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Individual and group antecedents of job satisfaction: a one-lab multilevel study

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Título: Antecedentes individuales y grupales de satisfacción en el trabajo: un estudio multinivel de laboratorio.
Resumen: Este estudio examina el efecto simultaneo de variables individuales (autoeficacia) y grupales (cohesión y diversidad de género) en la satisfacción. Se llevó a cabo un estudio de laboratorio con 373 estudiantes universitarios distribuidos en 79 pequeños grupos, que llevaron a cabo una tarea durante cinco horas. Se utilizaron dos niveles de análisis mediante Modelos Lineales Jerárquicos. Los resultados muestran el efecto principal de la autoeficacia en la satisfacción (ambos de nivel 1) el efecto transnivel de la cohesión grupal (nivel 2) sobre la satisfacción (nivel 1) y un efecto de interacción entre autoeficacia y diversidad de género en la satisfacción. Estos resultados sugieren que en el trabajo en grupo, la satisfacción tiene antecedentes en variables individuales y grupales. La cohesión grupal y el género tienen un importante efecto en la satisfacción. El artículo concluye con estrategias prácticas y limitaciones y sugerencias para futuras investigaciones.
Key words: Autoeficacia; cohesión; satisfacción; género; multinivel.

Abstract: This study examines the simultaneous effect of individual (self-efficacy) and group variables (cohesion and gender diversity) on satisfaction. A laboratory study was conducted involving 373 college students randomly distributed across 79 small groups, who performed a laboratory task in about five hours. Two-level Hierarchical Linear Modeling (HLM) method was used. Results show the main effect from individual self-efficacy to satisfaction (both level 1), the cross-level effect from group cohesion (level 2) to individual satisfaction (level 1), and the interaction effect between self-efficacy and gender diversity to satisfaction. These results suggest that in a work group, satisfaction has a background in individual and group variables. Group cohesion and gender diversity have important effects on satisfaction. The article concludes with practical strategies and with limitations and suggestions for future research.
Key words: Self-efficacy; cohesion; satisfaction; gender; multilevel.

Introduction

The study of groups has been focused on individual and collective aspects separately. Many studies have examined either the relationship of individual aspects (personality traits, skills) or collective aspects of the group (cohesion, coordination) in relation to the group results (performance, stress, satisfaction). However, there is a gap in considering both aspects at once.

Fortunately, nowadays multilevel analyses allow an approach to the study of the group considering individual and collective level at time. Multilevel modeling is a data analytic development that allows the examination of hierarchically structured data, where a hierarchy consists of lower level observations (i.e., individuals) nested within higher level units such as groups. The use of multilevel modeling allows researchers to improve the estimation of effects within and between individuals and groups (Raudenbush & Bryk, 2002). The aim of the current study is to illustrate the use of multilevel modeling (two level of analysis) in a small groups setting by examining the relationship between individual-level variables such as self-efficacy and satisfaction considering also at time group-level variables such as group cohesion and gender diversity.

Self-efficacy

People differ in beliefs about their competence and success in different domains of their life. Bandura called these cognitions "self-efficacy," which are "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3).

Self-efficacy has been shown as one of the strongest individual predictors of satisfaction (Judge & Bono, 2001; Salanova, Llorens, Cifre, Martínez, & Schaufeli, 2003; Skaalvik & Skaalvik, 2010). This is because self-efficacious employees, who perceive difficulties as challenges, focus and capitalize on their own resources and are likely to attain valued outcomes according to personal standards, and derive more satisfaction from work (Bandura, 1997). Then, in the present study we expect self-efficacy to be positively related to satisfaction.

Satisfaction

The traditional model of satisfaction focuses on all the different feelings that people possesses in relation to the work. One of the most cited definitions of satisfaction is the one stated by Locke (1976), which defined satisfaction as a pleasurable or positive emotional state resulting from the appraisal of one's activity or experiences. In a group setting, individual satisfaction is influenced by a variety of specific aspects of group environment such as interpersonal relationships (Hackman 1992), the individual's gender (Diego, Diego & Olivar, 2001; Martinez & Mejías, 2003) or group cohesion (Martinez & Mejías 2003; Marquis, 1962).

Also previous studies suggest that the gender composition of work group may affect satisfaction (Smith, 1992; Tsui, Egan & O'Reilly, 1992). One such assumption is that both men and women are more satisfied when they are working in groups containing mostly members of their own sex, as group cohesiveness will be lower and conflict higher if men and women are represented about equally in a work group (Jackson et al., 1991; Kirchmeyer, 1995). However, other research has shown the positive effect of gender diver-

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sity on group outcomes and satisfaction (Osca & García-Salmonez, 2010).

Group gender diversity

Diversity has recently captured the attention of those interested in work groups. Demographic attributes such as age, gender, and race may have different influences on group outcomes (Giambatista & Bhappu, 2010; Harrison & Klein, 2007). The group's diversity is defined by the heterogeneity of all such individual attributes within a group (Blau, 1977; Williams & O'Reilly, 1998). Proponents of diversity hold that differences among group members give rise to varied ideas, perspectives, knowledge, and skills that can improve their ability to solve problems and accomplish their work. But several authors suggest that diversity is a double-edged sword, improving group performance on some tasks but, all too often, disrupting group processes (Guzzo & Dickson, 1996). Past research has used self-categorization theory to elaborate gender diversity's negative effect on group performance (Ali, Kulik, & Metz, 2011). However, some empirical evidence shows that gender diversity insignificantly correlates with group performance in US and European countries (Joshi & Roh, 2009). However, little research has been performed to analyse the effect of gender diversity on group affect in general, or satisfaction in particular. In this vein, the research results are not coincident. Wegge, Roth, Neubach, Schmidt, and Kanfer (2008) found that gender composition had a significant effect on group performance, such that groups with a high proportion of female employees performed worse and reported more health disorders than did gender-diverse groups. However, Fields and Blum (1997, cited by Lee & Farh, 2004) found that men and women working in gender-balanced groups are more satisfied with their job than those working in homogeneous groups. In the current study we expect that homogeneity group (same gender) to be positively related to satisfaction.

Group cohesion

Group cohesion is viewed as the single strongest predictor of group behavior (Guzzo & Dickson 1996; Mullen & Copper 1994) and plays a central role in social psychology. Guzzo and Dickson (1996) define cohesion as the "stick-togetherness" of a group. Group cohesion is an outcome of team-building activities and is associated with positive feelings toward coworkers (Van Andel et al., 2003). McGrath (1984) notes that the amount of time that groups spend together is key to social integration, or cohesion, and as cohesion rises, people feel, think, and act more like group members and less like social individuals.

The suggestion that cohesion and member satisfaction in a group setting are linked is not new. In one of the earliest studies, it was found that individuals on highly cohesive basketball teams reported more individual satisfaction with the social and task aspects of the group than those individuals on less cohesive groups (Martens & Peterson, 1971). In other studies, it has been found that the greater the perception of group task and social cohesion by members, the greater the member satisfaction with the group's goals (Brawley, Carron, & Widmeyer, 1993). Recently Birx, La Sala, and Wagstaff (2011) have shown the relationship between group cohesion and satisfaction in nurses. Also intervention programs to increase cohesion increased satisfaction at time.

In the past, when group characteristics such as cohesion have been linked to dependent variables, either the individual or the group has been selected as the unit of analysis, depending on whether the hypothesized relationship was seen to be at the group or individual level. But examining data from groups at the individual level may not be appropriate given that when studying individuals in group situations; observations do not refer to a person but rather refer to many individuals nested within a social context. Thus, our proposal includes the variable group cohesion expecting more cohesive groups will get more satisfaction. Moreover, in the multilevel analysis, the variable cohesion is considered a top-level variable referring to the group.

Therefore, the objective of this study is to analyze the effects of self-efficacy (individual perception), group cohesion and gender diversity (both as collective factors) on individual satisfaction (see Figure 1). We hope cross-level direct relationship of group level variables (gender diversity and cohesion) on the individual level (satisfaction). We also hypothesized cross-level interactions of group level variables to relationship between self-efficacy and satisfaction.

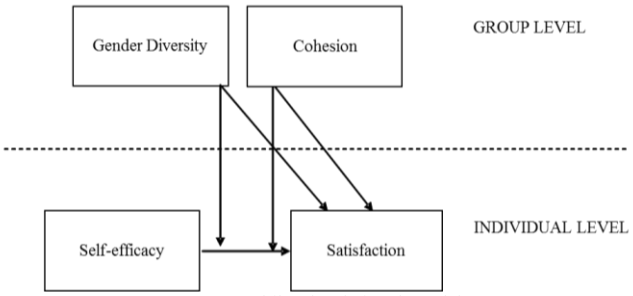

Figure 1. Multilevel Relational Model.

Method

Participants and Procedure

This study is a laboratory study in which 373 undergraduate university students (82% females) that were randomly distributed across 79 groups. The composition of sample is 49.4% heterogeneous group (gender diversity). Participation in the experiment was voluntary.

First, we randomly divided all the participants into different working groups composed of four or five people. When each group arrived at the social psychology laboratory, a researcher explained to them the tasks they should perform and gave them instructions about the study. The study com-

prises three tasks. The first was to design "the University's cultural week". Each individual had to suggest five activities individually. Later they brought together all the activities. Finally, they decided the five most innovative activities from among all the individual proposals. The second activity was to distribute the activities over one week and to design an original timetable for the different activities chosen in task 1. Finally, the third task was to design an original poster announcing the University's cultural week. We explained to them that the innovation and creativity of the poster were the most appreciated points. When they had finished task 3, they completed a questionnaire with the study variables. Students work together to develop the three tasks for about five hours.

Variables

Self-efficacy: Consistent with Bandura's (2006) recommendations for construct specificity, perceived work self-efficacy, we measured self-efficacy at the individual level with a self-constructed scale of five items, each of which is specific for innovative settings. One example of a self-efficacy item is: "I'm sure I can think and propose creative ideas". We used a 10-item Likert scale where a higher score indicated greater self-efficacy level.

Cohesion: This was measured to assess the degree that members feel attracted to their groups and are willing to remain in the group. Three items of cohesion scale of Price and Mueller (1986) were used. Example of cohesion items is, "I want to be friendly to my coworkers in my group". These items were measured on a seven-point Likert scale where a higher score indicated greater cohesiveness. Group Cohesion (group level) was measured through aggregation of individual perceived group cohesiveness.

Gender diversity. We consider two different situations. Homogeneous groups: all group members are women. Heterogeneous groups: group members are women or men. The groups were scored with 1 (mixed gender groups) or 0 (same gender groups).

Satisfaction. We measure satisfaction with a scale of eight items which is based on Green and Taber (1980), four items for satisfaction with task outcomes and four items for satisfaction with group processes. Example of satisfaction items are "How satisfied are you with the quality of your group's solution" or "How satisfied are you with your group's problem solving process". These items were measured using a 7-point face rating scale ranging from an extremely frowning face to a very smilingly face to represent their satisfaction about the different outcomes and group processes (Kunin 1955).

Data analyses

Different data analyses were calculated. Firstly we calculated internal consistencies (Cronbach's α), descriptive analysis and intercorrelations among variables in the study using the SPSS 21.0. Second, and since cohesion is measured at the work-unit level, we aggregate individual perceptions to the group and the agreement of individual perceptions was checked using various indices. Firstly, we calculated inter-rater agreement on these measures using the $r_{wg(j)}$ index (James, Demaree, & Wolf) Secondly, we also examined the intraclass correlations ICC(1) and ICC(2) of the study variables at group level. In this case, ICC(1) estimated the proportion of variance between participants that could be accounted for by differences in group membership, whereas ICC(2) estimated the reliability of the aggregate of the scores for the group level variable (James, 1982). Firstly, Analyses of Variance (ANOVAs) were computed in order to test whether there was any statistically significant between-group discrimination for the measures.

Finally, our statistical analysis considers a macro-micro multilevel situation (Snijders & Bosker, 1999). In a macro-micro multilevel situation, a dependent variable measured at the lower level (i.e., individual) is predicted or explained by variables measured at that lower or a higher level (i.e., work-group). Our data were hierarchically structured such that 373 individual level cases (level-1) were nested within 79 work groups (level-2). Data were analyzed via hierarchical linear modeling (HLM) (e.g., Hofmann, 1997; Hox, 1995) using LISREL software. This method is adequate for analyzing data in a nested structure by constructing a separate submodel at each of the levels in the data structure (Bryk & Raudenbush, 2002). It allows us to make simultaneous inferences on the effects of variations in the independent variables at the individual level (i.e., self-efficacy) and group level (i.e., group cohesion) on the dependent variables (i.e., satisfaction), and the cross-level moderating effect of the independent variables on the dependent variable at the individual level. We decided to center predictor scores relative to the mean of the entire sample – grand-mean centering, as suggested by Hoffman and Gavin (1998).

Results

Descriptive analyses

Means, standard deviations, internal consistencies (Cronbach's alpha), and intercorrelations are shown in Table 1. All scales showed acceptable internal consistencies. As expected, all variables were positively and significantly related with satisfaction (see Table 1). Also, we performed an ANOVA to test whether there are significant differences in satisfaction in terms of the gender diversity. The ANOVA test results show significant differences between homogeneous and heterogeneous groups ($F = 6.10$; $p<.05$). The homogeneous groups present more satisfaction than heterogeneous groups.

Table 1. Means (*M*), Standard Deviation (*SD*), Cronbach's α, and Intercorrelations

	M	SD	α	1	2
1. Self-efficacy	4.56	1.31	.88		
2. Group cohesion	3.38	1.79	.91	.55**	
3. Satisfaction	4.03	1.73	.85	.51**	.63**

Note: ** $p < .01$

Aggregation analyses

To statistically demonstrate within-group agreement and between-group differences, we conducted several analyses. First, we tested within-group interrater reliability by computing r_{wg} (James et al., 1984). In the case of group variable (group cohesion), results of the $r_{wg(j)}$ index reveals strong agreement among group members. The $r_{wg(j)}$ value for group cohesion was .72 . Traditionally, an r_{wg} of .60 is considered sufficient evidence to justify aggregation (Glick, 1985).

Next, we compare variability existing among and within a sample of groups by computing intraclass correlation coefficients. The ICC(1) and ICC (2) values for group cohesion variable are .14 and .62 respectively. Conventionally, values greater than .12 for ICC(1) and .60 for ICC(2) are considered sufficient evidence to justify aggregation (Bliese, 2000).

Multi-level analyses and hypotheses testing

Table 2 summarizes the HLM results of the effects of self-efficacy, gender diversity and group cohesion on satisfaction.

Table 2. Hierarchical Linear Models results (Individual level N=373; Group level *N*=79).

Parameters	Model 0	Model 1	Model 2	Model 3	Model 4	Model 5
Individual level						
Intercept	4.50 (0.07)***	4.49 (0.06)***	4.49 (0.04)***	4.88 (0.17)***	4.48 (0.05)***	4.86 (0.17)***
Self-efficacy		0.19 (0.02)***	0.17 (0.02) **	0.19 (0.02) **	0.18 (0.02)***	0.34 (0.07)***
Group level						
Group cohesion			0.56 (0.07)*		0.56 (0.08)**	
Gender diversity				-0.25 (0.10) *		0,25 (0.11)*
Self-efficacy X Group cohesion					0.07 (0.03) n.s.	
Self-efficacy X Gender diversity						-.10 (0,04)*
σ^2 individual level	0.46 (0.04)***	0.40(0.04)***	0.40 (0.04)***	0.40 (0.04)***	0.40 (0.04)***	0.40 (0.04)***
σ^2 group level	0.29 (0.06)***	0.17 (0.05)	0.07 (0.03)*	0.15 (0.04)***	0.07 (0.03)*	0.16 (0.04)***
- 2 x log	872.55	804.95	766.32	802.22	771.25	801.75
Δ - 2 x log		67.6	36.63	2.73	5.07	.47
gl	3	6	7	7	8	8
R^2		13.04%	58%	12%	-	-

Note: ***$p < .000$; ** $p < .01$; * $p < .05$
Gender Diversity: 1= heterogeneous group (mixed gender group); 0= homogeneous group (same gender group)

The results show a relationship at the individual level. Self-efficacy is positively related on the satisfaction. As shown in Table 2 (Model 1), the relationship was significantly positive ($\beta = .19$, $p < .001$). In addition, the results show a cross-level relationship of group level variables to satisfaction. First, results shows that group cohesion has a positive influence on individual satisfaction. This cross-level relationship (Model 2), was significantly positive ($\beta = .56$, $p < .01$). Second, results show a relationship between gender diversity and satisfaction (Model 3). This relationship was significant, but negative ($\beta = -25$, $p < .05$). This result confirms that gender diversity has a negative effect on satisfaction. The results show that heterogeneous groups (gender diversity) are less satisfied than homogeneous groups. Finally, the results show the cross-level interaction. This effect shows that group cohesion and gender diversity moderate the relationship between self-efficacy and satisfaction. Model 4 shows the result for interaction self-efficacy (individual level) and cohesion (group level). Relationship was not significant ($\beta = .07$, $p = .57$), indicating that cross-level interaction was no supported. Model 5 shows the cross-level interaction self-efficacy and gender diversity. In this case the relationship was significantly negative ($\beta = -.10$, $p < .05$). This significant interaction effect is graphically represented in Figure 2.

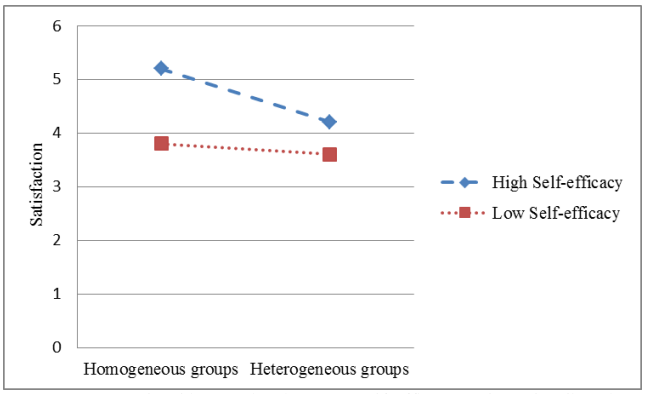

Figure 2. Cross-level interaction between self-efficacy and gender diversity on satisfaction

Values of the independent variable were chosen at 1 SD above and below the mean. This figure shows that high self-efficacy is positively related to satisfaction, but this relationship is stronger in the case of homogeneous groups (no gen-

der diversity). High self-efficacy is associated with less satisfaction when the group is heterogeneous (gender diversity). Similarly affects gender diversity in the case of low self-efficacy.The gender diversity group affects de relationship between self-efficacy and satisfaction in all cases.

Discussion

This article draws conclusions on how self-efficacy, group cohesion and gender diversity can be assessed and managed in work group. The contribution of this study is to consider two levels of analysis together to explain the work group satisfaction. The results of the HLM show that self-efficacy has a direct and positive effect on individual satisfaction also a cross-level effect of group cohesion and gender diversity on satisfaction appeared. Then, the direct effect of independent variables on dependent variable has been shown. However, the effect of the interaction of variables has been shown partially. There is interaction effect of gender diversity on the relationship between self-efficacy and satisfaction but there is no interaction effect of group cohesion on the relationship between self-efficacy and satisfaction.

The interaction effect of gender diversity has been shown. The gender diversity acts as a negative modulator in the relationship between self-efficacy and satisfaction. This result is consistent with previous research results on gender that suggests that the more homogeneous the gender composition of the groups, the higher their satisfaction (i.e., Konrad, Winter, & Gutek, 1992; Tsui, Egan, & O'Reilly, 1992). According to Harrison and Klein, (2007), diversity can be defined along the dimensions of surface-level (demographic) and deep-level (attitudinal) diversity, based on the contact hypothesis, which states that "as people interact to get to know one another, stereotypes are replaced by more accurate knowledge of each other as individuals". Their findings suggest that the length of time group members worked together weakened the effects of surface-level diversity and strengthened the effects of deep-level diversity as group members had the opportunity to engage in meaningful interactions. In this case, for temporary, ad hoc groups, diversity in surface factors would play a more important role than deep-level heterogeneity in determining cohesiveness and other forms of social integration (Harrison et al., 1998). Our study examines the effects of the gender composition at surface-level diversity, and that might be the reason why homogenous groups found a higher satisfaction.

This study has shown that individual variables such as self-efficacy have direct effect on individual satisfaction, but also collective variables such as group cohesion and group diversity. In this sense, it is important for organizations to consider those variables both in their processes of selection, promotion, and training programs, as well that when creating new working groups. In this case, for instance, it seems important to consider gender homogeneity when the group created will have a short life as ad hoc working group.

References

Ali, M., Kulik, C.T., & Metz, I. (2011). The gender diversity performance relationship in services and manufacturing organizations. *International journal of human resource management, 22*, 1464-1485. http://dx.doi.org/10.1080/09585192.2011.561961

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.

Bandura, A. (2006). Guide to the Construction of Self-Efficacy Scales. In F. Pajares & T. Urdan (Eds.), *Self-Efficacy Beliefs of Adolescents* (pp. 307–337), Greenwich, CT: Information Age Publishing.

Birx, E., La Sala, K.B., & Wagstaff, M. (2011). Evaluation of a Team-Building Retreat to Promote Nursing Faculty Cohesion and Satisfaction. *Journal of Professional Nursing, 27,* 174-178. http://dx.doi.org/10.1016/j.profnurs.2010.10.007

Blau, P. M. (1977). *Inequality and Heterogeneity*. New York: The Free Press.

Brawley, L. R., Carron, A. V., & Widmeyer,W. N. (1993). The influence of the group and its cohesiveness on perceptions of group goal-related variables. *Journal of Sport and Exercise Psychology, 15*, 245-260.

Bryk, A. S., & Raudenbush, S. W. (2002). *Hierarchical linear models*. Newbury Park, CA: Sage.

Diego, R., Diego, J., & Olivar, S. (2001). Satisfaction in banking workers. *Psicothema, 13*(4), 629-635.

Giambatista, R. C., & Bhappu, A. (2010). Diversity's harvest: Interactions of diversity sources and communication technology on creativity group performance. *Organizational Behavior and Human Decision Processes, 111*, 116–126. http://dx.doi.org/10.1016/j.obhdp.2009.11.003

Green, S.G., & Taber, T.D. (1980). The effects of three social decision schemes on decision group process. *Organizational Behavior and Human Performance, 25*, 97-106. http://dx.doi.org/10.1016/0030-5073(80)90027-6

Guzzo, R. A., & Dickson, M. W. (1996). Teams in organizations: Recent research on performance and effectiveness. *Annual Review of Psychology, 47*, 307-338. http://dx.doi.org/10.1146/annurev.psych.47.1.307

Hackman, J. R. (1992). Group Influences on Individuals in Organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial, Work & Organizational Psychology*. Palo Alto, CA: Consulting Psychology Press.

Harrison, D. A., & Klein, K. J. (2007). What's the difference? Diversity constructs as separation variety or disparity in organizations. *Academy of Management Review, 32*, 1199–1228. http://dx.doi.org/10.5465/AMR.2007.26586096

Hofmann, D. A. (1997). An overview of the logic and rationale of hierarchical linear models. *Journal of Management, 23*, 723–744.

Hofmann, D. A., & Gavin, M. B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management, 24*, 623-641. http://dx.doi.org/10.1177/014920639802400504

Jackson, S. E., Brett, J. F., Sessa, V. I., Cooper, D. M., Julin, J. A., & Peyronnin, K. (1991). Some differences make a difference: Individual dissimilarity and group heterogeneity as correlates of recruitment, promotions, and turnover. *Journal of Applied Psychology, 76*, 675-689. http://dx.doi.org/10.1037/0021-9010.76.5.675

James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology, 69*, 85–98. http://dx.doi.org/10.1037/0021-9010.69.1.85

Joshi, A., & Roh, H. (2009). The role of context in work team diversity research: A meta-analytic review. *Academy of Management Journal, 52*, 599–627. http://dx.doi.org/10.5465/AMJ.2009.41331491

Judge, T. A., &. Bono, J. E. (2001). Relationship of Core Self-Evaluations, Traits Self Esteem, Generalized Self-Efficacy, Locus of Control, and

Emotional stability with Satisfaction and Job Performance: A Meta-Analysis. *Journal of Applied Psychology, 86*, 80–92. http://dx.doi.org/10.1037/0021-9010.86.1.80

Kirchmeyer, C. (1995). Demographic similarity to the work group: A longitudinal study of managers at the early career stage. *Journal of Organizational Behavior, 16*, 67-83. http://dx.doi.org/10.1002/job.4030160109

Konrad, A.M., Winter, S., & Gutek, B.A. (1992). Diversity in work group sex composition: Implications for majority and minority members. *Research in the Sociology of Organizations, 10,* 115–140.

Kunin, T. (1955). The construction of a new type of attitude measure. *Personnel Psychology, 9,* 65–78.

Lee, C., & Farh, J.L. (2004). Joint effects of group efficacy and gender diversity on group cohesion and performance. *Applied Psychology: An International Review, 53*(1), 136-154. http://dx.doi.org/10.1111/j.1464-0597.2004.00164.x

Locke, E. A. (1976). The nature and causes of satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297–1343). Chicago: Rand McNally.

Marquis, D.G. (1962). Individual responsibility and group decision involving risk. *Industrial Management Review, 3*, 8-23.

Martens, R., & Peterson, J. A. (1971). Group cohesiveness as a determinant of success and member satisfaction in team performance. *International Review of Sport Sociology, 6*, 49-61. http://dx.doi.org/10.1177/101269027100600103

Martínez, I. M., & Mejías, R. J. (2003). Efectos del anonimato y el género sobre el nivel de consenso, cohesión y satisfacción en grupos con apoyo de sistemas informáticos. *Revista de Psicología Social, 18*, 107-120. http://dx.doi.org/10.1174/021347403321645230

McGrath, J. E. (1984). *Groups: interaction and performance.* Prentice Hall, Englewood Cliffs, NJ.

Mullen, B., & Cooper, C. (1994). The relation between group cohesiveness and performance: integration. *Psychological Bulletin, 115*, 210–227.

Osca, A., & García-Salmonez, L. (2010). El impacto del tamaño y la diversidad en los procesos y resultados grupales. *Psicothema, 22*(1), 137-142.

Price, J. L., & Muller, C. W. (1986). *Handbook of organizational measurement*. Marchfield, MA: Pittman Publishing Inc.

Raudenbush, S.W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: Sage.

Salanova, M., Llorens, S., Cifre, E., Martinez, I. M., & Schaufeli, W. B. (2003). Perceived collective efficacy, subjective well-being and task performance among electronic work groups: An experimental study. *Small Group Research, 34*, 43-73. http://dx.doi.org/10.1177/1046496402239577

Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education, 26*, 1059–1069. http://dx.doi.org/10.1016/j.tate.2009.11.001

Snijders, T., & Bosker, R. (1999). *Multilevel analysis: An introduction to basic and advanced multilevel modeling*. Thousand Oaks, CA: Sage.

Smith, P. C. (1992). In pursuit of happiness. In C. J. Cranny, P. C. Smith, & E. F. Stone (Eds), *Satisfaction*. New York: Lexington.

Tsui, A., Egan, T., & O'Reilly, C. (1992). Being different: Relational demography and organizational attachment. *Administrative Science Quarterly, 37*, 549–588. http://dx.doi.org/10.2307/2393472

Van Andel, P., Erdman, R.A., Karsdorp, P.A, Appels, & Trijsburg, R.V. (2003). Group cohesion and working alliance: prediction of treatment outcome in cardiac patients receiving cognitive behavioral group psychotherapy. *Psychother Psychosom, 72*, 141-149. http://dx.doi.org/10.1159/000069733

Wegge, J., Roth, C., Neubach, B, Schmidt, K.H., & Kanfer, R, (2008). Age and gender diversity as determinants of performance and health in a public organization: The role of task complexity and group size. *Journal of Applied Psychology, 93*, 1301–1313. http://dx.doi.org/10.1037/a0012680

Williams, K. Y., & O'Reilly, C. A. (1998). The complexity of diversity: A review of forty years of research. In B. Staw & R. Sutton (Eds.), *Research in Organizational Behavior* (pp. 21-140). Greenwich, CT: JAI Press.

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