento moral. Las escalas definitivas mostraron una adecuada validez de constructo, validez convergente y validez concurrente. Estos resultados indican que las nuevas escalas poseen adecuadas propiedades psicométricas, lo que permite una evaluación válida y fiable que mejore el entendimiento de los procesos que operan en los espectadores de deportes como el fútbol.

PALABRAS CLAVE: Validez de escalas, deporte espectáculo, medios de comunicación, espectadores, moralidad

INTRODUCTION

As in the previous years, the beginning of 2016 started with news about violent incidents among soccer spectators. In a Europe League match, Athletic Bilbao and Olympique de Marseille supporters fought an authentic battle just before getting inside the stadium. One year ago (February 2015), another tragic event placed soccer once more in the spotlight generated by violence in sport. In Egypt, the most radical supporters of Zamalek team were engaged in a massive fight against the police leaving 30 dead. Three years before the supporters of two teams from the same country were involved in another dreadful fight leaving 74 dead and 136 wounded. It was the worst act of violence in soccer in Egypt, and the largest number of deaths in the world since 2001 in Ghana (126 deaths in Accra after a match between Hearts of Oaks and Kumasi).

When experts discuss violence in soccer, they often distinguish between specific athletes' violence and violence associated with the sporting events, and also indicate that, a greater relationship between sport and media entertainment, leads to greater interaction between the two violence types (UNESCO, 1987). That is, the different forms of violence taking place in sporting events are synergistic (Russell, 2004), producing identification and introjection phenomena. The social-cognitive theory (Bandura, 1999) states that individual differences and social aspects (e.g., watching violence) regulate the

moral behavior, and, within this perspective, Bandura (1999) expounds that the moral disengagement process may explain the causes of the disconnection between reasoning and moral behavior, which is similar to the *bracket morality* mechanism proposed by Bredemeier and Shields (1986) in sport contexts. For instance, some individuals may consider that insulting is not right, but can rationalize that it may be right in some particular contexts (e.g., during a soccer match). Likewise, the identification mechanism may cause subjective and partial reactions among spectators. Several studies have pointed out that this mechanism is an important predictor of spectators aggressive behavior (e.g., Wann, 2005; Wann, Belva, Armstrong, Weaver, & Ladd, 2015). Thereby, if spectators watch and perceive that soccer players justify their aggressive and antisocial behaviors, and, moreover, they are magnified by the media, it is more probable that the viewers manifest similar patterns of moral functioning. There are some instruments to assess the problem of moral functioning and violence in athletes (e.g., Kavussanu & Ntoumanis, 2003; Oliva, Calleja, & Pozo, 2012), but instruments to aboard this problem in spectators are almost inexistent.

MORAL FUNCTIONING

The research connecting mass media and moral functioning has been limited by the need for an objective measurement of the moral contents that viewers perceive in the programs they watch (Glober, Garmon, & Hull, 2011). The revisions of Moral Messages in Media (MMM) have identified 10 moral behaviors frequently appearing in the media (Glover, 2005; Glover & Garmon, 2007). These include six positive messages: perspective-taking, apology, forgiveness, help/nurturance, affection, kindness, and healthy anger. And also four negative messages: anger, deception, egocentrism, prejudices and threats (Glover et al., 2011). All these dimensions appear in soccer as media entertainment. Some cognitive variables could be particularly important as mediating mechanisms between exposure to violence and aggressive behavior. Previous studies have found that the belief that aggression is acceptable predicts aggressive behavior (Calvete, 2008; Huesmann & Guerra, 1997; Orue & Calvete, 2012).

The role of achievement goal in moral functioning in the sport context has been examined using the Rest's model (1984). He proposed that in order to understand moral behaviors, the following processes have to be examined: (a) interpretation of the situation; (b) forming a judgment on what should be done in a given situation; (c) the intention; (d) performing the behavior itself. Moral development implies gaining competences in the four processes. A deficiency in any of them may result in moral failure. Rest (1984) also proposed that these four processes are interactive, influencing each other through feedback and feed-forward loops. Several studies have used Rest's model in sport (e.g., Cecchini, González, & Montero, 2008; Gibbons, Ebbeck, & Weiss, 1995; Kavussanu & Roberts, 2001; Kavussanu & Ntoumanis, 2003; Stuart & Ebbeck, 1995). The model has also been applied in other life domains (e.g., Rest, 1994). Kavussanu and Roberts (2001), and Cecchini et al. (2008), have examined the role of achievement goals in three of the four components of the Rest's model, specifically: moral judgment, intention and behavior. In both studies, three indices of moral functioning (judgment, intention, and behavior) were measured

in four different dilemmas. Therefore, according to the literature, the CFA approach to multitrait-multimethod (MTMM) analysis is the most appropriate method to examine the factorial structure of moral functioning (see Marsh & Grayson, 1995). Also in both studies, the 3CT 3UM (3 correlated trait factors and 3 uncorrelated method factors CT = correlated traits; UM = uncorrelated method factors) and the 3 CTCU (3 correlated trait factors, although the method effects are inferred from correlated uniqueness terms among measures of the variables assessed by the same method, CU = Correlated uniqueness) were the only models that had an excellent fit and also resulting in proper solutions.

GOAL ORIENTATION

The achievement goal theory has been enormously helpful to understand affection, cognition, and behavior in situations of sport and exercise (e.g. Roberts, 2001; Whitehead, Andree, & Lee, 2004). This theory postulates that individuals interpret the subjective meaning of success in two main ways, which correspond to two different achievement goals: task and ego goals. A person who takes a task orientation will define success or competence in terms of task control or advance. While an ego-oriented person will define success and contemplate competence, in normative sense, in terms such as winning or surpass the others. According to this theory the use of deception and aggression to exhibit competence in normative sense, would be irrelevant in the case of task oriented athletes, while those oriented to the ego will show more tendency to skip the rules and behave in an unsportsmanlike manner to win, because winning is their perception of success. A large number of studies have supported these predictions. Specifically, ego orientation has been related to the approval of intentionally injurious acts among basketball players in high school and college (Kavussanu & Roberts, 2001).

Several attempts have been made to develop scales to measure goal orientations in sport. The first attempt was the *Sport Orientation Questionnaire* developed by Gill and Deeter (1988). However, as the *Achievement Goal Theory* was not considered, their scale is not applicable to measure the achievement goal constructs (Marsh, 1994). According to Nicholls (1989), to assess the achievement goals of individuals, they should be asked about the criteria that make them feel successful in a given context. Following this line, Duda (1989), Duda and Nicholls (1992), and Roberts and his colleagues (Roberts & Balague, 1991; Treasure & Roberts, 1994) have developed scales to measure task and ego goal orientations in sport incorporating questions related to the criteria the persons used to determine whether success has been achieved. Duda and colleagues modified the questionnaire that Nicholls, Patashnik, and Nolen (1985) had developed for an academic environment in order to make it specific for the sport context. The new instrument called *Task and Ego Orientations in Sport Questionnaire* (TEOSQ: Duda, 1989; Duda & Nicholls, 1992), has repeatedly demonstrated acceptable validity and reliability indices to assess task and ego orientations. Therefore, it has been successfully used in the sport context (e.g., Duda, 1989; Chi & Duda, 1995). Considering that the sport context is different from the academic one, Roberts and Balague (1991) argued that a specific questionnaire in sport was required. Subsequently, Roberts, Treasure, y Balagué (1998) used different scale development procedures, such

as those recommended by the American Psychological Association, in order to create an adequate scale for the sport context and developed and validated the *Perception of Success Questionnaire* (POSQ) as a measure of achievement goals in sport. Initially, this scale was composed by 29 items, whereas the current version includes only 12 questions. They demonstrated that task and ego goals are orthogonal, also that both orientations have high internal reliabilities, with a strong construct and concurrent validity. By two confirmatory factor analyses conducted on the Children's and Adult versions of the questionnaire, the results concluded that the Perception of Success Questionnaire is a reliable and valid instrument to measure achievement goal orientations in sport.

PERCEPTION AND METAPERCEPTION

Metaperceptions generally refer to the estimates that a person has on the perceptions of another person. Several studies have emphasized the need to differentiate between direct perceptions and metaperceptions (e.g., Snyder & Stukas, 1999). Direct perceptions refer to the opinions that people have of themselves or of the others, while metaperceptions represent estimates that are established with respect to the thoughts of others significant persons (e.g. Kenny & Acitelli, 2001). From the work of Laing et al. (1966), the role of metaperceptions has long been investigated in social psychology. While we know that these two variables are related, the literature indicates that people generally do not base their metaperceptions on the reactions of their interaction partners. On the contrary, people generally look inwards, rather than outwards, and assume that their interaction partners see them as they see themselves (Malloy et al., 1997). That is, in most circumstances, self-perception is the base on which metaperception is constructed (Frey & Tropp, 2006). However, in situations where the results depend on the judgments of the others the dependence on the strict self-perceptions can be mitigated (Kaplan, Santuzzi, & Ruscher, 2009). When there is a power imbalance, and the results depend on someone in a more powerful position, people tend to scrutinize more closely the reasons and behavior of that person (Stevens & Fiske, 2000). Recent studies have pointed out the relevance of this kind of cognition between coaches and athletes, and suggest that coaches have a relevant influence over athletes (Adie & Jowet, 2010; Cecchini, Fernández-Río, & Méndez-Giménez, 2015). Likewise, soccer players and spectators do not interact at the same level, therefore, in a similar relationship, soccer players could be exhaustively observed and analyzed by supporters. Although some investigations have explained how this cognition affects athletes, this mechanism is unknown among spectators. For that reason, it is necessary to validate a questionnaire to measure metaperception of goal orientation in soccer spectators.

Hence, the purpose of this study is to analyze the psychometric properties of two new Spanish scales which measure the metaperception of goal orientation and moral functioning in soccer spectators. As an initial point, the following questionnaires were used: The Perception of Success Questionnaire (Roberts, Treasure, & Balague, 1998), and the Moral Functioning Questionnaire (Gibbons, Ebbeck, & Weiss, 1995; Kassuvan & Ntoumanis, 2003).

MATERIAL AND METHODS

PARTICIPANTS

The sample consisted of college students ($N = 616$) enrolled in majors not directly related to sport. This study was conducted in two phases, 261 students participated in the phase one, (103 men and 158 women) and 355 in the phase two (181 men and 174 women). The ages of the participants ranged from 18 to 40 years (Phase 1, $M = 19.19$, $SD = 3.28$; Phase 2, $M = 19.16$, $SD = 5.25$). Whereas 596 data were complete (i.e., no missing values), and the remaining 20 had < 8% missing data, the randomly missing data were imputed with values derived from a multiple regression in which three item scores from the same congeneric set of indicators (i.e., items measuring the same construct) were used as the predictor variables. Although maximum likelihood (ML) estimation is now considered the most efficient approach to dealing with missing data, Bentler (2005) notes that when the amount of missing data is very small (as is the case here), methods such as regression imputation may suffer only marginal loss of efficiency (for an elaborated discussion of imputation in general, and the preference for regression-based imputation in particular, readers are referred to Byrne, 2001).

There is no consensus between researchers regarding to the number of participants required to obtain reliable estimates from confirmatory analysis. However, it appears that the reliability of the model depends on its complexity and the number of participants to contrast it (Jackson, 2003; Kline, 2005). In this study, the method of MacCallum, Brown and Sugawara's (1996) was used to determine the adequate number of participants necessary to measure the fit of structural equation models on the basis of RMSEA. According to this method, and in order to perform a statistical analysis of sample, five factors have to be taken into consideration. These factors were: degrees of freedom, significance level, desired level of power, the null value of RMSEA, and the alternative value of RMSEA. Statistical procedures were run by the software Statistical Analysis System (SAS) and *R* (version 3.0.2), which are software environments for statistical computing and graphics. That software provided a code for each set of variables. Then, this code was inserted in *R*, which gave exactly the adequate number of participants for each study. So, the minimum number of participants necessary for metaperception questionnaire should be 119, and 196 for moral functioning questionnaire.

MEASURES

The viewing of soccer programming. The time spent viewing/listening/reading sports programming specialized in soccer was measured with three items that collected the weekly minutes dedicated to: 1) watching soccer matches on television; 2) watching or listening entertaining soccer-related television and/or radio programming; 3) reading news about soccer in the press or internet. Subsequently, this variables were recoded from 1 to 5 points by reference to the duration of a soccer match (1 = 0 minutes; 2 =

up to 90 minutes; 3 = from 91 to 180 minutes; 4 = from 181 to 360 minutes; 5 = more than 360 minutes).

Metaperception of goal orientation. To evaluate the estimates that spectators have about the perceptions of others (in this case the perception of success of their favorite team), the Perception of Success Questionnaire (POSQ; Roberts et al., 1998) adapted to the sports spectators was used (Appendix 1). The participants responded to the stem "As a supporter, I feel that my favorite team is most successful in their sport when it..." through a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The POSQ is a 12-item scale: 6 task orientation (e. g., "...perform at the best level of skill") and 6 ego orientation (e. g. "...is clearly superior to the others"). The POSQ has demonstrated acceptable internal consistency. Cronbach alpha coefficients for the task and ego subscales were .90 and .84, respectively (Roberts et al., 1998). It robustness was also confirmed in Spanish language by Cervelló, Escartí, and Balagué (1999).

Moral Functioning. Moral functioning was assessed using an instrument developed by Gibbons et al. (1995), which was subsequently modified by Kavussanu and Ntoumanis (2003), validated in Spanish language by Cecchini et al. (2008), and adapted to soccer spectators in this study. Three dilemmas (alternatives) were used in reference to unsportsmanlike behaviors that are likely to occur in viewers of sports programs who may support, allow or encourage players to lie to a referee, to break a rule and to deliberately hurt an opponent. Thus, judgment, intention and behavior were evaluated in every dilemma. *Judgment* was measured by asking spectators to judge whether the behavior described was appropriate during a critical match. To assess *intention* to act, they had to indicate whether they would support or would encourage such behavior. Finally, *behavior* was measured by asking spectators to indicate how often they had done so as spectator in the last five matches (Appendix 2). In all cases the responses varied from 1 (*never*) to 5 (*very often*). These questions have been used in past research in sport contexts (Cecchini et al., 2008; Kavussanu & Ntoumanis, 2003; Kavussanu & Roberts, 2001) to assess indices of moral functioning.

PROCEDURE

Firstly, the approval to conduct the study was obtained from the Human Research Ethics Committee of the University where the study was carried out. Then, the deans of several majors gave their permission to recruit participants. This study was conducted in two phases. In the first, the data to run exploratory analysis of the instruments were collected ($n = 261$), and in the second phase, the data to confirm the previous results were collected ($n = 355$). A researcher recruited participants for the study before the lessons started. Thus, all college students were informed that could participate voluntary and in anonymous way, that they would not get any academic or economic benefits, that all their answers would be confidential and that they could withdraw at any time. They were encouraged to respond to the questions as honestly as possible and to request assistance in case necessary. The questionnaire took approximately 15 to 20 minutes to be completed.

DATA ANALYSIS

In the phase 1, an Exploratory Factor Analysis (EFA) was run with the metaperception of goal orientation questionnaire. Oblimin direct rotation analysis was used as extraction method. It was selected an oblique method because despite of that the two dimensions proposed by Nicholls (1989) were conceptually independent, and that construct validity of the Roberts et al. (1998) scale established a negligible correlation between both factors, the purpose of this exploratory study is to validate a new instrument (based on other scale), and therefore, it was used an oblique rotation which does not force an orthogonality of the factors which hide a possible dependence of them (Ferrando & Lorenzo-Seva, 2014). Also, it was calculated the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. To determine the number of factors to extract, it was considered that all factors whose eigenvalue was greater than one were accepted, then, factor loadings greater than .40 were considered to assign each item to each factor. Those items that showed a cross-saturation greater than .40 were also eliminated from the corresponding factor.

Due to the characteristics of the moral functioning questionnaire, a multitrait-multimethod matrix (MTMM, by Campbell & Fiske, 1959) was run as a test of convergent-discriminant validation. Convergent validity was tested using Cronbach's alpha, while discriminant validity was tested by correlations between variables.

In order to contrast the proposed measures' models, a Confirmatory Factor Analysis (CFA) was run in the second phase. Estimate normalized of Mardia coefficient was calculated and then we decided to use an analysis based on the Santorra-Bentler chi-square Statistical ($S-B\chi^2$; Satorra & Bentler, 1994) and robust standard estimators implemented in the statistical program EQS 6.1, instead of the usual maximum likelihood statistical chi-squared ($ML\chi^2$), as it serves as a correction for χ^2 when distributional assumptions are violated (see Curran et al., 1996; Byrne, 2008). The evaluation of goodness-of-fit of the data was determined on the basis of multiple criteria (Byrne, 2008): as incremental fit indices the CFI (*Comparative Fit Index*; Bentler, 1990) was used. As a measure of absolute adjustment indices which determine the degree to which the model predicts the covariance matrix, *RMSEA (*Root Mean Square Error Approximation*; Browne & Cudeck, 1993) and SRMR (*Standardized Root Mean Square Residual*) were also used. The *CFI represents the CFI robust version that is calculated on a $S-B\chi^2$ statistical basis. Hu and Bentler (1999) suggest a value of .95 as indicative of good model fit. The *RMSEA is a robust version of the usual RMSEA and takes into account the approximation error in the population. This discrepancy is expressed per degree of freedom, so it is sensitive to the complexity of the model, values less than .05 indicate a good fit, and values as high as .08 represent reasonable approximation errors. To complete the analysis it was also included the confidence interval to 90% provided by *RMSEA (see Steiger, 1990). Finally, the SRMR with a value below .08 is indicative of a good fit (Hu & Bentler, 1999).

In this research, the moral functioning was measured through three dilemmas so we considered the confirmatory factor analysis (CFA) multitrait-multimethod (MTMM) as the most suitable to examine its structure (Marsh & Grayson, 1995). The three indices of moral functioning were considered as traits (judgment, intention and behavior) while the three dilemmas were considered as methods to assess different traits. The purpose of this analysis is to determine the relationship between traits, when the effects of method variance and random error are present. CFA MTMM analysis assesses the convergent validity, discriminant validity and method effects. Big loads trait factors provide support for the convergent validity concerning stability of characteristics through different methods (see Marsh & Grayson, 1995). Very large correlations among trait factors suggest a lack of discriminant validity among traits. Finally, large loadings on method factors indicate method effects, that is, variation in the responses which is specific to each dilemma.

According to Marsh and Grayson (1995), the main MTMM models have been tested and compared (Table 2). The first model posits correlated trait factors (3CT). The second posits three traits and three correlated method factors (3CT 3CM). The third model posits correlated trait factors and uncorrelated method factors (3CT 3UM). The fourth model also posits trait factors, but method effects are inferred from correlated uniqueness terms among measures variables assessed by the same method (3CTCU). The most appropriate model is selected by an evaluation of the fit indices, and whether the model has converged to a proper solution, that is, whether parameter estimates are within the range of permissible values (Marsh & Grayson, 1995). If a model fails to converge, or if it converges to an improper solution, then it is not deemed credible. Mardia normalized coefficient estimate was calculated, based in it, we decided to use the estimation method discussed above.

Concurrent validity was tested by an analysis of covariance structure which included, as variables, metaperception of goal orientation, moral functioning and the viewing of sport programming specialized in soccer. On the basis of previous research, it is expected to find a correlation between these variables and a proper value of goodness-of-fit of the data.

RESULTS

EXPLORATORY ANALYSIS

In the metaperception of goal orientation questionnaire, the Exploratory Factor Analysis showed two factors, which together explained the 56.73% of the variance. However, due to cross-saturation greater than .40, two items had to be removed; one regarding to metaperception of task orientation and the other regarding metaperception of ego orientation (see Appendix 1). The new factor analysis showed a good fit: Bartlett's test of sphericity (1,388.29, $p < .001$), KMO (.87), variance explained by metaperception of ego orientation (43.06%), and by metaperception of task orientation (15.95%). Cronbach alpha coefficients for the Task and Ego subscales were .87 and .89, respectively.

In the moral functioning questionnaire, the multitrait-multimethod matrix evidenced a discriminant validity between the variables, although all of them are reasonably related (Table 1).

Table 1. Cronbach's Alpha and Correlation between the Variables implied in Moral Functioning

	1	2	3
1. Judgment	$\alpha = .84$		
2. Intention	.80**	$\alpha = .83$	
3. Behavior	.68**	.77**	$\alpha = .79$

CONFIRMATORY ANALYSIS

In the 10 items metaperception goal orientation questionnaire, the results showed that the Mardia normalized coefficient estimate was relatively large (multivariate Kurtosis = 48.49). The factorial structure had an excellent fit, $S-B\chi^2(34) = 64.15, p < .01; \chi^2/d.f. = 1.89; *CFI = .97; *RMSEA(90\% CI) = .05 (.031 - .069); SRMR = .04$. The loadings associated with both factors were large (mean factors loading M-P ego = .76, M-P Task = .79) and their correlation was moderate (.45), therefore, convergent and discriminant validity seem evident.

In the moral functioning questionnaire, the Mardia coefficient was relatively large too (multivariate Kurtosis = 54.61). The results of this analysis are presented in table 2. The 3CT 3UM and the 3CTCU were the only models that had an excellent fit and also resulted in appropriate solutions. The 3CTCU model was selected by the SEM because the CT x CU model is considered the most rigorous of MTMM models (Marsh & Grayson, 1995).

Table 2. Goodness-of-Fit Indices for Moral Functioning and the Hypothesized Path Models

Model	Solution	χ^2	df	*CFI	SRMR	*RMSEA
Moral Functioning						
3CT	Proper	153.08**	24	0.62	0.17	0.23 (.213 - .250)
3CT 3CM	Improper	10.72	12	1.00	0.02	0.01 (.000 - .049)
3CT 3UM	Proper	10.80	15	1.00	0.03	0.01 (.000 - .035)
3CTCU	Proper	10.80	15	1.00	0.03	0.01 (.000 - .035)
Hierarchical 3CTCU	Proper	10.80	15	1.00	0.03	0.01 (.000 - .035)

The trait factor loadings and the uniqueness variance of the 3CTCU model were quite similar to those in Figure 1. The trait factor loadings associated with the other dilemmas were large (mean of trait loadings = .71). The overall pattern of trait factor loadings indicated a moderate degree of convergent validity. Almost all correlations between the uniqueness terms of observed variables assessed by the same method were above .50 (mean $r = .56$), except *lie to a referee*, representing the presence of relatively large method effects. The correlation among trait factors was .86 between judgment and intention, .73 between judgment and behavior, and .80 between intention and behavior, indicating low discriminant validity. Nevertheless, it should keep in mind that factor correlations are higher than Pearson's correlations because they do not contain

measurement error. Moreover, the CT x CU model tends to be a conservative test of discriminant validity (Marsh & Bailey, 1991).

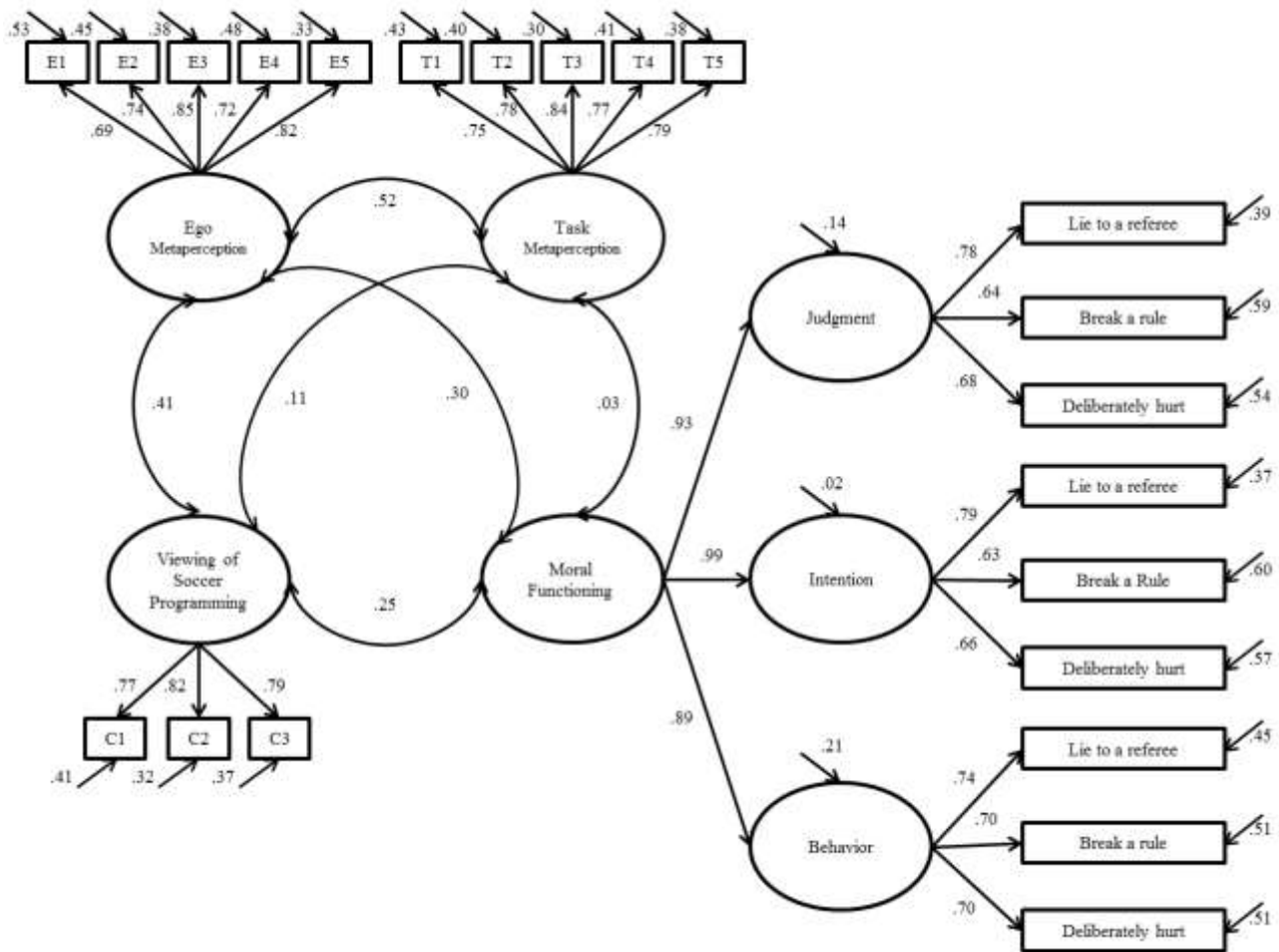


Figure 1. Covariate structure between hierarchical 3CTCU model, metaperception of goal orientation and the viewing of sport programming specialized in soccer.

Concurrent validity

The analysis of covariance structure which included metaperception of goal orientation, moral functioning and the viewing of sport programming specialized in soccer showed a good fit: $S-B\chi^2(191) = 265.64$, $p < .001$; $\chi^2/d.f. = 1.39$; $*CFI = 0.98$; $*RMSEA (90\% CI) = 0.03 (0.023-0.042)$; $SRMR = 0.04$. Statistical power for testing a covariance structure model using $RMSEA = .88$.

DISCUSSION AND CONCLUSIONS

The purpose of this study was to analyze the psychometric properties of two questionnaires which, for the first time enable a valid and reliable assessment of metaperception of goal orientation and moral functioning in soccer spectators. As an initial point, it was used the POSQ (Roberts et al., 1998), which measures the perception of success in sport, and, also the Moral Functioning Questionnaire, which has been adapted by Kassuvan and Ntomanis (2003),

on the basis of an instrument developed by Gibbons et al. (1995), and also adapted to measure judgment, intention, and behavior in soccer spectators.

The exploratory factor analysis of the metaperception of goal orientation questionnaire showed two factors consistent with the Goal Orientation Theory (Nicholl, 1989), namely: metaperceptions of ego orientation and metaperception of task orientation. However, as happened in other studies (Cecchini et al., 2008; Jassuvanu & Ntoumanis, 2003), two items had to be removed. The final result is a scale with large loadings on trait factor, high internal consistency, and Cronbach's alpha of .89 (task subscale) and .87 (ego subscale), similar to that observed by Roberts et al. (1998). The correlation between factors was larger than that observed in the reference questionnaire (.47), however it does not invalidate its discriminant power. We believe this may be due to metaperception mechanism that leads the spectator to relate both dimensions of goal orientation more strongly. Confirmatory factor analysis indicated the factorial structure had an excellent form, also similar to that observed in other studies related with the reference scale (Cecchini et al., 2007; Roberts et al., 1998). These results show how the estimates of viewers on the perceptions of the others (in this case, the perception of success of their favorite team) are consistent with the perceptions that sportsmen have about themselves. It is known that people do not usually base their metaperceptions on the reactions of their interaction partners, and that the strict dependence of self-perceptions on the others judgments is attenuated in situations where the outcome depends on the latter (Kaplan, Santuzzi, & Ruscher, 2009), thus modifying this symmetry power. When incomes are based on someone in a predominant position (soccer players in this case), people (viewers) more closely examine the other person's motives and behaviors (Stevens & Fiske, 2000).

In the moral functioning questionnaire of soccer spectators, we observed similar results. Confirmatory factor analysis showed three traits (judgment, intention and behavior) which were measured by three methods. The 3CT 3UM and the 3CTCU were the only models that had an excellent fit and also resulted in appropriate solutions. These outcomes are consistent with the findings of previous researches on moral functioning of soccer players (Cecchini et al., 2008). The trait factor loadings indicated a moderate convergent validity, and the correlations between the uniqueness terms of the observed variables assessed by the same method showed the existence of relatively large method effects. However, the CT x CU model has a tendency to be a conservative test of discriminant validity (Marsh & Bailey, 1991). All these results are also consistent with those observed in sportsmen (Cecchini et al., 2008; Kavussanu & Ntoumanis, 2003; Kavussanu & Roberts, 2001).

The analysis of the covariance structure which included metaperception of goal orientation, moral functioning and the viewing of sport programming specialized in soccer showed a good fit and also confirmed the relationship between these four traits, except between metaperception of task orientation and moral functioning.

Therefore, for the first time it is possible to assess these constructs in sport spectators, allowing a better understanding of the processes operating among soccer supporters. This advance is important, because the assessing of these variables in athletes has led to successful moral interventional programs in the sport context and it opens a new line of research aimed to identify relationships between the viewing of sports programming, metaperception of goal orientation and spectators' moral functioning. That is, the analysis of crucial factors relating sport supporters and their morality will be facilitated hoping to realize the same achievements attained with the sports players. However, the present research acknowledges some limitations. The first one is the similarity of the questions with the original scales. Taking into account that these items assess the same construct from the point of view of a third party (the viewer), we believe that keeping a similar structure would be helpful for future analysis. The second limitation is that we analyzed college students; therefore it would be interesting that further studies examine the psychometric proprieties of these two new scales in other populations.

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APPENDIX 1

First version of the MetaPerception of Success Questionnaire in Sport Spectators

Como aficionado, siento que mi equipo favorito tiene éxito cuando...

- 1) Derrota a los demás (E1)
 - 2) Es el mejor (E2)
 - 3) Trabaja duro (T1)
 - 4) Demuestra una clara mejoría personal (T2)
 - 5) Su actuación supera a los rivales (R)
 - 6) Demuestra a la gente que es el mejor (E3)
 - 7) Supera las dificultades (T3)
 - 8) Domina algo que antes no podía hacer (T4)
 - 9) Hace algo que los demás no pueden hacer (E4)
 - 10) Rinde a su mejor nivel de habilidad (T5)
 - 11) Alcanza una meta (R)
 - 12) Es claramente superior a los demás (E5)
-

Note. Each item is rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). E = Ego, T = Task, R = Removed.

APPENDIX 2

Moral Functioning Questionnaire in Soccer Spectators

A continuación te presentamos una serie de situaciones que pueden ocurrir durante un encuentro de fútbol. Te pedimos que nos digas cuál es tu opinión, intención y comportamiento como espectador y/o aficionado de un equipo de fútbol. Fíjate bien las posibilidades de respuesta son las siguientes:

1	2	3	4	5
Nunca	Rara vez	A veces	A menudo	Muy a menudo

1. *Durante un crítico partido de fútbol el jugador de tu equipo favorito tiene la oportunidad de empujar a un jugador o jugadora oponente para intimidarle cuando el árbitro no está mirando:*

- (a) Crees que es apropiado empujar a un jugador/a oponente para intimidarle? (J1)
- (b) Animarías a empujar a un jugador/a oponente para intimidarle cuando el árbitro no está mirando? (I1)
- (c) ¿Cuántas veces has apoyado, consentido o animado este comportamiento en los últimos cinco partidos que has visto? (C1)

2. *Imagínate a ti mismo como espectador durante el último minuto de un partido crítico de fútbol. Un jugador del otro equipo tiene una clara oportunidad de conseguir un gol y un defensa de tu equipo favorito es el único defensor. Debido a su posición, la única manera de parar al jugador de conseguir el gol puede dar como resultado una lesión. Tienes que decidir si animarías o consentirías el riesgo de lesionar al jugador para evitar el gol:*

- (a) ¿Crees que es apropiado arriesgarse a lesionar al jugador para evitar el gol? (J2)
- (b) Apoyarías una acción que pudiera lesionar a otro jugador del equipo contrario para evitar un gol? (I2)
- (c) ¿Cuántas veces lo has hecho en los último cinco partidos como espectador? (C2)

3. *En un partido crítico de fútbol el jugador estrella del otro equipo tiene ligeramente lesionada su rodilla, pero él/ella está todavía jugando. Está disputando un balón con un jugador de tu equipo favorito. Tú sabes que el jugador de tu equipo favorito podría golpear la rodilla del otro jugador/a y sacarle del juego sin ser pillado por el árbitro:*

- (a) ¿Crees que es apropiado golpear la rodilla "mala" del oponente? (J3)
- (b) Apoyarías al jugador de tu equipo que golpeará la rodilla "mala" del oponente? (I3)
- (c) ¿Cuántas veces lo has hecho en los cinco últimos partidos como espectador? (C3)