

# Influence of social motivation, self-perception of social efficacy and normative adjustment in the peer setting

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# **Abstract**

Background: The first objective of this study was to adapt and test the psychometric properties of the Social Achievement Goal Scale (Ryan & Shim, 2006) in Spanish adolescent students. The second objective sought to analyse the influence of social goals, normative adjustment and selfperception of social efficacy on social adjustment among peers. Method: A total of 492 adolescents (54.1% females) attending secondary school (12-17 years; M = 13.8, SD = 1.16) participated in the study. Confirmatory factor analysis and structural equation modelling were performed. Results: The validation confirmed the three-factor structure of the original scale: social development goals, social demonstration-approach goals and social demonstration-avoidance goals. The structural equation model indicated that social development goals and normative adjustment have a direct bearing on social adjustment, whereas the social demonstration-approach goals (popularity) and self-perception of social efficacy with peers and teachers exert an indirect influence. Conclusions: The Spanish version of the Social Achievement Goal Scale (Ryan & Shim, 2006) yielded optimal psychometric properties. Having a positive motivational pattern, engaging in norm-adjusted behaviours and perceiving social efficacy with peers is essential to improving the quality of interpersonal relationships.

Keywords: social goals, social adjustment, normative adjustment, social efficacy.

# Resumen

Influencia de la motivación social, la percepción de eficacia y el ajuste normativo en el ajuste entre iguales. Antecedentes: el primer objetivo fue adaptar y comprobar las propiedades psicométricas de la Escala de Metas Sociales —Social Achievement Goal— (Ryan & Shim, 2006) en adolescentes españoles escolarizados. El segundo objetivo buscó analizar la influencia de las metas sociales, el ajuste normativo y la autopercepción de eficacia social sobre el ajuste social entre iguales. Método: participaron 492 adolescentes (54.1% chicas) de Educación Secundaria Obligatoria (12-17 años; M= 13.8; DT= 1.16). Se realizaron análisis factoriales confirmatorios y modelos de ecuaciones estructurales. Resultados: la validación confirmó la estructura de la escala original, en tres factores: metas sociales de desarrollo, metas de popularidad y metas sociales de evitación. El modelo de ecuaciones estructurales indicó que las metas sociales de desarrollo y el ajuste normativo influyen de manera directa sobre el ajuste social; las metas sociales de popularidad y la autopercepción de eficacia en el desempeño social con compañeros y profesores influyeron indirectamente. Conclusiones: la versión española de la Escala de Metas Sociales - Social Achievement Goal - (Ryan & Shim, 2006) arrojó óptimas propiedades psicométricas. Disponer de un patrón motivacional positivo, mostrar conductas ajustadas a las normas y percibirse eficaz en el desempeño social con los iguales es clave para mejorar la calidad de las relaciones interpersonales.

Palabras clave: metas sociales, ajuste social, ajuste normativo, eficacia social.

In the school, setting peer social adjustment has been associated with a good climate of cooperation and learning (Gifford-Smith & Brownell, 2003; Hamm & Faircloth, 2005; Hartup, 2005), lower risk of bullying and cyberbullying (Casas, Del Rey & Ortega-Ruiz, 2013), as well as of factors related to substance use, social anxiety, depression and suicide (McGloin, Sullivan, & Thomas, 2014; Smithyman, Fyreman, & Asher, 2014).

Some studies have reported that social adjustment is an indicator of the quality of interpersonal peer relations (Buhrmester, Furman,

Received: May 24, 2015 • Accepted: November 19, 2015 Corresponding author: Eva M. Romera Félix Facultad de Ciencias de la Educación Universidad de Córdoba 14004 Córdoba (Spain) e-mail: eva.romera@uco.es Wittenberg, & Reis, 1988; Ryan & Shim, 2008), as they refer to the attitudes and behaviours manifested in egalitarian relationships such as friendship, cooperation and mutual acceptance (Del Rey, Casas, & Ortega, in press). Others studies have gone further to establish that social adjustment involves the perception of respect, mutual support, group belonging, ability to express opinions and a willingness to work together (Connolly, 1989; Rodkin & Ryan, 2012).

Whereas research has focused on the consequences associated with maintaining social adjustment among peers, some studies recognize that variables of an individual nature, such as empathy (Jolliffe & Farrington, 2006), prosociality (Gutiérrez, Escarti, & Pascual, 2011) and self-esteem (Fuentes, García, Gracia, & Lila, 2011), shape social adjustment. However, it is necessary to further the study of other contextual dimensions and social cognitions that may also explain this adjustment. In this line, it has been

reported that interaction with teachers affects the quality of peer relationships, but it must be mediated by the development of responsible behaviour and adjusted to classroom norms (Hughes & Kwok, 2006). Students who have positive relationships with their teachers display greater confidence in their abilities and are more motivated to behave responsibly and engage in academic activities in the classroom (Wentzel, 2010). In turn, cooperative behaviours, the assertive defence of one's rights and integration in group activities involves maintaining positive relationships with peers (Pozzoli, Gini, & Vieno, 2012). However, the need to deepen the understanding of this dynamic relationship between interaction with teachers and social adjustment has also been recognized.

Social adjustment among peers is associated with normative adjustment insofar as the latter regulates and guides relational processes and influences the behaviour and attitudes of students towards their classmates (Hughes & Kwok, 2006). Normative adjustment is understood as the set of attitudes and behaviours relating to compliance with basic social schemes that promote coexistence and interaction (Pozzuoli et al., 2012). Although it is assumed that this normative adjustment guides behaviours considered appropriate and desirable in the classroom, it is necessary to further investigate its relationship with social adjustment (Rodkin & Ryan, 2012).

It has been shown that peer social adjustment is influenced by self-perception of social efficacy or satisfaction with social performance (Connolly, 1989; Rose-Krasnor, 1997; Ryan & Shim, 2008). Self-perception of social efficacy refers to the cognitive schemas that support the beliefs and attitudes that individuals hold about their ability to successfully perform a social task (Rodebaugh, 2009). Unlike social adjustment, whose interpersonal nature includes the context and mutual interaction (Gilman & Anderman, 2006), self-perception of social efficacy is a concept of an intrapersonal nature (metacognitive scenario). Such schemas are considered key mediators of social adjustment. because through them an individual can be willing to interact with others, thus establishing a motivational cycle which, in addition to fostering the search for new interactions, enhances processes of self-management and the awareness of one's own social competence (Connolly, 1989; Dupont, Galand, Nils, & Hospel, 2014). Some studies suggest that a positive self-perception about one's own social performance benefits the practice of social learning (Rodkin & Ryan, 2012).

Ryan and Shim (2006; 2008) have recognized the influence of social goals on relations among students, which are defined as cognitive representations about desired outcomes in the social setting (Mouratidis & Sideridis, 2009). Social goals are objectives that guide and regulate behaviour (Rodkin, Ryan, Jamison, & Wilson, 2013), commitment and social responsibility (Hulleman, Schrager, Bodmann, & Harackiewicz, 2010). Ryan and Shim (2006) defined three types of goals: a) social development goals, which are related to social self-learning and efforts to improve interpersonal skills; b) social demonstration-approach goals (popularity), which involve seeking recognition and garnering positive judgments from others to demonstrate that one is socially competent; and c) social demonstration-avoid goals, which refer to the effort to avoid doing things that elicit negative judgments or criticisms from others. Recent research has linked social development goals with the perception of support, the building of social responsibility and general positive and adaptive social

adjustment with low levels of aggression. In contrast, popularity goals are associated with the pursuit of social status and group acceptance and avoidance goals are associated with maladaptive behaviours and therefore not associated with social adjustment (Dan, Ilan & Kurman, 2014; Hulleman et al., 2010; Ryan & Shim, 2008).

In Spain, the study of social goals has been oriented towards physical education and enhancing sports performance through an integrated approach combining social goals, cognitions and achievement goals (Moreno, Parra, & González-Cutre, 2008). However, new tools are needed to assess social goals within the framework of coexistence and social climate. This study examines this particular sphere and aims to: 1) analyse the psychometric properties of the Spanish version of the Social Achievement Goal Scale (Ryan & Shim, 2006); and 2) determine the predictive value of self-perception of social efficacy both with teachers and peers, normative adjustment and social goals on social adjustment among peers. The general hypothesis was that social goals will have an influence on social adjustment among peers, and that interaction with teachers will have an indirect effect.

#### Method

## **Participants**

The sample was incidental and comprised 492 students (54.1% females) enrolled in the four levels or years comprising Compulsory Secondary Education (known as 'ESO' or *Educación Secundaria Obligatoria* in Spanish) (1st year = 19.7%;  $2^{nd}$  year = 26.2%;  $3^{rd}$  year = 30.7%;  $4^{th}$  year = 23.4%). The age of the participants ranged from 12 to 17 years (M = 13.8, SD = 1.16).

# Instruments

To measure social goals, we used the Social Achievement Goal Scale (Ryan & Shim, 2006), which includes 12 items structured into three factors: (a) social development (SDevG hereafter) (e.g. "In general, I strive to develop my interpersonal skills, that is, the skills that allow me to relate better with others"); (b) social demonstration-approach (popularity) (SPopG hereafter) (e.g. "It is important to me that others think of me as popular"); and (c) social demonstration-avoid (SAvG hereafter), (e.g. "My goal is to avoid doing things that would cause others to make fun of me"). Responses were measured using a 7-point Likert-type scale ranging from 1 (not at all true) to 7 (very true). The internal consistency of each factor and of the overall scale was adjusted (original sample:  $\alpha_{\text{SDevG}} = .80$ ,  $\alpha_{\text{SPopG}} = .85$ ,  $\alpha_{\text{SAvG}} = .81$ ; study sample:  $\Omega_{\text{SDevG}} = .78$ ,  $\Omega_{\text{SPopG}} = .89$ ,  $\Omega_{\text{SAvG}} = .77$ ). The values of the confirmatory factor analysis (CFA) of the original scale were:  $\chi^2$ = 76.86;  $\chi^2/51 = 1.51$ , p = .011; NNFI = .98; CFI  $\chi = .98$  and RMSEA = .047. The validation of the factorial structure of the scales is shown in the results section.

To measure normative adjustment (NorA hereafter) and social adjustment (SoA hereafter), we used two scales of the *Cuestionario de Convivencia Escolar* ('School Coexistence Questionnaire') of Del Rey et al. (in press), comprising 5 and 9 items, respectively. An example of an item on the SoA scale is "My classmates like me", while an example of an item on the NorA scale is "I comply with the norms". Responses were measured using a 7-point Likert-type scale ranging from 1 (*not at all true*) to 7 (*very true*). Both scales

exhibited good internal consistency (original sample:  $\alpha_{SoA}$  = .79;  $\alpha_{NorA}$  = .87; study sample:  $\Omega_{SoA}$  = .81,  $\Omega_{NorA}$  = .82). The CFA indices of the original instrument were:  $\chi^2$  = 3489.84; p<.01; CFI = .96; GFI = .95; NNFI = .96 and RMSEA = .05.

To measure self-perception of social efficacy, two items were used: "I feel I do things well (I feel successful) in relationships with my friends and classmates" and "I feel I do things well (I feel successful) in my relationships with my teachers". Some studies use latent variables consisting of one or two items for designing partially or fully disaggregated models and in partial least squares (PLS) submodels (Jarvin, Mackenzie, & Podsakoff, 2003; Rial, Varela, Braña, & Lévy, 2000). Although this is not a widespread practice, it has been proven to lead to optimal results (Bollen & Ting, 2000; Coffman & MacCallum, 2005). Responses were measured using a 7-point Likert-type scale (7 = very true).

#### Procedure

The research design was transversal, ex-post-facto retrospective with a single group and multiple measures (Montero & León, 2007). After obtaining permission from the administrative bodies of the schools and the express authorization of the families by means of signed consent, the questionnaire was administered on a fully anonymous and voluntary basis. The average time required to complete the questionnaire was 30 minutes.

# Data analysis

CFA was performed to determine the internal structural validity of the instruments. Given the absence of multivariate normality and the ordinal nature of the variables, the weighted least squares (WLS) estimation method using polychoric correlation matrices was selected (Bryant & Satorra, 2012; Flora & Curran, 2004). The same method was also used for the SEM models. The indices considered to verify the fit of the CFA and the SEM models were: chi-square ( $\chi \chi^2$ ), the normed chi-square ( $\chi \chi^2$ /df) (< 5) (Carmines & McIver, 1981), the comparative fit index (CFI >95), the nonnormed fit index (NNFI; > .95) and the root mean square error approximation (RMSEA; <.08) (Byrne, 2014). CFA and SEM were performed using LISREL 9.1 software (Jöreskog & Sörbom, 2012).

The internal consistency analysis was performed with McDonald's omega test  $(\Omega)$  (Elousa-Oliden & Zumbo, 2008) because the questionnaire variables were categorical and reflected the absence of multivariate normality. The analysis was performed with Factor 9.2 software (Lorenzo-Seva & Ferrando, 2006).

## Results

## Scale validation

To validate the Social Achievement Goal Scale (Ryan & Shim, 2006), the "parallel back-translation" procedure was used (Brislin, 1986). The translated version was piloted with 80 students who assessed the level of understanding of each item. The results were then incorporated into the final version.

A theoretically plausible uni-factor model was initially hypothesized, obtaining inadequate fits ( $\chi^2 = 506.80$ ;  $\chi^2/54 = 9.3$ , p<.01; NNFI = .85; CFI = .88; RMSEA = .13). The original structure

was then verified, obtaining optimal fit indices that confirmed the three-factor structure:  $(\chi^2 = 150.52; \chi^2/51 = 2.95, p<.01; \text{NNFI} = .97; \text{CFI} = .97; \text{RMSEA} = .063)$ . The correlation analysis indicated a weak relationship between SDevG and SPopG and a moderate relationship between SAvG and SDevG and between SAvG and SPopG (see Figure 1).

For the NorA and SoA scales, we first hypothesized a two-factor model combining both scales, and obtained inadequate fits ( $\chi^2 = 125.11$ ;  $\chi^2/53 = 2.36$ , p<.001; NNFI = .94; CFI = .94; RMSEA = .053). For this reason, we then proceeded to test the two scales separately, achieving optimal results. For the NorA scale, adequate fits were obtained ( $\chi^2 = 9.56$ ;  $\chi^2/5 = 1.91$ , p<.01; NNFI = .98; CFI = .99; RMSEA = .035). For the SoA scale, it was necessary to eliminate two items in order to obtain optimal indices ( $\chi^2 = 22.15$ ;  $\chi^2/14 = 1.58$ , p<.01; NNFI = .97; CFI = .98; RMSEA = .034).

# Explanatory model of adjustment among peers

The analysis of covariance revealed a strong relationship between self-perception of social efficacy with peers and self-perception of social efficacy with teachers, and both with SoA and SDevG. NorA showed a moderate covariance with SoA and self-perception of social efficacy with peers and teachers. Weak covariances were also obtained between self-perception of social efficacy with peers and SPopG and SPopG with SDevG. A negative relationship was found between NorA and SPopG and SPopG with SoA (see Table 1).

We began with a hypothetical theoretical model in which self-perception of social efficacy among peers has a direct influence on SoA mediated by SDevG, SPopG and SAvG. Moreover, the relationship between SoA and self-perception of social efficacy with teachers was mediated by NorA (see Figure 2). Although this model explained a high percentage of the variance of SoA (82% error = .17), the fit indices were not optimal ( $\chi^2 = 2047.66$ ;  $\chi^2/290 = 7$ , p<.01; CFI = .94; NNFI = .94; RMSEA = .11).

Considering the results of the previous model, we proceeded to eliminate the direct relationship between SAvG, SPopG and SoA given the low standardized weights. Given that the covariance analysis indicated a moderate relationship between SPopG and NorA, this relationship was included to generate an indirect influence between these goals and SoA. A direct relationship between self-perception of social efficacy with peers and SoA was also included, in line with the findings of the covariance analysis (see Figure 3).

The resulting model showed that self-perception of social efficacy with peers ( $\beta$ = .61, p<.05), SDevG ( $\beta$  = .24, p<.05) and NorA ( $\beta$  = .17, p<.05) were the variables that had a direct influence on SoA. Self-perception of social efficacy with peers showed an indirect influence on SoA through its relationship with SDevG ( $\beta$  = .70, p<.05). This relationship explained 49% of the variance of SDevG (error = .51).

Through their relationship with NorA, self-perception of social efficacy with teachers ( $\beta$  = .57, p<.05) and SPopG ( $\beta$  = -.38, p<.05) had an indirect influence on SoA. These relationships explained 39% of the variance of NorA (error = .61).

These direct and indirect relationships explained 79% of the variance of SoA among peers (error = .21). The indices obtained for the final SEM model showed an adequate fit ( $\chi^2 = 807.81$ ;  $\chi^2/200 = 4.03$ , p<.01; CFI = .96; NNFI = .95; RMSEA = .079).

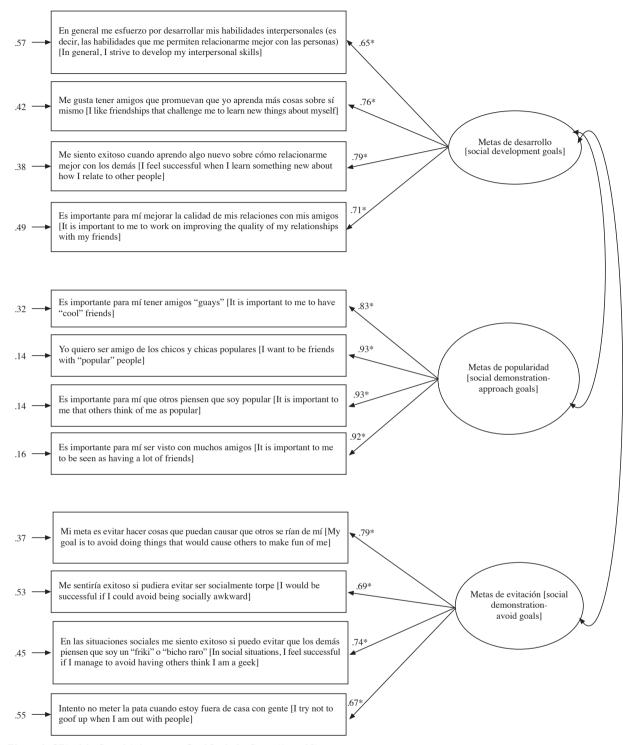


Figure 1. CFA of the Social Achievement Goal Scale for Spain (\* p<.05)

# Discussion

The first objective was to validate the Spanish version of the Social Achievement Goal Scale of Ryan and Shim (2006). The psychometric analysis confirmed the original three-factor structure of the scale: social development, social demonstration-approach and social demonstration-avoid. The validation permits

having an instrument with recognized validity and optimal psychometric properties that has been translated and adapted to the Spanish school setting to facilitate the inclusion of social goals as an important dimension of the social life of students and hence their impact on coexistence and the school climate.

The second objective sought to determine the relationships of influence of social goals, normative adjustment and self-

Scale/factor	n(492)							
	M	SD	1	2	3	4	5	6
1. Social development goals	5.65	1.02	_					
2. Social demonstration- approach (popularity)	3.30	1.66	.04*	-				
3. Social adjustment	5.90	.79	.72*	01*	_			
4. Normative adjustment	5.77	1.13	.34*	28*	.55*	-		
5. Self-perception of social efficacy with peers	6.03	1.10	.70*	.06*	.86*	.49*	-	
6. Self-perception of social efficacy with teachers	5.64	1.32	.63*	.18*	.78*	.50*	.90*	_

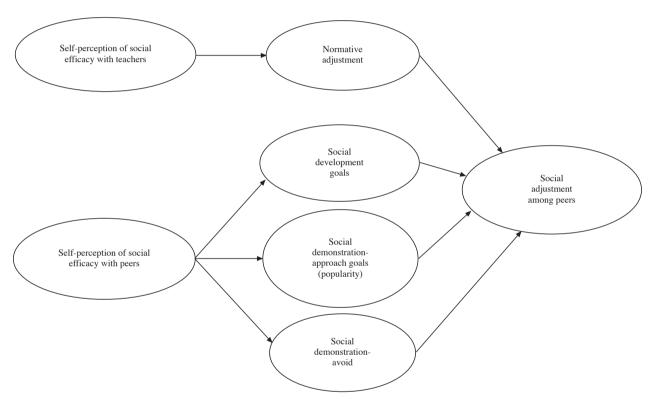


Figure 2. Initial hypothetical model of social adjustment among peers

perception of social efficacy on social adjustment among peers. In this regard, the resulting model revealed that social development goals have a direct influence on social adjustment among peers. Engaging in positive motivational behaviour based on this type of social goals appears to encourage attitudes of respect, acceptance, mutual support and overall social competence (Hulleman et al., 2010; Ryan, Kiefer, & Hopkins, 2004), key aspects in improving the quality of relationships between peers (Wentzel, 2010).

Normative adjustment was also found to have a direct influence on social adjustment among peers, thus indicating that the positive endorsement of classroom norms and academic tasks and activities by students favoured interaction processes (Day, Hamm, Lambert, & Farmer, 2014). This result highlights the importance of behavioural norms that not only regulate the common conduct

related to academic tasks, but also support the quality of peer relationships (Bowker & Spencer, 2010).

The final model indicated that there was an indirect relationship between self-perception of social efficacy with peers and social adjustment through social development goals. This suggests that a positive perception of oneself as a social agent is associated with an optimal attitude that motivates the search for better performance with peers (Ryan & Shim, 2006). It could therefore be assumed that confidence in one's ability to have successful relationships will garner positive feedback when one has social development goals, in an equilibrium between individual cognitive elements and interactive or social elements (Caprara & Steca, 2005).

The results also showed that social demonstration-approaches (popularity) indirectly influence social adjustment through normative adjustment, on which they have a negative influence.

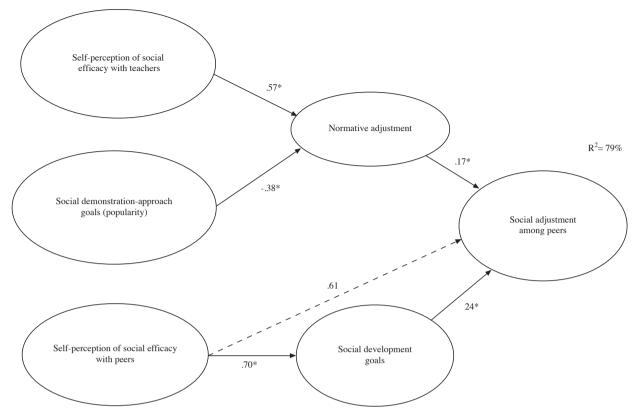


Figure 3. Final SEM model of social adjustment among peers (\* p<.05)

This suggests that, from the perspective of students, achieving notoriety or popularity forms part of social adjustment (Ryan & Shim, 2008), but these goals are not always consistent with classroom or institutional norms (Day et al., 2014). As social demonstration-approaches (popularity) are related to maladaptive behaviours, aggression and increased moral disengagement, as the model has shown, normative adjustment must mediate to benefit peer relationships (Rudolph, Abaied, Flynn, Sugimura, & Agoston, 2011).

As hypothesized, self-perception of social efficacy with teachers had a direct influence on social adjustment through normative adjustment. This suggests that teachers do not exert a significant influence on the interpersonal relations of peers, or that the relations among peers respond to other patterns and dynamics that do not wholly involve teachers and other adults (Hughes & Kwok, 2006; Ortega & Mora-Merchán, 2008; Ryan & Shim, 2008).

The final model showed no relationship between social demonstration-avoid and social adjustment, suggesting that social objectives designed to prevent criticism and failed relationships with others are not involved in establishing quality relationships. This is consistent with studies that associate such behaviour with social isolation and anxiety, which undermine and prevent the formation of positive peer interactions (Elliot & Dweck, 2005; Ryan & Shim, 2008).

The results and analysis provide elements for designing educational programmes aimed at improving the school climate and coexistence. Although there is a tendency to work on improving

certain social skills, such as empathy and assertiveness, our findings underline the need to strengthen the acquisition of social development goals, self-confidence in social performance, and adherence to norms to benefit interpersonal relationships among students. The study also reflects the need to delve deeper into the role of teachers in building stronger interpersonal relationships with students.

The limitations of the study arise from the transversal nature of the analysis, which to some extent restricts causal inferences and constrains the interpretation of the directionality of the relationship. It would therefore be desirable to develop longitudinal studies to strengthen the predictive model. Another limitation is the use of disaggregated items to measure self-perceived satisfaction with social performance. In a future line of research it would be of interest to focus on the relationship with teachers in greater depth.

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