

THE RELATIONSHIP BETWEEN TYPES OF CONFLICT, CONFLICT HANDLING STRATEGIES AND GROUP EFFECTIVENESS

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ABSTRACT

This study seeks to analyze a) if the frequency with which group choose to use a certain strategy is associated with the type of conflict represented in a given situation and b) if, for different types of conflict, different conflict handling patterns (the frequency of their use) could be considered significant predictors of group effectiveness, measured through group performance and satisfaction. We developed a correlational empirical study with a sample composed of 73 work groups, taken from 14 organizations in the industrial and service sectors. The results showed that groups in task conflict situations choose integrative strategies more often than when in relational conflict situations. Moreover, avoiding strategies were more likely to be used in relational conflict situations than in task conflict situations. On the other hand, our results showed that the frequency with which a group uses an integrative strategy can be considered a significant (positive) predictor of group satisfaction for both types of conflict situations (task and relationship). Our results are discussed and compared with our previous literature review, as well as the implications and limitations of the study, along with some thoughts on further investigation.

Keywords: Group Conflict, Resolution Strategies, Satisfaction, Performance

JEL Classification: D22, D74

1. INTRODUCTION

The group has come to be established as a structuring feature in organizations. Conflict, recognized as an inevitable everyday phenomenon, has recently become one of the main areas of research interest for the organizational sciences (Greenberg, 2002). At different levels, its impact may have positive and negative consequences, associated either with increased innovation and improved relationships between the actors involved, or with disrupted cooperation among individuals, groups or organizations and reduced effectiveness (Dimas, 2007; Fragoso & Lucio-Villegas, 2010). At the intragroup level, the positive or negative nature of this impact depends on aspects such as the type of conflict (relationship or task conflict), the way in which it is managed, and the criteria used to assess group effectiveness (De Dreu & Weingart, 2003a; Lourenço, 2002; Van de Vliert, Nauta, Giebels, & Janssen, 1999). Relationship conflict tends to be associated with negative effects, while task conflict is usually seen as beneficial (e.g., Bono, Boles, Judge, & Lauver, 2002; De Dreu & Van Vianen, 2001; Jehn, Greer, Levine, & Szulanski, 2008; De Wit, Greer, & Jehn, 2012).

However, literature shows contradictory results regarding this issue, since both types of conflict often occur simultaneously (De Dreu & Weingart, 2003a; Friedman, Tidd, Currall, & Tsai, 2000; De Wit, Greer, & Jehn, 2012). Some authors argue that the different strategies used to manage group conflicts can help to explain the differentiated effects of the conflict situation.

Concerning conflict management strategies and the circumstances that lead to their differentiated use, there are many dispositional and situational variables considered relevant (e.g., Antonioni, 1998; Birmingham & Michaelsen, 1999; Holt, 2000; Hong, 2005; Lather, Jain, & Shukla, 2010; McIntyre, 2007; Morris et al., 1998; Oetzel & Ting-Toomey, 2003; Rahim, 1983a; Wu, Yuen, & Zhu, 2001), both individually (gender, organizational role, personality traits) and in groups (culture, group's development stage). Nevertheless, the research regarding the association between the intragroup conflict management strategies used and the type of conflict is still scarce.

With regard to the strategies used and their association with group effectiveness, the current trend is toward a contingency approach, i.e. the belief that, when it comes to conflict management, there is no "one best way" and that each conflict management strategy can be appropriate under certain circumstances (Dimas & Lourenço, 2011; Rahim, 2001; Van de Vliert et al., 1999). Concerning this matter, the literature also turned out to be inconclusive and contradictory, particularly regarding the role in group effectiveness of the differentiated use of strategies, for each type of conflict.

This research, set in the framework of the issue we have just addressed and that associates types of conflict (task and relationship), conflict management strategies (integrating, dominating compromising, obliging and avoiding)¹, and group effectiveness (performance and satisfaction), has two main purposes: 1) to analyze if there are differences between types of conflict (task and relationship) regarding the frequency with which the group chooses to use a certain conflict management strategy, and 2) to determine if the frequency with which the group – under task conflict situations on one hand, or under relationship conflict situations on the other – chooses to use a different conflict management strategies is related to different levels of performance and satisfaction, in the observed groups.

2. THEORETICAL FRAMEWORK

2.1. Intragroup Conflict

According to Thomas (1992, p.653) conflict may be defined as the process that begins when one party perceives that another has affected, or is about to affect, something negatively, about which the former cares. Therefore, this phenomenon implies a high level of engagement in the conflict situation, some emotional intensity, and the perception that some tension exists between the parties (Dimas, 2007, p.99).

In an organizational context, two types of conflict have mainly been studied: relationship conflict and task conflict (Jehn, 1997a). Relationship conflict concerns the tension associated with the interpersonal relationships between the elements of the group, and may be due to personal characteristics as well as to divergences in beliefs or values. This type of conflict is related to features which are unrelated to the task to be performed, involves negative emotions and attacks the personal identity and the self-esteem of the other individuals, which is why it is associated with decreases in productivity, satisfaction, commitment and decision quality (Bono et al., 2002; De Dreu & Van Vianen, 2001; Franco, Di Virgilio, & Di Pietro, 2006; Jehn et al., 2008). On the other hand, task conflict concerns

¹Though we have anchored our research in Rahim's model (2001), which establishes five conflict management strategies, as our instrument (which we will present in the method section) does not comprise the compromising strategy (for reasons we will further explain in the same section), it will not be considered in our analysis.

tension situations caused by disagreements between the team members about the content of the tasks to be performed, including divergent points of view, ideas and opinions (Bowditch, Buono, & Stewart, 2008; Jehn & Bendersky, 2003). This type of conflict seems to be associated with less harmful consequences and may even prove beneficial, particularly when it comes to performance (especially in complex tasks) and to decision-related satisfaction. However, many studies indicate the existence of negative consequences related to this type of conflict, especially regarding group satisfaction (Amason, 1996; Amason & Sapienza, 1997; Jehn, 1995, 1997).

In this context, we underline the results from a meta-analysis conducted by De Dreu and Weingart (2003a), which goes against the dominant tendency and indicates a strong negative correlation with group performance and satisfaction, both in task conflict situations and in relationship conflict situations. More recently, however, De Wit and cols. (2012) argued that task conflict is not necessarily disruptive to group effectiveness and that, under certain conditions, it can be positively associated with group performance.

It is important to mention that task conflict situations tend to create relationship conflict situations, since divergent opinions about the task can be interpreted by the parties as a personal attack (Friedman et al., 2000; Simons & Peterson, 2000), which may reduce the positive impact we described above. In fact, the results obtained by De Dreu and Weingart (2003a) revealed that the lower the correlation between task conflict and relationship conflict in the group, the lower the negative impact of task conflict in group performance.

Considering the consequences that may result from a conflict situation, some authors (e.g., Antonioni, 1998; Birmingham & Michaelsen, 1999; Dimas, Lourenço, & Miguez, 2008; Holt, 2000; Rahim, 1983a; Shih & Susanto, 2009; Wu, Yuen, & Zhu, 2001) argue that, along with other variables (e.g. gender, organizational role, personality traits, emotional intelligence), the conflict management strategies used may contribute to explaining the differentiated effects of the conflict situation.

2.2. Conflict Management

There are several explanatory models of intragroup conflict management strategies (e.g., Deutsch, 1949; Putnam & Wilson, 1982; Rahim, 1983a; Thomas, 1976).

Among the many models, this study is anchored on the model proposed by Rahim (1983a). This author conceptualizes a two-dimensional model composed of five conflict management strategies, differentiated from the combination of two basic dimensions: concern for self and concern for others. Accordingly, a strategy that reveals a high concern for both parties is called integrating. This strategy involves collaboration between the parties, particularly when it comes to exchanging information and analyzing differences, in order to find an acceptable solution for both parties. The strategy associated with low concern for self and high concern for others is obliging. With a noticeable component of self-sacrifice, a person that uses this strategy is seen as conflict “absorbing”, responding to a hostile act with little hostility, or even with kindness. The dominating strategy reveals high concern for self and low concern for others, assuming a win-lose orientation, since the dominating person often ignores the needs and expectations of the other party. On the other hand, avoiding shows a low level of concern both for self and for others, which results in a denial and escape attitude regarding the existing problem. Due to the lack of confrontation and will to resolve observed problems, this strategy leads to a decrease in both parties’ satisfaction. Lastly, the compromising strategy indicates an equal level of concern for self and for others, and searches for an intermediate point between the two opposing positions (Dimas & Lourenço, 2011; Rahim, 2001).

The conflict management strategies and the circumstances that lead to the differentiated use of each one have been studied in the most diverse frameworks. The results obtained, however, are not always convergent.

At the group level, Vokić and Sontor (2009), for example, argue that the most used strategies are compromising and dominating. On the other hand, Farmer and Roth (1998) state that the strategies grounded in high concern for others – integrating and obliging – are used more often than those that reveal a low level of concern for others – avoiding and dominating. According to Rahim and Buntzman (1989), the avoiding strategy is used least often, while DeChurch and Marks (2001), as well as Dimas (2007), argue that competitive strategies are usually less used. When it comes to integrating strategies, the authors above (DeChurch & Marks, 2001; Dimas, 2007; Farmer & Roth, 1998; Rahim & Buntzman, 1989) agree that these are used more often.

Despite the fact that cultural differences may play a decisive role in conflict management (Sousa, Gonçalves, & Cunha, 2015), the tendency to use integrating strategies more often seems to be cross-cultural. In collectivist cultures people also tend to use less competitive strategies and more indirect communication strategies, particularly avoiding; in individualistic cultures, direct communication is used more often, with dominating the most used strategy (Denhardt, Denhardt, & Aristigueta, 2009; Hong, 2005; Lather, Jain, & Shukla, 2010; Morris et al., 1998; Oetzel & Ting-Toomey, 2003; Wu, Yuen, & Zhu, 2001). According to Morris and cols. (1998), the frequency with which these two kinds of strategy are used in individualistic and collectivist cultures is mediated by their underlying values: the societal conservatism of collectivist cultures, based on values of tradition and compliance is thus associated with avoiding strategies; on the other hand, the higher use of competitive strategies in individualistic cultures is related to their result orientation and self-promotion. Though these studies analyze conflict management at an individual level, they can be projected into a group reality, considering that the sample's subjects were categorized according to their culture. With regard to the compromising strategy, Birmingham and Michaelsen's (1999) research shows that the group development stage can be relevant to its use: results reveal that the higher the level of maturity in the group, the less its elements will tend to use compromising strategies. Also Dimas, Lourenço, and Miguez (2008) present relevant results in this matter, arguing that as the group advances in its maturity, the use of integrating strategies increases. These authors also mention that, when the group is at a development stage which is marked by competitive and tempestuous relationships (which matches the second stage of group development, of the four proposed by the group development model in which they anchored their studies), the dominating strategy is used more often.

At the individual level, several studies reveal that the conflict management strategy used is also influenced by dispositional factors, particularly by personality traits, gender and organizational role. Based on the Big Five Model by Costa and McCrae (1992), Antonioni (1998) shows that the use of integrating strategies is positively associated with extroversion, conscientiousness, agreeableness and openness traits. About the use of obliging strategies, this author enhances its positive association with agreeableness and neuroticism traits. When it comes to the personality traits related to dominating strategies, Antonioni's (1998) results stress the positive association with extroversion traits, opposed to agreeableness and neuroticism traits, which are negatively associated with the use of competitive strategies in conflict management. Regarding the use of avoiding strategies, according to the same author, there are positive associations with neuroticism and agreeableness traits and negative associations with extroversion, openness and conscientiousness traits. The literature revision from Wall and Blum (1991) and also from Wall and Callister (1995), however, argue that there are not enough consistent data in the literature to assume that there is a significant impact of personality traits on the conflict management styles used. Concerning the

gender variable, McIntyre (2007) states that, generally, there are no significant differences between men and women when it comes to the use of a certain conflict management style. Nevertheless, the author mentions a possible exception, claiming that women use more negotiation strategies and less confrontation strategies. On the other hand, Holt (2000) found evidence that women prefer obliging and compromising strategies, while men like competitive strategies better. Shih and Susanto (2009) also stress the role of emotional intelligence, arguing that this feature is positively associated with the use of integrating and compromising strategies, since it allows people to manage and regulate their own emotions properly, as well as others'. About the influence of the organizational role variable, Rahim (1983a) states that managers use mostly integrating strategies with their subordinates, obliging strategies with their superiors and compromising strategies with their colleagues. Holt's (2000) results reveal that people tend to use avoiding strategies more with peers than with subordinates and compromising strategies less with subordinates than with superiors.

Wall and Nolan (1986) analyze, among others, the association between types of conflict and conflict management strategies at the individual level from a sample of 375 subjects involved in a group task. Their results show that task conflict tends to be resolved through integrating strategies while relationship conflict is usually approached with avoiding strategies. However, we were not able to find more recent studies that associated the types of conflict with the strategies used, nor that focused on that association at a group level, which enhances the pertinence of this study.

2.3. Conflict, Conflict Management and Group Effectiveness

Despite the multidimensional nature of group effectiveness and regardless of the criteria used to measure it, it is widely accepted that group effectiveness refers to the comparison between the results obtained and the results expected or desired by the evaluator (e.g., Chiavenato, 1987; Ostroff & Schmitt, 1993; Pennings & Goodman, 1978). In line with other authors (Jehn, 1994; Santos, Gonçalves, & Gomes, 2013), we consider that two of the most important aspects of the functioning of the group are its performance and the satisfaction of its members. These are, then, the two criteria we use to measure the group effectiveness in its task and socio-affective dimensions, respectively.

De Dreu and Weingart (2003a), in their meta-analysis (to which we have already referred), found, as might be expected, strong negative correlations between relationship conflict, group performance and group satisfaction; However, contrary to what would be expected, in task conflict situations the authors also observed a strong negative correlation with group performance and group satisfaction. Moreover, this correlation was always stronger the more complex was the task at hand. More recently, as we already alluded, De Wit, Greer, and Jehn (2012) in a new meta-analysis for the same purpose, found a stable negative relationship between relationship conflict and group effectiveness in accordance with the previously mentioned results. However, in contrast with the findings of De Dreu and Weingart (2003a), De Wit et al. (2012) noted that, in the face of some contingent variables, a positive relationship between task conflict and group performance can be found, as demonstrated by studies of top management teams and also by studies where performance was measured by specific financial criteria or by quality of the decision, and not by an overall criterion.

Regarding the effects of the different types of conflict on team performance and team satisfaction, and, in particular, concerning the role of the conflict management strategies, De Dreu and Weingart (2003a) in their contingency model of task conflict, suggest that the use of integrative strategies, as opposed to the use of dominating strategies, are more likely to minimize and even reverse the negative effects of task conflict. These authors point out the fact that, in the relationship conflict, however, the use of avoiding seems to be a better

strategy than integrating or dominating. Jehn and Bendersky (2003) in their COM Model (Conflict-Outcome Moderated), an extension of the intragroup conflict model proposed by Jehn (1997a), state that the use of integrative strategies of conflict resolution is an amplifier of the positive effects of task conflict on group effectiveness - the collaboration between group members allows them to find integrated solutions based on various perspectives, resulting in group gains. However, in the context of relationship conflict, the use of integrating strategies amplifies the negative effects of the conflict on group effectiveness, since it increases the time and energy spent on its management and deviates the group's attention from the tasks to be performed, thus resulting in a decrease in productivity and performance (Dimas, 2007; Schermerhorn, Hunt, & Osborn, 1998).

As well as the proposals of the previous models, several studies point to the presence of a relationship between the differentiated use of conflict management strategies and group effectiveness, though, as a whole, those studies are not consensual.

Thus, while not fully supporting the COM model, the use of integrative strategies (considered by that model as an amplifier of the positive effects but also of the negative effects), for example, seems to have a positive effect both on performance and on satisfaction in the group (Alper, Tjosvold, & Law, 2000; De Dreu, Dierendonck, & Dijkstra, 2004; Shih & Susanto, 2009). Indeed, several studies suggest that integrative strategies allow each individual to express his/her own expectations, benefiting both parties. The use of integrative strategies leads to long-term relationships and contributes to creativity, motivation and group performance, which is reflected at the level of satisfaction and involvement of team members (e.g., Bradford, Stringfellow, & Weitz, 2004; Chou & Yeh, 2007; DeChurch & Marks, 2001; Friedman et al., 2000; Gross & Guerrero, 2000; Kuhn & Poole, 2000; Robbins, 2008; Tjosvold & Tsao, 1989; Wall & Nolan, 1986). In contrast, the use of dominating strategies tends to be seen as ineffective in conflict management, with a negative impact on the satisfaction and on performance (e.g., Alper, Tjosvold, & Law, 2000; Andrews & Tjosvold, 1983; Behfar, Peterson, Mannix, & Trochim, 2008; Deutsch, 1998; Euwema, Van de Vliert, & Bakker, 2003). Concerning compromising, while Birmingham and Michaelsen (1999), and also Shih and Susanto (2009), indicate that the use of this strategy is associated with a decrease in productivity, Chou and Yeh (2007), in the opposite direction, point out the advantages of compromising strategies, namely improvements in group performance. Finally, the literature points to the fact that although obliging may have some impact on emotional level - that is, on the satisfaction of group members - it is not a productive strategy for group performance (Friedman et al., 2000; Wayne, Liden, Graf, & Ferris, 1997; Yukl & Tracey, 1992).

Thus, the belief that there is a one-best-way with regard to conflict management does not seem to be supported in the literature, a fact that has led several researchers to advocate a contingency perspective. According to this view, each type of strategy is appropriate depending on the circumstances, to the extent that each situation is unique and requires a specific response (Dimas & Lawrence, 2011; Rahim., 2001; Van de Vliert et al, 1999). LaFasto and Larson (2001), for example, and also Schermerhorn, Hunt and Osborn (1998), while recognizing the benefits of the integrating strategy in a wide range of situations, state that the use of an integrative strategy is not always needed - some types of negotiation may be merely distributive and some decisions may be too trivial and do not justify the time and effort that this type of strategy requires. According to İslamoğlu, Boru, and Birsel (2008), integrative strategies are appropriate for dealing with strategic or complex issues, while the remaining styles are preferred in tactical issues or everyday matters. Moreover, Chung-Yan and Moeller (2010) also reported that although the moderate use of compromising and integrating strategies could be beneficial at a psychosocial level, they are associated with an increase in tension levels, and ill-will of employees when the degree of conflict is

high. Andrews and Tjosvold (1983), studying the influence of various strategies on trust and on relational effectiveness between the group members, concluded that avoiding and compromising strategies tend to relate negatively, or not at all, with trust and relational effectiveness in groups with low or moderate levels of conflict intensity. However, when used in groups with high conflict intensity, the same strategies showed positive correlations with the relational effectiveness.

In an attempt to integrate the two previous perspectives (one-best-way and contingency), Thomas (1992) sets out a time framework, based on the time horizons of the short and long term. According to the author, the contingency approach is adequate for short-term situations, “here and now”, while the one-best-way approach deals better with long-term issues, related to the construction of desirable future circumstances.

The suitability of the various strategies also depends on the type of conflict and has an influence on group effectiveness. With regard to relationship conflict, according to De Dreu and Van Vianen (2001), it should be managed in two complementary ways. First, its occurrence can be prevented through the creation and maintenance of trust relationships within the group, which reduces the probability of task conflict changing to relationship conflict. In situations where this type of conflict emerges, the avoiding strategy is considered the best. Besides being difficult to resolve a relationship conflict to the satisfaction of both parties, when team members invest their time and energy in resolving the conflict, and not in the work to be done by the team, this produces a decrease in effectiveness. This view is supported by De Dreu and Beersma (2005), who also relate that the strategy “agree to disagree” is valid and relevant in the management of relationship conflict. Friedman et al. (2000) also stress the positive effect of obliging in the management of relationship conflict, in that it resembles ingratiation, one of the tactics of social influence identified by Yukl and Tracey (1992) which seeks to show approval of the ideas of the other party. However, although obliging produces a positive effect (reducing the relationship conflict between the parties), this type of strategy does not seem particularly productive and, thus, we can't expect a definite impact on task conflict situations (Wayne et al., 1997; Yukl & Tracey, 1992). For this type of conflict (task), the studies of Wall and Nolan (1986) show that higher satisfaction arises when integrative strategies are used. Friedman and colleagues (2000) also found that the use of integrating strategies is associated with lower levels of task conflict, while the use of dominating strategies is linked to higher levels of task conflict.

The literature reviewed in the previous sections showed that the research on the use of different conflict management strategies with regard to different types of conflict (task or relational), and on the association between the use of each one of the different strategies in different types of conflict and group effectiveness (namely in terms of performance and satisfaction) is still scarce and somewhat contradictory. Thus, the results produced should be taken with caution and, in our opinion, do not appear strong enough to give clear support to the formulation of specific hypotheses. Thus, assuming that the present study presents exploratory characteristics, we have chosen to make only general hypotheses.

In accordance with this explanation, and taking into account the two objectives that guide this research - 1) analyze if the use of different conflict management strategies is done differently for the two types of conflict and 2) analyze if the frequency of use of the different strategies is associated with different levels of performance and satisfaction depending on the type of conflict - the following research hypotheses are formulated:

H₁: There are significant differences in the average of the use (frequency) of the same conflict management strategy (obliging², avoiding, dominating or integrating), depending on the type of conflict (task or relationship).

² As we explain in the method section, due to the reliability studies showing weakness in the instrument regarding the obliging strategy, we couldn't test our hypothesis for this strategy.

H₂: Given a task conflict situation, the conflict management strategies used by the group (frequency of use) are statistically significant predictors of group effectiveness level, measured by group performance (task dimension)

H₃: Given a task conflict situation, the conflict management strategies used by the group (frequency of use) are statistically significant predictors of group effectiveness level, measured by group satisfaction (social dimension)

H₄: Given a relationship conflict situation, the conflict management strategies used by the group (frequency of use) are statistically significant predictors of group effectiveness level, measured by group performance (task dimension)

H₅: Given a relationship conflict situation, the conflict management strategies used by the group (frequency of use) are statistically significant predictors of group effectiveness level, measured by group satisfaction (social dimension)

3. METHOD

3.1. Sample

The original sample consisted of 89 work teams that perform highly complex tasks in 14 organizations pertaining to the industry and services. From a total of 405 questionnaires distributed, 343 were returned³. Twenty-three questionnaires (6.7%) were eliminated from the sample due to problems with completion⁴. After these initial procedures, the sample was left with 321 participants belonging to 77 teams, whose team dimension ranges from a minimum of 2 and a maximum of 14 ($M = 4.21$, $SD = 2.85$). The majority of participants is included in an age range between 26 and 35 years (64.5%) and has a high level of education (69.2% have a level of education higher than a bachelor's degree). With regard to team tenure, the modal class (about 44.5%) corresponds to participants that have been inserted into the current team for less than six months. On the other hand, 32.1% of participants have been in the team for a period between 6 months and 1 year. The low level of tenure in the team found in the sample is due to the fact that 59 of the 77 teams⁵ are project teams, whose nature is temporary.

For the leaders of the teams, 89 questionnaires were given (as many as the teams involved), with 80 returned and found to be valid. It should be noted that of the 80 questionnaires, only 68 corresponded to the teams that remained in the sample on which the final analysis of this research data was focused.

3.2. Measures

3.2.1. *Roci-II*

To assess conflict-handling strategies used by the teams when facing relationship conflicts, on one hand, and task conflicts, on the other hand, we used an adaptation of the Rahim Organizational Conflict Inventory - II (Rahim, 1983a) developed by Dimas (2007). The original version of ROCI-II is composed of 28 items that measure five strategies of conflict handling: integrating (7 items), avoiding (6 items), obliging (6 items), dominating (5 items) and compromising (4 items). Respondents are asked to rate on 5-point Likert scales (1 = totally disagree, 5 = totally agree), the way they usually react when facing conflict

³ All of the questionnaires not returned correspond to teams whom we opted to e-mail in order to obtain the data.

⁴ Of these 23 questionnaires, 16 contained more than 10% of missing values in each of the scales of the questionnaire and 7 were incorrectly filled in (Bryman & Cramer, 2001; 2004).

⁵ Of the 89 teams that were invited to participate in this research, the number of returned and/or valid questionnaires was less than 50% in 12 of them, so it was decided to remove them from the sample. Thus, in each one of the teams of the final sample, more than 50% of the members returned valid questionnaires. The average percentage of valid questionnaires by team is 78%.

situations⁶. Hence, in the original scale, the referent is the individual. The first adaptation studies developed by Dimas (2007) were based on a sample constituted by 382 members of 64 production teams from different industrial companies. After the initial procedures concerning the translation and content validity, the assessment of the dimensionality and reliability of the scale, tested through exploratory factor analysis and the estimation of Cronbach's alpha, respectively, led to a reduced version of the ROCI-II composed of 15 items that measure 4 dimensions (4 items measuring integrating, 4 items measuring dominating, 3 items measuring avoiding and 4 items measuring obliging). Due to statistical and theoretical problems, the compromising items were eliminated from the scale. The four factors explained, jointly, 61.56% of the variance. Three dimensions presented acceptable reliability values - integrating (.85), dominating (.72) and avoiding (.69) – whereas obliging presented a less satisfactory value but above the limit defined by Nunnally (1978)⁷.

In the present research we used the 15 items that remained from the validation process described above. Items were adapted, however, to the team level, to reflect the way the team as a whole manage conflict situations.

In addition, a ranking scale was introduced, asking respondents to indicate, in order of decreasing frequency of use, the five items that best encapsulated the way the members of his/her team usually reacted when they face conflict situations caused by affective issues (personality differences, values and attitudes towards life), and the five items that best encapsulated the way the members of his/her team usually reacted when they were in situations of task conflict (caused by differences in the distribution of work, the team objectives and how the work should be executed)⁸. After the dimensionality studies, conducted via Exploratory Factorial Analysis, the scale was reduced to 13 items explaining 67.7% of the total variance (4 items concerning integrating, 4 items assessing dominating, 3 items related to avoiding, and 2 items for obliging). Two of the items developed to measure obliging were eliminated because they loaded, simultaneously, on two factors, and in none of the factors were the loadings above .50. Concerning reliability, values for integrating and dominating were good (.90 e .86, respectively). Avoiding, while presenting a less acceptable Cronbach's alpha (.65), had a value above the limit defined by Nunnally (1970). Obliging, however, presented an unacceptable value of reliability (.55) and, in consequence, was dropped from the subsequent analysis.

3.2.2. Team Member Satisfaction

To measure satisfaction with the team we used the scale developed by Dimas (2007). This scale is composed of seven items that measure members' satisfaction with different aspects related to the task and the affective system of the team. Statements are evaluated on a 7-point Likert scale ranging from 1 (*totally dissatisfied*) to 7 (*totally satisfied*).

After the initial procedures concerning content and face validities, construct validity was assessed through an exploratory factorial analysis. A one-factor solution explaining 65.4% of the total variance emerged. All items presented loadings above .70 and communalities above .50. The reliability of the scale presented a very good value (.91).

3.2.3. Group Performance

Group performance was assessed with a scale developed by Dimas (2007). Only team leaders answered this scale because they are the most legitimate authority to evaluate

⁶ ROCI-II is composed of three distinct forms – A, B and C – which are related to conflict situations with the leader, the subordinate and the peer, respectively. Dimas (2007) adapted form C, asking participants to rate the way they react when facing conflict situations with the other members of the group.

⁷ For Nunnally (1978) a value above .90 is excellent; between .80 e .90 is good; between .70 e .80 is acceptable; between .60 e .70 is poor; and less than .60 is unacceptable.

⁸ It is important to mention that despite having requested the selection of 5 of the 15 items, in this study we considered only the answers relating to items placed in the top three positions by the participants, to be the ones that best describe the strategies used in the group.

team performance, due to their proximity and knowledge concerning team strengths and weaknesses. Moreover, since team effectiveness is, in general, assessed against the standards required for those who receive and review this output, is the leader who usually carries out this review at least initially. This scale is composed of ten items that measure the leaders' perception regarding different issues related to the quality and quantity of work produced by the team (for instance, the ability to approach problems appropriately, the efficiency in carrying out tasks, the ability to meet deadlines). Statements are evaluated on a 10-point Likert scale ranging from 1 (*poor*) to 10 (*excellent*). After the initial procedures concerning content and face validities, construct validity was assessed through an exploratory factorial analysis that led to a solution composed of two dimensions: the first dimension, labeled as innovation, constituted six items and explained 38.1% of the variance; the second dimension was composed of four items and explained 30.3% of the variance. The reliability of the dimensions presented very good values (.88 for innovation and .84 for efficiency).

3.3. Procedures

In the process of data collection, 187 companies, 109 from the services sector (52% information and technology companies) and 78 from the industrial sector, were contacted.

In the organizations that agreed to participate in our study, the selection of the teams to survey was made with a member of the board of directors and was based on the following criteria: a) teams must consist of members, who are perceived by themselves and others as a team (1), who interact regularly, in an interdependent way, to accomplish a common goal (2) and who develop complex, non-standard tasks. In each organization on average 6 teams were surveyed.

In all of the different organizations we had to collect two kinds of information: the questionnaires of the team members and the team leaders. Team members were surveyed about demographic data, leader and peer coaching, and members' satisfaction with the team. Team leaders were asked to evaluate the team through a set of performance indicators. All procedures to ensure the confidentiality and anonymity of the data were met, and the participants were informed about them, as well as about the objectives of the research.

4. ANALYSIS AND RESULTS

4.1. Data Analysis Procedures

Since data concerning team satisfaction were obtained from individuals, but the present research is at the team level, the Average Deviation Index (AD_M Index) developed by Burke, Finkelstein, and Dusig (1999) was performed to justify aggregation. Following the authors' recommendations, we used the criterion $AD_M \leq 1.17$ to aggregate, with confidence, individual responses to the team level. Values were between 0 and 1.2, with an average of 0.53 ($SD = 0.30$). Since the AD_M average value were below the upper-limit criterion of 0.83 all teams in the sample were retained, following the procedure adopted by other authors (Gamero, González-Romá, & Peiró, 2008).

In each team, the identification of the frequency of use of the different approach strategies to conflicts was based on the ranking scale included in ROCI-II. In order to provide a joint analysis of both the frequency and the position of choices, we created a composite indicator, which takes into account the frequency and the position of each of the strategies, within the team. This procedure allowed us to identify, per team, the proportion of the frequency of use of each one of the strategies of conflict handling. It is important to mention that when respondents did not indicate at least one item in any of the three positions of the ranking scale, concerning task conflict, on the one hand, and relationship conflict, on the other,

they were excluded from the team, regarding the type of conflict in which the missing data occurred. In any case, it was necessary for a team to remain in our sample when, after the above procedure, the team remained with more than 50% of its members.

The results will be presented in two following sections, each one dedicated to one of the main objectives that guided this research.

4.2. Types of conflict and conflict management

The test of the first hypothesis was done through the Student T-test for paired samples, which compared the average values registered, given the two types of conflict, concerning the frequency of each strategy of conflict management. When checking the normality assumptions for applying the t-test for paired samples, we concluded that normality was not assumed for some variables. However, since the t-test is a fairly robust test for less severe violations of the assumption of normality, as happened to the data analyzed (Welkowitz, Cohen, & Lea, 2012), we considered that the statistical technique could be applied.

Thus, three pairs of means were analyzed: the mean frequency of use of integrating strategies when facing task conflict (TC_I) and the mean frequency of use of integrating strategies when facing relationship conflicts (RC_I); the mean frequency of use of dominating strategies when facing task conflict (TC_D) and the mean frequency of use of dominating strategies when facing relationship conflict (RC_D); the mean frequency of use of avoiding strategies when facing task conflict (TC_A) and the mean frequency of use of avoiding strategies when facing relationship conflict (RC_A). Table 1 presents the t-test values for each pair. For both types of conflict, the strategy of conflict management most used was integrating, followed by avoiding, whereas dominating was the least used. Results revealed that teams use significantly more integrating when facing task conflict ($t_{(72)} = -2.25, p = .028$) and more avoiding when facing relationship conflict ($t_{(72)} = 4.31, p < .001$). Concerning dominating, no significant differences were found.

Table 1. Comparison between mean pairs TC_I - RC_I, TC_D - RC_D e TC_A - RC_A

	<i>n</i>		<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Pair 1	73	RC_I	51.15	27.03	-2.25	.028
	73	TC_I	58.77	26.75		
Pair 2	73	RC_D	13.66	17.27	0.14	.892
	73	TC_D	13.40	17.45		
Pair 3	73	RC_A	25.93	20.33	4.31	.000
	73	TC_A	14.23	15.63		

Thus, hypothesis 1 received partial empirical support since, despite no significant differences being found for dominating, the frequency of use of integrating and dominating depends on the type of conflict that the team has to face.

4.3. Conflict management and group effectiveness in the face of different types of conflict

To test the hypotheses 2, 3, 4 and 5 of this research we first analyzed the correlations between the different variables (see Table 2). This procedure provides relevant information about the relationships under study, such as the identification of the variables to be included in the regression analysis.

Table 2. Intercorrelations, means and standard deviations of conflict management strategies and of group effectiveness dimensions (N = 73)

Dimensions	M	SD	1	2	3	4	5	6	7	8	9
1. RC_I	51.15	27.03	--								
2. RC_D	13.66	17.27	-.538**	--							
3. RC_E	25.93	20.33	-.658**	-.178	--						
4. TC_I	58.77	26.75	.418**	-.351**	-.115	--					
5. TC_D	13.40	17.45	-.308**	.548**	-.087	-.670**	--				
6. TC_E	14.23	15.63	-.164	-.012	.189	-.518**	.044	--			
7. Innovation	6.85	1.13	-.059	.128	.024	.034	-.081	.007	--		
n = 68											
8. Efficiency	7.24	1.32	-.107	.099	.020	.015	-.094	.042	.574**	--	
n = 68											
9. Satisfaction	5.28	0.70	.384**	-.370**	-.074	.540**	-.462**	-.158	.046	-.021	--

Note. * $p < .05$. ** $p < .01$.

As shown in Table 2, and taking into account the hypotheses, significant correlations were observed between satisfaction and integrating and dominating strategies, regarding relationship conflict and task conflict. With regard to performance no significant correlations were observed. Thus, only satisfaction was considered as a criterion variable in the following multiple regression analysis for testing the hypotheses. It will be considered the RC_I ($r = .384, p = .001$) and RC_D ($r = -.370, p = .001$) variables as predictors in the relationship conflict situation, and TC_I ($r = .540, p < .001$) and TC_D ($r = -.462, p < .001$) variables in the task conflict situation.

Nevertheless, in view of these preliminary results, it can be already concluded that hypotheses 2 and 4 did not achieve empirical support since there were no significant associations between the conflict management strategies and both dimensions of performance.

To test hypotheses 3 and 5 two analyses of multiple regression were conducted, taking satisfaction as criterion variable and integrating strategies and dominating as predictor variables.

Table 3 shows the results of the regression model that includes TC_I and TC_D variables as predictors of satisfaction in task conflict situation, indicating that these variables together explain 31% of the variance of group satisfaction ($R^2 = .310; F(2,72) = 15,735, p < .001$). This analysis also indicates that TC_I variable has a positive effect ($\beta = .418, p = .003$) on satisfaction. With respect to variable TC_D, it does not statistically predict group satisfaction ($\beta = -.182, p = .177$). Thus, we can conclude that Hypothesis 3 gets partial empirical support in our study, since, although the use of dominating strategies did not predict group satisfaction, the use of integrative strategies positively predicts it.

The analysis of Table 3 also allows us to observe the results for the regression model that includes RC_I and RC_D variables as predictors of satisfaction in situations of relationship conflict, revealing that together they explain 18.5% of the dependent variable ($R^2 = .185; F(2,72) = 7.946, p = .001$).

The analysis also indicates that RC_I has a positive effect ($\beta = .26, p = .047$) on team satisfaction. Regarding RC_D we can see that it is not a predictor of group satisfaction ($\beta = -.231, p = .076$).

Thus, we can conclude that Hypothesis 5 is partially supported in our study, since the use of integrating strategies positively predicts group satisfaction in a relationship conflict situation.

Table 3. Results of multiple linear regression analyses of conflict management strategies predicting group satisfaction according to the type of conflict (N = 73)

Variables	B	EPB	β	R ²
Regression Equation 1 (Task Conflict)				.310***
CT_I	.011	.004	.418**	
CT_D	-.007	.005	-.182	
Regression Equation 2 (Relationship Conflict)				.185**
RC_I	.007	.003	.260*	
RC_D	-.009	.005	-.231	

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

5. DISCUSSION AND CONCLUSIONS

With regard to the frequency of conflict management strategies, the findings postulate that the strategies most used are integrating, followed by avoiding and, finally, dominating. These results fit the conclusions of DeChurch and Marks (2001) and Dimas (2007) for whom integrative strategies are the most used and competitive strategies are the least used.

These results, although they partially support the results of Farmer and Roth (1998) and Rahim and Buntzman (1989), which also point to a greater use of integrating strategies, are in the opposite direction with respect to the use of avoiding strategies. In fact, contrary to these studies, they indicate that this is the least used strategy. This divergence may be related to differences in sample size (the sample used by Farmer and Roth (1998), for example, contained only 19 groups). Also the conclusions of Vokić and Sontor (2009) do not fit with the conclusions of this study, to the extent that these authors found that the dominating strategies (along with commitment) were the most frequently used. However, this discrepancy may also be associated with substantial differences in sample sizes (in the aforementioned study, the sample comprised only 22 teams). Cultural differences are another possible explanation, as the participants of this study were all Croatians.

On the other hand, our results partially support, at a of group level of analysis, the results obtained by Wall and Nolan (1986) at the individual level. These authors suggest that task conflicts tend to be resolved through integrative strategies, and relationship conflicts through avoiding strategies. Similarly, our study suggests that integrative strategies are the most used in task conflict. However, integrative strategies, and not avoiding strategies, also emerged as the most used in relationship conflicts. Nevertheless, the frequency of avoiding strategies is significantly higher in this type of conflict than in task conflict situations.

The evidence found regarding the advantages of using integrative strategies on group satisfaction in task conflict situations fits the findings of previous studies, such as Alper, Tjosvold, and Law (2000), De Dreu, Dierendonck, and Dijkstra (2004), Shih and Susanto (2009), and Jehn and Bendersky's (2003) COM model, which considers the use of integrative strategies as an amplifier of the positive effects of task conflict on group effectiveness.

However, the result that suggests that an integrative strategy is a positive predictor of satisfaction (one dimension of group effectiveness) when faced with relationship conflicts does not fit Jehn and Bendersky's (2003) model, which states that the use of integrative strategies is an amplifier of the negative effects of the conflict in group effectiveness.

Also with regard to relationship conflict management and its impact on group satisfaction, our results question De Dreu and Van Vianen (2001), and De Dreu and Weingart's (2003a) position of not considering likely the resolution of a relationship conflict with all involved parties satisfied, suggesting that it is preferable to use avoiding strategies. Actually, in our study, avoiding strategies in relationship conflict situations are not correlated with group effectiveness, while integrative strategies contribute positively to the group's satisfaction when faced with this type of conflict. However, regarding the task of conflict management, our results are in accordance with Wall and Nolan's (1986) conclusions, which indicate that the use of integrative strategies is associated with satisfaction. As the sample of this study consists of teams whose tasks are characterized by high levels of complexity, our results are also in line with İslamoğlu, Boru, and Birsal (2008), who found that integrative strategies are appropriate for dealing with strategic or complex issues.

It should also be mentioned that group effectiveness, both in the socio-affective dimension (satisfaction) as well as in the task dimension (performance), is influenced by multiple factors. Thus the fact that the variables under study (conflict management strategies), explain 18.5% of the criterion variable in relationship conflict situations and 31% in task conflict situations (effects that are classified, according to Cohen's convention (1988), as small and medium, respectively) can, in our opinion, be considered relevant.

In addition, although the dominating strategy was not supported as a predictor of satisfaction, the correlations, significant and negative, give important directions to team management, insofar as they converge with the idea already supported by the literature that the use of dominating strategies tends to be seen as unwise and ineffective in conflict management, linking it negatively with group satisfaction (e.g., Alper, Tjosvold, & Law, 2000; Andrews & Tjosvold, 1983; Behfar et al., 2008; Deutsch, 1998; Euwema, Van de Vliert, & Bakker, 2003).

One of the limitations of our study is the lack of statistical power to test the significance of predictors, since a larger sample would be required for a comfortable application of the regression analyses. In this regard, Field (2009) and also Tabachnick and Fidell (2007) report that the minimum acceptable sample is $50 + 8k$ (k is the number of predictors in the model). Since our model has two predictors, the minimum acceptable is 66 cases. It means that the size of our sample (73 cases regarding satisfaction, 68 regarding performance) meets this requirement fairly. Field (2009) adds that smaller the effect expected the more subjects are needed, in order to reach a model with statistical power. Thus, although the regression analysis did not conclusively support dominating as a predictor of satisfaction, the significant correlations between them suggest that with a larger sample size, the results could be statistically significant. So it would be relevant to increase the sample size in future studies. Our study could also benefit from a larger sample with respect to the test of hypothesis 1, as the normality assumption required for the application of Student's *t*-test for paired samples was partially violated. Although we found sufficient theoretical basis to keep our analysis, it would be important to check if by increasing the sample size, the results would be similar to those obtained in the present study.

Despite the methodological and conceptual rigor that we seek to ensure throughout the investigation, there are other limitations to take into account, in particular its cross-sectional design, which prevents the analysis of the dynamic aspects of the variables under study and the establishment of causal relationships. It would be useful, therefore, to carry out a longitudinal study to assess the behavior of the variables over time or even, for example, through different stages of group development. Another limitation is that most of the data were perceptions of team members (only performance was evaluated by the leaders) which may lead to common method variance bias (Conway, 2002). In future studies, it would be relevant to complete the group effectiveness information with data obtained from other

relevant stakeholders, as well as through certain objective measures (in the task dimension). It would also be advantageous to include measures from other sources, with regard to the use of conflict management strategies (observation and/or the collection of information from the leaders could be techniques to use). However, whereas teams, as already mentioned, are a predominant reality in the current organizational context, we believe that the fact that our sample was made up of natural work teams, belonging to real organizations, is an added value of this research.

We conclude by stating that the present investigation, despite the limitations pointed out, is a valuable contribution to enriching the vast literature on conflict management and on its relationship with group effectiveness. The work carried out, although it can be considered exploratory, has produced results that are relevant and give clues for futures studies. Similarly, from the point of view of intervention, the results seem to be useful, suggesting that to develop the ability to handle conflicts in a group based on an integrative strategy can be a way of enhancing group effectiveness, particularly in their socio-affective dimension.

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