DEPARTMENT OF MANAGEMENT

THE IMPACT OF WORK GROUP COOPERATIVE
CLIMATE ON AFFECTIVE COMMITMENT AND
TURNOVER INTENTION OF PROFESSIONAL EMPLOYEES

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Abstract

We investigate the impact of work group cooperative climate on affective commitment and turnover intentions of professional employees, in interaction with climate strength (referring to the level of agreement among group members on what constitute important norms, values and goals within the group) and the individual's social value orientation (referring to self- versus other-regarding preferences). In a sample of 209 academic employees of a Belgian university, we find that, independent of the content of a group's climate, climate strength is an important determinant shaping employees' attitudes toward the organization. In addition, in support of the goal transformation hypothesis, we find that a cooperative work group climate increases (decreases) affective commitment (turnover intention), but especially so for proselfs. Finally, our results also indicate that climate strength is more important in determining prosocials' affective commitment as compared to proselfs'.

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In professional organizations, where employees are the main drivers of organizational performance, understanding the determinants of individual behavior and attitudes is of particular importance. This study focuses on explaining individual employees' affective organizational commitment and turnover intentions, where affective organizational commitment refers to an "emotional attachment to, identification with, and involvement in the organization" (Meyer et al., 2002: 6, 8), and where turnover intention captures the extent to which the employee considers leaving the organization. Although affective commitment generally goes together with reduced turnover intention (cf. the former's definition), both concepts are clearly distinguishable.

Literature on the determinants of affective organizational commitment reveals that besides individual features (such as age or tenure), also contextual characteristics such as the organization's management style, have important effects on the extent to which individuals feel connected to their employing organization (for an overview see Meyer et al., 2002). In particular, commitment has been found to be strongly enhanced by social interaction and communication (e.g., Lewis, 1967; Steers, 1977). Apparently, collaborative work relationships, opportunities for employee participation and communication, and organizational support are all important features of the employment relation that enhance organizational commitment and reduce turnover intention (see also May et al., 2002).

As these features are building blocks of the organizational or work group *cooperative climate*, we will study the impact of this more general, overarching concept on affective commitment and turnover intention. So, rather than determining how several separate climate aspects, such as social interaction, participation and the like, impact on the level of commitment, we follow Sheridan's approach (1992) and investigate the role of the overall work group climate in triggering different levels of employee attachment. This approach yields

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a more comprehensive framework of the impact of social integration on individual attitudes in general, and affective commitment and turnover intention in particular. Work group climate is "commonly defined as the shared perceptions of organizational policies, practices, and procedures, both formal and informal" (Carr et al., 2003: 605). The goal of the current study is to investigate how groups that differ in the extent to which they are characterized by values such as cooperation, integration and 'teamness' (Hambrick, 1998; Sheridan, 1992) evoke different levels of members' affective commitment and turnover intention.

This study offers two specific contributions to the extant literature. First, we study the impact of *climate strength* on affective commitment and turnover intention. Climate strength refers to the level of agreement among group members on what constitute important norms, values and goals within the group (cf. Koene et al., 1997). If strong (little) agreement exists about the values characterizing a team, the group climate can be regarded as strong (weak) (Arogyaswamy and Byles, 1987). Note that the definition of climate strength – and the operationalization commonly used in research on climate strength (see, e.g., Gonzalez-Roma et al., 2002; Schneider et al., 2002) – in fact refers to the 'climate consensus'. Although the distinction between strong and weak culture is far from new, this issue has been ignored in the majority of empirical work in this domain. We will develop the argument that the effect of cooperative work group climate on affective commitment and turnover intentions will only materialize when group members *agree* on whether the group is characterized by a cooperative climate.

Second, we recognize that the impact of work group climate on affective commitment and turnover intention will not be equally strong for different types of persons (cf. Chatman and Barsade, 1995). As people differ in the importance they attach to group cohesion and group well-being, 'fitting in' and being included may be more or less important for some

people than for others. One concept that may be especially revealing on this issue is *social value orientation*. Social value orientation (SVO), a concept originating from social psychology, is formally defined as "stable preferences for certain outcomes for oneself and others" (van Lange et al., 1997: 733). It captures the extent to which an individual is mainly concerned with personal versus group well-being.

Researchers generally distinguish between prosocials and proselfs. Whereas prosocials tend to maximize outcomes for both themselves and others (i.e., cooperation) and to minimize differences between outcomes for themselves and others (i.e., equality), proselfs tend to maximize their own outcomes with little or no regard for others' outcomes or even seek relative advantage over others (van Lange et al., 1997: 733). As prosocials and proselfs considerably differ in the importance they attach to the well-being of the group, it can be expected that the impact of work group climate is different for proselfs than for prosocials. The relations between social value orientation and cooperative behavior have been investigated in numerous experimental studies in the field of social psychology. We draw on these insights to develop (and test in a field setting) two alternative hypotheses on the moderating effects of social value orientation on affective commitment and turnover intention. As such, we also contribute to the SVO literature – which is largely dominated by experimental research.

In the remainder of this paper, we will first develop the theory and hypotheses. Subsequently, we will explain our research methodology and we present the results. We end with an in-depth discussion of our findings.

Group Climate

Research shows that commitment and willingness to stay are enhanced when opportunities for social interaction are prevalent in the group or organization. For example,

Steers (1977) demonstrated that opportunities to develop friendships at work and opportunities to get feedback positively affect organizational commitment in a sample of 382 hospital employees and 119 scientists and engineers, respectively. Lewis (1967) showed in a sample of about 500 full-time faculty that loyalty to the organization was strongly influenced by the extent to which persons feel well-integrated in university life. Similarly, meta-analyses revealed that the provision of a supportive work environment has a strong and positive impact on affective commitment (Meyer et al., 2002). To summarize, collaborative work relationships, opportunities for participation and communication, and a supportive environment are all important features of the employment relation that enhance employees' affective organizational commitment and willingness to stay (see also May et al., 2002).

Obviously, these features are ingredients of the organizational or group climate, as they shape working conditions, routines, and interaction patterns within the team. One major dimension characterizing group climate is the extent to which the group is integrated and acts like a team (cf. 'behavioral integration', Hambrick, 1998). Sheridan (1992) found in a sample of 904 college graduates hired in six public accounting firms, over a six-year period, that the hazard rates of voluntary turnover among new employees were significantly lower in organizations with a culture emphasizing the team and interpersonal relationships rather than work task values. Clearly, organizations can differ in the degree to which they strive for and value a well-integrated and cohesive system (cf., Baron and Hannan, 2002; Guthrie, 2001; Huselid, 1995).

Taken together, we expect that affective commitment (turnover intention) will be higher (lower) in teams characterized by a cooperative climate. In such groups, high levels of integration and cohesion are strongly valued, the environment is caring and supportive, and social interaction is relatively frequent.

Hypothesis 1. Employees' affective commitment (turnover intention) is enhanced (reduced) in groups characterized by a cooperative climate.

It is also interesting to study the implications of climate strength, which refers to the extent to which values are widely shared and agreed upon by the employees (cf. Arogyaswamy and Byles, 1987; Koene et al., 1997; Sørensen, 2002). Studies in this tradition have generally underscored the benefits of a strong culture or climate. Specifically, Harrison and Carroll (2006) argued that organizations that do not develop a homogeneous culture over time will experience a higher risk of failure than organizations that do succeed in establishing a strong culture. Sørensen (2002: 70) argued that a strong culture generally goes together with "enhanced coordination and control within the firm, improved goal alignment between the firm and its members, and increased employee effort", and hence is more likely to be associated with organizational success than a weak culture. Indeed, in a large sample of firms from a broad variety of industries, Sørensen (2002) found that culture strength has important positive effects on the reliability of firm performance – at least in stable environments, where internal efficiency is extremely beneficial.

The positive relation between culture strength and firm performance has been attributed to more efficient internal processes of coordination and control. Specifically, in strong cultures, employees understand the organizational goals and jointly contribute to the realization of these goals. In weak cultures, disagreement about and misunderstanding of organizational goals may occur, leading to inconsistent behaviors, discussion and conflict (cf. Harrison and Carroll, 1991; Sørensen, 2002). As argued in the consensus literature, a lack of agreement among group members constitutes a stressful environment. Due to the absence of a clear group goal, group members try to persuade one another of their own interests and reject group members they do not agree with. Consequently, internal conflict occurs and the team is less cohesive (cf. e.g.,

Bliese and Halverson, 1998). Although heterogeneity with respect to beliefs and perceptions of organizational culture and climate may emerge from different – not mutually exclusive – sources (cf. Koene et al., 1997), such as the application of inconsistent management tools or the (demographic) heterogeneity of the workforce (e.g., Harrison and Carroll, 2006; Koene et al., 1997; Pfeffer, 1983), its negative implications on group functioning, communication and coordination are agreed upon in the literature (Sørensen, 2002; Williams and O'Reilly, 1998).

Hypothesis 2. Employees' affective commitment (turnover intention) is enhanced (reduced) in groups characterized by a strong climate.

We also expect that climate strength will moderate the relations between cooperative group climate, on the one hand, and affective commitment and turnover intention, on the other hand. If people have similar perceptions, then group values, norms and working routines are clear and consistent. By contrast, if people do not agree on their perceptions of the work group climate, ambiguity and doubt may become dominant, undermining the impact of the actual climate content. As a result, it is reasonable to assume that the effects of work group climate on individual attitudes will be especially clear when the employees share the same perceptions of the group's climate. As Hambrick (1995: 125) stated: "If the team is highly fragmented, the team's overall, average characteristics will have little predictive value." Therefore, we expect that the effects of cooperative climate on affective commitment and turnover intention will especially materialize in groups characterized by a strong climate (i.e., high consensus on perceived climate).

Hypothesis 3. The positive (negative) effect of cooperative climate on affective commitment (turnover intention) further increases (decreases) as climate strength increases.

Social Value Orientation

Social psychologists have long recognized that individuals strongly differ in the extent to which they attach importance to group well-being and group functioning. Social value orientation (SVO) – a concept that is generally considered to be a relatively stable and fundamental personality trait with significant impact on individual behavior in social dilemmas (for a review see Bogaert et al., 2008) – captures whether an individual is especially concerned with the achievement of personal rather than collective goals (van Lange et al., 1997). Proselfs, on the one hand, will work towards the realization of their personal goals, with little or no regard to others' goals; prosocials, on the other hand, do consider others' goals and adapt their behavior according to the circumstances of the interaction (van Lange, 2000). Prosocials thus are more oriented to the collective, and attach more importance to the well-being of the group as a whole than do proselfs. Hence, we expect prosocials to show higher levels of affective commitment and lower intentions to leave.

> *Hypothesis 4. Employees' affective commitment (turnover intention) is enhanced (reduced) by a prosocial value orientation.*

In developing expectations on how SVO moderates the effects of cooperative climate on affective commitment and turnover intention, we build on two alternative insights that can be derived from the literature on the relations between SVO and cooperation. First, according to the *behavioral assimilation* hypothesis, prosocials will cooperate unless they are confronted with a non-cooperative interaction partner or with an interaction partner they *expect* not to cooperate. Indeed, it has been shown in numerous studies that prosocials are generally more willing to cooperate, but will reduce their own levels of cooperation when they perceive the situation as non-cooperative (e.g., De Cremer and van Lange, 2001; Smeesters et al., 2003). Given prosocials' intent to reduce their levels of cooperative behavior when they suspect to be

exploited by the interaction partner(s), cues signaling the trustworthiness of others become extremely important for these people (e.g., Joireman et al., 1997; Stouten et al., 2005). A cooperative group climate may serve this purpose. In such groups, shared goals, social interaction, group integration and team spirit are strongly valued. Consequently, prosocials' attitude is reciprocated by the team members, all of whom are working towards the achievement of common goals. In groups characterized by a low degree of 'teamness', prosocials will feel they are 'on their own' and they will not perceive any reciprocity. Therefore, their identification with the group will be reduced and turnover intentions will increase.

> *Hypothesis 5a. The positive (negative) effect of a cooperative climate on affective commitment (turnover intention) is stronger for prosocials than for proselfs.*

Conversely, the *goal transformation* hypothesis argues that proselfs can show cooperative behavior in situations where contextual information signals the benefits of cooperation (e.g., De Cremer and van Vugt, 1999; Kuhlman and Marshello, 1975). Inducing group identity may shift the concern for personal outcomes to collective outcomes (e.g., Brewer and Kramer, 1986; Kramer and Brewer, 1984). As prosocials are naturally inclined to consider collective outcomes when deciding upon their own behaviors, external triggers to cooperate, such as group identity or incentives to cooperate, are less relevant for prosocials than for proselfs (cf. Bogaert et al., 2008). Consistent with this insight, De Cremer and van Vugt (1999) found that when group identity was experimentally induced, proselfs tended to increase their levels of cooperation more so than prosocials. This reasoning suggests that, opposite to Hypothesis 5a, the impact of cooperative work group climate – characterized by

high levels of social and behavioral integration and strong group identity – will be stronger for proselfs than for prosocials.

> *Hypothesis 5b. The positive (negative) effect of a cooperative climate on affective commitment (turnover intention) is stronger for proselfs than for prosocials.*

Methodology

We test our hypotheses in an academic context, using questionnaire data from one Belgian (Dutch-speaking) university. The university is a suitable research setting because departments – generally organized around (sub)disciplines and constituting the lowest level in the hierarchical structure – can drastically differ with respect to their management style and group climate (cf. McCain et al., 1983). Following extensive pre-testing, the process of data collection started early February 2006 and finished early April 2006. A total of 639 respondents went through the entire questionnaire. The response rate was 29.5 per cent. However, only 209 responses were complete and could be retained for analyses.

With respect to the representativeness of the sample it can be noted that the Faculty of Political and Social Sciences, and the Faculty of Applied Economics were overrepresented, whereas the faculties of Medicine and Law were slightly underrepresented. In addition, women, faculty younger than 25, faculty appointed as research or teaching assistant, and faculty having a full-time appointment were slightly overrepresented in the sample. We do not expect that these sample-versus-population differences pose a severe threat to the validity of our study and results. Moreover, we will control for gender, appointment and employment size in our analyses.

Dependent Variables

The focal dependent variable in this study is employees' affective commitment towards the department, defined as "an emotional attachment to, identification with, and involvement in the organization [department]" (Meyer et al., 2002: 21). We use Allen and Meyer's (1990) measurement tool, as its reliability and validity have been proven satisfactory (Allen and Meyer, 1990: 6, 8). The items used were: (1) *'I would be very happy to spend the rest of my career with this department'*, (2) *'I feel as if this department's problems are my own'*, (3) *'I don't feel like part of the family at my department'* (reverse scaled), and (4) *'This department has a great deal of personal meaning to me'*. Based on the research of Becker et al. (1996), we also included one item capturing the extent to which commitment is based on value congruence. This item is: *'The reason I prefer to work in this department is because of what it stands for – that is, its values'*. Respondents were required to evaluate these items on a five-point Likert scale ranging from 'completely disagree' to 'completely agree'. The Cronbach's Alpha coefficient is .84.

We also ran analyses with turnover intention as the dependent variable. Respondents were required to evaluate whether they had previously considered leaving the organization, on a scale from 1 (not considered) to 4 (seriously considered and actions taken). About half of the respondents (47.8%) had not yet considered the option of leaving, 19.6% of the respondents had considered leaving but not seriously so, 18.7% seriously considered leaving, and 13.9% seriously considered leaving and had taken actions that might lead to job changes.

Independent Variables

Department climate. In order to measure work group cooperative climate, we selected or adapted a number of items from existing studies measuring related constructs such as collectivistic values (e.g., O'Reilly et al., 1991), collectivistic culture and HRM (Baron and

Hannan, 2002), and behavioral integration (Li and Hambrick, 2005). Based on the results of exploratory factor analyses, and the items' face validity, we decided to work with a three-item scale. These items were: (1) '*My department is team-oriented; teamwork is strongly valued*', (2) '*In my department, cooperation is judged to lead to successes*', and (3) '*In my department, no efforts are made to enhance the social integration of the employees*' (reverse scaled). Cronbach's Alpha was .74.

As we are interested in the effects of the *actual* rather than the perceived department's climate on individual's affective commitment, it is necessary to obtain one climate score for each department. If respondents agree on their perceptions of the department's climate, one can aggregate the individual-level information – for example, by calculating the mean, and use it as a group-level variable. One way analysis of variance and the intra-class correlation coefficients (cf. Bliese, 2000) (*ICC*[1] and *ICC*[2] equaled .08 and .58 respectively) indicated that, although group climate evaluations significantly vary between different members of the same department, reliable climate differences exist between departments. Consequently, we averaged the individual evaluations of group climate, and used the mean scores as proxies of the actual climate in the department.

Climate strength. For each department, we calculate climate strength, or the level of consensus among department members. As homogeneity in individuals' perceptions of group climate can serve as a good proxy for climate strength (cf. Harrison and Carroll, 2006; Koene et al., 1997), we calculate the inter-rater agreement (Rwg) (James et al., 1984). The inter-rater reliability is "the proportion of systematic variance in a set of judgments in relation to the total variance in the judgments". (James et al., 1984: 86). It is calculated by comparing the observed variance in judgments to the expected variance in the case of completely random responses

(where the inter-rater reliability coefficient would equal zero). As the cooperative climate scale consists of three items, we used the multiple-item estimator, given by the formula

$$r_{WG(J)} = \frac{J\left[1-\left(\overline{s_{xj}^{2}}\big/\sigma_{EU}^{2}\right)\right]}{J\left[1-\left(\overline{s_{xj}^{2}}\big/\sigma_{EU}^{2}\right)\right]+\left(\overline{s_{xj}^{2}}\big/\sigma_{EU}^{2}\right)}$$

where J equals the number of items, $\overline{s_{xj}^{2}}$ is the mean of the variances on the J items, and σ_{EU}^{2} is the variance in case of random response (James et al., 1984: 88). The average inter-rater reliability coefficient $r_{WG(J)}$ was .75 for cooperative work group climate.

Social value orientation. Social value orientations were measured using the decomposed games technique, which is widely used and which has been shown to be an adequate measurement technique for the assessment of SVO (De Cremer and van Lange, 2001; Eisenberger et al., 1992; van Lange et al., 1997). In this technique, respondents receive a series of nine scenarios, each consisting of three pairs of outcome distributions that either benefit oneself or another person. The respondent is then asked to choose for each scenario the pair that (s)he prefers the most. The pairs of outcomes are constructed in such a way that each alternative represents a specific social value orientation. An example of such a scenario is the following: "Option A, 480 points for self and 80 points for other; Option B, 540 points for self and 280 points for other; and Option C, 480 points for self and 480 points for other." These three option pairs represent a competitive choice, an individualistic choice, and a prosocial choice, respectively (e.g., Kuhlman et al., 1986).

Typically, the decomposed games measure relies on a categorical assessment of SVO, and a respondent is only classified when she or he makes at least six out of nine consistent choices. This approach leads to a number of unclassifiable respondents, and hence to a loss of

data. Another option is to calculate the number of prosocial choices (or, alternatively, the number of proself choices) (Declerck and Bogaert, 2008). This variable can vary between 0 and 9, and allows for more variation than the categorical assessment of SVO. The latter is associated with an important advantage, because in this study about 70 per cent of the respondents were classified as prosocials. Hence, we decided to use this SVO measure. Although the large dominance of prosocials in this study may suggest that self-selection bias has occurred during data collection or that respondents' replies were biased due to social desirability, it should be recognized that the number of prosocials exceeds the number of proselfs in most existing research on SVO (cf. van Lange, 2000).

Control Variables

First, we included gender into our analyses, and a dummy indicating whether the respondent has children to take care of, to capture possible effects of the respondent's personal situation on affective commitment and turnover intention. Second, we added three career variables; organizational tenure, appointment and full-time equivalent factor. Appointment was coded as a 0/1 variable, where value 1 (0) indicates that the respondent had obtained a tenure track (temporary) position. Third, we control for the respondent's job focus. The typical academic job consists of a combination of research, teaching and administrative services. We generated a dummy variable equaling 1 if the respondent spends the majority of her or his time doing research, and a dummy variable equaling 1 if the respondent spends about as much time on research and teaching. The reference category thus is the group of respondents that devote most of their time to teaching. Fourth, we included a dummy variable equaling 1 for members of the Faculty of Applied Economics and 0 otherwise, because this faculty had recently gone through a merger. Such a structural change may have severe implications on employees'

attitudes and behaviors. Fifth, we also controlled for the size of the department, measured as the number of employees having an appointment of at least 0.5 fte.

Finally, as our respondents are professional employees – who are highly concerned with professional achievement and growth (cf. professional commitment; Gouldner, 1957; May et al., 2002) – we also controlled for the extent to which a department's climate is 'profession-oriented'. Items used to measure professional climate were: (1) *"In my department, employees are encouraged to strive for professional growth"*, (2) *"In my department, personal initiative is strongly valued"*, and (3) *"In my department, employees value autonomy and independence"*. Cronbach's Alpha was .72. Similar to the cooperative climate scale, we averaged the individual evaluations of department's professional climate and used the mean score as proxies of the actual professional climate in the department (*ICC*[1] equals .11 and *ICC*[2] is .64). Controlling for the extent to which the group climate is characterized as 'profession-orientated', is of particular importance when studying the *unique* effects of cooperative work group climate on affective commitment and turnover intention.

Model Estimation

As our observations are clustered within departments, we cannot assume independence of observations (Bliese, 2000). If the assumption of independence of observations is violated, the estimates of the standard errors need to be corrected in order to avoid 'spurious significant results' (cf. Hox, 2002). One technique is the method of 'generalized estimating equations' (GEE), a technique that can also be used for data where the non-independence between observations is not of a temporal nature (Zorn, 2001). The advantage of the GEE method, which is further developed from generalized linear models (cf. Liang and Zeger, 1986; Nelder and Wedderburn, 1972), lies in its generalizability and flexibility: standard assumptions of

simple regression analysis – normal distribution of the error term with constant variance – are no longer required (Gill, 2000: 2). Moreover, "the method of GEE is a marginal (or population-averaged) approach to estimation with correlated data, that is, the marginal (or population-averaged) expectation of the dependent variable is modeled as a function of the covariates" (Zorn, 2001: 474). As we were interested in the effects of covariates *across* groups rather than within a specific group, the method of GEE was especially suited. In order to take the clustering of respondents into departments into account, we use the Huber/White sandwich estimator of variance to calculate robust standard errors. We use STATA 9 to estimate GEE models.

To estimate models on turnover intention, we run 'ordered logit' models, an approach similar to standard logistic regression except that more than two outcomes are allowed and higher values of the dependent variable go together with higher values of the outcome. Turnover intention was measured on a scale of 1 to 4. Ordered logit regression is also known as a 'proportional odds model'. The assumption thus is that the estimated coefficients would be similar if separate regressions were performed for each category of the dependent variable (Long, 1997). The Brant test for the baseline model was not significant ($\chi^2 = 20.57$; $p > .30$), indicating that the assumption of parallel regression was not violated. These results indicate that the ordered logit model is suited for our study on the determinants of turnover intention. Similar to the GEE models on affective commitment, we calculate robust standard errors, in order to take the clustering of respondents into departments into account.

Results

Descriptives of the focal variables and correlations between them are shown in Table 1.

INSERT TABLE 1 ABOUT HERE

Table 2 shows the estimates of the generalized estimation equation (GEE) models of the effects of cooperative climate on affective commitment, and in Table 3 we present the results of the ordered logit models on turnover intention. The baseline model (Model 1) in Table 2 shows that the type of appointment has a positive and significant effect on affective commitment, meaning that faculty in tenure track positions show higher levels of affective commitment than faculty having an assistant or temporary research position. We also found a significant negative effect of the size of the department, suggesting that affective commitment is lower in larger departments.

Tenure was found to have a marginally significant, negative effect on affective commitment. At first sight, this is contrary to what could be expected – namely, that people become more committed to the organization as time passes. However, affective commitment is an 'active' attitude towards the organization. A lower willingness to consider job changes as tenure increases may be due to increased continuance commitment (i.e., higher perceived costs associated with leaving) rather than increases in the level of affective commitment. Finally, we found a marginally significant negative effect of the merger dummy, indicating that the merger of the faculty of Applied Economics reduced employees' affective commitment.

INSERT TABLES 2 AND 3 ABOUT HERE

In a similar vein, the model explaining individuals' turnover intention (Model 12 in Table 3) reveals positive and significant effects of the size of the department, and the merger dummy. Also the kids dummy appears to be significant and positive, indicating that turnover intentions are significantly higher for respondents having one or more children. One explanation could be that work-family balance is more difficult to maintain when one has to take care of children, making people to consider other job alternatives. Additionally, the effect of tenure was significant and negative, indicating that turnover intentions decrease as time

spent in the organization increases. Finally, we found a significantly negative effect of the size of a respondent's employment (fte), suggesting that turnover intentions are smaller among persons having a (close to) full-time position.

In support of Hypothesis 1, we found that affective commitment is enhanced in departments characterized by a cooperative climate (cf. Models 3 and 4, Table 2). However, we found no significant effect of department climate on turnover intention (cf. Models 14 and 15, Table 3). Climate strength had a significant and positive effect on affective commitment (Model 5, Table 2), and a significant and negative effect on turnover intent (Model 16, Table 3). This finding is in support of Hypothesis 2. The interaction effect between cooperative climate and climate strength on affective commitment did not prove significant (cf. Model 6, Table 2), though it was significant in the model explaining turnover intention (Model 17, Table 3). As shown in Figure 1, this interaction effect is not in line with Hypothesis 3: the effect of cooperative climate on turnover intention seemed to increase with climate strength.

INSERT FIGURE 1 ABOUT HERE

Although we found no main effect of SVO on affective commitment and turnover intention (i.e., no support for Hypothesis 4), the interaction between SVO and cooperative climate was significant (cf. Model 8 and 19, Table 2 and 3 respectively). The interactions are plotted in Figure 2. The upper (lower) part of the figure shows that the effect of cooperative climate on affective commitment (turnover intention) is stronger for proselfs than for prosocials. These findings are in support of Hypothesis 5b.

INSERT FIGURE 2 ABOUT HERE

For the sake of completeness, we also explored the interaction between SVO and climate strength, as well as three-way interactions between SVO, cooperative climate and climate strength. There was no significant interaction between climate strength and SVO on

affective commitment (Model 10, Table 2). For turnover intention, this interaction was marginally significant and negative, suggesting that a strong climate reduces turnover intention more so for prosocials than for proselfs (Model 21, Table 3). The three-way interaction between cooperative climate, climate strength and SVO was significant in both Model 11 and Model 22. The upper part of Figure 3a shows that prosocials' affective commitment is enhanced in departments characterized by a cooperative climate, only when the climate is strongly agreed upon. The lower part reveals that cooperative climate enhances proselfs' commitment, and that this effect is slightly stronger in weak climates. Similarly, Figure 3b indicates that proselfs' turnover intentions are reduced in cooperative climates, and that this effect is even stronger in weak climates. For prosocials, the impact of cooperative climate and climate strength on turnover intention was less strong.

INSERT FIGURE 3 ABOUT HERE

Discussion

The goal of the present study is to gain insight into the determinants of professional employees' affective organizational commitment and turnover intention. We postulated that (1) affective commitment and willingness to stay would be strongly influenced by the work group's climate, and that (2) this relation would be moderated by (a) climate strength and (b) the individual's social value orientation. The hypotheses were tested in a sample of 209 academic employees of a Belgian university. Our results underscore the importance of climate strength in shaping employees' attitudes, that is, consensus with respect to the values espoused in the group proves important in shaping employee attitudes and behaviors.

Our study also points to interesting interaction effects. First, we found a significant interaction between cooperative climate and climate strength on turnover intention, showing

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that the cooperative climate had a negative impact on turnover intentions, but less so when the climate was highly agreed upon. Apparently, turnover intentions are lowest in departments characterized by a high cooperative but weak climate, and highest in low cooperative, weak climates. In low cooperative climates, clarity and agreement on the values espoused in the group's climate are important in tempering turnover intentions, while members' agreeing on group values is less crucial in departments characterized by a highly cooperative climate. Interestingly, this suggests that cooperative climate and climate strength are complementary ways to reduce turnover intentions.

Second, we found, in support of the goal transformation hypothesis (Hypothesis 5b), that the effect of cooperative climate on affective commitment and turnover intention was stronger for proselfs than for prosocials. The collectivistic values induce strong group identity, making the well-being of the collective more important. Consequently, proselfs' focus on personal achievements may shift to a focus on collective achievements, which will in turn increase their level of affective commitment. As prosocials have a more natural inclination to consider the well-being of the collective and to make efforts on behalf of the group, the organizational context signaling team spirit and collectivism has a lower impact on their behaviors and attitudes. This study is among the first in testing this theory in a real-life, organizational setting (cf. Bogaert et al., 2008). Note that the finding that cooperative group climate enhanced commitment especially for proselfs, could not be attributed to the fact that values of professionalism and autonomy co-occurred with those of cooperation and integration (as they were controlled for).

In addition, we also found significant three-way interactions between cooperative climate, climate strength and SVO on both affective commitment and turnover intention. Prosocials' affective commitment was enhanced by a cooperative climate, but only so when the

latter was highly agreed upon. For proselfs, high agreement was not necessary to stimulate affective commitment or to reduce turnover intention. These findings suggest that ambiguity and lack of clearness are important indicators of prosocials' attitudes towards a group. Possibly, low agreement on the values and norms characterizing the group climate signals vagueness, and makes prosocials feel uncertain about others' behaviors and attitudes. This interpretation is consistent with Bogaert et al. (2008), who argued that signals of the trustworthiness of interaction partners are especially important in shaping prosocials' behavior. As prosocials will behave non-cooperatively when confronted with non-cooperative interaction partners or when they expect their interaction partners to behave non-cooperatively (e.g., De Cremer and van Lange, 2001; Smeesters et al., 2003), it is important to reduce the 'fear of exploitation' in prosocials by signaling the trustworthiness of their interaction partners. Evidently, disagreement with respect to group values and norms does not at all enhance trust; rather, it will lead to discussion and doubt, and consequently to a reduction of prosocials' cooperative behaviors and attitudes.

Finally, it is remarkable that proselfs' affective commitment is most enhanced and turnover intentions were most reduced in departments characterized by a cooperative climate that is *not* strongly agreed upon. These results are in line with the idea that proselfs look for situations where they can exploit others (see, e.g., Smeesters et al., 2003). Low group consensus may imply that some people make efforts on behalf of the group, whereas others do not. Such an environment may be preferred by proselfs because they can take the opportunity to free-ride. Future research is necessary to unravel the differential effects of climate consensus on individual attitudes and behaviors of different types of persons, as well as the underlying mechanisms responsible for these relations.

As all studies, this one is not without its limitations. First, as all information was collected from a single source, common-method variance may be present in the data (see also high correlation between 'professional climate' and 'cooperative climate' scales) (Podsakoff et al., 2003). We tried to reduce the potential problem of common-method variance by aggregating the individual respondents' evaluations of group climate into one overall climate score for each department. Moreover, we also ran all analyses without controlling for 'professional climate', in order to check whether our results were biased because of the high correlation between both climate scales. All findings presented remained the same. A part from this, it can be noted that several researchers have already argued that the problem of common method bias is overstated (e.g., Lindell and Whitney, 2001; Spector, 2006). Especially when studying subtle interactions, common method bias is unlikely to affect the findings.

A second limitation of this study lies in its cross-sectional design. Although the design of the study allowed to collect rich and deep-level information on respondents' social value orientation and perception of group climate, it was not possible to study the effects of cooperative climate on actual turnover. Therefore, we worked with variables related to actual turnover – namely, affective commitment and turnover intention. Evidently, actual turnover may also be strongly determined by job alternatives, an element that was not incorporated into our study.

A third limitation is related to the dominance of prosocials in our sample, which may have biased the results due to range restriction. However, the finding that prosocials were highly represented in our sample may also signal the importance of sorting processes, implying that people with different social value orientations are differentially attracted to specific professions and organizations (cf. Schneider, 1987). Possibly, organizations in the public sector, and professions that demand a substantial degree of intrinsic motivation, are especially

attractive to prosocials, whereas organizations and professions characterized by extrinsic motivators or performance rewards may be more appreciated by proselfs. Hence, one interesting area for future research is to study how people with different social value orientations are differentially attracted to organizations and professions. In light of this consideration, it may also be interesting to see whether our results hold in different kinds of organizations. We limited ourselves to the academic context, but given the possibility that this type of organization may have been especially appealing to prosocials, our results may not be generalizable to other contexts.

Despite the limitations of this study, we believe our study contributes to both theory and practice. First, our results indicate that besides the values espoused in a group's climate, also climate strength is important. So far, climate strength is often neglected in studies on the impact of group values and norms on employee attitudes. Second, the effects of group climate on employees' affective commitment and willingness to stay also proved to be different for different types of people. As compared to prosocials, proselfs' affective commitment seemed to be more strongly influenced by the group's climate.

These findings are of practical relevance for organizational managers because they underline the importance of *managing* group climate. Specifically, it is important for managers to make sure that the group values and norms are clear and highly agreed upon by the members of the team. Therefore, it is crucial to communicate how different human resource management tools and practices fit together into a single consistent HR-configuration. Finally, managers' understanding of how individual characteristics, such as social value orientations, moderate the relations between group climate and employees' attitudes and behaviors, may prove helpful in developing the human resource management policies in general, and attachment and retention policies for professional employees in particular. Individuals' reactions towards different HR-

practices can be anticipated, and it will be easier to develop or introduce HR-tools and practices that will lead to the desired outcomes. Given both theoretical and practical relevance, we encourage future research in this area.

References

Allen, N. J. and J. P. Meyer (1990). 'The measurement and antecedents of affective, continuance and normative commitment to the organization', *Journal of Occupational Psychology,* **63**, pp. 1-18.

Arogyaswamy, B. and C. M. Byles (1987). 'Organizational culture: Internal and external fits', *Journal of Management,* **13**, pp. 647-658.

Baron, J. N. and M. T. Hannan (2002). 'Organizational blueprints for success in high-tech start-ups: Lessons from the Stanford Project on emerging companies', *California Management Review,* **44**, pp. 8-36.

Becker, T. E., R. S. Billings, D. M. Eveleth and N. L. Gilbert (1996). 'Foci and bases of employee commitment: Implications for job performance', *Academy of Management Journal,* **39**, pp. 464-482.

Bliese, P. D. (2000). 'Within-group agreement, non-independence, and reliability: Implications for data aggregation'. In: K. J. Klein and S. W. J. Kozlowski (eds.), *Multilevel theory, research, and methods in organizations.* pp. 349-381. San Fransisco: Jossey-Bass.

Bliese, P. D. and R. R. Halverson (1998). 'Group consensus and psychological well-being: A large field study', *Journal of Applied Social Psychology,* **28**, pp. 563-580.

Bogaert, S., C. Boone and C. Declerck (2008). 'Social value orientation and cooperation in social dilemmas: A review and conceptual model', *British Journal of Social Psychology,* **47**, pp. 453-480.

Brewer, M. B. and R. M. Kramer (1986). 'Choice behavior in social dilemmas: Effects of social identity, group size, and decision framing', *Journal of Personality and Social Psychology,* **50**, pp. 543-549.

Carr, J. Z., A. M. Schmidt, J. K. Ford and R. P. DeShon (2003). 'Climate perceptions matter: A meta-analytic path analysis relating molar climate, cognitive and affective states, and individual level work outcomes', *Journal of Applied Psychology,* **88**, pp. 605-619.

Chatman, J. A. and S. G. Barsade (1995). 'Personality, organizational culture, and cooperation: Evidence from a business simulation', *Administrative Science Quarterly,* **40**, pp. 423-443.

De Cremer, D. and P. A. M. van Lange (2001). 'Why prosocials exhibit greater cooperation than proselfs: The roles of social responsibility and reciprocity', *European Journal of Personality,* **15**, pp. S5-S18.

De Cremer, D. and M. van Vugt (1999). 'Social identification effects in social dilemmas: a transformation of motives', *European Journal of Social Psychology,* **29**, pp. 871-893.

Declerck, C. H. and S. Bogaert (2008). 'Social Value Orientation: Related to Empathy and the Ability to Read the Mind in the Eyes', *Journal of Social Psychology,* **148**, pp. 711-726.

Eisenberger, R., D. M. Kuhlman and N. Cotterell (1992). 'Effects of social values, effort training, and goal structure on task persistence', *Journal of Research in Personality,* **26**, pp. 258-272.

Gill, J. (2000). *Generalized Linear Models: A Unified Approach,* Sage Publications, Thousand Oaks, Califarnia.

Gonzalez-Roma, V., J. M. Peiro and N. Tordera (2002). 'An examination of the antecedents and moderator influences of climate strength', *Journal of Applied Psychology,* **87**, pp. 465-473.

Gouldner, A. W. (1957). 'Cosmopolitans and Locals: Toward an analysis of latent social roles I', *Administrative Science Quarterly,* **2**, pp. 281-306.

Guthrie, J. P. (2001). 'High-involvement work practices, turnover, and productivity: Evidence from New Zealand', *Academy of Management Journal,* **44**, pp. 180-190.

Hambrick, D. C. (1995). 'Fragmentation and the other problems CEO's have with their top management teams', *California Management Review,* **37**, pp. 110-127.

Hambrick, D. C. (1998). 'Corporate coherence and the top management team'. In: D. C. Hambrick, D. A. Nadler and M. L. Tushman (eds.), *Navigating change: How CEO's, top teams, and boards steer transformation.* pp. 123-140. Boston: Harvard Business School Press.

Harrison, J. R. and G. R. Carroll (1991). 'Keeping the faith: A model of cultural transmission in formal organizations', *Administrative Science Quarterly,* **36**, pp. 552-582.

Harrison, J. R. and G. R. Carroll (2006). *Culture and Demography in Organizations,* Princeton University Press, Princeton N. J.

Hox, J. (2002). *Multilevel analysis; Techniques and applications,* Lawrence Erlbaum, London.

Huselid, M. A. (1995). 'The impact of human resource management practices on turnover, productivity and corporate financial performance', *Academy of Management Journal,* **38**, pp. 635-672.

James, L. R., R. G. Demaree and G. Wolf (1984). 'Estimating within-group interrater reliability with and without response bias', *Journal of Applied Psychology,* **69**, pp. 85-98.

Joireman, J. A., P. A. M. van Lange, D. M. Kuhlman, M. van Vugt and G. P. Shelley (1997). 'An interdependence analysis of commuting decisions', *European Journal of Social Psychology,* **27**, pp. 441-463.

Koene, B. A., C. Boone and J. L. Soeters (1997). 'Organizational factors influencing homogeneity and heterogeneity of organizational cultures'. In: S. A. Sackman (ed.) *Cultural complexity in organizations; Inherent contrasts and contradictions.* pp. 273-293. Thousand Oaks: Sage Publications.

Kramer, R. M. and M. B. Brewer (1984). 'Effects of group identity on resource use in a simulated commons dilemma', *Journal of Personality and Social Psychology,* **46**, pp. 1044-1057.

Kuhlman, D. M., C. R. Camac and D. A. Cunha (1986). 'Individual differences in social orientation'. In: H. Wilke, D. Messick and C. Rutte (eds.), *Experimental Social Dilemmas.* pp. 151-176. New York: Verlag Peter Lang.

Kuhlman, D. M. and A. F. J. Marshello (1975). 'Individual differences in game motivation as moderators of preprogrammed strategy effects in Prisoners Dilemma', *Journal of Personality and Social Psychology,* **32**, pp. 922-931.

Lewis, L. S. (1967). 'On prestige and loyalty of university faculty', *Administrative Science Quarterly,* **2**, pp. 629-642.

Li, J. T. and D. C. Hambrick (2005). 'Factional groups: A new vantage on demographic faultlines, conflict, and disintegration in work teams', *Academy of Management Journal,* **48**, pp. 794-813.

Liang, K. Y. and S. L. Zeger (1986). 'Longitudinal data analysis using generalized linear models', *Biometrika,* **73**, pp. 13-22.

Lindell, M. K. and D. J. Whitney (2001). 'Accounting for common method variance in cross-sectional research designs', *Journal of Applied Psychology,* **86**, pp. 114-121.

Long, J. S. (1997). *Regression models for categorical and limited dependent variables,* Sage Publications, Thousand Oaks.

May, T. Y. M., M. Korczynski and S. J. Frenkel (2002). 'Organizational and occupational commitment: Knowledge workers in large corporations', *Journal of Management Studies,* **39**, pp. 775-801.

McCain, B. E., C. A. O'Reilly and J. Pfeffer (1983). 'The effects of departmental demography on turnover: The case of a university', *Academy of Management Journal,* **26**, pp. 626-641.

Meyer, J. P., D. J. Stanley, L. Herscovitch and L. Topolnytsky (2002). 'Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences', *Journal of Vocational Behavior,* **61**, pp. 20-52.

Nelder, J. A. and R. W. M. Wedderburn (1972). 'Generalized Linear Models', *Journal of the Royal Statistical Society,* **135**, pp. 370-384.

O'Reilly, C. A., J. Chatman and D. F. Caldwell (1991). 'People and organizational culture: A profile comparison approach to assessing person-organization fit', *Academy of Management Journal,* **34**, pp. 487-516.

Pfeffer, J. (1983). 'Organizational demography', *Research in Organizational Behavior,* **5**, pp. 299-357.

Podsakoff, P. M., S. B. MacKenzie, J. Y. Lee and N. P. Podsakoff (2003). 'Common method biases in behavioral research: A critical review of the literature and recommended remedies', *Journal of Applied Psychology,* **88**, pp. 879-903.

Schneider, B. (1987). 'The people make the place', *Personnel Psychology,* **40**, pp. 437-453.

Schneider, B., A. N. Salvaggio and M. Subirats (2002). 'Climate strength: A new direction for climate research', *Journal of Applied Psychology,* **87**, pp. 220-229.

Sheridan, J. E. (1992). 'Organizational culture and employee retention', *Academy of Management Journal,* **35**, pp. 1036-1056.

Smeesters, D., L. Warlop, E. Van Avermaet, O. Corneille and V. Yzerbyt (2003). 'Do not prime hawks with doves: The interplay of construct activation and consistency of social value orientation on cooperative behavior', *Journal of Personality and Social Psychology,* **84**, pp. 972-987.

Sørensen, J. B. (2002). 'The strength of corporate culture and the reliability of firm performance', *Administrative Science Quarterly,* **47**, pp. 70-91.

Spector, P. E. (2006). 'Method variance in organizational research: Truth or urban legend?' *Organizational Research Methods,* **9**, pp. 221-232.

Steers, R. M. (1977). 'Antecedents and outcomes of organizational commitment', *Administrative Science Quarterly,* **22**, pp. 46-56.

Stouten, J., D. De Cremer and E. van Dijk (2005). 'All is well that ends well, at least for proselfs: Emotional reactions to equality violation as a function of social value orientation', *European Journal of Social Psychology,* **35**, pp. 767-783.

van Lange, P. A. M. (2000). 'Beyond self-interest: A set of propositions relevant to interpersonal orientations'. In: W. Stroebe and M. Hewstone (eds.), *European Review of Social Psychology.* pp. 297-331. New York: Wiley.

van Lange, P. A. M., W. Otten, E. M. N. de Bruin and J. A. Joireman (1997). 'Development of prosocial, individualistic, and competitive orientations: Theory and preliminary evidence', *Journal of Personality and Social Psychology,* **73**, pp. 733-746.

Williams, K. Y. and C. A. O'Reilly (1998). 'Demography and diversity in organizations: A review of 40 years of research', *Research in Organizational Behavior,* **20**, pp. 77-140.

Zorn, C. J. W. (2001). 'Generalized estimating equation models for correlated data: A review with applications', *American Journal of Political Science,* **45**, pp. 470-490.

TABLE 1. Descriptives

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Commitment	3.22	.86	1																	
2. Turnover intention	1.99	1.10	-.32*	1																
3. Gender	.45	.50	-.10	.04	1															
4. Kids dummy	.39	.49	.17*	.10	-.17*	1														
5. Tenure	9.91	10.15	.03	-.14*	-.34*	.22*	1													
6. Appointment	.35	.48	.15*	-.12	-.37*	.39*	.65*	1												
7. Fte	90.72	26.0	-.01	-.04	.01	-.21*	-.02	-.02	1											
8. Research dummy	.61	.49	-.13	.04	.11	-.26*	-.29*	-.31*	.15*	1										
9. Combined dummy	.08	.27	-.03	.02	-.04	.07	.04	.13	-.10	-.37*	1									
10. Merger dummy	.13	.34	-.01	.11	.16*	.03	-.05	-.08	.14*	-.18*	.08	1								
11. Department size	82.36	60.47	-.18*	.04	-.01	-.16*	.03	-.001	.19*	.28*	-.09	-.36*	1							
12. Professional climate	3.55	.28	.20*	-.06	.01	.06	-.02	.11	-.19*	-.03	-.02	-.31*	-.04	1						
13. Cooperative climate	2.91	.34	.19*	-.07	.04	.13	-.01	.05	-.23*	-.02	-.04	-.11	-.15*	.63*	1					
14. Climate strength Rwg	.74	.12	.15*	-.09	.01	.03	-.13*	-.01	-.02	.09	.10	.20*	-.08	.12	.25*	1				
15. # proself choices	6.61	3.47	.02	-.03	-.07	.17*	.15*	.07	.04	-.07	-.02	.01	-.04	-.03	-.03	-.05	1			
16. Coop clim * Rwg	.74	.12	.21*	-.09	.03	.10	-.09	.01	-.14*	.06	.04	.10	-.14*	.41*	.72*	.84*	-.04	1		
17. Coop clim * pros	19.20	10.41	.06	-.03	-.06	.20*	.14*	.09	-.02	-.06	-.04	-.02	-.07	.12	.21*	.01	.97*	.13*	1	
18. Rwg * pros	4.87	2.70	.07	-.06	-.05	.17*	.10	.06	.02	-.03	.01	.06	-.05	.02	.06	.25*	.94*	.22*	.93*	1

TABLE 2. Results of GEE models of the effects of work group climate on affective commitment

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
Gender	-.08	-.11	-.10	-.11	-.09	-.09	-.11	-.11	-.09	-.09	-.09
	(.13)	(.13)	(.13)	(.13)	(.13)	(.13)	(.13)	(.13)	(.13)	(.13)	(.13)
Kids dummy	.17	.18	.15	.16	.15	.15	.17	.17	.16	.16	.17
	(.16)	(.15)	(.15)	(.15)	(.15)	(.15)	(.15)	(.15)	(.15)	(.15)	(.15)
Tenure	-.01~	-.01~	-.01~	-.01~	-.01	-.01	-.01~	-.01~	-.01	-.01	-.01~
	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
Appointment	.21*	.15~	.19*	.16~	.14	.15	.16~	.16~	.14	.14	.16~
	(.12)	(.12)	(.11)	(.12)	(.12)	(.12)	(.12)	(.12)	(.12)	(.12)	(.12)
Fte	.002	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003
	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)
Research dummy	-.16	-.14	-.17	-.16	-.20~	-.21~	-.16	-.15	-.20~	-.21~	-.22~
	(.14)	(.14)	(.14)	(.13)	(.13)	(.14)	(.13)	(.14)	(.13)	(.13)	(.14)
Combined dummy	-.26	-.22	-.23	-.21	-.28	-.28	-.22	-.26	-.28	-.29	-.36
	(.36)	(.36)	(.37)	(.36)	(.37)	(.37)	(.36)	(.36)	(.37)	(.36)	(.35)
Merger dummy	-.22~	-.10	-.18~	-.12	-.21~	-.22~	-.12	-.13	-.21~	-.22~	-.24*
	(.16)	(.17)	(.14)	(.15)	(.15)	(.16)	(.15)	(.15)	(.15)	(.15)	(.15)
Department size	-.003*	-.002**	-.002**	-.002**	-.002**	-.002**	-.002**	-.002**	-.002**	-.002**	-.002**
	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)
Professional climate		.49**		.28	.26	.27	.28	.27	.26	.25	.21
		(.20)		(.22)	(.21)	(.21)	(.22)	(.22)	(.21)	(.21)	(.23)
Cooperative climate			.41***	.28*	.19~	-.04	.27*	.80**	.19~	.19~	4.08*
			(.12)	(.14)	(.13)	(.57)	(.14)	(.33)	(.13)	(.13)	(2.27)
Climate strength $r_{WG(J)}$					.88**	.07			.88**	.34	12.79~
					(.30)	(1.94)			(.30)	(1.11)	(8.95)
Coop climate * $r_{WG(J)}$						.28					-4.29~
						(.64)					(3.05)
# prosocial choices							-.01	.21*	-.005	-.06	1.66*
							(.02)	(.11)	(.02)	(.11)	(.79)
Coop climate * # pros choices								-.07*			-.60*
								(.04)			(.27)
$r_{WG(J)}$ * # pros choices										.08	-1.81*
										(.15)	(1.07)
Coop climate * $r_{WG(J)}$ * # pros choices											.66*
											(.37)
Wald Chi^2	30.00***	57.77***	118.5***	107.4***	222.4***	249.5***	131.7***	116.6***	238.9***	261.5***	347.6***

N = 209, and # clusters (i.e., departments) = 29. Robust standard errors are reported between parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$, and ~ $p < .1$.

TABLE 3. Results of ordered logit models of the effects of work group climate on turnover intentions

	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19	Model 20	Model 21	Model 22
Gender	-.14	-.15	-.13	-.15	-.19	-.16	-.15	-.18	-.19	-.19	-.17
	(.29)	(.31)	(.29)	(.31)	(.30)	(.30)	(.31)	(.30)	(.31)	(.31)	(.31)
Kids dummy	.79**	.79**	.81**	.83**	.87**	.88**	.87**	.83**	.92**	.92**	.94**
	(.32)	(.32)	(.32)	(.33)	(.34)	(.35)	(.35)	(.34)	(.37)	(.37)	(.37)
Tenure	-.03*	-.03*	-.03**	-.03*	-.03**	-.04**	-.03*	-.03*	-.03*	-.03*	-.04*
	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.02)	(.01)	(.01)	(.02)
Appointment	-.49	-.49	-.47	-.52	-.52	-.38	-.54	-.58	-.54	-.54	-.47
	(.44)	(.43)	(.43)	(.45)	(.43)	(.43)	(.45)	(.45)	(.44)	(.45)	(.45)
Fte	-.01*	-.01*	-.01*	-.01*	-.01*	-.01*	-.01*	-.005*	-.01*	-.01*	-.004*
	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)
Research dummy	.18	.18	.20	.22	.37	.31	.22	.17	.37	.38	.33
	(.35)	(.36)	(.36)	(.37)	(.35)	(.34)	(.37)	(.38)	(.35)	(.35)	(.36)
Combined dummy	.33	.34	.31	.35	.59	.63	.33	.48	.57	.56	.81~
	(.51)	(.53)	(.52)	(.54)	(.56)	(.55)	(.53)	(.55)	(.56)	(.54)	(.51)
Merger dummy	.91*	.92*	.87*	.97*	1.26**	1.21*	.98*	1.04*	1.27**	1.30**	1.35**
	(.54)	(.57)	(.50)	(.55)	(.53)	(.54)	(.55)	(.51)	(.52)	(.53)	(.52)
Department size	.004**	.004**	.004*	.004**	.004**	.004**	.004**	.004**	.004**	.004**	.005**
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Professional climate		.03		.45	.56	.82	.46	.52	.58	.61	1.15*
		(.43)		(.57)	(.56)	(.64)	(.57)	(.55)	(.56)	(.57)	(.59)
Cooperative climate			-.31	-.53	-.32	-5.70*	-.55	-2.97**	-.34	-.32	-23.57**
			(.45)	(.57)	(.60)	(2.82)	(.58)	(1.21)	(.62)	(.64)	(9.50)
Climate strength $r_{WG(J)}$					-2.46*	-21.04*			-2.48*	-1.06	-74.86**
					(1.15)	(9.58)			(1.14)	(1.47)	(30.75)
Coop climate * $r_{WG(J)}$						6.39*					26.02**
						(3.13)					(11.11)
# prosocial choices							-.03	-.99**	-.03	.14	-6.73*
							(.05)	(.39)	(.05)	(.12)	(3.21)
Coop climate * # pros choices								.33**			2.45*
								(.14)			(1.16)
$r_{WG(J)}$ * # pros choices										-.23~	7.22*
										(.15)	(3.73)
Coop climate * $r_{WG(J)}$ * # pros choices											-2.66*
											(1.34)
Pseudo R^2	.037***	.037***	.038***	.039***	.047***	.054***	.04***	.05***	.049***	.050***	.079***

$N = 209$, and # clusters (i.e., departments) = 29. Robust standard errors are reported between parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$, and ~ $p < .1$.

FIGURE 1.

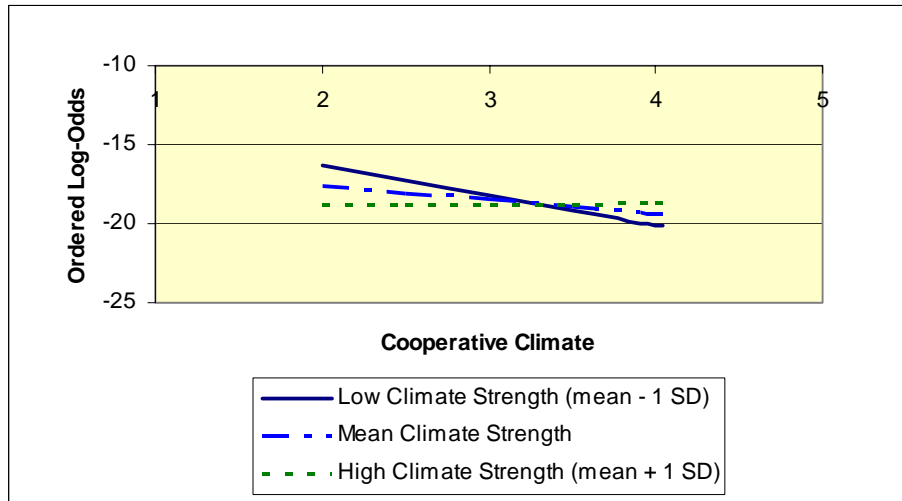**Interaction of cooperative climate and climate strength on turnover intention**

FIGURE 2.

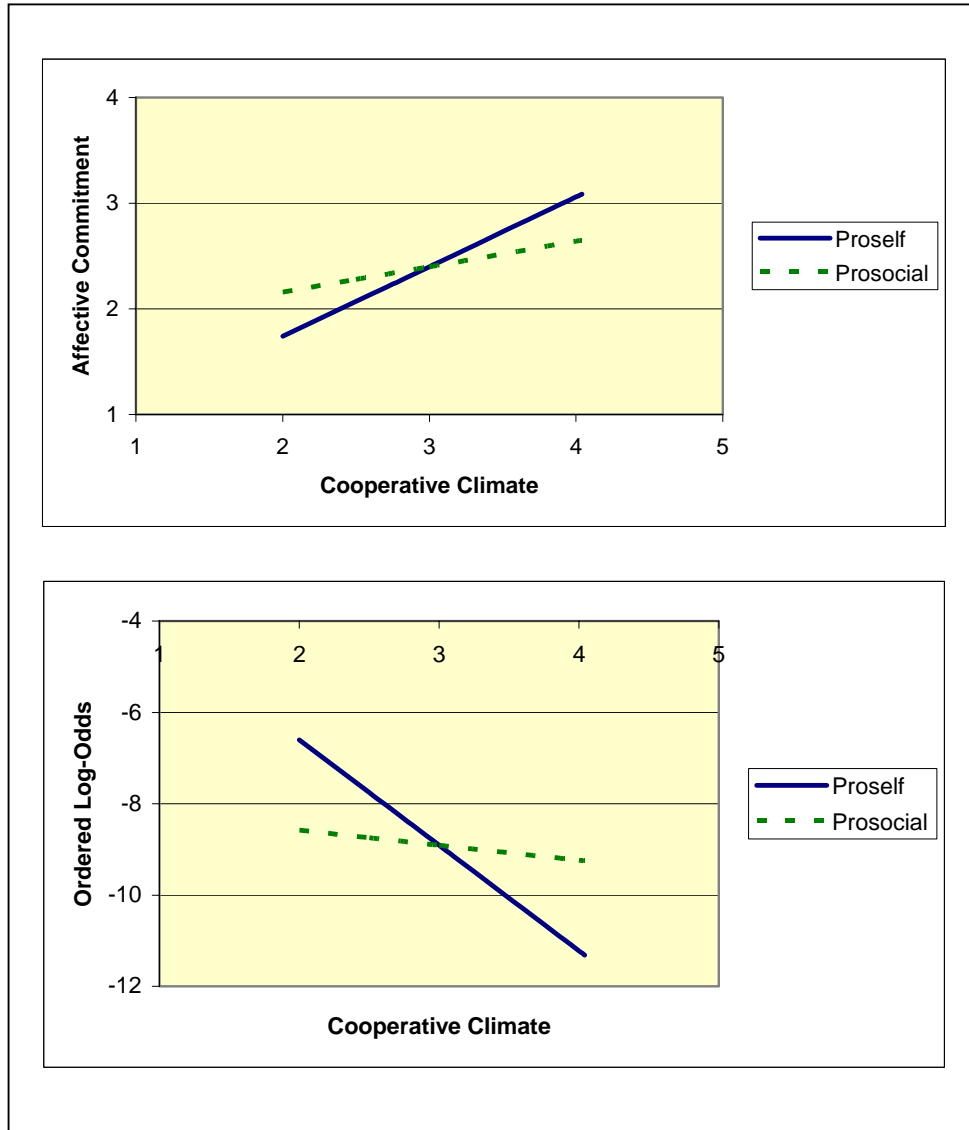**Interactions between cooperative climate and SVO on affective commitment (upper part) and turnover intention (lower part)**

FIGURE 3.

Interaction between cooperative climate, climate strength and SVO on affective

commitment and turnover intention