ORGANIZATIONAL IDENTIFICATION IN MERGED COMPANIES:

A COMPARISON OF A COLOMBIAN GOVERNMENTAL AND

A GERMAN MEDICAL INSTITUTION

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To my parents Quintina and Luis Alfonso:

Thanks both of you for your infinite love,

for so many years of efforts,

for your wise advice,

and for your valuable support.

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ZUSAMMENFASSUNG

Die stetig wachsende Zahl von Fusionen legt die Vermutung nahe, dass Zusammenschlüsse von Firmen und anderen Institutionen eine erfolgreiche Strategie sein müsse, allerdings verfehlen viele von ihnen ihr Ziel (Mottola, Gaertner, Bachman & Dovidio, 1997). Aufgrund dieser Erkenntnis haben Forscher ihre Suche nach Ursachen für den Misserfolg von Fusionen zunächst auf strategische, finanzielle und operationelle Gesichtspunkte gelenkt. Erst später wurden der Einfluss von Fusionen auf die Beschäftigten und die Fehler der Personalführung zu einem zentralen Untersuchungsobjekt. Studien haben gezeigt, dass Zusammenschlüsse Schwierigkeiten zwischen Gruppen von Beschäftigten der vormaligen Einheiten erzeugen können (Terry & O'Brian, 2001), dass sie Angestellte beeinflussen, die ihre psychische Zugehörigkeit zum Unternehmen verloren haben (Buono, Bowditch, & Lewis, 1985; Dutton, Dukerich, & Harquail, 1994; van Knippenberg & van Leeuwen, 2001), dass sie ernsthafte psychische Traumata und Stress zwischen Beschäftigten erzeugen können, welche sich in Einstellung, Verhalten, Gesundheit und Leistung widerspiegeln (Schweiger & Ivancevich, 1985). Verschiedene Studien (Terry & Callan, 1998; Terry, Carey & Callan, 2001; Terry & O'Brien, 2001; Van Dick, Wagner & Lemmer, 2004) haben den Einfluss von Fusionen auf Einstellungen und betriebliches Verhalten untersucht.

Wir glauben, dass die Fortführung vieler Unternehmen und das Wohlergehen von vielen ihrer Angestellten von dem Erfolg eines Fusionsprozesses, nachdem dieser erst einmal in Bewegung gesetzt wurde, abhängen kann. Wir hoffen, dazu beitragen zu können, Faktoren zu bestimmen, die diesem Ziel dienen, oder ihm im Wege stehen können. Solche mögen vielleicht Aktionären, Personalchefs und Beschäftigten nützlich sein. Die Anwendung unserer Ergebnisse, so hoffen wir, könnte vielleicht dazu beitragen, die Beschäftigungslosigkeit nicht

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weiter anwachsen zu lassen, welche in Kolumbien bereits zweistellig ist und einen der Ursachen darstellt für Armut und mittelbar für familiäre und extrafamiliäre Gewalt, für Kriminalität, Bürgerkrieg, Drogenhandel, und geringe Bildung, um nur einige zu nennen. In Deutschland, mit einer der höchsten Arbeitslosenrate in Europa, berührt die Arbeitslosigkeit ebenfalls die Stabilität des Landes und das Wohlergehen der Bevölkerung.

Wir haben diese Studie durchgeführt, um weitergehende psychologische Gründe für den Misserfolg von Fusionsprozessen zu finden, um Gruppen zu identifizieren, die vielleicht stärker den Nachteilen von Zusammenschlüssen ausgeliefert sind, und um den Einfluss auf Identifikation, Einstellung und Verhalten in verschiedenen Zusammenhängen zu bestimmen und nicht zuletzt, weil aus psychologischen Gesichtspunkten nur wenige Veröffentlichungen und empirische Daten über Zusammenschlüsse in kollektivistischen Kulturen vorliegen.

In unserer Studie haben wir den Einfluss von externen Variablen auf Identifikation, Einstellungen und Verhalten in zwei verschiedenen Arten von verschmolzenen Organisationen untersucht. Die Stichproben setzten sich aus 207 Angestellten von kolumbianischen Regierungsorganisationen zusammen, in denen zum Zeitpunkt unserer Befragung der Zusammenschluss zwischen zwei ungleichen Partnern bereits stattgefunden hatte, und aus 319 Angestellten zweier Medizineinrichtungen in Deutschland, in denen die Fusion von zwei gleichen Partnern zum Zeitpunkt der Befragung noch im Gange war. Bezüglich ihrer kulturellen Dimensionen (Hofstede, 1980) sind diese beiden Länder ähnlich in einigen Aspekten, wie hoher Ungewissheit Vermeidung und Männlichkeit, und verschieden in anderen, wie Kollektivismus und Macht-Abstand, welche in der kolumbianischen Kultur höher sind. Die GLOBE Studie (*Global Leadership and Organizational Behavior Effectiveness study*) überprüft und verbessert die Eigenschaften dieser Dimensionen und addierten zusätzliche (House, Hanges, Javidan, Dorfman & Gupta, 2004). Die Ähnlichkeiten und die Unterschiede zwischen diesen Studien werden im dritten Kapitel dieses Dokumentes genau geschildert.

Die deutschen Daten wurden von Van Dick, Wagner und Lemmer (2004) gesammelt. Sie untersuchten u. a. die Variablen *pre- and post-merger identification*, *job satisfaction*, *organizational citizenship behavior* (OCB) und *turnover intentions*. Weil diese Variablen in unser heuristisches Modell und in unsere Hypothesen eingehen, werden sie hier erneut untersucht (zusammen mit weiteren Variablen, wie *career opportunities*, *work climate*, *fairness*, und *job motivation*).

Unsere Untersuchung stützt sich auf die "Social Identity Theory" und auf die "Self Categorization Theory", welche die theoretischen Grundlagen bereitstellen, um Aspekte betrieblicher Identifikation zu vertiefen, und welche uns zusätzlich erlauben, die Reaktion der Angestellten in Bezug auf betriebliche Ergebnisse zu verstehen und vorherzusagen. Einige der Variablen in dieser Untersuchung wurden aufgrund früherer auf diesen Theorien basierender Forschungen als relevant eingeschätzt.

Die Hypothesen und das heuristische Modell wurden für die erwähnten Stichproben getestet. Basierend auf Pearson-Korrelationen konnten wir unsere erste Hypothese bestätigen, nämlich dass im Zusammenhang einer Fusion die Variablen *career opportunities*, *pre-merger identification* (von Angestellten mit ihrer früheren Organisation), *work climate* und *fairness* (Antezedenten) positiv korreliert sind mit *post-merger identification* (mit der neuen Organisation). Ähnlich ist *post-merger identification* positiv korreliert mit *job motivation* sowie mit *job satisfaction*. Ebenso korrelieren die beiden letzteren positiv mit *organizational citizenship behavior OCB*, aber negativ mit *turnover intentions* (Konsequenzen). Die Rolle von *post-merger identification*, *job motivation* und *job satisfaction* als Mediatoren für die Beziehung zwischen Antezedenten und Konsequenzen wird später in unserer dritten Hypothese untersucht werden.

Für unsere zweite Hypothese untersuchten wir, ob die Angestellten, die sich selber als Mitglieder der *high dominant group* einschätzen, glauben, dass die Organisation ihnen mehr an *career opportunities*, *fairness*, *work climate*, höhere *pre-* und *post-merger identification*,

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job motivation, *job satisfaction*, *organizational citizenship behavior*, und geringere *turnover intentions* bietet, als der *low dominant group*. Was die kolumbianische Stichprobe angeht, eine Fusion ungleicher Partner, so fanden wir signifikante Unterschiede zwischen *low/high dominance* (in *career opportunities*, *work climate*, *fairness*, *post-merger identification*, *job satisfaction*), und zwischen *low/high status* (in *career opportunities*, *fairness*, *post-merger identification*, *OCB*, und *turnover intentions*). In der Tat zeigten die *high dominant* und *high status* Gruppen hohe Werte in den meisten der untersuchten Variablen. Was die *turnover intentions* angeht, zeigten die *low dominant* und *low status* Gruppen stärkere Neigungen, ihre Arbeit aufzugeben, jedoch waren die Unterschiede nur zwischen den *low/high status* Gruppen signifikant. In der deutschen Stichprobe fanden wir bezüglich der Mehrheit der untersuchten Variablen (*career opportunities*, *work climate*, *fairness*, *post-merger identification*, *job motivation*, *job satisfaction*, *OCB*, und *turnover intentions*) keine signifikanten Unterschiede zwischen den *low/high dominant* Gruppen. Diese Resultate zeigen vielleicht, dass es sich de facto um einen Zusammenschluss zweier gleicher Partner handelte. Der einzige Fall, in dem wir einen signifikanten Unterschied zwischen *low/high dominance* fanden, betraf die Variable *pre-merger identification*, deren Wert in der *low dominant* Gruppe höher war. Die Tatsache, dass in diesem Falle der Zusammenschluss noch in Gange war, als die Befragung stattfand, könnte dieses Ergebnis erklären. Nach Van Leeuwen und van Knippenberg (2003) ist die *self-definition* bei Personen, die sich in einer Fusion befinden, bedroht. Diejenigen, die eine Diskontinuität zwischen der alten und der neuen Organisation empfinden, kommen meist aus der *low dominant* Gruppe (Van Knippenberg, van Knippenberg, Monden & de Lima, 2002). Diese Situation, in der die *low dominant* Gruppe eine stärkere *pre-merger identification* zeigte, wurde schon von Terry und Callan (1998) untersucht, die argumentierten, dass die *low status* Gruppe bestrebt schien, ihre *pre-merger identification* beizubehalten.

Für unsere dritte Hypothese testeten wir, ob *post-merger identification*, *job motivation* und *job satisfaction* den Effekt der Antezedenten (*career opportunities*, *pre-merger identification*, *work climate,* und *fairness*) auf die Konsequenzen (*OCB* und *turnover intentions*) vermitteln.

Zwei Strategien kamen zum Zug: zunächst führten wir eine multiple Regressionsanalyse nach den vier von Baron und Kenny (1986) vorgeschlagenen Schritten durch, danach eine Strukturgleichungsmodellierung SEM mit AMOS (Byrne, 2001).

In der kolumbianischen Stichprobe konnten wir eine partielle Mediation in der Mehrheit der abhängigen Variablen, die unser heuristisches Modell identifiziert hatte, nachweisen. Diese Analysen wurden sowohl mit als auch ohne Kontrolle für sozio-demographische Variablen durchgeführt. In den folgenden drei Fällen konnten wir keinen Mediationseffekt nachweisen: von *post-merger identification* auf die Beziehung zwischen *fairness* und *job motivation,* von *job motivation* auf die Beziehung zwischen *post-merger identification* und *turnover intentions* und von *job satisfaction* auf die Beziehung zwischen *post-merger identification* und *OCB*. Multiple Korrelationskoeffizienten, mit und ohne Kontrolle von soziodemographischen Variablen, halfen uns zu bestimmen, in welchem Ausmaß jede Gruppe von unabhängigen und Mediatorvariablen für die Varianz in den Kriterienvariablen *job motivation*, *job satisfaction*, *OCB,* und *turnover intention* verantwortlich war. Wir konnten beobachten, dass jede einzelne der Variablen *career opportunities, pre-merger identification, work climate*, und *fairness,* in Kombination mit *post-merger identification* für den größeren Anteil der erklärten Varianz in *job satisfaction* im Vergleich zu *job motivation* verantwortlich waren. Bezüglich *OCB* und *turnover intentions* war der Anteil der von den unabhängigen und Mediatorvariablen erklärten Varianz geringer.

Das heuristische Modell wurde auch mittels Strukturgleichungs-Modellierung SEM mit Hilfe von AMOS (Byrne, 2001) getestet. Nach Durchführung der Messungen und der strukturellen Analysen mit der kolumbianischen Stichprobe erhielten wir ein Modell, dessen Fit-Indizes sich innerhalb des annehmbaren Bereiches bewegten. In dem endgültigen Strukturmodell

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beobachteten wir, dass *post-merger identification* nur durch die Perzeption von *career opportunities* und *work climate* beeinflusst wurde; die stärksten individuellen Einflüsse von *pre-merger identification* und *fairness* auf *post-merger identification* wurden insignifikant, als wir sie mit Strukturgleichungen modellierten. Zusätzlich fanden wir signifikante Beeinflussungen von *post-merger identification* auf *job motivation* und auf *job satisfaction*. Schließlich wurde OCB signifikant von *job motivation* beeinflusst, wohingegen die Variable *turnover intentions* signifikant von *job satisfaction* und marginal von *job motivation* beeinflusst wurde.

Wir testeten die dritte Hypothese auch mit den deutschen Daten, wobei wir die gleiche Strategie wie in der kolumbianischen Studie verfolgten. Die Regressionsgleichungen für die Mediationstests zeigten in den meisten Fällen partielle Beeinflussungen an, welche der Sobel Test auch als signifikant deutete. Wir fanden nur zwei Ausnahmen: die erste betraf die Variable *post-merger identification* als Mediator für die Beziehung zwischen *career opportunities* und *job motivation*. Wir fanden, dass eine der Bedingungen für die Feststellung von Mediation nicht erfüllt war: der Einfluss von *career opportunities* auf *job motivation* betreffend war nicht signifikant. Die zweite Ausnahme bezog sich auf die Variable *job satisfaction* als Mediator für die Beziehung zwischen *post-merger identification* und *OCB*: Analysen ohne soziodemographische Daten und der Sobel Test zeigten eine partielle Mediation an, die marginal signifikant war. Allerdings wurde dieser Mediationseffekt signifikant, wenn soziodemographische Variablen kontrolliert wurden. Die Koeffizienten der multiplen Korrelation aller oben erwähnten Regressionsgleichungen zeigten, dass die Vorhersage der Kriterienvariablen *job satisfaction*, *job motivation*, *OCB* und *turnover intentions* aus den unabhängigen und Mediatorvariablen ähnlich war.

Was die Strukturgleichungsmodellierung angeht, so erhielten wir endgültige Mess- und strukturelle Modelle, die sich den deutschen Daten angemessen anpassten und deren Fit-Indizes sich im Akzeptanzbereich bewegten. Wir konnten zeigen, dass die Perzeption von

career opportunities, *pre-merger identification* und *fairness* die Variable *post-merger identification* beeinflussen, und diese ihrerseits *job motivation* und *job satisfaction*. Folglich spiegelt sich dieser Effekt wieder in *OCB* und in *turnover intentions*. Der stärkste individuelle Einfluss von *work climate* auf *post-merger identification* wurde non-signifikant, als die Einflüsse der ersteren Variablen auf *job motivation* und *job satisfaction* in unser Modell aufgenommen wurden.

In der vierten Hypothese erwarteten wir, dass die endgültigen Modelle auf verschiedene Untergruppen anwendbar seien. Nach einer Kreuzvalidierung anhand einer Multigruppenanalyse (Byrne, 2001) erhielten wir Mess- und strukturelle Modelle, die partiell *cross-invarant* waren, innerhalb *low/high dominance* und *low/high status* in der kolumbianischen Stichprobe und innerhalb *low/high dominance* in der deutschen Probe. Zusätzlich deuteten die meisten Fit-Indizes auf eine Angemessenheit dieser Modelle in Bezug auf die Daten. Insgesamt zeigten wir, dass die endgültigen Modelle innerhalb der festgelegten Untergruppen verallgemeinerbar sind.

In unserer letzten Hypothese erwarteten wir, dass unser heuristisches Modell quer über die Gruppen, die die beiden Kulturen repräsentieren, anwendbar sein sollte. Die Resultate, die wir bei der Untersuchung der vier Hypothesen in den beiden Stichproben erhalten hatten, zeigten uns an, dass einerseits die untersuchten Variablen miteinander in Beziehung standen, wobei in der Mehrheit der Fälle der Einfluss der Antezedenten (*career opportunities, pre-merger identification, work climate* und, *fairness*) auf die Sukzedenten (*OCB* und *turnover intentions*) sich Mediatoren (*post-merger identification, job motivation* und *job satisfaction*) bediente. Außerdem passt das gleiche heuristische Modell auf die kolumbianischen und auf die deutschen Daten, und das Modell kann in verschiedenen Untergruppen reproduziert werden. Andererseits gibt es Unterschiede zwischen den kolumbianischen und den deutschen Stichproben, was den Einfluss von *dominance* und/oder *status* auf die untersuchten Variablen angeht. Diese Unterschiede haben vielleicht zunächst mit dem Typ der Fusion zu tun, also ob

es sich um gleiche oder ungleiche Partner handelt, und zweitens mit der Zeitspanne innerhalb des Fusionsprozesses, in der die Fragebögen angewendet wurden. Diese Ähnlichkeiten und die erklärten Unterschiede zwischen den kolumbianischen und den deutschen Untersuchungen, die von den Umständen der Fusion herrührten, gestatteten uns, unsere fünfte Hypothese anzunehmen. Obwohl wir herausgefunden haben, dass das Modell in beiden Gruppen, in Kolumbien und in Deutschland, angewendet werden kann, sehen wir dies nicht als inter-kulturelle Forschung an, da wir nur zwei Fallstudien untersucht haben.

ABSTRACT

The ever increasing number of mergers appears to indicate that fusion of companies or other institutions is a successful strategy; however, many of them do not achieve their goals (Mottola, Gaertner, Bachman & Dovidio, 1997). Realizing this, researchers focused their investigation for reasons of failures on strategic, financial and operational issues. Only later, the effects of mergers on employees and the mistakes in personnel management became major issues of concern. Studies have revealed that mergers may create difficulties between groups of employees from both pre-merger entities (Terry & O'Brien, 2001), that they may impact employees who lost psychological attachment to the organization (Buono, Bowditch, & Lewis, 1985; Dutton, Dukerich, & Harquail, 1994; van Knippenberg & van Leeuwen, 2001), that they may create severe psychological trauma and stress between employees which are reflected in attitudes, behavior, health, and performance (Schweiger & Ivancevich, 1985). Several studies (Terry & Callan, 1998; Terry, Carey & Callan, 2001; Terry & O'Brien, 2001; Van Dick, Wagner & Lemmer, 2004) have examined the impact of mergers on attitudes and organizational behaviors.

We believe that the continuation of many companies and the well being of many of their employees may depend on the success of a merger process, once it has been set in motion. We hope to help determining factors that can either contribute to or stand in the way of achieving this goal. They may, possibly, be useful for shareholders, human resources managers, and employees. Application of our results, we hope, might help to cease the increasing unemployment rate which in Colombia is double-digit, and one of the causes of poverty which in turn has caused intra- and extra-family violence, delinquency, civil war, drug traffic, poor education, to name a few. In Germany, having one of the highest unemployment rates in

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Europe, joblessness also negatively affects the country's stability and its population's well-being.

We performed this study in order to detect further psychological reasons for failures in merger processes, to identify the groups that may be more vulnerable to the merger, and to examine the impact of a merger on identification, attitudes and behaviors in different contexts; further, there is little research, literature and empirical evidence concerning merger processes from the psychological point of view in collectivistic cultures.

In our study, we analyzed the influence of external variables on identification, attitudes and behaviors in two different types of merged institutions. The samples consisted of 207 employees of a Colombian governmental organization where the merger among two unequal partners had already taken place by the time we applied our questionnaire, and of 319 employees of two German medical institutions where the merger among two equal partners was still in process when the questionnaires were applied. These countries are, in terms of cultural dimensions (Hofstede, 1980), similar in some respects, such as high uncertainty avoidance and masculinity, but different in others, such as collectivism and power distance which are higher in the Colombian culture. The GLOBE study (Global Leadership and Organizational Behavior Effectiveness study) examined and improved the features of these dimensions and added new ones (House, Hanges, Javidan, Dorfman & Gupta, 2004). The similarities and differences among these studies will be detailed in the third chapter of this document.

The German data was collected by Van Dick, Wagner and Lemmer (2004). They examined variables such as *pre- and post-merger identification*, *job satisfaction*, *organizational citizenship behavior* (*OCB*), and *turnover intentions*. Since these variables are part of our heuristic model and of our hypotheses, we reexamine them (together with further variables such as *career opportunities*, *work climate, fairness*, and *job motivation*). With the German data we were able to cross validate the results derived from the Colombian sample.

Our investigation is based on the Social Identity Theory and on the Self Categorization Theory which provide the theoretical base to deepen aspects related to organizational identification. Additionally, they permit us to understand and predict the employee's responses in regard of organizational outcomes. Some of the variables we studied in this research were chosen as relevant according to previous research that is based on these theories.

The hypotheses and the heuristic model were tested using the above mentioned samples. Based on Pearson correlations, we found that in the context of a merger, *career opportunities*, *pre-merger identification* (that employees had with their former organizations), *work climate*, and *fairness* (antecedents) are positively related with *post-merger identification* (with the new organization), thus establishing our first hypothesis. Similarly, *post-merger identification* is positively related with *job motivation* as well as with *job satisfaction*. Likewise, the latter two are positively related with *organizational citizenship behavior (OCB)*, but negatively related with *turnover intentions* (consequences). The role of *post-merger identification, job motivation* and *job satisfaction* as mediators for the relationship among antecedents and consequences will be examined later in our third hypothesis.

In our second hypothesis, we examined whether the employees who think of themselves as members of the *high dominant group*, perceive the organization as offering better *career opportunities*, *fairness*, *work climate*; likewise, they perceive higher *pre-* and *post-merger identification*, *job motivation*, *job satisfaction*, *organizational citizenship behavior*, and lower *turnover intentions* than the *low dominant group*. We tested our second hypothesis with comparison of means as well as with MANOVA and ANOVA. Regarding the Colombian sample (merger among unequal partners), we found significant differences among *low/high dominance* (in *career opportunities, work climate, fairness, post-merger identification,* and *job satisfaction*) and among *low/high status* (in *career opportunities, fairness, post-merger identification, OCB,* and *turnover intentions*). Indeed, the *high dominant and high status*

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groups displayed high scores in most of the studied variables. Regarding *turnover intentions*, the *low dominant* and *low status* groups displayed higher tendencies to leave their jobs; however, differences were only significant among the *low/high status* groups. In the German sample, we did not find significant differences between *low/high dominant* groups concerning the majority of the studied variables (*career opportunities, work climate, fairness, post-merger identification, job motivation, job satisfaction, OCB*, and *turnover intentions*). These results may prove that this was effectively a merger among two equal partners. The only case in which we found a significant difference among *low/high dominance* was *pre-merger identification*, being higher in the *low dominant* group. The fact that the merger was still in process by the time the questionnaire was applied, might explain this result. According to Van Leeuwen and van Knippenberg (2003), the self-definition is threatened when people are in a merger situation. Those who perceive a discontinuity between the old and the new organization are mostly those from the low dominant group (Van Knippenberg, van Knippenberg, Monden & de Lima, 2002). This situation in which the low dominant group displayed higher pre-merger identification was already examined by Terry and Callan (1998) who argued that the low status group seems to be inclined to maintain their pre-merger identification.

For our third hypothesis, we tested whether *post-merger identification*, *job motivation* and *job satisfaction* mediate the effect of the antecedents (*career opportunities, pre-merger identification, work climate*, and *fairness*) on the consequences (*OCB* and *turnover intentions*). Two strategies were applied: initially, we performed multiple regression analyses following the four steps proposed by Baron and Kenny (1986), and then we carried out structural equation modeling SEM with AMOS (Byrne, 2001).

In the Colombian sample, we proved a partial mediation in the majority of sets of independent-mediator-dependent variables which are identified in our heuristic model; these analyses were performed with and without controlling for socio-demographic variables. We

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neither proved a mediation effect of *post-merger identification* on the relation between *fairness* and *job motivation*, nor of *job motivation* on the relation between *post-merger identification* and *turnover intentions*, nor of *job satisfaction* on the relation between *post-merger identification* and *OCB*. Multiple Correlation Coefficients, with and without controlling for socio-demographic variables, helped to determine to which extent each set of independent and mediator variables accounted for the amount of variance in the criterion variables of *job motivation*, *job satisfaction*, *OCB*, and *turnover intention*. We observed that each one of the variables *career opportunities*, *pre-merger identification*, *work climate* and *fairness*, together with *post-merger identification*, accounted for a higher amount of the explained variance in *job satisfaction* in comparison with *job motivation*. Regarding *OCB* and *turnover intentions*, the amount of explained variance derived from each set of independent and mediator variables was lower.

The heuristic model was also tested using structural equation modeling SEM with AMOS (Byrne, 2001). After performing measurement and structural analyses with the Colombian sample, we obtained a model whose fit indices were within the ranges of acceptance. In the final structural model, we observed that only the perception of *career opportunities* and of *work climate* influence *post-merger identification*; the main individual impacts of *pre-merger identification* and *fairness* on *post-merger identification* became non-significant when structural equation modeling was performed. Additionally, we found significant influences of *post-merger identification* on *job motivation* and on *job satisfaction*. Finally, *OCB* was significantly influenced by *job motivation*, whereas the variable *turnover intentions* was significantly influenced by *job satisfaction* and marginally by *job motivation*.

We tested the third hypothesis with the German data as well, following the same strategies as in the Colombian study. In most of the cases, regression equations to test for mediation indicated partial mediations which were also significant after using Sobel tests. Only two exceptions were found: the first referred to the variable *post-merger identification* as mediator

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for the relation between *career opportunities* and *job motivation*. We found that one of the conditions to establish mediation was not fulfilled: the impact of *career opportunities* on *job motivation* was not significant, so there is no mediation effect. The second exception referred to the variable *job satisfaction* as mediator for the relation between *post-merger identification* and *OCB*: analyses without socio-demographic variables and the Sobel test indicated a partial mediation that was marginally significant. However, this mediation effect became significant when controlling for socio-demographic variables. The multiple correlation coefficients (very similar with and without socio-demographic variables) of all the regression equations mentioned above showed that the prediction of the criterion variables *job satisfaction*, *job motivation*, *OCB* and *turnover intentions* from each set of independent and mediator variables was similar.

Regarding structural equation modeling, we obtained final measurement and structural models that fit the German data adequately, and whose fit indices are within the range of acceptance. We proved that the perception of *career opportunities*, *pre-merger identification,* and *fairness* affect *post-merger identification* which in turn impacts *job motivation* and *job satisfaction*. Consequently, this effect is reflected in *OCB* and *turnover intentions*. The main individual impact of *work climate* on *post-merger identification* became non-significant when the influence of work climate on *job motivation* and on *job satisfaction* were included in the model.

In the fourth hypothesis, we expected that the final models were able to be applied across different sub-groups. After performing cross-validation with multi-group analyses (Byrne, 2001), we obtained measurement and structural models that were partially cross-invariant among *low/high dominance* and *low/high status* in the Colombian sample, and among *low/high dominance* in the German sample. In addition, most of the fit indices pointed toward an adequacy of these models in regard to the data. In summary, we proved that the final models are generalizable among the established sub-groups.

In our last hypothesis, we expected that our heuristic model should be valid across the groups representing the two cultures. The results, when testing our four hypotheses in these two samples, indicated on the one hand that the studied variables are interrelated. In the majority of the cases, the influence of the antecedents (*career opportunities, pre-merger identification, work climate, and fairness*) on the consequences (*OCB* and *turnover intentions*) was established by mediators (*post-merger identification, job motivation,* and *job satisfaction*). In addition, the same heuristic model fits the Colombian and the German data, and it can be reproduced among different sub-groups. On the other hand, there are differences between the Colombian and the German samples regarding the influence of *dominance* and/or *status* on the studied variables. These differences might be related, first, with the type of merger, whether among unequal or equal partners, and second with the period of time (of the merger process), in which the questionnaires were applied. These similarities and the explained differences (derived from the circumstances of the merger) among the Colombian and the German studies allowed us to accept our fifth hypothesis. Although we found that the model can be applied to these two groups, Colombia and Germany, we do not claim this to be a cross-cultural research, as we have only performed two case studies.

1 INTRODUCTION

1.1 Introducing the Problem

There may be many reasons behind a decision to pursue a merger or an acquisition. The best known are cost reduction, expansion in the global markets, tax benefits, financial difficulties, etc. In addition, Cartwright and Cooper (1993) point out that achieving synergy effects is one of the motives to pursue merger and acquisitions. Mergers always call the public's attention, since they hit the news in written and spoken media. It becomes a public issue who bought whom, how much the transaction costs, how long the negotiations took, who were the Chief Executive officers (CEOs) in charge of the (perhaps multi-million-dollar) transaction and what the future name of the company will be, etc. Based on the publicized information, one suspects that there are many subjects that were not touched in the negotiations, just because they are considered unimportant or because one prefers not to speak about "delicate" issues. One of them relates to the work force. Although there may be hundreds or thousands of people who are in the middle of these commercial and corporative transactions and decisions, little is asked and publicized about the corporative plans towards the personnel. The large number of mergers suggests that this is a successful procedure, but in reality, over 65% of mergers do not achieve their expected goals (Mottola, Gaertner, Bachman & Dovidio, 1997). In addition, Cartwright and Cooper (1993, p. 57) mention that "only half of all mergers and acquisitions meet initial financial expectations".

Although the "merger boom" may indicate that a merger is always a beneficial strategy, it is a fact that due to many reasons not all merger processes are successful. In order to find answers to these failures, which may put into danger the goals of mergers, researchers

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first focused on strategic, financial and operational issues, but in the end, experts suggest that there are also issues concerning the employees that should be analyzed. Indeed, any merger heavily impacts the employees of the involved companies. Thus, many of the causes for the failure of mergers are attributed to mistakes in personnel management.

Therefore, many questions need to be answered and efforts should be made to "take along" the personnel in the course of the merger. Questions such as "Should these efforts be focused on all of the personnel or only on vulnerable groups?" or "Which groups are more susceptible to negative effects of the merger?" should be answered. Normally, the human resources department should execute a program for the employees before, during and after the fusion took place. But if shareholders, employers and more specifically the CEOs of human resources are not aware of the psychological and social impact that a merger process has on the personnel, all their efforts and the expected results of the fusion may be in vain if their programs do not respond to the real necessities as perceived by the personnel. Only when the employers as well as the managers of human resources and their teams are aware of all relevant aspects, they will really be helping all parties involved in the merger, making the transition less dramatic than it often turns out to be.

One of the better known relevant processes in a merger is the imposition of a new organizational identity. This can create difficulties between groups of employees from both pre-merger entities (Terry & O'Brien, 2001), put into danger the goals of a merger and seriously affect the well-being of the employees. Another well known consequence of a merger is a loss of psychological attachment to the organization (Buono, Bowditch, & Lewis, 1985; Dutton, Dukerich, & Harquail, 1994; van Knippenberg & van Leeuwen, 2001). Additionally, mergers and acquisitions have the potential to create severe psychological trauma and stress between employees and this is reflected in attitudes, behavior, health, and performance (Schweiger & Ivancevich, 1985). These consequences can become devastating to long-term organizational health. Several studies have demonstrated the impact such a fusion

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has on attitudes and behavior of the personnel (Terry & Callan, 1998; Terry, Carey & Callan, 2001; Terry & O'Brien, 2001; Van Dick, Wagner & Lemmer, 2004).

Most of the psychological studies on mergers have been done in industrialized countries, such as the USA, Germany, Great Britain, which have been classified by Hofstede (1980) as individualistic cultures. Most of these studies are cross-sectional. This may be attributed to the difficulties in carrying out longitudinal studies that include the measure of pre- and post-merger identification in a considerable time interval and to the difficulty of starting the studies in anticipation of the merger.

Regarding collectivistic cultures (Hofstede, 1980), there is little research, literature and empirical investigation of merger processes from the psychological point of view, and more specifically, concerning the influence of a merger on the employees' identification with the organizations. Colombia is a developing country, which has been classified as collectivistic culture with high personal distance, high uncertainty avoidance, low individualism and high masculinity (Hofstede, 1980). Although, in the same study, Colombia was classified as a country with low development, nowadays, it shows more economical, social and academic advancement in comparison to all other Latin-American countries (World Bank, 2003).

There are many reasons, why there is not much information and research regarding mergers in developing countries. Firstly, there is a shortage of economic resources that these countries can use for research. Indeed, Latin American countries have very serious difficulties in academic aspects.

Secondly, there is only a low participation and investment of the enterprise sector in research and development. This is largely due to the lack of fiscal incentives, not to mention the lack of even a suitable financing, the lack of personnel for high quality investigation, and the lack of capacity of absorption in companies (Guasch, 2002).

Thirdly, many people cannot continue their professional career because they lack job opportunities and economic support, and finally, most companies are afraid of offering

information concerning their possible interest to merge, their merger plans, programs with the personnel, etc. just because of the fear that such information might put into risk their financial and trading plans or simply because the mentioned programs are not well received.

1.2 **Statement of Questions**

Many companies are not successful in achieving the results they had originally been expecting from the merger process. Usually, people think that this is due to the strong resistance to the merger, that employees are afraid of the unknown or that they simply do not want the changes involved in a restructuring. The available studies explain some of the factors that can help or stand in the way of being successful with such an initiative.

We want to examine first, to which extent the people's perception of some characteristics of their original organization, such as career opportunities, work climate, fairness, as well as their pre-merger identification, affects their identification with the new merged organization, their attitudes and their behaviors. Secondly, organizational identification as a form of social identification plays an important role in the self-definition (Haslam, 2001) and impacts attitudes and behaviors (Tajfel & Turner, 1986). Therefore, we want to study the mediational effect of post-merger identification, job motivation and job satisfaction on the relationship between career opportunities, pre-merger identification, work climate and fairness, on the one hand, and organizational citizenship behavior, as well as turnover intentions, on the other hand. Furthermore, we will control the effects of some socio-demographic factors such as age, gender, and level of education. Thirdly, we will try to identify groups that could be more vulnerable to the consequences of a merger process. Finally, since most of these studies have been done in developed countries, which have been classified as individualistic cultures in the study of Hofstede (1980), it is necessary to perform similar analyses in other contexts, such as collectivistic cultures.

The present study aim to extend and replicate previous research on mergers but take into consideration two different contexts: Colombia and Germany. We will be able to examine whether a merger, organizational identification and some employee's attitudes, intentions, and behaviors are similar or different in the South–American and European cultures. Thereby we will be able to determine whether previous scientific findings referring to organizational identification and mergers are consistent and generalizable through cultural diversity. We expect that the study of a merger process in two different contexts may offer us a broad frame of reference to support our studies. In addition, organizational identification has been well studied in certain contexts, such as in academics, on the one hand; see for instance the research by Van Dick and Wagner (2002). On the other hand, government institutions are traditionally poorly accessible to outside investigations. In one of our studies we analyzed the impact of a merger on organizational identification, attitudes and behaviors of employees working within a governmental merged organization.

We expect to contribute to a better understanding and success of mergers, not only from the shareholders point of view, but also from the employee's side. We consider it necessary and valuable to pursue this subject, due to the fact that the continuation of the companies and the well being of many of their employees depend on the outcome of the merger process. If we can help in this, we may, perhaps, contribute to cease the increasing unemployment figures, which, in Latin America, and particularly in Colombia, have been double-digits during the last 10 years. The number of mergers and acquisitions in Colombia has been increasing in the last years. Between 1998 and 2003, 284 mergers were accomplished (Superintendence of Societies, 2003). The current president of the Republic of Colombia took the decision to restructure and merge more than 500 government entities in order to save jobs in the long run and to improve in some way the critical economical situation of the national budget.

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Germany, too, has been affected by the difficult economical situation of the companies operating in the country. The unemployment rate, currently at 10 % (Federal Statistic Office, 2005a), is minor compared to Latin America, but extremely high in the history of Germany. It is considered the greatest difficulty that the present government is facing.

We studied two mergers, the first one taking place among two governmental institutions in Colombia, and the second one between two medical institutions in Germany. In spite of the noticeable social, economic and cultural differences between both countries, the causes that motivate the industrialists, owners or governing bodies to merge companies seem to be very similar.

In the second chapter of this thesis, we will define change management. Since merger is a specific form of any change management process, we then concentrate on the definition, causes and consequences of a merger. After that, we will describe empirical evidence regarding this topic in both individualistic and collectivistic cultures. The third chapter includes a description of cultural characteristics of Colombia and Germany according to the Hofstede (1980) and the Global Leadership and Organizational Behavior Effectiveness study GLOBE (House, Hanges, Javidan, Dorfman & Gupta, 2004). Then, we briefly review relevant economical and social information regarding both countries, and finally raise some issues regarding the influence of globalization on these cultures. The fourth chapter provides the theoretical bases of this research, which refer to Social Identity Theory (SIT) and Self Categorization Theory (SCT). We will present the explanation of organizational identification from the SCT perspective and some empirical findings. Chapter five explains all variables included in these studies. We will present their definition together with empirical findings, especially those regarding the impact of organizational identification on some attitudes and organizational behaviors, which will be analyzed from the Social Identity viewpoint. Chapter six presents method and results of each study. In chapter seven, we will discuss the results and

we will present the main conclusions. The questionnaire used in the Colombian study is added in the appendix.

Hopefully, this study may be useful for those who are interested to deepen their understanding of the circumstances of merger processes in different contexts. Companies that are about to merge can learn about possible repercussions concerning their business and their employees in aspects like organizational citizenship behavior (OCB) and turnover intentions.

Employees can be benefit from a well-managed merger process. The reason is that the company can plan and develop a proper program based on the information regarding the factors that influence their employees in a positive or negative way. This will reduce the stress, resistance and feelings of hostility between the employees who perceive the situation as a threat.

2 CHANGE MANAGEMENT

2.1 Background

To achieve growth and profitability, companies are increasingly approaching new channels and markets, merging or acquiring new businesses, connecting with their customers in different ways and globalizing their activities. This usually results in new company structures and requires the management to change the internal organization, and the employees to change the way they work. This change is a very difficult and painful process which has to be planned, organized and developed in a well thought-out strategy which is called "change management".

The goal of change management is defined by some future state to be realized, by some current state to be left behind, and, in between, by some structured, organized process which helps getting from one to the other. Most of the time, people think that the failure of change management programs is due to the fact that that people are afraid of the unknown or simply don't see the need of change. In fact, there are many other causes behind their resistance - causes that might not be clear to the people who are conducting the process or to the companies that are sponsoring it.

2.2 Concept of change management

The term "change management" is used to designate a fundamental and radical reorientation in the way an organization operates. Senge (1995) used the notion of "profound change" to describe the organizational change which combines internal modifications in principles and values of people, their aspirations and behavior with external variations in processes, strategies, practices and systems.

Traditionally, the concept of "organizational change" is used to refer to changes that concern all sectors of an organization, not just local alterations. Organization-wide change may include a change in mission, restructuring operations, new technologies, mergers, major collaborations, new programs, such as "total quality management", etc.

Some assumptions of Self Categorization Theory such as "the functioning of the self-concept is situation-specific" and the different "cognitive representations of the self take the form of self-categorizations" (Turner, Hogg, Oakes, Reicher & Wetherell, 1987, p. 44) reflect the conception that identification with a group may change (Ellemers, 2003). Those people who are not satisfied with their current situation find the change as an opportunity, whereas those who are strongly identified with their organization find any change as a threat and therefore tend to show resistance towards it (Ellemers, 2003). Mergers and acquisitions are considered a part of these organizational change processes.

2.3 Mergers and Acquisitions

2.3.1 Background

Before a merger or an acquisition takes place, the involved parties usually agree to examine and describe the current state of the companies in all aspects such as legal, financial, etc., including also a description of all possible risks and implications of this procedure. After that, they normally produce a due diligence report (KP Tech, 2005). Sometimes the merger occurs in a pleasant atmosphere among all parties involved in this process, but in some other cases such as in a takeover, this process can occur in a hostile environment in which one company wants to acquire the other one by purchasing a controlling majority of shares or stocks.

In the year 2001, around 29.973 mergers and acquisitions (M&A) were worldwide announced, from which 22.603 were completed. In comparison to 2001, the following years

reflect a decrease in both the number of mergers and acquistions that were announced and those completed: 25.094 vs. 18.064 in 2002, 27.753 vs. 19.033 in 2003, and 30.426 vs. 20.722 in 2004. The year 2005 (32.568 vs. 22.503) showed again an increase (Thomson financial, 2005, 2006). In spite of the differences from one year to another, the number of mergers and acquisitions around the world is still a substantial figure which justifies a closer study of the involved processes. M&A has a long tradition in the United States. They have had the highest number of mergers per year, being in average around 7.300, more than in any other region of the world. They are followed by Western Europe with an average of 6.700 per year, Asia Pacific with 3.600, Japan with 1.300, Eastern Europe with 830, Central and South America with 490, Africa and the Middle East with 260, and the Caribbean with 50 (Thomson financial, 2005, 2006). The European commission and the United States have institutionalized mechanisms to analyze the impact of mergers in the global market and to disallow any merger that might lead to a monopoly.

2.3.2   Definition

The words *merger* and *acquisition* often refer to business and management procedures. The notion is commonly used, also in non-English speaking countries. As synonyms, people use *fusion*, *union*, *strategic alliance, joint venture* (Wirtz, 2003). M&A is sometimes seen as two processes, more often, however, as two parts of a single process. After a revision of several definitions of M&A, Hodges (1999) proposed the following: "the process of functional, organizational, and cultural transformation and combination undertaken in an effort to deepen or to extend the acquirer's capability base through the transfer or sharing of firm resources" (p. 50). Similarly, Wirtz, who examined some of the definitions of M&A by German authors, summarized them as follows: "Das M&A-Management umfasst den Prozess und das Ergebnis des strategisch motivierten Kaufs bzw. Zusammenschlusses von Unternehmen oder Unternehmensteilen und deren anschließender Integration oder

Weiterveräußerung. Damit verbunden ist eine Übertragung der Leitungs-, Kontroll- und Verfügungsbefugnisse" [The M&A management covers the process and the result of the strategically motivated purchase and/or union of enterprises or parts of thereof and their subsequent integration or sale. Connected with this process is a transmission of the powers of direction, control and disposition] (Wirtz, 2003, p. 12). By a merger, in this research, we understand the combination of two or more companies into a larger one, whereas an acquisition is a takeover of one company by another one.

M&A are considered business strategies through which organizations try to achieve their economical, financial, or marketing goals.

From a psychological standpoint, based on Social Identity Theory, a merger is a context in which one can study the social interaction between groups. Terry and O'Brien (2001) point out that companies want to achieve growth and diversity through mergers. Van Knippenberg, van Knippenberg, Monden and de Lima (2002) define a merger, based on Social Identity Theory, as a formal re-categorization of two social groups into one new group.

When two organizations merge or, as it is more common, one acquires the other, the post-merger entity embraces pre-merger intergroup relations between the merged "partners". These relations are often competitive and sometimes bitter and antagonistic. Indeed, negative responses and feelings toward the employees of the other organization may jeopardize the success of the merger. When a merger occurs, the pre-merger membership becomes salient. Normally, the merger combines two unequal entities causing an accentuation of the status differences (Terry & O'Brien, 2001).

Here, status refers to the position of groups based upon some evaluative dimensions and to a consequence of intergroup comparison (Tajfel & Turner, 1986). The positive social identity requires a favorable comparison made between the in-group and a relevant out-group. This inter-group comparison and desire to compete, causes in-group favoritism and inter-group discrimination, increasing the group members´ self-esteem (Brown, 2000). Employees

from the low status pre-merger organization experience the merger as more threatening than employees from the high status pre-merger entities. Therefore, the first group shows more negative responses to the merger process (Terry & O'Brien, 2001). Regarding the level of identification, Van Leeuwen & van Knippenberg (2003) argued that the merger is perceived as a threat to the distinctiveness and therefore to the self-definition, and this is one of the reasons why people may resist such changes.

2.3.3   Empirical findings in individualistic and collectivistic cultures

In cross-cultural research, the terms "individualism" and "collectivism" have sometimes been defined as uni-dimensional constructs such as in the case of Hofstede, who argues that individualism represents "societies in which the interest of the individual prevails over the interest of the group" (Hofstede, 1991, p 50), whereas collectivism represent those "societies in which the interest of the group prevails over the interest of the individual" (Hofstede, 1991, p. 50). In the same study, Colombia and Germany were classified as collectivistic and individualistic cultures, respectively. In other cross-cultural research, such as in the Global Leadership and Organizational Behavior Effectiveness study (GLOBE), collectivism was defined as a multidimensional construct. Furthermore, the researchers made a distinction between institutional and in-group collectivism. The first one is defined as "the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action" (House& Javidan, 2004, p. 12), whereas the second one refers to "the degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families" (House& Javidan, 2004, p. 12). In the GLOBE study, Colombia achieved a high score in in-group collectivism and a middle score in institutional collectivism, whereas Germany scored at a medium level in both dimensions.

From the bibliographic review, we found that most of the cross cultural researches have focused on clinical, personality, academic and social psychology areas. The studies

regarding organizational identification have been performed with groups that mostly represent (in the Hofstede studies, 1991) individualistic cultures (Mael & Ashforth, 1992; Wan-Huggins, Riordan & Griffeth, 1998; Van Knippenberg & van Schie, 2000; van Dick, 2001; Van Knippenberg & van Leeuwen, 2001; van Dick & Wagner, 2002; Van Knippenberg, van Knippenberg, Monden, & de Lima, 2002; Christ, van Dick, Wagner, & Stellmacher, 2003; van Dick, Wagner, Stellmacher, & Christ, 2004; Van Dick, Wagner, & Lemmer, 2004). Since the largest number of M&As have taken place in the United States and in Europe, this may explain why there is not so much research in this field regarding collectivistic cultures as represented, for instance, by Latin American countries.

The studies that have incorporated collectivistic cultures have focused on organizational commitment. Although the latter is not a central topic in our study, we will briefly touch upon it in order to aid understanding the similarities and differences among organizational identification and organizational commitment. These two terms are correlated but do represent different constructs (Riketta, 2005).

The structure of the organizational commitment questionnaire was examined in Japan (White, Parks, Gallagher, Tetrault & Wakabayashi, 1995), Belgium (Vandenberghe, 1996), and South Korea (Ko, Price & Mueller, 1997). Some other studies, such as the one by Lincoln and Kalleberg (1985), who compared American and Japanese workers regarding satisfaction and organizational commitment, have found that individual commitment was higher among Japanese workers. Noordin, Williams and Zimmer (2002) developed a comparative study among Malaysian and Australian managers and found that both groups differed in their levels of career resilience commitment and were not significantly different in career identity and career planning commitment. A more representative research in this field can be found in the work of Palich, Hom and Griffeth (1995), who analyzed the structure of organizational commitment and its relations with specified antecedents across 15 subsidiaries of a multi-national company. They did not find support for a moderation effect of cultural dimensions on

either measurements or structural models tested. Vandenberghe, Stinglhamber, Bentein and Delhaise (2001) analyzed commitment to different foci inside and outside the organization (European Commission), investigated the commitment feelings of employees of this entity and demonstrated that a proposed multiple commitment model was valid and reliable across cultures. Gautam, van Dick and Wagner (2001) examined the three dimensions of organizational commitment (OC) in Nepal and their relation to antecedents, correlates and its outcomes in this context. They concluded that OC shows "enough face validity but might have poor predictive validity in the Nepalese context" (Gautam et al., 2001, p. 20). Their findings were in agreement with previous research in this field - the few differences that arose were considered as culture dependent. Another subject of cross cultural research has been the turnover intention. Abrams, Ando and Hinkle (1998) found that turnover intentions of employees from Great Britain and Japan were related to organizational identification.

There is little research, literature or empirical evidence regarding the merger process from the psychological point of view in collectivistic cultures. Brannen and Salk (2000) analyzed the formation of negotiated culture in a context of a German-Japanese joint venture. They concluded that although both groups had individual and group differences, they were able to negotiate compromises and innovations. They note that national cultural attributes have a strong influence on organizational culture formation when the individuals have internalized the national culture norms. Baptiste (2002) examined the merger between two Caribbean banks in Trinidad and Tobago. The study was based on interviews and a study of all available documents. The merger was evaluated as a success, regarding financial performance, increase of productivity and quality of relation to the union during the merger process. The employee's satisfaction survey showed that 77 % of the employees were proud to say that they worked for the merged entity and 76 % liked their jobs. However, they were unsatisfied in some respects: the staff complained that the corporate-level management was insensitive to the employee's needs, they did not appreciate their efforts, and they were not

accessible to the general work force. Employees were also unsatisfied with training opportunities and rewards. Nevertheless, Baptiste (2002) notes, that these problems were managed adequately. In summary, he argued that the success of the merger could be credited to the period of time in which the merger took place, the democratic strategy adopted, and the creation of a new culture for the merged entity. Apfelthaler, Muller and Rehder (2002) analyzed the cultural components of four branches (from three different countries) which participated in a cross-border corporate merger of Daimler-Benz. The cultural assumptions of each one were different: Japan was classified as collectivistic, Germany as individualistic with elements of collectivism, and the United States in general as individualistic (Apfelthaler et al., 2002). The managers of the new organization expressed that diversity of cultures was an important factor and that they considered it a great advantage in a globalized environment. This merger reflected the new organization adopting the best of each culture to create a competitive advantage: "The German expert culture, the Japanese lean production culture and the American culture of pragmatism" (Apfelthaler et al). The merger was evaluated as a success, since they accomplished creating a new car model, representing a product of the best practices of the automotive production system of all three countries involved. In spite of the emphasis that the authors put on the importance of the diversity of cultures in achieving the productivity objectives, little was said about the influence of these aspects on the employees during the merger process.

3 CULTURAL CHARACTERISTICS

3.1 Classification of Colombia and Germany According to Cross-Cultural research

In order to study identification with an organization, it is not only necessary to study its causes and consequences, but also the context in which identification takes place. In this way it will be possible to determine whether those processes are particular and different from one culture to another, or if, on the contrary, they are universal. Thus, we consider it important to present some characteristics of the countries involved in this research. Initially, we will refer to the transcultural studies of Hofstede (1980, 1991) and of the GLOBE study (House et al., 2004). Later, we will display some socio-demographic, historic and economic information.

Culture is "the collective programming of the mind which distinguishes the members of one human group from another" (Hofstede, 1980, p. 25; 1991, p. 5). Culture is also defined as "shared motives, values, beliefs, identities, and interpretations or meanings of significant events that result from common experiences of members of collectives that are transmitted across generations" (House & Javidan, 2004).

Of the many cross cultural studies, we are going to mention two that have covered a large number of countries and from which one can obtain a good picture of relevant characteristics of German and Colombian culture.

In the cross cultural study by Hofstede (1980), employees from different countries, where the multinational organization IBM had branches, participated in this research. As a result, Hofstede (1980) classified fifty countries and three multi-country regions into cultural areas depending on five analyzed dimensions: power distance (small/large), uncertainty

avoidance (weak/strong), individualism versus collectivism, femininity versus masculinity, and long/short orientation.

In 1994 House and a world wide team of 160 researchers started a new cross-cultural research program called GLOBE (House et al., 2004). They studied the inter-relationship between societal culture, organizational culture and organizational leadership. Participants were about 17.000 middle managers from the banking, food processing and telecommunications industries in 62 societies. All these countries were clustered in several groups, with Colombia and Germany being grouped into the Latin America and the Germanic Europe clusters, respectively. The study covered nine dimensions: power distance, institutional collectivism, group-family collectivism, uncertainty avoidance, gender equality, assertiveness, orientation toward performance, orientation towards the future, and humane orientation (Ogliastri, 1998). In comparison to the Hofstede study, the GLOBE study differentiated two types of collectivism: institutional and in-group, and two types of dimensions regarding gender: gender equality and assertiveness in masculine values (House & Javidan, 2004).

We are going to briefly elaborate an image of the cultural characteristics of Colombia and Germany, which are based on the dimensions that are common in both the Hofstede (1980, 1991) and the GLOBE (House & Javidan, 2004) studies.

3.1.1 Power distance (PDI)

This term refers to the interpersonal relation across ranges, such as leader and subordinate, and more specifically, it reflects opinions regarding "how to handle the fact that people are unequal" (Hofstede, 1991, p. 24). The *country index value* is the score that each country obtained in each dimension. The range of power distance was from 11 to 94. Colombia scores slightly high in PDI (67) in comparison to the average (51) of all countries.

Contrary to that, some developed countries such as Germany (35) show low score in PDI (Hofstede, 1991).

The high score of Colombia in this dimension was also found in the GLOBE study (Ogliastri, 1998). In this regard, Colombia is characterized by a high elitism, reflected for example in the strong social and political division, as well as in the social inequality. Germany was classified as low in power distance in the Hofstede study (1980), while in the GLOBE study, it was categorized as medium-high in power distance (Szabo et al., 2002).

3.1.2 Uncertainty avoidance (UAI)

This dimension refers to the degree of tolerance regarding ambiguity and is defined as "the extent to which the members of a culture feel threatened by uncertain or unknown situations" (Hofstede, 1991, p. 113). It is explained through aspects like rule orientation and employment stability, because they are forms of avoiding uncertainty. The *country index values* range between 8 and 112. Colombia scores high in UAI (80) in comparison with the average (64). The UAI for Germany (65) is average. However, some other European countries revealed relatively high scores in this dimension, such as Belgium (94) and France (86).

The GLOBE study revealed a change regarding uncertainty avoidance in the Colombian population, being currently at medium level. In fact, Colombian people live in a difficult environment in which unexpected circumstances are becoming more and more frequent, showing that they are not successful in reducing the uncertainty (Ogliastri, 1998). Germany displays a high score in this dimension (Szabo et al., 2002); this was confirmed in Hofstede's study.

3.1.3 Individualism (IDV) – Collectivism

The terms individualism and collectivism, refer to the individual's relationship to the group, which in turn influence the relationship that people have with their environment and

their organizations. In individualistic societies people are inclined to primarily care about her/himself and her/his immediate family; in collectivistic societies on the contrary, people have strong bonds within in-groups, which are maintained through life.

Latin-American countries such as Colombia (13) score very low in IDV in comparison to the average (51). The less individualistic countries are also those less developed and vice versa. Individualistic orientation is related to the level of modernity and economic development of the country. Germany (67) scores above average (51) in IND but lower in comparison to the USA, Australia, and Great Britain (Hofstede, 1991).

In the GLOBE study (Ogliastri, 1998; Gelfand, Bhawuk, Nishii & Bechtold, 2004), Colombia scored at medium level in institutional collectivism, but higher in in-group collectivism, which reflects it being a group-oriented culture; indeed, Colombia is a society in which family values are foremost important. Szabo et al. (2002) found that Germany, as a part of the Germanic Europe cluster, scored at medium level, regarding institutional and in-group collectivism.

3.1.4   Masculinity (MA)-Femininity

This dimension refers to the influence of gender in culture, assuming that some cultures are femininity- or masculinity-oriented. These gender role differences are reflected in what is expected from each gender in the work place: men's roles, on the one hand, are associated with competitiveness, higher income, advancement and accomplishment, women's roles, on the other hand, are associated with good relationships, especially with superiors, cooperative behavior, and home being close to the workplace.

Colombia has a high score in MA (64) (masculinity) in comparison to the average (51), and is at the same level as some other Latin American countries. Some developed countries show high scores in MA as well, such as the USA (62) and Germany (66), in contrast to some other developed countries with a low MA score such as Portugal (31), France

(43), and Canada (52). In masculinity-oriented cultures, people show more interest in earnings, social recognition, career advancement and challenge. Men should dominate and behave assertively and woman should care. In countries with feminine orientation, people put greater value into the quality of life, men and women can carry out the same positions, and the difference in roles does not mean difference in power. Men need not be assertive and they can also take caring parts (Hofstede, 1980).

In the GLOBE study (Ogliastri, 1998), the gender dimension was explored as gender equality. In this regard, Colombia (Ogliastri, 1998) and Germany (Szabo et al., 2002) are at medium and at low level, respectively, meaning that women in both cultures live in an environment in which the inequality and discrimination still exist, in spite of all efforts to advance to a culture with gender equality. The companies and academic environments in both countries are rather progressive, offering better opportunities to women.

3.1.5 Long/short orientation

Orientation in life has a short term and a long term component. Some of the most relevant characteristics of short term orientation are: stability, saving one's face, valuing tradition, interchanging of greetings and favours among one another. Long-term orientation includes characteristics such as persistence, prosperity, and status relation. Countries such as China, Japan, Taiwan, and South Korea scored high in the long-term orientation (Hofstede, 1991). We will not expand this aspect, since this dimension reflects a comparison between Asian and western countries in general.

In summary, the characteristics of the Latin-American culture and more specifically of the Colombian are, according to Hofstede (1980, 1991): high personal distance, high uncertainty avoidance, low individualism and high masculinity. In the GLOBE study, performed two decades later (Ogliastri, 1998; House et al., 2004; Gelfand et al., 2004), a dimension such as high in-group collectivism shows a positive correlation with Hofstede's

dimension collectivism. Some other dimensions have changed, such as uncertainty avoidance (from high to medium) and tendency toward equality of genders (from low to medium). Additionally, new dimensions were identified: institutional collectivism, performance orientation, humane orientation, cultural assertiveness, all of which scoring at medium level (Gelfand et al., 2004), and future orientation, with a low score. People have shown a strong desire to evolve in all of these dimensions (Ogliastri, 1998). Although Colombia was classified in 1980 in the Hofstede-study as a country with low development, nowadays it is one of the Latin-American countries with more economical, social and academic advance in comparison to the rest of Latin-American countries (World Bank, 2003; Ogliastri, 1998).

The characteristics of countries such as Germany in the Hofstede study (1989) were lower personal distance, high uncertainty avoidance, high individualism and high masculinity. In the GLOBE study (Szabo et al., 2002; House et al., 2004), Germany is characterized by high scores in uncertainty avoidance, power distance, and assertiveness; mid-scores in in-group collectivism, institutional collectivism, performance orientation, future orientation, and low-scores in humane orientation and gender egalitarianism.

To sum up, the way people think, feel and act varies among cultures (Hofstede, 1991); however, there are some basic problems and structures that are common among them (Hofstede, 1991; House et al., 2004).

Cross-cultural research can be classified depending of the type of cross-cultural study that was performed. As mentioned in the previous section, it can be culturally dependent (Noordin et al., 2002) or culturally universal (Palich et al., 1995). Those studies based on general or specific aspects of the behavior are termed universal and specific, respectively (Berry, 1969; Szabo et al., 2002).

As a result of our research, we expect to explain whether the obtained results in one context may be transferable to another one, and how the differences among countries such as

Colombia and Germany may be reflected in processes and results of the organizational merger.

3.2 **Overview of Colombia**

We will briefly present some relevant information on Colombian geographic, historic, socio-demographic, and economic issues. This country is situated in the north-west of South America, bordering the Caribbean Sea, between Panama and Venezuela, and the North Pacific Ocean, between Ecuador and Panama. It's the only country in South America with coast-lines on both the Pacific, and the Atlantic, and it is the fourth largest country in South America (Albrecht, Altmann, Baratta, Baumann, Brander, Eschenhagen, et al., 2004).

Studies and excavations indicate that the first findings of culture are based on pots and copper works that date from 4000 and 5000 B.C. The good level of development of the former indigenous cultures between 1200 and 1510 A.C. (before the arrival of Spaniards) was reflected in characteristics such as: a clear hierarchy, efficient political and administrative structure, works of art, great cities, among others. For that reason they were catalogued like true civilizations. When the Spaniards came to the "New World" indigenous cultures such as Chibcha, Caribe and Arwac had already been living in the Colombian territory. The Chibchas were a well organized group, in whose lives women and religion exerted a strong influence. The Muiscas and Tayronas were part of the Chibcha culture. The Caribic culture lived on the Atlantic coast, and was characterized by their war spirit and inclination toward commerce. The Arwac culture was established in the western part of Colombia; their lives revolved around agriculture, fishing, and hunting (Presidencia de la República de Colombia, 2006). Although these cultures were the predominant, other indigenous cultures also contributed to Colombian history, such as the cultures of San Agustin, Tierradentro, Quimbayas, Zenúes, Calima, Nariño, Tumaco, and Huitotos.

Cultural characteristics

The territories that form the Republic of Colombia today were stepped on for the first time by the Spanish Diego de Enciso in 1510; it was only until 1528 that Rodrigo de Bastidas founded the city of Santa Marta, the first settlement on Colombian territory by the Spaniards, and today, one of the major cities. Due to its perfect location in a bay, it was also used as a port. This period, known in history books as "conquest", took place between 1492 and 1538. The second stage is known as the "colony" (1538-1717). With the European discovery of the Americas, the Spaniard kings took sovereignty in these newly discovered places. Therefore, they started a process of evangelization and imposition of new norms, traditions, culture, etc. This culminated in colonization and complete exploitation, as well as indoctrination by the catholic religion, slavery, abolition of indigenous traditions and restoration of the Spaniards. This process was also reflected in customs, food, clothes, etc. The relationship among Spaniards and indigenous people was organized by two laws: *el repartimiento y la encomienda*. The first one described the distribution of the indigenous people among the Spaniards with the purpose to exploit their labour; the second term describes a kind of mutual benefit in which the Spaniard had to care for the tribe, while the natives were working for him (Mayorga, 2002). During this time, the process known as "mestization" took place, describing the mixing of population, resulting from Spaniards having children with indigenous women; their children were called "mestizos". Spaniards combined their race also with blacks, giving rise to the "mulattos", and the indigenous also combined with blacks, giving rise "zambos" (Círculo de lectores, 1984).

From this violent process of conquest and colonization, the indigenous inherited among others the language (Spanish) and the religion (Catholicism). The indigenous population was exterminated, little by little, and replaced by the new colonizers. Not until 1810, Colombia obtained its independence and sovereignty. Currently, the population is composed of 42.3 million people from whom 70 % live in the urban area.

In the ethnic composition, 58 % are Mestizos, 20 % White, 14 % Mulattos, 4 % Black, 3 % mixed Black-Indian, 1% Indian (Albrecht et al., 2004). Regarding the natives (1%), they live in their own establishments, they have their own religions and beliefs and they speak their own dialects, from which Chibcha and Quechua are the best known. Since the independence period, Colombia has had several administrations: dictatorships, national coalitions (Frente Nacional), conservative and liberal governments. All these administrations have been marked by times of violence and times of calm. The Guerrilla, the drugs and the poverty are aspects that darken the present national panorama.

Poverty is one of the greatest problems of Colombia, a situation that triggers not only insecurity for citizens and visitors, but in addition elevates the numbers of criminality and domestic violence, among others. According to the World Bank (2003), the Colombian government must attack the causes of poverty that are basically produced by the "lack of income" and its consequences. In the short term, Colombia must work to obtain economic growth and to diminish the numbers of unemployment. In the long term, it is necessary to improve social services for the less fortunate groups. In summary, it is necessary to work on areas such as security, economic growth, employment, child care, education, urban infrastructure and health.

Colombia has serious problems regarding education, arising from the low educative level of the population and low levels of schooling, especially on the secondary levels (Ministry of National Education of Colombia, 2002). 20 % of the population has no schooling, 49 % have attended primary school, 21 % have a high school education, and only 10 % have achieved a professional school degree (Sánchez, 2002). The population of researchers is about 1 % and less than 1 % is currently working on their Master degree or on their PhD (Ocyt, 2004).

The negative image of Colombia abroad is another serious problem. Lightle (2005), the consultant in charge of the strategy to improve Colombia's image, argues that traffic of

drugs, civil war, and violence are some of the aspects that have affected its reputation, and he adds: "A lot of people recognize Colombia by her coffee ….., but the drug's image denies the good things that this country can have, because this is the one that predominates in the mind of the people" (Lightle, 2005). This internationally poor image of Colombia affects the country and their people negatively in economy, tourism and foreign investment (Proexport, 2005), resulting in the unfair treatment that, in many cases, its citizens are afflicted with (Lightle, 2005).

In order to improve its image, the government and the private sector initiated, in August of 2005, a campaign with economical goals, called "Marca Colombia" (Portafolio, 2005). An initial survey was to identify common points or characteristics of Colombians, and after interviewing Colombians and foreigners, they started a strategy entitled "Colombia is passion" (Colombia es pasion, 2005). The first phase, which has already started in August 2005, is directed toward Colombian citizens, asking all of them to "act in benefit of the country". The second phase will have an international aim, expecting to improve foreign investment, exports, and tourism, among others.

Mergers and acquisitions are parts of the necessary economic restructuring, and mistakes in personnel decisions will affect companies and its employees. In light of all the above mentioned problems, our study can only hope to make a small contribution regarding the economic progress and the well being of the employees involved.

For the companies, the impact of the restructuring is relevant on an economic level. Their objectives may or may be not obtained. Concerning the employees, its effects can be reflected in de-motivation, dissatisfaction, a high index of unemployment, and turnover, among others. All these factors put into risk family incomes, which are one of the great causes of the problems of Colombians: poverty, insecurity, violence, civil war, drug dealing, etc. (World Bank, 2003).

3.3 Overview of Germany

The geographic, historic, socio-demographic and economical information regarding Germany will be briefly presented, while mentioning some relevant events of German history as described in Müller (1994). Archaeologists and linguists point out that in the Bronze age (1000 BC- 500 BC) people from the North of Germany and from the South of Scandinavia seem to share common culture. Climate conditions, among others, might have provoked migration towards some other warmer areas. Common language, traditions, descent and beliefs might have influenced the group's formation (Müller, 1994). Three main groups were identified: West, East and Northern Germans. In the second century B.C., some German tribes migrated to Italy and to Spain and entered into conflict with the Roman Empire.

Until the 4th century, the Roman Empire dominated the German territory, before people from the east and other parts moved in and took over power in the different parts of the territory. Only in the 10th century began what historians call the German Empire. Until the nineteenth century, German kings aimed to have their power reassured and sought the blessing of the church authorities residing in Rome – thus, this period is referred to as the "Holy Roman Empire of the German Nation".

With the increasing focus of the church and the cleric on material and power interests, the prevalent catholic religion entered into a crisis with the opposition of Martin Luther, who in 1521 translated the bible into German and established the basis of Protestantism. This translation codified the various spoken dialects into a common written language, known as High German.

The German revolution in 1848 marked a new time for Germany. But the republican ideas were soon suppressed by the forces of restitution. The time was followed by the Bismarck era, characterized by an authoritarian state with rather modern social reforms, pension insurance, health insurance and mandatory schooling. The following Wilhelminian period led Germany into the First World War. It was followed by the Weimar Republic, which

reflected the German wish to create a democratic government. The parliament, due to its inherent instabilities, fell prey to another government era leading to the Second World War.

The postwar German democracy, partly imported by the victorious powers, the USA and Great Britain, tried to avoid in its constitution all problems perceived as weaknesses in the Weimar Republic. With the Marshall plan, the United States wanted to avert the communist influence, by delivering help to the European countries, offering them the possibility to activate industries, export, agriculture, and research, among others. The postwar era was characterized by a phenomenal economic growth, the so called "Wirtschaftswunder" (economic miracle).

In recent history, other facts are considered decisive for the history of Germany and its people, mainly the opening of the wall of Berlin in November of 1989, which gave rise to the reunification of Germany on the 3rd of October, 1990. Its official name remained Bundesrepublik Deutschland, its capital being Berlin. Actually, the new Germany, with 82 Million people (Federal Statistic Office, 2005b), is one of the most important countries in the European Union, one of the most advanced world wide, and the third richest country in the world. The most sensitive problems in Germany relate to immigration, social welfare, the pension system, but the unemployment is one of the most delicate issues. Indeed, there are more than 5 million jobless people (Federal Statistic Office, 2005b), one of the highest unemployment rate in the recent history of Germany.

3.4 **Globalization**

The increasing interest in cross-cultural studies has a close relationship to the current worldwide situation. McFarland, Senen, & Childress (1993) call the current century "the century of the world". Thus, it appears to be of relevance, whether the results obtained in a certain culture or group, may be generalized to others, or not. One refers to "cultural generalizability" when different cultures can be studied based on the same pattern. In contrast,

if gathered information can only be applied to a single or certain culture, one talks of knowledge that is "culturally specific" (House & Javidan, 2004).

Globalization "emerges as a structure when other possible forms of political economy no longer stand as a basis for possible alternatives for organizing the global political economy" (Germain, 2000, p. 60). It is also a notion that describes the current era, just as other historical periods were referred to by vivid terms such as "the Depression, the Cold War Era, the Space Age, and the Roaring 20's (Porter, 2005). However it does not mean that globalization has begun recently, it rather has its roots some decades ago. Weede (2004) argues that the globalization started in the nineteenth century with the internationalization of trade and foreign investment. Chanda (2002) goes further, pointing out that globalization has existed through the history of the humankind and argues that "over the course of human history, the desire for something better and greater has motivated people to move themselves, their goods, and their ideas around the world" (Chanda, 2002, p. 1). Globalization is normally associated with economics and politics. However, Chase-Dunn (1999) argues that there are about five dimensions of globalization: ecological, cultural, economic, and political, as well as communicative.

There are obvious benefits and risks of globalization and with it groups that are advocates and others that are opponents of this development. There are those who emphasize the numerous advantages, such as trade expansion, market integration, prosperity, peace, low war risk among democracies (Weede, 2004), and on the other hand those who accuse it of causing unemployment, job loss, income inequality, enrichment of big corporations along with poverty for the masses, damage in the global environment, and many more (Danaher, 2005). The controversial impact of globalization on the economy, environment, politics, etc., may not be easily resolved. Without taking side on these issues, we consider it important to examine to which extent specific scientific results obtained in one group with certain social, political and cultural characteristics, may be replicated and extended to a different cultural

group. "Our task - whether we are citizens, scholars or statesmen -, is to understand and

manage globalization, doing our best to encourage its favorable aspects, and keep its negative

consequences at bay" (Chanda, 2002, p. 1).

4 THEORETICAL BACKGROUND

Organizational characteristics of the former and/or merged organization, the intergroup relation of employees from different organizations and often of different cultures, the identification with the previous and current entity, as well as dominance and/or status position of each organization permit us to understand and predict the employees' responses with regard to organizational outcomes. Social Identity Theory (SIT) and self-categorization theory (SCT) provide the theoretical frame to deepen these aspects.

4.1 Social Identity Theory SIT

SIT is an explanatory framework developed by Tajfel and Turner in the 1970s to explain intergroup relations and discrimination (Haslam, 2001) "Social identity consists of those aspects of an individual's self-image that derive from the social categories to which he perceives himself as belonging to" (Tajfel & Turner, 1986, p. 16). It is also defined as "a theory of the relationship of the individual to the group" (Turner, et al., 1987).

4.1.1 Group formation

Previous authors, such as Festinger (1950), Lott and Lott (1965) and Cartwright (1968) explained group formation by interpersonal attraction, arguing that people were motivated to join a group in order to satisfy their necessities and goals. This would lead to social and psychological interdependence, attraction and cohesiveness, and all of those aspects were the base of a group. That is, the traditional theories argued that interpersonal needs and attraction were the motivational and affective motor of group formation (Worchel, Morales, Páez & Deschamps, 1998). This social cohesion model of group formation was rejected by those who

argued that interpersonal attraction is not necessary and sufficient for group formation (Hogg & Turner, 1985; Turner, et al., 1987).

Sherif (1966) and his team conducted some field experiments that support the intergroup conflict theory. In the first phase, juvenile participants developed a normal interpersonal friendship with other boys. Then, they were organized into two groups, each one with specific activities that required cooperative behavior from them. This situation led to strong intra-group cohesion. After that, both groups were put in a competition situation, characterized by rivalry and hostility, and other negative attitudes toward the out-group. In the final step, both groups were supposed to pursue superordinate goals. The result was cooperation and reduction of hostility between the groups. Based on these experimental studies, Sherif (1966) and his colleagues argued that realistic competition between groups is conducive to out-group differentiation and therefore intergroup conflict.

Different from the social cohesion model and the intergroup conflict theory, SIT points out that competition or a conflict of interest is not required for creating a group. Indeed, the authors of this theory defined group formation as a consequence of identification or self categorization (Hogg & Turner, 1985; Turner et al., 1987; Worchel et al., 1998); additionally, based on investigations regarding intergroup behavior, Tajfel and Turner (1986), the pioneers of Social Identity Theory (SIT) and Self Categorization Theory (SCT), explained the implications of group formation on group behavior (Turner et al., 1987). One of the implications of group formation on behaviors is that when people identify with a group, they compare their in-group with the out-group, display in-group favoritism and therefore discriminate the out-group. This affirmation was supported in the "minimal group studies", in which participants who were assigned randomly to a group within an anonymity atmosphere, no face-to-face contact, and according to established requirements, had to assign points to in-group or out-group members. The results demonstrated that the participants discriminated in favor of the in-group and showed positive attitudes towards the in-group members (Hogg &

Turner, 1985). It is important to point out that discrimination, as a case of social competition, is one way through which people can obtain a positive social identity (Turner et al., 1987). In summary, group formation leads to social cohesion and cooperation (Turner et al., 1987).

This new approximation of group behavior has permitted a wide and consistent explanation of the attitudes, processes and behaviors taking place in groups, such as organizations. SIT also explains intergroup relations (Haslam, 2001). According to SIT, a group is "a collection of individuals who perceive themselves to be members of the same social category" (Tajfel & Turner, 1979, p. 40). In other words, a collection of persons becomes a group if its members identify with the group and derive part of their social identity from that group membership. From the psychological point of view, a group is characterized as being significant for the individual, since it serves her/him not only as a reference point to compare with and to auto-evaluate her/himself at the same time, but also as an orientation from which a person acquires a model of rules and values that influence her/his values and behaviors (Turner et al., 1987).

4.1.2   Self concept

One of the main assumptions of Social Identity Theory is that "a social category …within which one falls, and to which one feels one belongs, provides a definition of who one is in terms of the defining characteristics of the category – a self-definition that is a part of the self-concept" (Hogg & Terry, 2001, p. 3). The social self is defined as that social part of the self-concept entitled as a social identity, which differs from the personal identity which represents the personal characteristics as a unique individual (Terry, 2003). Regarding social identity, two socio-cognitive processes should be mentioned: the first one refers to self-categorization, in which a person identifies and defines her/himself as a member of this category. When that process occurs, the differences within the group are minimized, whereas the differences between groups are maximized (Terry, 2003). The second process is called

self-enhancement. SIT argues that through group membership, people can achieve a positive self-esteem. Additionally, SIT assumes that "people are motivated to evaluate themselves positively and that in so far, as they define themselves in terms of some group membership, they will be motivated to evaluate that group positively" (Turner et al., 1987, p. 30); in order to maintain this positive sense of herself/himself and therewith a positive social identity, a person tends to evaluate her/his reference group as better than the comparison group (Haslam, 2001). Thus, the own group is perceived not only more different but also as better than the other one. This need for a positive social identity or self-esteem is also conducive to discrimination in favor of the in-group (Deschamps & Devos, 1998). It is also argued that in cases of dissatisfaction, people tend to leave the group, whether psychologically or in reality, in order to become part of some other group from where she/he can achieve a positive self-esteem (Turner et al., 1987).

4.2 Self Categorization Theory SCT

SIT was extended through the development of SCT, which focuses on the self and is seen as a process of perceiving the self as a member of one category, which can be interchangeable into another (Tajfel & Turner, 1986; Turner et al., 1987). SCT is "a set of related assumptions and hypotheses about the functioning of the social self-concept (the concept of self based on comparison with other people and relevant to social interaction)" (Turner et al., p. 42).

4.2.1 Personal and social identity

Identity can be located on a continuum from personal identity, which reflects more personal characteristics, to social identity, which, in turn, derives from membership in social groups (Brown, 2000; Haslam, 2001; Hogg & Terry, 2001). The psychological process deriving from a change in social identity is known as a depersonalization. "This refers to the

process of self-stereotyping through which the self comes to be perceived as categorically interchangeable with other in-group members" (Haslam, 2001, p. 44).

While personal identity elucidates the difference between *I* and *others*, social identity refers, on the one hand, to similarities between the members of one group, and, on the other hand, it implies a difference to people that do not belong to that group. Nevertheless, identity is both: individual, as centered in the person and her/his personal characteristics, and social, as a point of reference from which a person establishes her/his membership of a group (Deschamps & Devos, 1998). When a merger occurs, the distinctiveness as well as the sense of the self is threatened (van Leeuwen & van Knippenberg, 2003). Additionally, the salience of personal or social identity depends on the situational context in which a person is involved (Turner et al., 1987).

4.2.2   Self-categorization

In Self-Categorization Theory, the comparison and differentiation between the in-group and the out-group is widely explained as a categorization process, which offers a wide and solid explanation of group behavior. Whereas SIT focuses on intergroup behavior, discrimination (although there is not a conflict of interest), and the motivation to get a positive self-esteem, SCT is based on a cognitive explanation for groups formation (Turner et al., 1987). Indeed, SCT focuses "on the explanation not of a specific kind of group behavior but of how individuals are able to act as a group at all" (Turner et al., 1987, p. 42).

Some basic assumptions of self-categorization that are relevant in this study were formulated by Turner et al. (1987, p. 49): "The salience of self-categorization leads to the perceptual accentuation of intra-class similarities and inter-class differences between people". Categorization simultaneously emphasizes similarities and differences because a category implies on the one hand, that the shared characteristics between their elements are salient, but on the other hand establishes a difference from other categories which have some other shared

attributes (Turner et al., 1987; Deschamps & Devos, 1998). "Self-categorization at any level tends to form and become salient through comparison of stimuli defined as members of the next more inclusive self-category" (Turner et al., 1987, p. 46). In summary, the meta-contrast between, and within categories, influences the formation and the salience of a category (Haslam, 2001). Categorization and comparison coexist because self-categorization is based upon comparison between categories (Turner et al., 1987).

4.2.3   Organizational identification

Ashforth & Mael (1989) define organizational identification as a form of social identification, which is related to the cognitive connection between the individual and the organization. The differentiation of in-group and out-group or, in other words, the self-categorization, permits a cognitive organization of the social environment and also helps the individual to define him or herself in this environment. The perception of membership influences the self-concept (Ashforth & Mael, 1989). Normally, this psychological attachment occurs when members define themselves in relation to the organization's characteristics (Ashforth & Mael, 1989).

Organizational characteristics were studied among others by Dutton et al. (1994), who distinguished two types of organizational images: one that refers to the attributes that people perceive from their organization, and the other relating to the perception that people from outside have about the same organization. These two images affect the organizational identification, which in turn affects behaviors (Dutton et al., 1994). The attributes of the organization influence the level of organizational identification (Dutton et al., 1994; Wan-Huggins et al., 1998). Although organizational identification can affect the self-concept positively, sometimes the identification causes feelings of shame or embarrassment (Dutton et al., 1994). Some aspects that should be considered in the definition of organizational identification are: firstly, identification refers to beliefs; secondly to the social aspects of the

self-concept, thirdly, identification can occur via recognition or via emulation, and finally, individuals do not need to be members of an organization to identify with it (Pratt, 1998). All above definitions of organizational identification of Ashforth and Mael (1989), Dutton et al. (1994) and Pratt (1998) describe a cognitive component in the concept of identification (van Dick, 2001).

Organizational identification is considered to be a form of social identification, therefore we will refer to both. Social identity is defined by SIT as "those aspects of an individual's self-concept based on their social group or category memberships together with their emotional, evaluative and other correlates" (Turner et al., 1987, p. 29). As we will explain later, organizational identification is a multidimensional construct (Tajfel & Turner, 1986; Scott Connaughton, Diaz-Saenz, & Maguire, 1999; van Dick, 2001; van Dick & Wagner, 2002; van Dick, Wagner, Stellmacher & Christ, 2004).

Organizational identification is defined as "a relatively enduring state that reflects an individual's willingness to define her- or himself as a member of a particular organization" (Haslam, 2001, p. 382). "Organizational identification is the perception of oneness with, or belongingness to an organization, where the individual defines him or herself in terms of the organization in which he or she is a member" (Mael & Ashforth, 1992, p. 104). The membership to a group, entitled as organizational identification, impacts attitudes and behaviors (Tajfel & Turner, 1986; Wan-Huggins et al., 1998).

In the past, some researchers used the terms organizational identification and organizational commitment indiscriminately. In fact, there is a distinction between organizational identification and concepts like organizational commitment (Ashforth & Mael, 1989; Meyer & Allen, 1997; Wan-Huggins et al., 1998; van Dick, 2001; Riketta, 2005), or internalization (Meyer & Allen, 1997; Ashforth & Mael, 1989). Meyer and Allen (1997), based on previous definitions by Meyer, Allen and Reichers, developed a multidimensional explanation in which they describe the focus of commitment (organization, top management,

unit, unit manager, work team, and team leader) as well as the nature of commitment (affective, continuance and normative). As van Dick (2001) notes, four dimensions of commitment can be distinguished: (1) affective commitment refers to the integral attachment to an organization. In this case, identification is reflected in the fact that the goals and objectives of their organization are close to his or her own ones, whereas (2) involvement refers to identification with the job and is reflected in behaviors. (3) Normative commitment occurs when a person feels obligated to stay in the organization, and finally, (4) continuance commitment is present when the costs for leaving the organization become salient for the employee. In summary, whereas commitment is related to a degree of affective, continuance and normative commitment, involvement is reflected in behaviors. Organizational identification refers to the cognitive aspect or self-categorization in which the individual identifies with its group. In a meta-analysis regarding organizational commitment and organizational identification, Riketta (2005) found that both constructs are correlated but different. Additionally, the correlation between these constructs and some work-related behaviors and intentions are also different.

4.2.3.1 Dimensions: cognitive, affective, evaluative and conative

Based on social identity theory, three dimensions of identification can be identified: A cognitive component, which makes reference to a group membership on a mental level, an affective component, which reflects the emotional value of the attachment to this group, and an evaluative component, which is the positive or negative value regarding that group (Tajfel & Turner, 1986; Scott et al., 1999; van Dick, 2001; van Dick & Wagner, 2002; van Dick, Wagner, Stellmacher & Christ, 2004). Another dimension has been proposed which refers to behaviors that reflect this identification with the group - a conative or behavioral component- (Phinney, 1991, van Dick, 2001; van Dick & Wagner, 2002; van Dick, Wagner, Stellmacher

& Christ, 2004). In summary, organizational identification is defined as a multiple construct. Some studies have demonstrated its multidimensionality. In the study of 515 German school teachers, van Dick, Wagner, Stellmacher, and Christ (2004) demonstrated that organizational identification is compound of dimensions and foci, which are different from one another.

4.2.3.2   Foci of identification: career, group, organization, profession

The levels of abstraction of self-categorization can be grouped into three main levels. (1) " the superordinate human level" (Turner et al., 1987, p. 45), for example, a person is categorized as a human being when compared with some other species; (2) "the intermediate social level of in-group-out-group categorization" (Turner et al., 1987, p. 45), the self definition depends on the group's attributes; organizational identification is an example of this in-group-out-group categorization, based not only on similarities but also on differences between groups. (3) The last level of abstraction comprises the "subordinate level of personal self-categorization" (Turner et al., 1987, p. 45), where the personal attributes are salient (Turner et al., 1987; Haslam, 2001). People can identify with more than one group, depending on the different intergroup relations in which they participate.

These levels of abstraction are also reflected in the foci of organizational identification, which are: (1) identification with one's career, reflecting the personal level of categorization; (2) identification with one's working unit or group; (3) identification with the organization, and (4) identification with the profession (Van Knippenberg & van Schie, 2000; van Dick, 2001; van Dick, Wagner, Stellmacher, & Christ, 2004). The career identification corresponds to personal level of identification whereas the last three reflect the group categorization (van Dick, 2001; van Dick & Wagner, 2002). These levels of abstraction of self-categorization are widely explained in SCT (Turner et al., 1987). Van Knippenberg and van Schie (2000) confirmed that group identification and organizational identification impact

organizational attitudes and behaviors. However, they emphasized that group identification has a stronger impact on attitudes and behaviors.

4.2.3.3 Empirical support

When identification occurs, individuals tend to act in favor of the organization, share the goals of the organization and mostly work to achieve them. Higher levels of organizational identification are reflected in the behavior the employees show in aspects like in-group cooperation (Dutton et al., 1994), organizational citizenship behavior (Dutton et al., 1994; van Dick & Wagner, 2002), support and loyalty for the organization (Ashforth & Mael, 1989), job satisfaction, cooperation and early retirement intentions (van Dick & Wagner, 2002), lower turnover (Mael & Ashforth, 1992, van Dick & Wagner, 2002; van Dick, Wagner & Lemmer, 2004), intent to remain with the company (Wan-Huggins et al., 1998). In summary, organizational identification is reflected in the employees' attitudes and behaviors. Other studies, although not focused on the identification subject, have demonstrated the importance that organizational outcomes have for the organizations. Koys (2001), based on a study on units of a regional restaurant chain, demonstrated that human resources outcomes, such as employee satisfaction, organizational citizenship behavior, and turnover intentions, influence organizational effectiveness. He argued that organizational citizenship behavior affects profitability and employee satisfaction affects customer satisfaction. Tett and Meyer (1993) argue that the turnover intention is the strongest predictor for a turnover.

The empirical support for organizational identification has been obtained in some cases in a workplace setting, in other cases in academia. Nevertheless, the results have been successfully applied in the workplace. Mael and Ashforth (1992) conducted a study in a male religious college and they argue that identification with the institution was firstly associated with organizational antecedents of organizational distinctiveness, organizational prestige, and

intra-organizational competition, but not with inter-organizational competition. Secondly, it was associated with the individual antecedents of satisfaction with the organization, tenure as students, but not with recency of attendance, number of schools attended, or the existence of a mentor. Thirdly, the identification with the organization was connected to the outcomes of making financial contributions and participation in diverse school functions. Wan-Huggins et al. (1998) tested an organizational identification model in a longitudinal study made in a small electric company. They prove that the construed external image and perceived role-related characteristics were antecedents of organizational identification, which in turn were related to the intention of remaining in the organization. Identification with various work facets such as those of individual interest, as well as identification with the group or organization reduce the probability to leave. Van Dick and Wagner (2002) demonstrated in a study with German schoolteachers that identification is highly related to job attitudes. Highly identified teachers evaluated their job as more significant, more meaningful and showed more job satisfaction and motivation than teachers with a low score in identification. Van Dick, Wagner and Lemmer (2004), conducted a study of the merger between two hospitals and found that identification with the pre-merger organization and the post-merger organization were related with higher job satisfaction and organizational citizenship behavior, lower turnover intentions and less negative emotions. Although they had already examined some of the variables that we are going to study, we are going to review some of them, but as a part of our heuristic model.

5 THEORETICAL FRAMEWORK FOR THE VARIABLES

In order to explain the relationship between identification, work attitudes such as job motivation and job satisfaction, work behaviors and intentions such as OCB and turnover intentions respectively, we draw a heuristic model (Figure 5-1), that will be supported by some theoretical assumptions and some field research in organizations.

Figure 5-1. Heuristic model
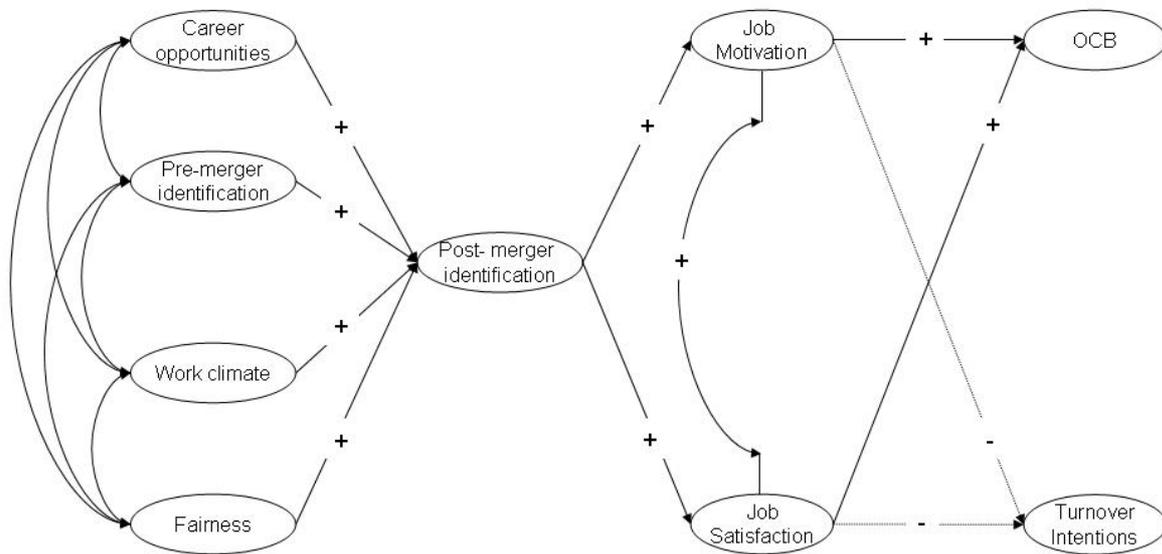
5.1 Independent Variables

5.1.1 Career opportunities

The term *career opportunities* is related to career development and career management. In general, these terms include both the individual and the organizational side of any career path. The individual side, that is, the subjective career, sometimes called self-management career, refers to the process through which a person plans her/his development, meaning that she or he is responsible for it (Arthur, Khapova & Wilderom, 2005; Sturges, Guest, Conway & Mackenzie, 2002). The organizational side, also called objective or organizational career, describes how the career progress should be, is planned and directed by the organization (Barley, 1989; Sturges et al., 2002). These sides, individual and organizational, are interdependent and jointly offer an understanding of the term career (Arthur et al.).

Career opportunities are means for people to achieve career success. Most of the time people associate career success with salary growth and promotions (Heslin, 2005). In this line, it seems that career success influences self esteem, identification, and promotes more involvement at work (Hall, 2002; Arthur et al., 2005). Organizational career activities have been considered as forms of work experiences (Sturges et al., 2002), that together with characteristics of the organizations and characteristics of the individual are considered as antecedents of organizational commitment (Meyer & Allen, 1997).

Landau and Hammer (1986) examined the relationship among facility of movement inside the organization with organizational commitment and intention to quit. Employees from a university and from a state agency participated in these studies. The authors concluded that employees who perceived opportunities showed more commitment to their organization and less desire to quit. Sturges et al. (2002) examined the relationship among organizational and individual career management and commitment. The longitudinal study was performed in

44

five organizations in the United Kingdom. Although they could not completely demonstrate a relationship among organizational career management and commitment, Sturges et al. (2002) found support for the link between some activities derived from organizational career management such as training and development and organizational commitment. Sturges, Conway, Guest and Liefooghe (2005) demonstrated that the career management program impacts the psychological contract. Since people feel in some way that the organization has given something to them, they reciprocate with commitment and organizational behaviors such as performance, low absenteeism and low turnover intentions.

Career opportunities influence the perception of employees regarding group boundaries, whether open or closed. The judgment of group boundaries being permeable or impermeable depends on the extent to which employees perceive that they have access to the new organization, as well as to the benefits available for the other group (Terry, 2003). Some of these benefits may be related to concrete gains such as career opportunities. Based on SIT, it is argued that the perception of intergroup boundaries, being different in low status and high status groups, is central for the quality of people's social identity and self esteem (Terry, 2003). If members of the low status group perceive open boundaries, they will respond positively to the merger and probably will be encouraged to individual mobility as a strategy for enhancing their identity. If, however, they perceive closed boundaries, low status employees might feel forced to pursue collective strategies, such as protest, which might help them pursuing self-enhancement (Terry, 2003; Terry & Callan, 1998). In some cases, they even resign from their work. Regarding the members of the high status group, there is evidence that they may adopt protection strategies in front of permeable boundaries, in cases in which they are a minority group (Ellemers, Doosje, van Knippenberg & Wilke, 1992; van Knippenberg & Ellemers, 1993).

In a study of two airlines, Terry, Carey, and Callan (2001) found that there is a relationship between permeability and the response of employees as a consequence of the

merger: permeable boundaries were positively related with identification, organizational commitment, job satisfaction, higher self-esteem and better emotional well-being for the low status group.

5.1.2 Pre-merger identification

Earlier, it was mentioned that "Organizational identification is the perception of oneness with or belongingness to an organization, where the individual defines him or herself in terms of the organization in which he or she is a member" (Mael & Ashforth, 1992, p. 104). The terms pre- and post-merger identification concern the time periods of this identification, as before or after the merger. Van Knippenberg et al. (2002) argue that for the employees, a merger may imply continuity or discontinuity between the old and the new organization, which in turn affect identification differently. These authors conducted two studies in a governmental entity and in an academic institution, and found that identification with the post merger entity is attached to the perception of continuity of the identity. They also explain that employees from the dominant pre-merger organization perceive continuity in their identity, whereas employees from the dominated organization experience discontinuity in their identity.

Van Leeuwen and van Knippenberg (2003) studied the pre- and post- merger identification process. They proposed that organizational identification provides elements for self-definition, and that this self-definition is threatened when a merger occurs (Van Leeuwen & van Knippenberg, 2003). With that, one can understand why people tend to resist such a change and prefer to maintain their original distinctiveness (Terry & Callan, 1998; van Knippenberg et al., 2002).

5.1.3 Work climate

This construct refers to the quality of work life or welfare of the employees and has been related to "those aspects of the social environment that are consciously perceived by organizational members" (Denison, 1996, p. 624).

A meta-analytic review by Parker et al. (2003) indicated that there is some confusion in the literature regarding such terms as psychological climate, organizational climate, and organizational culture. The authors therefore distinguish individual, organizational and cultural levels of work climate.

At an individual level, psychological climate is an individual's perception or description of the work environment and includes aspects such as job role, work group, organization characteristics as well as leader behaviors (Parker et al., 2003). It is distinguished from job satisfaction, which reflects the employees' evaluation of their own work environment. At an organizational level, organizational climate refers to those properties derived from a description that employees attribute to their organization (Baer & Frese, 2003; Parker et al., 2003; Denison, 1996), such as customer service, innovation, and safety. Organizational culture, in contrast, refers to values and beliefs related to the structure of the organization that guide the collective behavior (Parker et al., 2003; Denison, 1996). These constructs allow one to predict organizational outcomes, such as customer satisfaction and financial performance (Schneider & Bowen, 1985).

Since it is clearly supported that personal and environmental characteristics shape behaviors (Patterson, Warr & West, 2004), several studies have examined the impact of work climate on attitudes and behaviors, concluding that it is a strong predictor for individual outcomes or behaviors. Brown and Leigh (1996) tested a model in two samples of sales people and demonstrated that psychological climate at work was related with job involvement, which in turn influenced effort; and effort significantly impacted performance. They explained that the positive perception that people have regarding the organizational

environment influences and encourages them to identify with the organization. Since their goals and the goals of the organization fit, they work to obtain them. Parker et al. (2003) demonstrated that employees' work attitudes mediate the relationship between psychological climate and employee motivation and performance. Patterson et al. (2004) examined the influence of work climate on productivity, arguing that the relationship between them may be mediated by job satisfaction. They tested their hypothesis in 42 manufacturing companies, and found support for their hypothesis. Fay, Lührmann and Kohl (2004) proposed that proactive climate influences performance in a context where reorganization takes place. They tested their hypothesis in four public transport organizations and found that these variables were effectively related. Martin, Jones, and Callan (2005) examined whether psychological climate variables may predict adjustment during a change process. They tested their proposed model in two samples of the hospital and the public sectors, respectively. They found that those employees whose perception of climate were more positive, show higher job satisfaction, psychological well-being, organizational commitment, lower absenteeism and lower turnover intentions. Additionally, studies have demonstrated the relationship between psychological climate and job satisfaction (Schneider & Snyder, 1975), OCB (Moorman, 1991), and performance (Baer & Frese, 2003). Given that these relationships on the individual level exist, it is expected to find them on group and organizational levels as well (Parker et al., 2003).

Between 1960 and 1970 there was a big interest in the improvement of work climate, searching for more humane ways in which a better relationship between employees and managers could be reached. Work redesign, reduction of hierarchy, and participative decision making were some of the main goals (Paulus, Seta & Baron, 1996). The quality circles, which are Japanese techniques to encourage participation, and organizational development, are some other strategies that were also introduced to improve the quality of work life. These programs have direct impact on job satisfaction, organizational commitment, productivity, etc. (Paulus et al., 1996).

5.1.4 Fairness

Fairness or organizational justice is a concept which can be applied in a wide range of areas of the organization such as recruitment, compensation, training, conflict resolution, discrimination, labour relations, and others (Gilliland & Chan, 2001). There are two traditional forms of fairness: procedural - how fair are the methods for making these decisions, and distributive - how fair are outcomes of a decision (Smith, Tyler & Huo, 2003). Interpersonal treatment was introduced in 1980 as a third form of fairness, but later questioned (Gilliland & Chan, 2001). Whereas distributive fairness is founded on some rules such as equality, equity, proportionality between effort and income, procedural fairness is based on the manner of obtaining distributive decisions and of treating people. It also includes some specific forms such as process and decision control, in which all parts involved have the possibility to voice their opinion regarding the process, or the decision to be taken (Platow, Wenzel & Nolan, 2003).

Feelings of being fairly or unfairly treated impact cooperation, acceptance of decisions (Smith et al., 2003), and organizational commitment (Smith et al., 2003; Gilliland & Chan, 2001). Fairness, or organizational justice in general, is seen as a strong determinant of organizational commitment (Gilliland & Chan, 2001), group membership and self image, because fair treatment communicates or reflects the recognition as a member of a group (Tyler & Blader, 2000). Fairness also influences motivation, satisfaction, and behaviors (Gilliland & Chan, 2001). The perception of personal or intergroup injustice as well as the salience of personal or social identity influences the strategy that people pursue in order to solve their conflicts, whether by social mobility or by social change (Platow et al., 2003).

In an attempt to explain fairness, some theories have been proposed such as the equity theory of Adams (1965) and more recently, the model proposed by Lind and Tyler (1988),

which is based on social context and desire for membership, in which people value justice because it enhances their self-esteem.

Based on these different positions, several studies regarding organizational justice have been executed. There has been demonstrated the impact of justice on employees' satisfaction (Alexander & Ruderman, 1987), on organizational commitment (Mc Farlin & Sweeney, 1992), OCB (Fahr, Podsakoff & Organ, 1990), and on work performance (Greenberg, 1993). Based on SIT, some other studies have been developed. Platow, Hoar, Reid, Harley and Morrison (1997) investigated the relationship between the fairness a leader pursues and the group context of his employees (either in-group: employees only act within their own group, or in-group - out-group: employees are also aware of an out-group). They found that in the context of in-group – out-group, people are more inclined towards a leader who favoured the in-group members giving them easier tasks, since his behavior contributes to the positive distinctiveness of the ingroup. In contrast, in mere in-group contexts, people were inclined to support the leader if he distributed fairly the tasks among all members of the in-group. Tyler and Blader (2000) examined the influence of procedural justice on group members´ attitudes, values, and cooperative behaviors. Since procedural justice provides information relevant to the self, they proposed that "procedural justice directly influences people's identities" (Tyler & Blader, 2000, p. 15). They found support for the acceptability of their model in which procedural justice positively impacts pride and respect, attitudes, values and cooperative behaviors. Lipponen, Olkkonen and Moilanen (2004) examined the relationship among procedural justice and post-merger identification in a merged organization. They found support for the hypothesis that perceived justice of the merger implementation is a strong predictor of post-merger identification and perception of a common in-group identity; they found a positive influence of the first factor on the two latter ones. Tyler and De Cremer (2005) studied the relationship between procedural justice and reactions to change in the context of a takeover process in a multinational financial services

organization. They found support for their causal model, in which procedural justice impacts on the perception that people have regarding the legitimacy of the leader in charge of the merger and on feelings regarding leader competencies, both of which in turn influence the acceptance of the leader's vision and motivation. They also proposed that "when leaders manage through fair procedures, they encourage people to identify with organizations" (Tyler & De Cremer, 2005, p. 531). They found that the relationship between procedural justice and the employees' evaluation of the merger depends on the level of identification.

5.2   Mediator Variables

5.2.1   Post-merger identification

As we have explained above, post-merger identification refers to the identification that people have toward their new merged organization. When a merger occurs, the question arises, which factors impact post-merger identification. Studies that have focused on the relationship among pre and post-merger identification in the context of a merger were already presented in section 5.1.2. Other studies, related with dominance and status, will be presented in section 5.4.1.

Based on Social Identity Theory, a merger is a context in which social interaction between groups can be studied. When two organizations merge or when one acquires the other, the post-merger entity embraces pre-merger intergroup relations between the merger "partners". These relations are often competitive and sometimes bitter and antagonistic (Van Knippenberg et al., 2002). Indeed, negative responses and feelings toward the employees of the other organization may jeopardize the success of the merger. What researchers have found is the prevalence of the "us versus them" mentality (Terry & Callan, 1998; Van Leewen & van Knippenberg, 2003). These differences between groups (as mentioned above) result in intergroup conflict, antagonism against the other group and discrimination (Tajfel & Turner, 1986). In an attempt to solve this problem between groups and to reduce its impact on post-

merger identification, some researchers have proposed different models such as the following ones: The first model is the de-categorized contact model of Brewer and Miller (1984). They argue that categorization of people into groups cause intergroup bias, due to which the reduction of group categorization should be reflected in reduction of intergroup discrimination. Additionally, the increase of interpersonal contact conduces a generalization of positive intergroup attitudes. The second model (Gaertner, Mann, Murrell & Dovidio, 1989) is the common in-group identity model, in which they propose the redraw of the boundaries of two groups in order to create a new common group, reducing the intergroup bias and conflict. The objective should be the creation of a superordinate category, in which both groups take part. The third model is the mutual intergroup differentiation model of Hewstone and Brown (1986) who argue that if the original group identities, as well as the boundaries and distinctiveness remain salient in intergroup interaction, the consequence is reduction of intergroup bias, because there is no more fear of contact. Gonzalez and Brown (1999) proposed the dual identity perspective: on the one hand, the in-group out-group distinction is reduced in order to create a superordinate group; on the other hand, the distinctiveness of each group is maintained in this superordinate level. These two conditions reduce intergroup conflict and promote the generalization of positive intergroup attitudes. Some researchers have studied such proposals more closely. Brown and Wade (1987) did a research with 156 men and women from three colleges and analyzed role ambiguity and group status in a context where the superordinate goal was clearly defined. They found that distinctiveness has a positive effect in group situations and that it is reflected in positive intergroup attitudes. The applicability and the relevance of those perspectives in a merger context could be a theme for future research. Van Leeuwen and van Knippenberg (2003) performed some laboratory experiments and demonstrated that the preservation of the old identities reduced the perception of being threatened by the merger and was crucial in order to

avoid resistance to the merger. Additionally, they argued that the pre-merger identity helps in the process of internalizing the new organization.

5.2.2 Job motivation

The traditional definitions of motivation explain it as an internal force or process that energizes, guides, and maintains behavior. It partially refers to the force or energy that gets the motor of behavior running (Paulus et al., 1996), but also to the "person's orientation towards a particular job" (Cook, Hepworth, Wall & Warr, 1981, p. 115). Most of our behavior does not simply get us moving, it gets us moving towards specific goals. It is also important for maintaining the behavior directed at a particular goal. Most goals take time to be achieved, and only those people who are motivated to persist will attain them. Motivation plays a key role in all aspects of human behavior (Paulus et al., 1996). A more contemporary definition, from SIT viewpoint, describes motivation as "effort exertion on collective tasks" (Fielding & Hogg, 2000) and differences it from job motivation – the motivation to perform well on the job (Van Knippenberg, 2000).

One can divide the theories of motivation into two groups: the content theories and the process theories (Moorhead & Griffin, 1995; Frese, 2005). An example for the so called content theories (Frese, 2005) is the need theory of Maslow (1970), which represents the necessities of the human being in a pyramid with its base representing the basic necessities such as physiological need, passing upwards through safety needs, belonging and love needs, esteem needs and the higher levels of needs such as the need for self actualization. Other content models are the ERG model (existence needs, relatedness needs and growth needs) of Alderfer (1972), the two factors theory of Herzberg (see Herzberg, Mausner & Synderman, 1959), pointing out that there are hygiene factors that increases job satisfaction and other factors that in their absence create job dissatisfaction, the achievement model of Mc Clelland (1961), who groups necessities into achievement, power and affiliation, the self-efficacy

model of Bandura (1986), the equity and fairness theory of Adams (1965), proposing that a person compares his inputs and outputs with others and when recognizing inequity, the person's reaction is to correct this inconsistency, which shows in productivity, absenteeism and retirement. Finally, there is the job characteristics model of Hackman and Oldham (1975). The theories of the second group, the process theories, are more oriented toward the processes (Frese, 2005), such as the VIE theory (valence, instrumentality, expectancy) of Vroom (1964), who argued that motivation depends on the outcome that people expect to perceive after their performance; the reinforcement and punishment theories, the goal setting theory of Locke and Latham (1990), and the Rubicon model of Gollwitzer and Heckhausen explained by Gollwitzer (1993).

In the two factors theory, Herzberg argued that attitudes and behaviors are influenced by personal and environmental traits (Herzberg et al., 1959). According to his theory, there are two sets of factors, which influence satisfaction and motivation. One set refers to motivation factors that in the case of being present in the workplace cause satisfaction and motivation, but in their absence, cause feelings of dissatisfaction (Moorhead & Griffin, 1995). The other set refers to hygiene factors, which are related to dissatisfaction and to no dissatisfaction. The judgment of these factors as negative is related to feelings of dissatisfaction, but the positive evaluation of these factors is related to no dissatisfaction, which does not mean satisfaction (Moorhead & Griffin, 1995). Aspects such as status, opportunity for advancement, sense of personal achievement and personal growth in a job, gaining recognition and responsibility, have been classified as personal or motivational factors, whereas organizational characteristics such as company policy and administration, working conditions, feelings of job security, wages, salaries and other financial remuneration, quality of supervision, among others, have been called hygiene factors (Herzberg et al., 1959).

The explanation by SIT and self-categorization theory argues that people are in need of a positive self-esteem and they obtain and maintain it through the in-group-out-group

discrimination (Turner, et al., 1987). In their uncertainty-reduction model of group motivation, Hogg and Abrams (1993) argue that people are motivated to reduce the subjective uncertainty, therefore they identify with a group through a self-categorization. The level in which people define themselves, whether personally or socially, will be reflected in the type of needs that they are motivated to satisfy and impacts differently the behavior (Haslam, Powell & Turner, 2000). Whether personal or social identity is salient, it is important to note that the motives or needs are related with the self-esteem of the individual (Fielding & Hogg, 2000).

The subjects of traditional theories of motivation have been interpreted in Social Identity Theory and Self Categorization Theory as needs related to the self (Haslam et al., 2000). According to these theories, the salience of personal or social identities impacts differently on the type of need that seems to be satisfied. Additionally, Haslam et al. (2000) argue that the motivator and the hygiene factors of Herzberg (see Herzberg, Mausner & Synderman, 1959) reveal the salience of personal and social identity, respectively. In this regard, the need of personal growth and self-actualization reflects the salience of the personal identity, whereas the needs associated with the group's well-being, such as its goals, are related to social identity (Hogg & Abrams, 1993; Haslam et al., 2000). In this case, when a person categorizes her/himself at a determined level, she/he identifies with this category whether at a group or an organizational level, and the group or organization's goals are internalized and become her/his own. In this line, identification impacts or influences motivation - effort exertion - (Fielding & Hogg, 2000). Van Knippenberg (2000) analyzed the relation between identification and work motivation to exert effort on behalf of the collective and with performance. This author concluded that identification is positively correlated with work motivation, task performance, and contextual performance - OCB. Although there are many factors that influence performance, motivation to perform well on the job is one of the most significant (Van Knippenberg, 2000). Van Knippenberg and van Schie (2000) analyzed

the relation between work motivation, work group identification and organizational identification. They found that work group identification was related to work motivation, and both work group identification and organizational identification were related to the job involvement measure. Additionally, they demonstrated that identification influences the motivation to exert effort on the job.

5.2.3 Job satisfaction

Another important job related attitude is job satisfaction, which is defined as "an overall measure of the degree to which the employee is satisfied and happy with the job" (Hackman & Oldman, 1975). It is also defined as the affective attachment to the job, and can refer to a global satisfaction or a particular aspect of satisfaction (Tett & Meyer, 1993). It refers to how people feel about their work as well as about some specific aspects of it (Spector, 1997). Job satisfaction can either be considered as a global construct, the main purpose of which is to indicate whether there is a satisfaction or dissatisfaction with the work; or it can be seen as a multiple construct such as satisfaction with job, payment, workplace, supervisor, nature of the work itself, coworkers, promotion opportunities, security, etc. (Cook et al., 1981; Tett & Meyer, 1993; Spector, 1997). The second approximation shows, which parts of the work cause satisfaction or dissatisfaction (Spector, 1997). Theories such as the two factors theory of Herzberg (see Herzberg et al., 1959), and the model of Lawler (1973), attempt to explain job satisfaction.

From Social Identity Theory and Self Categorization Theory, it is argued that the link between organizational context and organizational behavior is mediated by self-categorization (Haslam, 2001), and more precisely, that identification influences job attitudes (Haslam, 2001; van Dick & Wagner, 2002). According to this argument, people who identify themselves with their organization are also satisfied with their job (van Dick & Wagner, 2002).

Regarding the factors that contribute to satisfaction or dissatisfaction at work, two main groups can be distinguished: first, work factors, relating to the characteristics of the work setting and second, those mainly referred to as interpersonal relations and personal characteristics (Spector, 1997; Connolly & Viswesvaran, 2000). The satisfaction or dissatisfaction at work, as a product of internal or external causes, affects personal and organizational outcomes such as health, life satisfaction (Spector, 1997; Cass, Siu, Faragher & Cooper, 2003), performance, organizational citizenship behavior (Organ, 1988), turnover intentions and actual turnover (Spector, 1997; Haslam, 2001; van Dick & Wagner, 2002).

As mentioned above, personal and environmental traits, as well as organizational identification, impact on attitudes such as job motivation and job satisfaction (Haslam, 2001; van Dick & Wagner, 2002). OCB and turnover intentions are impacted as well, whether in a positive or a negative way, by personal and environmental factors and attitudes (Haslam et al., 2000; Christ, van Dick, Wagner, & Stellmacher, 2003).

From the rich body of literature regarding studies in job satisfaction, we will just mention some that are based on SIT and SCT and give prove for the relationship between identification and job satisfaction. Mael and Ashforth (1992) conducted a study in a male religious college, and they argue that identification with the institution was associated first with organizational antecedents of organizational distinctiveness, organizational prestige, and intra-organizational competition, but not with inter-organizational competition, and secondly with the individual antecedents of satisfaction with the organization, tenure as students, but not with recency of attendance, number of schools attended, or the existence of a mentor, and thirdly with the outcomes of making financial contributions and of participation in different school functions. Hogan and Overmyer-Day (1994) argue that job satisfaction decreases in employees of the acquired organization whereas it increases in employees of the acquiring organization. Kyrous (1995), based on a research with 201 employees in a medium sized high-technology firm, demonstrated that positive attitudes toward the organization lead to

perception of more secure interaction between the individual and the organization and therefore increase an affective attachment toward the organization. Friday (1997) conducted a research among Hispanics and concluded that bicultural and multicultural individuals were more satisfied with their coworkers than mono-cultural individuals and that individuals with high score in the psychological dimension of "racioethnicity" (racial and ethnic differences) were more satisfied with coworkers, work itself and supervisor in comparison with people that score low in this dimension. Van Dick and Wagner (2002) did a study with German schoolteachers and demonstrated that identification is highly related to job attitudes. Highly identified teachers evaluated their job as more significant, more meaningful and showed more job satisfaction and motivation, than teachers with a low score in identification. Lynch (2002) argued that identification with the ethnic group and the demographic composition of the workgroup influence the behaviors at work. Job satisfaction was examined in a merger context by Van Dick, Wagner and Lemmer (2004). They concluded that identification with the pre-merger organization and the post-merger organization were related with higher job satisfaction. Job satisfaction is also closely related with turnover intentions and turnover, in fact it is argued that the stronger the insatisfaction the greater the possibility of quitting. The personal causes combined with the environmental causes conduce whether to feel satisfaction or dissatisfaction at work (Spector, 1997).

5.3 Organizational Behaviors and intentions

The behaviors of employees in their organizations are influenced by individual differences, attitudes and perceptions (Moorhead & Griffin, 1995). They are mainly grouped into performance, organizational citizenship, and withdrawal intentions and behaviors. In this study, we are primarily interested in OCB and turnover intentions.

5.3.1 Organizational citizenship behavior (OCB)

This term "represents individual behavior that is discretionary, not directly or explicitly required by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988, p. 4), meaning that it refers to behaviors that are important for organizations to run effectively but that are not required or compensated. Indeed, OCB reflects the behaviors that are not related to job performance (Van Knippenberg, 2000; Organ & Ryan, 1995). Some categories of these behaviors are altruism, conscientiousness, sportsmanship, courtesy and civic virtue (Organ, 1988; Paulus et al., 1996). According to social identity theory, the salience of social identity is reflected in organizational outcomes such as OCB (Haslam et al., 2000; Haslam, 2001). Analyzing the factors that act as determinants of OCB, it is argued that the stronger the organizational identification, the more often a member exhibits organizational citizenship behavior which is reflected in the fact that people focus on tasks that benefit the whole organization rather than on purely self-interested ones (Dutton et al., 1994). Additionally, several studies have demonstrated the relationship and the positive correlation among different job attitudes such as job satisfaction and organizational citizenship behavior (Organ, 1988). Theoretically, job satisfaction and OCB could act simultaneously as antecedents of some other attitudes or behaviors; nevertheless, the field studies support statistically the causality from job satisfaction to OCB (Organ, 1988).

The studies that have examined the antecedents of OCB fall into two mayor groups: On the one hand, there is the individual difference perspective, which points to conscientiousness as a predictor of OCB, and on the other hand there is the social exchange perspective arguing that social exchange behaviors, such as good relationship, psychological contract, leader-member exchange, perceived justice, and trust, are strong predictors of OCB. Nevertheless, both lines observe the influence of the internal states of the employees (motivation, attitude, and disposition) as antecedents of OCB (Farh, Zhong & Organ, 2001). After a revision of 55 studies, Organ and Ryan (1995) concluded that job attitudes are strong

Theoretical framework for the variables

predictors of OCB; additionally, they remarked the stronger relationship between satisfaction and OCB in comparison to the relation between satisfaction and in role-performance. Farh, Zhong and Organ (2000) examined forms of OCB in both collectivistic and individualistic cultures. The sample consisted of 166 employees from 75 Chinese companies. They identified 11 dimensions to measure OCB in the Chinese (collectivistic) culture, from which 6 dimensions were not recognized in the American (individualistic) culture, concluding that the formulation of OCB in the Chinese culture is different from the OCB formulation in Western cultures. That is, some dimensions are considered universal constructs; for example, what in Chinese research is called taking initiative, helping coworkers, participation in group activities and promoting company images, is in American literature, referred to as, conscientiousness, altruism, civic virtue and loyalty; Other constructs, such as self-learning, social welfare participation, protecting and saving company resources, keeping the workplace clean, interpersonal harmony and compliance with social norms seem to be Chinese-culture dependent. Farh, Zhong and Organ (2001) proved that contextual factors impact OCB. In a sample of 386 Chinese employees, they demonstrated that the influence of contextual factors such as job function, managerial level and organizational ownership impact OCB in the Chinese context. O`Connell, Matthew, Doverspike, Norris & Hattrup (2001) analyzed OCB in a group of Mexican salespeople. They found a low correlation between sales performance and OCB, whereas the relationship between OCB, traits of personality and some job attitudes were significant. Sun (2001) made a cross cultural study among Chinese and Americans, the sample consisted of 299 employees of two organizations in the northern part of China and 162 employees of several organizations in the south-eastern area of the United States. He did not find enough support for his hypothesis that culture being individualistic or collectivistic might moderate the relation between organizational justice and either job satisfaction or OCB. Christ et al. (2003) developed a study with 447 German school teachers and demonstrated that organizational identification is a determinant of OCB and that the foci of identification such

as career identification, team identification, and organizational identification are related differently to the specific forms of OCB such as OCB towards the own qualification, towards the team, and towards the organization.

5.3.2 Turnover intentions

Turnover intention is commonly defined as the strength of employees' desire to leave their jobs (Scott et al., 1999). From the many factors that influence turnover intentions and turnover, such as demographic and personal characteristics, organizational and work characteristics, motivation, job satisfaction, commitment, etc., the latter two are the ones best studied (Scott et al., 1999). According to the theoretical assumptions, turnover intentions and turnover are the result of dissatisfaction at work (Tett & Meyer, 1993), and they have been considered as *Job withdrawal*, which reflects the desire of the worker to avoid or to escape from this dissatisfying job; and it differs from *Work withdrawal*, which is more specific, and refers to those behaviors that see the worker try to avoid some aspects of work or minimize working time such as making excuses, absences, lateness, (Blau, 1998). Characteristics of the job, the organization, the labor market, and others, influence turnover (Moorhead & Griffin, 1995).

In fact, people that are not happy at work tend to spend the least time possible at the workplace, tend to quit the job, or to find an alternative employment. This causal relation satisfaction-turnover has been demonstrated through a wide number of cross-cultural and longitudinal researches (Spector, 1997). Indeed, turnover intentions and turnover have been studied from different perspectives. Wan-Huggins et al. (1998) tested an organizational identification model through a longitudinal study in a small electric entity. They proved that the construed external image and perceived role-related characteristics were antecedents of organizational identification, which in turn were related to the intention of remaining in the organization. The research of Scott et al. (1999), conducted in a midsize state government

agency, revealed that communication plays an important role in turnover intentions. Identification with various work facets such as individual interest, group or organization reduces the probability to leave. Some others have focused on the relation of turnover intentions and turnover with variables such as job satisfaction, identification, commitment, etc. Lance (1991) evaluated a model in which job satisfaction and organizational commitment influences voluntary turnover. The sample consisted of 1870 employees of a U.S. telecommunications firm. He confirmed that satisfaction and commitment mediate the effects of job perception on turnover. He also found variables such as coworker integration having an indirect effect on satisfaction whereas perceived alternatives and job involvement have a direct impact on job satisfaction. Finally, he argued that job satisfaction affects the employee's commitment to the organization although the influence of commitment to the organization has a weak effect on job satisfaction. In the literature, one finds some research that demonstrates that commitment mediates the relation between satisfaction and turnover intentions. Others have argued that commitment influences satisfaction, which in turn influences turnover intentions, nevertheless, there is a third model proposing that first, satisfaction and commitment contribute independently to turnover intentions, secondly, the influence of satisfaction on turnover intentions is stronger, thirdly, turnover intention mediates the linkage between job attitudes and turnover, and finally, turnover intention is the strongest predictor of turnover (Tett and Meyer, 1993). Some other researchers have focused on the relation between satisfaction, identification and turnover. Van Dick, Wagner, Christ, Stellmacher, Ahlswede, Grubba, et al. (2004), through four studies with 358 and 107 bank accountants, 211 call-center agents and 515 schoolteachers, demonstrated that the relation between identification and turnover is mediated by job satisfaction. Additionally, they analyzed the different foci of identification – career, team, and organization – in predicting turnover intentions and demonstrated that organizational identification is the best predictor of turnover intentions, since the organization plays an important role when people are analyzing

other work alternatives. Some studies have focused on cross cultural comparison as in the case of Abrams et al. (1998) who did two studies with Japanese and British workers from some corporations and universities. They found that organizational identification was negatively related to turnover intentions, identification was a strong predictor of turnover intentions among both cultures, and subjective norms were an aspect that influences Japanese workers in their intention to leave. Since they did not find a strong association between attitudes and intentions, they attributed this result to the low reliability of the attitude measure. However Shaw and Drexel (1999) proved by a study with 194 full and part-time workers that job satisfaction is a predictor of turnover intentions. Honda and Homma (2001) analyzed the relation between career, job satisfaction and turnover intentions among 177 Japanese women. They found that low satisfaction was associated with poor health and welfare benefits, job satisfaction with job interest, and high volume of the job tended to influence turnover intentions. Additionally, previous turnover experience and the family responsibilities affect career women's turnover.

In summary, the salience of self categorization reflected in organizational identification impacts attitudes and therefore behaviors (Fieldding & Hogg, 2000). High levels of organizational identification are reflected in the interest of employees for their organization, in job motivation (Van Knippenberg, 2000; van Dick & Wagner, 2002; Haslam et al., 2000), in job satisfaction (van Dick & Wagner, 2002; Van Dick, Wagner, Christ, Stellmacher, Ahlswede et al., 2004), in OCB (Dutton et al., 1994; Christ et al., 2003) and in lower turnover (Mael & Ashforth 1995; Abrams et al., 1998; Van Dick, Wagner, Christ, Stellmacher, Ahlswede et al., 2004).

5.4 Socio-Demographic Variables

Socio-demographic diversity is an approach to study the structure of groups, which to a larger or smaller extent are diverse in terms of race, age, sex, education, status position,

(dis)ability, etc. (Hogg, 2003; Tsui & Egan, 1992). These socio-demographic characteristics promote self-categorization and self-identity (Hogg, 2003; Tsui & Egan, 1992). Applying SIT and SCT, one can predict that social categorization impacts group processes, and the formation of subgroups leads to competitive intergroup relations (Hogg, 2003). The type of relation among those groups depends on several aspects, such as the status position (of each group respecting the opposite one), the relationship of gender categories with job positions, as is the case in which higher job positions in organization are occupied by male employees (Pratt, 2001). These situations seem to impact organizational attachment.

Tsui and Egan (1992) analyzed the influence of demographic diversity (age, company tenure, education, sex, and race) on commitment, absences and intent to stay; their sample consisted of 151 groups from three organizations. Five of these demographic variables, job satisfaction, job position and company size were sequentially introduced as control variables. They found that work-unit diversity was associated with low commitment, low intent to stay and high frequency of absences. Jehn, Northcraft, and Neale (1999) studied social category diversity (race, gender, and age), informational diversity (education), and value diversity among 92 workgroups. They found that education positively influences performance, and that task conflict mediates the relationship among these two variables. Social category diversity impacts group member moral, and value diversity negatively affects variables such as satisfaction, intent to remain, and commitment to the group.

5.4.1 Status and dominance

Tajfel and Turner (1986) elucidate that a group is formed by individuals who consider themselves as a part of this group, share a similar definition about their group and feel as members of it. Status is a consequence of intergroup comparison, which can be positive or negative. Hogg and Terry (2000) extend the explanation and point out that people want to belong to high status groups, because this contributes to maintain or improve their self

concept. Additionally, people who belong to the low status groups do not have a positive social identity. While the purpose of the low status group is to obtain a positive social identity, the high status group seeks to maintain it. The status position also influences organizational identification: people from the high status group show positive identification and wish to maintain their membership, whereas membership to the low status group seems to negatively affect identification (Terry, 2003).

Frequently, the merging process involves two organizations of unequal status, causing an accentuation of the status differences (Terry & O'Brien, 2001). Here, status refers to the position of groups based upon some evaluative dimensions and it is a consequence of intergroup comparison (Tajfel & Turner, 1986). The positive social identity is based on favorable comparison made between the in-group and a relevant out-group. This inter-group comparison and desire to compete cause in-group favoritism and intergroup discrimination, thus increasing the group members' self-esteem (Brown, 2000).

Terry and Callan (1998), based on their research involving the merger of two hospitals, argue that the employees of the low status pre-merger organization responded most negatively to the merger. Additionally, the low status group showed in-group bias on status-irrelevant dimensions, whereas the high status group's bias was related to dimensions relevant to status. Terry, Carey, and Callan (2001), investigating the merger between a high- and a low-status airline, found that members of the low status pre-merger organization were the ones most negatively affected by the merger. Terry and O'Brien (2001) analyzed the merger process in a scientific organization and found that the employees from the low status pre-merger group showed negative responses to the merger. They also found in-group bias in both groups: whereas the low status group showed in-group bias on dimensions irrelevant to the status, the high status group based their bias on status relevant dimensions. The level of post-merger identification was also different in both groups. The low status pre-merger group showed less identification, high levels of threat associated with the merger, and lower levels

of job satisfaction in comparison to the opposite group. The empirical findings support the argumentation that higher levels of organizational identification are reflected in attitudes and behaviors of employees.

In addition, people want to belong to groups that have good prestige. Therefore, status plays an important role in social identity. Members of a low status group tend to have a negative social identity and exhibit relatively low identification with the group. They tend to use new dimensions of comparison and/or different strategies such as mobility, social competition, and creativity; in other cases, members of the low status group compare their group with another out-group, from which they can obtain a better status position (Hinkle, Taylor, Cardamone & Ely, 1998).

In contrast, members of a high status group tend to have a positive social identity and identify strongly with the group (Terry & O'Brien, 2001). Some groups become dominant due to their size, for example when the large group tends to dominate the other one (Pratt, 2001). In some other cases, the status position influences the attitude towards diversity. In the case of high status groups, they show little attraction to low status members, whereas the low status members react with role ambiguity in case of organizational diversity (Tsui & O'Reilly, 1989).

5.4.2   Level of education

Education is considered a form of informational diversity that reflects the differences in knowledge and perspectives that people have (Jehn et al., 1999). These differences are reflected in a group when people have to decide what to do and how to do it. Since there are different points of view, it is expected that different levels of education increase the possibility of conflict inside the group (Jehn et al., 1999).

Regarding the level of education in countries such as Colombia and Germany, one of the main difference refers to the fact that in Colombia as well as in some other developing

countries the question is how to extend education to the whole population, whereas in countries that have already overcome this issue, the most frequent question is how to improve formal education. Through education people categorize themselves as having low or high levels of education. Deschamps (1982) argues that people with a low level of education tend to describe themselves in more collectivistic terms than people of the out-group, the latter acting more in terms of personal identity.

5.4.3 Age

Age is usually seen as a continuum from childhood through adolescence to adulthood and seniority. Biology, psychology, sociology, among others have studied each of these stages and have defined features such as values, behaviors, physical appearance, and others that distinguish one age-level from another. The interdisciplinary interest has helped in the study of the different characteristics of the aging individual. White (1987) argues that age is a multidimensional variable, and he explains that from the sociological point of view, "aging refers to a person's social interactions and relationships; but aging also involves an interplay of social processes with genetic predispositions; changes in immune… and other physiological systems… and changes in perceptual, cognitive, emotional and other psychological processes" (White, 1987, p.10).

In the work place, new members of an organization may not yet have an attachment to work related groups, so they seem to categorize themselves in terms of socio-demographic characteristics (Lau & Murnighan, 1998). In the study of intergroup relations, Chattopadhyay (1999) differentiated age groups and found more positive organization-based self-esteem for older workers than for younger workers of lower status. The relationship between age and tenure with turnover was studied by Wagner, Jeffrey and O'Reilly (1984). Analyzing 31 companies, they found higher turnover rates among managers coming from firms with poor financial performance or having more demographic distance in terms of age and date of entry.

5.4.4 Gender

In this study, gender is not limited to biological differences, but also considers each person's self-perception as a man or a woman. Lau and Murnighan (1998) studied the link between gender and work position and argued that the relationship between socio-demographic characteristics such as gender and job position lead to problematic relations among groups. The amount of diversity, whether big or small, impacts identities: too much diversity leads to individual identities whereas too little may provoke a differentiation based on demographic differentiation rather than work differentiation (Lau & Murnighan, 1998). In a work environment, women continue being in a disadvantaged position compared to men (Schmitt, Ellemers & Branscombe, 2003). These differences in status position between both sexes reflect a social reality. Several studies of sex differences and gender stereotypes such as the ones by Eagly (1987) and Ridgeway (2003) have demonstrated the higher and more powerful status that men have in comparison to women in a work environment.

In summary, the studies that have been made in the context of mergers and which are more related to the present study have demonstrated the differences in attitudes and behaviors between groups with low and high dominance or status. Therefore, we will consider these variables in our analyses. Some socio-demographic variables such as age, gender, level of education will be introduced, when necessary, as control variables.

6 STUDIES

6.1 Heuristic Model

Based on this theoretical overview and on the empirical findings, we draw a heuristic model (Figures 5-1, 6-1, 6-7), which will be tested empirically with two samples (Colombian and German samples) in cross-sectional questionnaires.

Figure 6-1 Heuristic model
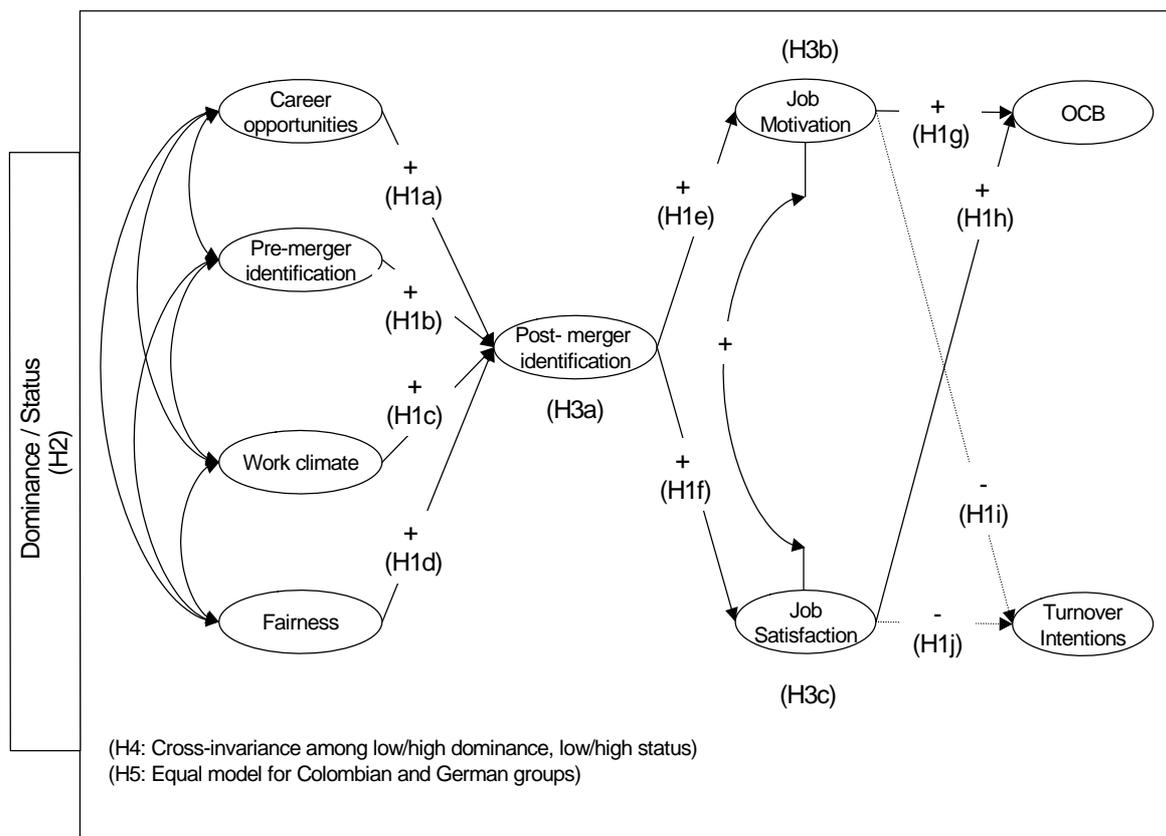
Note. The heuristic models shown in figure 5-1, 6-1 and 6-7 are the same.

6.2 **Hypotheses**

The research hypotheses of our study, which will be tested with the Colombian and German samples, are the following:

Hypothesis 1: We propose that in the context of a merger, career opportunities (H1a), pre-merger identification (that employees had with their former organizations, H1b), work climate (H1c), and fairness (H1d) will be related with post-merger identification with the new organization. Similarly, we expect that post-merger identification is related with job motivation (H1e) as well as with job satisfaction (H1f). Finally, we expect that job motivation (H1g) and job satisfaction (H1h) will be related with organizational citizenship behavior, and that job motivation (H1i) and job satisfaction (H1j) will be related with turnover intentions.

Hypothesis 2: We expect that employees who consider themselves as members of the formerly high dominant group perceive the organization as having more career opportunities, fairness and work climate, show higher pre- and post-merger organizational identification, job motivation, job satisfaction, organizational citizenship behavior, as well as lower turnover intention after the merger than employees from the formerly low dominant group.

Hypothesis 3: We propose that post-merger identification (H3a) is a mediator for the relation of career opportunities, pre-merger identification, work climate, and fairness on the one hand, with job motivation and job satisfaction on the other hand. Additionally, we propose that job motivation (H3b) and job satisfaction (H3c) act as mediators for the relation between post-merger identification on the one hand, and organizational outcomes such as organizational citizenship behavior and turnover intentions, on the other hand.

Since we want to test whether the model is equally valid in subgroups (low/high dominance and low/high status) and across groups that represent different cultures, we will examine also the following hypotheses:

Hypothesis 4: We propose that the model of our research (Figure 6-1) will be applicable across subgroups regarding dominance (H4a) in both Colombian and German samples, and status (H4b) in the Colombian sample.

Hypothesis 5: We propose that the model of our research is theoretically and statistically valid in the two groups representing South American and European contexts.

6.3 Study I Colombian Sample

6.3.1 Method

6.3.1.1 Participants

This study was executed in a merged governmental institution in Colombia in 2003, two months after the mentioned fusion took place. From the total number of employees (438) in the merged organization, 314 employees (72 %) answered the questionnaires. The final sample, after screening the data (as will be explained later) consisted of 207 cases (47.6 %) out of all employees without missing values in the variables. Of these 207 participants, 49 % were from the former institution A and 51 % from the former institution B. The age of the participants were distributed as follows: 24 % were between 25-34 years, 39 % between 35-44 years, 29 % between 45-54 years, and 7 % were 55 years and older. 55 % of the participants were female. Regarding the educational level, 27 % had degrees from high school to different sorts of technical colleges, 26 % held bachelor degrees or some graduate professional school education, 44 % possessed graduate professional school degrees and 2 % had a doctorate. 7% of the employees had been with the entities less than 2 years, 59 % between 2 and 10 years, 22% between 11 and 20 years, and 12 % were with the institution for 21 years or more.

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Participants came from all departments of the organization and from all job positions ranging from advisors to general services.

6.3.1.2 Measure

Based on previous scales, we chose and adjusted the items to measure our variables of interest. The first part of the questionnaire refers to socio-demographic information about the employees, such as age, gender, level of education, marital status, working time, union membership, type of contract, department of work, job position. The second part consisted of items relating to independent variables, mediators, and dependent variables. The variable *career opportunities* was measured through 4 items (Table 6-1), based on a questionnaire from Gaertner (2000). The employees had a choice among six options ranging from 1 (strongly disagree) up to 6 (strongly agree). *Work climate* was assessed through 6 items based on Cook et al. (1981). *Fairness* was assessed using 3 items from Tyler and Blader (2000); Paulus et al. (1996). *Pre- and post-merger identification* were each assessed through 8 items (formulated in past tense for the pre-merger and in present tense for the post-merger situation) based on the available literature (Brown, Condor, Mathews, Wade & Williams, 1986; Mael & Ashforth, 1992; Haslam, 2001; Van Dick, Wagner & Lemmer; 2004). *Job motivation* was assessed using 6 items from Warr, Cook and Wall (1979), *job satisfaction* using 6 items based on Hackman and Oldham (1975) and Warr et al., *organizational citizenship behavior* through 7 items based on Paulus et al. (1996) and Organ (1988). *Turnover intention* was assessed through 5 items derived from Gaertner (2000), Tyler and Blader (2000). *Perception of dominance* of the in-group as well as the out-group was measured by two items adapted from Gaertner (2000). The mentioned items, which were included in the final version of the questionnaire, are presented in appendices A (English translation) and B (Spanish version). In appendix C, we show all items again, and additionally, their factor loadings, means, standard

deviations, item-scale correlations, and the reason(s) for item exclusion. In table 6-1, we display only those items that entered into the different statistical analyses when testing the hypotheses. Results of the exploratory factor analyses and reliability of the scales will be displayed in section 6.3.2.2.

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Table 6-1. Exploratory factor analyses for each scale

Career opportunities	Factor loadings	Mean	Sd	r (i-t)
04 Employees from both pre-merger organizations have the same possibilities to advance in their career	.844	3.37	1.93	.68
01 Individuals from both pre-merger organizations are welcome to work for the success of the merged organization	.778	3.99	1.83	.59
03 The merger provides me with better career opportunities	.766	3.03	1.75	.57
02 In my department there is a team spirit among people from different organizations	.750	4.10	1.69	.56
Pre-merger identification				
22 I am pleased with my former organization	.84	4.93	1.36	.74
18 Identifying myself with my former organization reflects my personality well	.81	4.61	1.39	.70
19 I like to work for my former organization	.81	4.67	1.6	.70
17 I am identifying myself with my former organization	.79	4.99	1.23	.67
24 I really care about the fate of my former organization	.73	4.35	1.77	.61
20 My former organization is positively judged by others	.64	4.36	1.46	.52
Work climate				
05 We feel that all of we are in the same team	.851	3.62	1.74	.74
03 There is good contribution between my work team and other work teams of the merged organization	.825	3.93	1.49	.70
06 We have respectful and harmonic relations to every level	.816	4.5	1.56	.69
02 The merged organization offers a good environment of work	.756	3.44	1.51	.62
04 We speak about themes that are interesting for all of us	.751	4.55	1.43	.61
Fairness				
02 The rules and procedures in the merged organization are equally fair to everyone	.918	3.25	1.68	.79
01 I feel that the merged organization makes decisions in fair ways	.909	3.21	1.55	.78
03 Organizational authorities in the merged organization try very hard to be fair to their employees	.838	3.38	1.53	.66

Post-merger identification	Factor loadings	Mean	Sd	r (i-t)
30 I am pleased with my merged organization	.859	4.53	1.45	.77
27 I like to work for my merged organization	.852	4.96	1.30	.76
26 Identifying myself with my merged organization reflect my personality well	.823	4.32	1.43	.72
25 I am identifying myself with my merged organization	.816	4.25	1.45	.72
32 I really care about the fate of my merged organization	.775	5.13	1.34	.67
28 My merged organization is positively judged by others	.672	4.18	1.43	.55
Job motivation				
05 I like to look back on the day's work with a sense of a job well done	.906	5.71	.73	.72
06 I try to think of ways of doing my job effectively	.808	5.92	.44	.59
03 I take pride in doing my job as well as I can	.718	5.89	.39	.47
Job satisfaction				
05 I am satisfied with the quality of supervisors	.836	4.43	1.42	.57
06 I am satisfied with other workers	.826	4.45	1.18	.57
01 I am satisfied with my job	.720	5.04	1.17	.44
Organizational citizenship behavior				
02 I help others who have been absent	.861	5.26	.89	.65
04 I help others who have heavy work loads	.824	5.21	.85	.60
03 I help orienting new people	.791	5.57	.70	.55
Turnover intentions				
04 I often think about quitting (recoded)	.883	2.37	1.68	.72
01 I would like to leave my job (recoded)	.863	2.60	1.86	.68
05 I would be willing to consider leaving my current work organization (recoded)	.847	2.91	1.91	.65

Note. Method of extraction: Principal component analysis with varimax rotation.

Sd = Standard deviation; r (i-t) = Item-total correlation; n = 207 without missing values.

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6.3.1.3 Procedure

The original items were revised and adjusted first, based on some suggestions from other psychologists of the Marburg University, who tested the initial draft of the questionnaire (English version); then we revised the items with the steering committee from the merged organization (who received a Spanish version, which was also previously revised with a Spanish psychologists and native speakers); the steering committee made suggestions as well; and finally we revised the items with a reduced group of workers (n = 11) from different job positions and levels of educations from the merged organization. The first versions of the questionnaire had positively and negatively formulated items. When we applied it to the group of employees, we recognized that negative statements caused confusion among some people. Therefore, we reformulated some items in order to make them more comprehensible for all employees from all levels of the organization. The final version of the questionnaire (see Appendix B) was applied to the employees of the merged entity. They completed the questionnaire during working hours, answering it in 40 minutes, on the average. We assured them an anonymous evaluation. The items that were included in the final analyses are shown in table 6-1.

6.3.2 Results

6.3.2.1 Screening data

After entering the data into the system, we probed its accuracy (Tabachnick & Fidell, 2001). We took several questionnaires at random and checked that the information from the questionnaires agreed with the data file. Then we verified that the values of each item were within the established rank and that the values of means and standard deviations were reasonable.

Afterwards, we started with screening and analyzing the amount of missing data in the original sample (314 cases). We found that a high percentage of missing values was related to the variables "pre and post-merger identification" (between 10 and 30% per individual). Therefore, we decided to accept only those cases in which respondents answered at least 50 % (4 answers out of 8) of the referring questions in each focus of identification. This resulted in the deletion of 99 cases. Examining the reasons that could have produced the amount of missing values regarding the variable identification, we found that 34 of the excluded cases concerned employees who had been working for the former organizations for less than two years. Additionally, the form in which we had formulated the questions related to the variable identification might have caused confusion among those respondents who preferred not to answer these questions.

Since the percentage of missing values in the remaining variables oscillated between 1 and 10 % and these values were randomly distributed, we accepted only those cases in which the respondents did answer at least 90 % of the items of all these variables. As a result, two more cases were excluded. The remaining missing values were replaced by the mean of the available data for each item (Tabachnick & Fidell, 2001). Finally, we excluded another 6 cases corresponding to employees who, prior to the fusion, had worked for another institution. The final sample consisted of 207 cases, making up 47.6 % of the total number of employees of the merged organization.

In order to test whether we could obtain different results from analyses with and without missing values (Tabachnick & Fidell, 2001), we obtained factor analyses and reliability, means, standard deviations, and correlations for all variables; first including, then excluding missing values (Table 6-2). After comparing these results, we found that most of them were very similar. Exploratory factor analyses and reliabilities of scales with and without missing values pointed to the same items, whether having low factor loading or low item-scale correlation. Therefore, we dropped them. The correlations among the variables,

with and without missing values were also very similar, except that the correlation among career opportunities and job motivation was slightly lower ($r = .114$, $p = .051$) when missing values were included. The other difference was in the correlation of job motivation and turnover intentions, being slightly lower ($r = -.101$, $p = .077$) when we included missing values. Based upon this, we can conclude that the results remained similar in spite of having reduced the sample. This gave us confidence to continue our analyses with the sample without missing values.

Table 6-2 Descriptive statistics and correlations among the scales including and excluding missing values

	Mean	Standard deviation	1	2	3	4	5	6	7	8	9	10
1. Career opportunities												
Including missing values	3.69	1.41	.79	.210**	.534**	.541**	.515**	.114 +	.576**	.017	-.286**	
Excluding missing values	3.62	1.41	.79	.207**	.514**	.533**	.515**	.174*	.618**	.109	-.285**	.219**
2. Pre-merger identification												
Including missing values	4.65	1.20		.88	.261**	.106	.315**	.096	.270**	.090	-.056	
Excluding missing values	4.65	1.13		.86	.254**	.096	.305**	.157*	.265**	.083	-.051	.003
3. Work climate												
Including missing values	4.06	1.29			.87	.513**	.527**	.045	.597**	-.022	-.257**	
Excluding missing values	4.01	1.24			.86	.497**	.575**	.123	.629**	-.010	-.271**	.164*
4. Fairness												
Including missing values	3.32	1.45				.87	.418**	.013	.518**	-.009	-.284**	.214**
Excluding missing values	3.28	1.41				.87	.433**	.052	.517**	.051	-.322**	
5. Post-merger identification												
Including missing values	4.69	1.12					.89	.217**	.551**	.163**	-.356**	
Excluding missing values	4.56	1.12					.89	.314**	.586**	.227**	-.381**	.116
6. Job motivation												
Including missing values	5.80	.52						.76	.131*	.400**	-.101+	
Excluding missing values	5.84	.43						.72	.121	.351**	-.167*	-.146*
7. Job satisfaction												
Including missing values	4.70	1.03							.79	.103	-.321**	
Excluding missing values	4.64	1.0							.71	.127	-.306**	.129
8. OCB												
Including missing values	5.33	.74								.79	-.022	
Excluding missing values	5.35	.67								.76	-.095	.063
9. Turnover intention												
Including missing values	2.50	1.52									.81	
Excluding missing values	2.63	1.57									.83	.002
10. Relative in-group dominance												
Excluding missing values	-2.44	2.44									.	n.a.

Note. The alpha coefficients are on the diagonal;   n.a. = "not applicable".

** p <.01;   *p <.05;   + p <.10   including missing values n = 314,   excluding missing values n = 207

6.3.2.2 Quality of the scales

Exploratory Factor Analyses and Reliability of the Instruments

The main purpose of exploratory factor analysis (EFA) is to identify a small number of factors that represent the relationship among the variables (StatSoft, 2006; Visauta & Martori, 2003). In factor analytic theory, factors refer to the internal attributes or latent variables, which are measured through the external attributes or items (Tucker & McCallum, 1997). We performed EFA for each scale based on a principal component analysis. Varimax is used as a rotational strategy; its purpose is "to obtain a clear pattern of loadings, that is, factors that are somehow clearly marked by high loadings for some variables and low loadings for others" (StatSoft, 2006). All analyses were performed with SPSS.

As a starting point, those items which had good loadings (above .30), low cross-loading and good item-scale correlation (above .30) were accepted. Examples of items that were included in the final scales, together with their factor loading, means, standard deviations and item-scale correlations, are displayed in table 6-1. We assessed the reliability of each instrument using Cronbach´s alpha coefficients. Those items with low item-scale correlation (below or around .30) were not included in the following analyses (see appendix C). Reliability, mean, standard deviation, and inter-correlation between the scales are displayed in table 6-2.

Results of the exploratory factor analysis (EFA) and reliability of each one of the scales under study were the following ones:

The variable career opportunities showed one factor with eigenvalue above 1 (2.47); this factor explains 61.7 % of the total variance. The factor loadings were above .75. Regarding reliability, the internal consistence was .79, and the scores of item-scale correlations were between .56 and .68.

The variable pre-merger identification [1] had one factor solution with eigenvalue above 1 (4.26), accounting for 53.3 % of the total variance. Factor loadings were between .54 and .83. Cronbach´s alpha coefficient was .86 and the item-scale correlations were above .52. After discarding items # 21 and # 23, we again obtained a one-dimensional factor solution with eigenvalue above 1 (3.61), which explains 60.2 % of the total variance. The factor loadings ranged from .64 to .84. Cronbach´s alpha coefficient was .86 and the item-scale correlations were above .52.

The variable work climate displayed a one factor solution with eigenvalue above one (3.32), accounting for 55.4 % of the total variance. The factor loadings ranged from .39 to .84. Since one item showed low item scale correlation (.28), we excluded it (item # 1 "the labor environment in the previous organization which I belonged to, was pleasant"). Afterwards, we obtained a Cronbach´s alpha of .86 with items whose item-scale correlations were above .62. The remaining items were above .75, they loaded onto the first factor with eigenvalue above 1 (3.21) and accounted for 64.15 % of the total variance.

The variable fairness had one factor solution with eigenvalue above 1 (2.37), accounting for 79.1 % of the total variance. The factor loadings were between .83 and .91. Reliability analysis of the scale revealed a Cronbach´s alpha of .87, with items whose item-scale correlations were above .66.

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[1] Later, in the preliminary confirmatory factor analysis section, we kept out item # 21 ("I work for my former organization more than necessary") from the pre-merger identification scale; the reason was that the same item in the post-merger identification scale, formulated in present tense, was also deleted. Afterwards, item # 23 ("If someone says something bad about my former organization, they say something bad about me") showed low factor loading, therefore it was also excluded.

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The items that composed the variable post-merger identification [2] had one factor solution with eigenvalue above 1 (4.27), accounting for 53.3 % of the total variance. The factor loadings ranged from .45 to .85. Cronbach´s alpha was .86 and the item-scale correlations were above .37. Since we dropped items # 29 and # 31, we again examined the factor loading of the remaining items. They showed one factor solution with eigenvalue above 1 (3.86), explaining 64.3 % of the total variance. The factor loadings ranged from .67 to .85. Cronbach´s alpha was .89 and the item-scale correlations were above .55.

The job motivation scale displayed 3 factors with eigenvalue above 1: factor 1 = 2.24; factor 2 = 1.28, and factor 3 = 1.04, explaining 37.4 %, 21.35 %, and 17.4 % of the total variance, respectively. Examining the items of each factor, we found that the items that loaded on the second factor (item # 2 "My self esteem lowers when I do this job badly", and item #4 "I feel unhappy when my work is not up to my usual standard") were the recoded ones. Regarding the item that loaded onto the third factor (item # 1 "I feel a sense of personal satisfaction when I do this job well") we recognized that it also measures satisfaction. Therefore, we decided to drop the item loading onto the third factor (item # 1). Afterwards, items # 5 "I like to look back on the day's work with a sense of a job well done", # 6 "I try to think of ways of doing my job effectively", and # 3 "I take pride in doing my job as well as I can" loaded onto the first factor, whereas the recoded ones (# 2 and # 4) loaded onto the second. Factor 1 (2.18) and factor 2 (1.26) explained 43.54 % and 25.26 % of the total variance, respectively. These results may reflect the fact that we had only one variable with both positive and negative items. Therefore, we grouped the remaining items into one factor.

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[2] Later, in the preliminary confirmatory factor analyses section, two items were excluded: # 29 "I work for my merged organization more than necessary" (for showing low factor loading) and # 31 "If someone says something bad about my merged organization, they say something bad about me" (the same item in the pre-merger identification scale, was also deleted).

Since item # 2 had low factor loading (.27), we excluded it. The final items that composed this variable loaded onto the first factor solution with eigenvalue above 1 (1.99), explaining 66.3% of the total variance. The factor loadings of these items ranged from .72 to .91. In the reliability analysis, we dropped item # 4 that had low item-scale correlation (.30). Afterwards, we improved also the Cronbach´s coefficient, from .56 to .72, with items whose item-scale correlations were above .47.

The job satisfaction scale displayed one factor with eigenvalue above 1 (2.80), accounting for 46.7 % of the total variance. Factor loadings ranged between .50 and .76. We observed that the initial Cronbach´s alpha (.73) could be improved if we dropped an item (# 3 "I am satisfied with the payment") whose item-scale correlation was relatively low (.34). After discarding this item, we obtained a reliability coefficient of .76, whose items had item-scale correlations above .44. When performing the confirmatory factor analysis, item # 2 "In general, I like working for this organization", and # 4 "I am satisfied with policies and norms of the entities of the organization" showed cross loading, so we dropped them. In summary, the variable job satisfaction showed one factor solution above 1 (1.90) accounting for 63.3 % of the total variance. The Cronbach´s coefficient with the remaining items was .71.

The OCB scale revealed two factors with eigenvalue above one; factor 1 = 2.41 and factor 2 = 1.1 explaining 34.4 % and 15.8 % of the total variance, respectively. Revising the items, we found that the items regarding other employees such as "help others" (item # 2 "I help others who have been absent", item # 4 "I help others who have heavy work loads", and item # 3 "I help orienting new people") loaded onto the first factor whereas three of those regarding personal behavior (item # 6 "I do not expend a lot of time in idle conversations", #1 "I often make innovative suggestions", and # 7 "I am very punctual") loaded onto the second factor. Since the second factor explained only 15.8% of the total variance, and in order to examine whether these items were or were not part of the same variable, we analyzed all items under one factor. Two items (# 1 and # 6) that had low factor loadings (.34) and low

item-scale correlation (below .24) were excluded. The remaining items loaded onto the first factor (2.045), accounting for 68.1 % of the total variance. Then we obtained a scale with Cronbach´s alpha of .64; since items # 7 and # 5 displayed low item-scale correlation (.25 and .27, respectively) we sequentially excluded them, obtaining an improvement in the Cronbach´s alpha of .76. The remaining items composing the variable OCB loaded onto the first factor (2.04), accounting for 68.17 % of the total variance.

The items that composed the variable turnover intentions displayed two factors with eigenvalue above 1 (2.58 and 1.21), explaining 51.7 % and 24.4 %, respectively, of the variance. We observed that the items loading on the first factor reflect turnover intentions, whereas the ones loading onto the second factor refer to the desire of staying in the organization. Therefore, we chose for the scale those items loading on the first factor (# 1 "I would like to leave my job", # 5 "I would be willing to consider leaving my current work organization", and # 4 "I often think about quitting"). The final variable had one factor with eigenvalue above 1 (2.24) accounting for 74.7 % of the total variance. The new factor loadings ranged from .84 to .88. The reliability analysis showed a Cronbach´s alpha of .83 and item-scale correlations above .65.

The original variable perception of dominance was composed of two items (item # 1 "Institution B is dominant, institution A is absorbed by institution B"; item # 2 "institution A is dominant, institution B is absorbed by institution A"). The correlation between them is significant ($r = .50$, $p < .01$). Based on this information, we created a new variable, called relative in-group dominance; this variable is the result of the subjective appreciation of the employees regarding the arithmetic difference between in-group dominance and out-group dominance. We will explain the procedure in more detail in the following section.

6.3.2.3 Validity of dominance and status assignment

Dominance of both institutions (they will be referred to as institutions A and B [3]) was assessed by the employees' subjective appreciation (item # 1 "Institution B is dominant, institution A is absorbed by institution B"; item # 2 "Institution A is dominant, institution B is absorbed by institution A").

First, we considered the employees' opinions regarding the dominance of their in-group. The employees from the former organization B judged the dominant role of their own entity stronger (M = 2.1, SD = 1.41) than did the employees from the former organization A regarding their own entity (M = 1.74, SD = 1.13); the difference between both groups is marginally significant (T-test = 1.99, df = 205, p = .052).

When analyzing the answers of employees regarding the dominance of the out-group (the items are the same), we found that the perception of the employees from the organization A that the opposite entity would have the higher dominance, is stronger (M = 4.6, SD = 1.7) than the perception of the employees from the organization B, regarding the corresponding question (M = 4.10, SD = 1.89); the difference between both groups is significant (T-test = -2.1, df = 205, p =.035).

Then we created a new variable, called relative in-group dominance as the difference between the scores of in-group dominance and out-group dominance. Results indicated that organization B is perceived as dominant and organization A as dominated. We compared the dominance assignment with the objective definition of status, based upon information given by 5 directors and advisors from the merged organization, who classified the former organization B as a high status group and the former organization A as a low status group. The correlation between both scales (the objective assignment of status and the subjective appreciation of dominance) is significant (r = .18, p < .01).

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[3] In order to treat their information with confidentiality, we did not reveal the names of these institutions.

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In the following analyses based on the Colombian data, we are first going to use the variable relative in-group dominance[4] (subjective appreciation of in-group dominance minus subjective appreciation of out-group dominance) as central variable. Then we will compare these results with the ones from the variable status. For simplicity reasons we will refer to the first variable as dominance.

According to SIT, the self-definition, whether in terms of personal or social identity, becomes a part of the self-concept and influences perceptions and behaviors (Hogg & Terry, 2001). In addition, Haslam, Eggin, and Reynolds (2003) argue that a group's definition should be related to how the group defines itself rather than in terms of demographic characteristics. Since the variable dominance reflects the self-definition of employees as members of one or another group, we consider the information derived from it as more important than that derived from the variable status, which is a demographic characteristic, not necessarily internalized for employees as a part of their self-concept. In addition, attitudes and behaviors seem to be more influenced by those categories that are self-defining (Haslam et al., 2003).

6.3.2.4   Testing the hypotheses

We will sequentially present the hypotheses, explain how we are going to test each one of them, and display the corresponding results.

6.3.2.4.1 *Type of Relationship among the Variables Depicted in the Model*

Regarding the first hypothesis, we propose that in the context of a merger, career opportunities (H1a), pre-merger identification (that employees had with their former

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[4] This will be a comparable variable: relative in-group dominance in both the Colombian and the German sample.

organizations, H1b), work climate (H1c), and fairness (H1d) will be related with post-merger identification with the new organization. Similarly, we expect that post-merger identification is related with job motivation (H1e) as well as with job satisfaction (H1f). Finally, we expect that job motivation (H1g) and job satisfaction (H1h) will be related with organizational citizenship behavior, and that job motivation (H1i) and job satisfaction (H1j) will be related with turnover intentions.

According to SIT, when two or more groups come together, such as in the case of a merger, intergroup comparisons take place and these in-group out-group differentiations are accentuated (Terry, 2003). The membership to one or another group, whether low or high in dominance, impacts differently on attitudes and behaviors (Hogg & Terry, 2000).

Based on that, we want to investigate the type of relation between the variables from different perspectives by taking the whole sample, taking the dominant sample, and taking the dominated group sample. This will enable us to determine, whether the relationships among the variables (previously determined from the entire sample) remain stable across the different groups (low/high dominance).

The Pearson correlations among the variables included in the model are shown in table 6-3. In the first line of each set of correlations, we indicate the relation between the variables taking the entire sample (n = 207), then only the dominant group (n = 96), and finally the dominated group (n = 111).

First, we will examine the results for the entire sample. We found positive and significant relationships among the external variables (career opportunities, pre-merger identification, work climate and fairness) and post-merger identification (as expected in the hypotheses H1a, H1b, H1c, H1d, respectively), as well as between post-merger identification with job motivation (H1e) and job satisfaction (H1f), respectively. Therefore, we accept these hypotheses.

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We obtained a positive and significant relationship between job motivation and OCB (accepting H1g), whereas the relationship among job satisfaction and OCB is positive but marginally significant ($r = .127$, $p = .068$). Therefore, we partially accept hypothesis H1h.

The relationship among job motivation and turnover intentions is negative and significant (accepting H1i); and the relationship between job satisfaction and turnover intentions is negative and significant (accepting H1j).

In summary, the relationships among the variables were in line with the Hypotheses H1a through H1j, except for H1h, which was only partially supported.

We also examined the relationship among the above mentioned variables across the dominant and the dominated groups. The relationship between career opportunities, pre-merger identification (that employees had with their former organizations), work climate, and fairness with post-merger identification remained positive and significant for the dominant and dominated group. In the same way, the relationship of post-merger identification with job motivation and job satisfaction remained positive and significant across the mentioned groups.

The relationship between job motivation and OCB also remained positive and significant across the examined (dominant and dominated) groups. The relationship between job satisfaction and OCB was also positive but not significant in both groups.

Job motivation is negatively related with turnover intentions in both groups, but marginally significant for low ($p = .057$) and high ($p = .051$) dominance. Job satisfaction is also negatively related with turnover intentions among both groups but only significant for the dominated one.

Table 6-3. Correlations among all variables

		2	3	4	5	6	7	8	9	Domin
1. Career opportunities	Entire sample	.207**	.51 **	.533**	.515**	.174*	.618**	.109	-.285**	.219**
	Dominant group	.403**	.500**	.522**	.441**	.320**	.646**	.215*	-.240*	-.149
	Dominated group	.078	.470**	.492**	.540**	.088	.570**	-.016	-.308**	.147
2. Pre merger Identification	Entire sample		.254**	.096	.305**	.157*	.265**	.083	-.051	.003
	Dominant group		.327**	.206*	.441**	.279**	.380**	.362**	.093	.033
	Dominated group		.206*	.012	.208*	.01	.196*	-.123	-.148	-.159+
3. Work climate	Entire sample			.497**	.575**	.123	.629**	-.010	-.271**	.164*
	Dominant group			.428**	.522**	.220*	.532**	-.014	-.125	-.273**
	Dominated group			.502**	.590**	.081	.665**	-.055	-.370**	.201*
4. Fairness	Entire sample				.433**	.052	.517**	.051	-.322**	.214**
	Dominant group				.383**	.132	.480**	.113	-.287**	-.104
	Dominated group				.438**	0	.508**	-.042	-.341**	.276**
5. Post merger identification	Entire sample					.314**	.586**	.227**	-.381**	.116
	Dominant group					.417**	.526**	.230*	-.282**	-.138
	Dominated group					.277**	.608**	.200*	-.452**	.105
6. Job motivation	Entire sample						.121+	.351**	-.167*	-.146*
	Dominant group						.243*	.459**	-.2 +	-.098
	Dominated group						.042	.284**	-.181+	-.06
7. Job satisfaction	Entire sample							.127+	-.306**	.129+
	Dominant group							.136	-.141	-.248*
	Dominated group							.09	-.409**	.115
8. OCB	Entire sample								-.095	.063
	Dominant group								-.122	-.111
	Dominated group								-.062	.003
9. Turnover Intentions	All sample									.002
	Dominant group									.2+
	Dominated group									-.011

Note. ** p <.01;   *p <.05;   + p <.10;   two tailed tests   Domin = "variable dominance"

Entire sample n = 207;   dominant group n = 96;   dominated group n = 111

In summary, the relationships among these variables are in line with our hypotheses, and in most of the cases remained stable across low and high dominance. The exceptions were already mentioned above. The correlations shown in table 6-3 provide information regarding the strength of the relationship among these variables, whether significant or not, and the invariance across sub-groups (total sample, dominant and dominated groups). The

interpretation will be based on multi-group analyses, which will be presented in section 6.3.2.4.3.

6.3.2.4.2 *Perception of the Organization from Low/high Dominance, Low/high Status*

Regarding the second hypothesis, we expect that employees who perceive themselves as members of the formerly high dominant group perceive being in the organization as having more career opportunities, fairness and work climate, they show higher pre- and post-merger organizational identification, job motivation, job satisfaction, organizational citizenship behavior, as well as a lower turnover intention after the merger than employees from the previous low dominant group.

In order to see if the mean values of the variables included in our model were different or not, based on one criterion such as dominance, we performed several analyses. Initially, we obtained mean scores for each variable considering the total sample, then we obtained the mean for low and high dominance, then for low and high status (splitting at the median, we distributed the employees into two groups: the low and high dominance groups, and then the low and high status groups). After that, we performed a multivariate analysis of variance MANOVA in order to determine the effects of the variable dominance simultaneously on all the variables depicted on the model.

Comparison of means

In table 6-4, we can observe mean values and their standard deviations for the total sample, low and high dominance groups, and for low and high status groups.

Concerning the variable dominance (Table 6-4 and Figure 6-2), we found that the high dominant group (M = -.17, SD = 1.54) perceives more career opportunities (T-test = – 3.97, df= 205, p < .001), better work climate (T-test = – 3.412, df = 205, p < .01), more fairness

(T-test= – 3.269, df = 205, p < .01), higher post-merger identification (T-test = – 2.27, df=205, p < .05), and higher job satisfaction (T-test = – 2.85, df = 205, p < .01). The mean values of the variables pre-merger identification and OCB are also higher, and of turnover intentions lower, but with the t-test we found that mean differences in these three last cases are not significant. Regarding the variable job motivation, the low dominant group (M =-4.41, SD = .82) shows higher job motivation, and the difference between low and high dominant groups (T-test = 1.599, df = 122, p = .094) regarding job motivation is marginally significant.

Figure 6-2. Comparison of means among low/high dominance
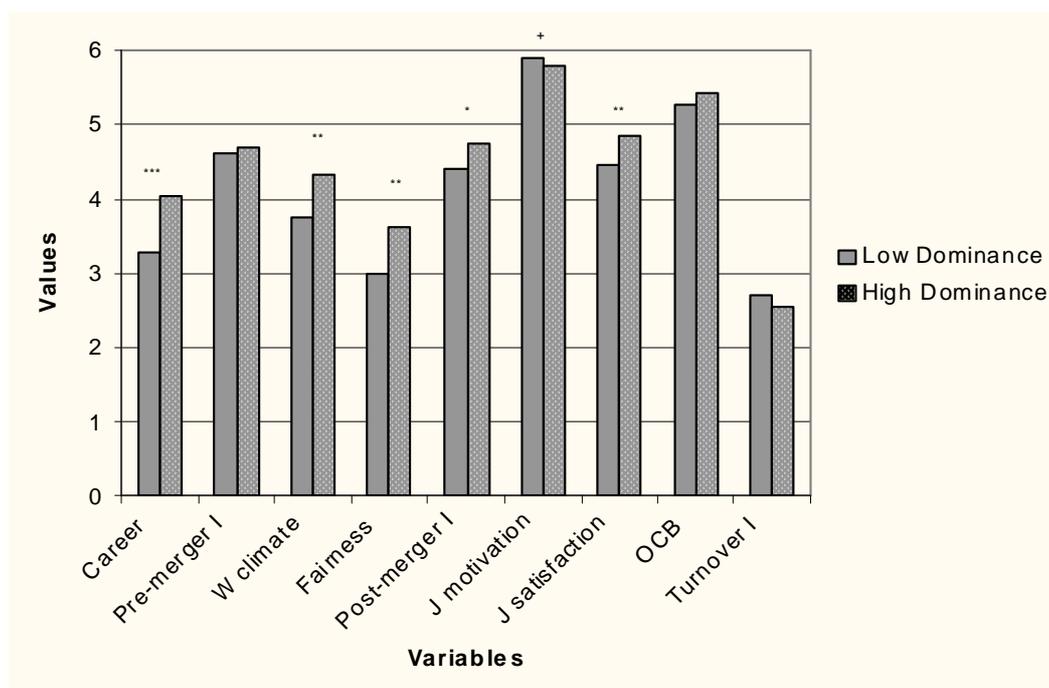
Note.   ***p < .001;   **p < .01;   *p < .05;   +p < .1

Regarding the variable status (Table 6-4 and Figure 6-3), the high status group (M =-2, SD = 2.45) has a higher perception of career opportunities (T-test = – 3.828, df = 205, p<.001), of fairness (T-test = – 2.081, df = 197, p < .05), and of post-merger identification (T-test = – 2.26, df = 205, p < .05), shows more OCB (T-test = – 3.102, df = 205, p < .01) and lower turnover intentions (T-test = 3.691, df = 205, p < .001).

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The high status group also shows higher pre-merger identification, job motivation, and job satisfaction. These differences, however, are not significant. Regarding the variable work climate, the low status group (M = -2.88, SD = 2.36) shows a higher score, but the difference between low and high status group (T-test = .689, df = 205, p > .05) regarding this variable is not significant.

Figure 6-3. Comparison of means among low/high status
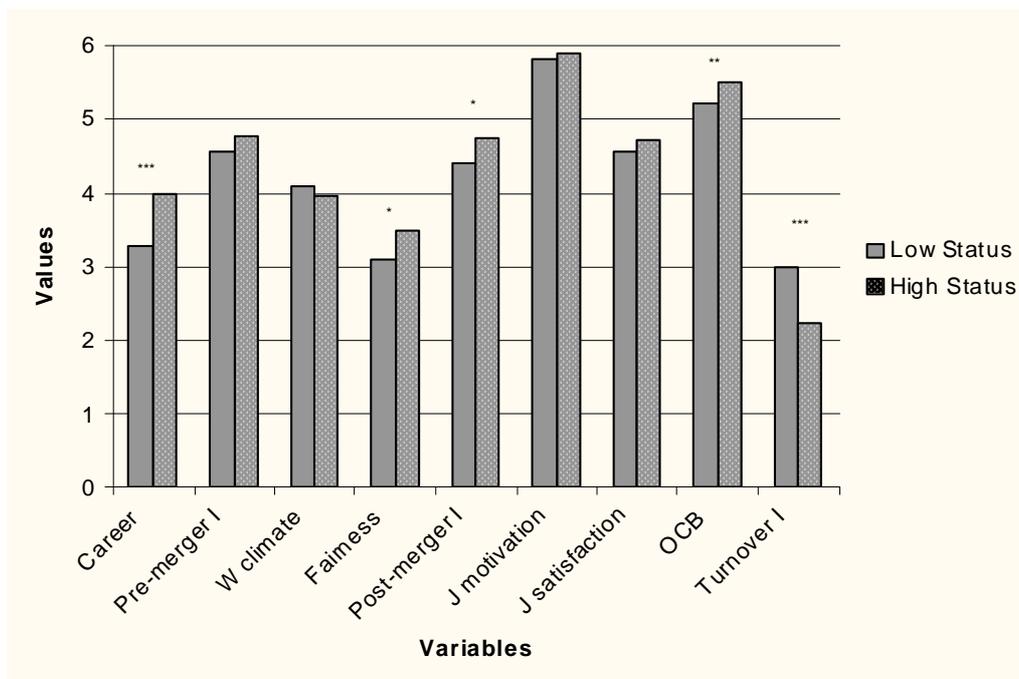
Note.   ***p < .001;   **p < .01;   *p < .05

Comparing groups based on the variables low/high dominance, and also on the variable status, we found in almost all studied variables (except for turnover intentions), that the group with high perception of dominance and the group with high status are the ones that show higher mean scores. The only differences, in this regard, are displayed in the mean values of the variables job motivation (for low and high dominance) being higher for the low

dominant group, but marginally significant, and work climate (for low and high status) being higher for the low status group, but not significant. Regarding turnover intentions, the low dominant and low status groups displayed higher tendencies to leave their jobs; however, these differences were only significant for the low/high status group.

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Table 6-4. Descriptive statistics and effect sizes comparing low/high dominant and low/high status groups

	Mean entire sample low / high dominance low / high status		Standard deviation entire sample low / high dominance low / high status		Levene test		ANOVA excluding socio d. variables		ANOVA including socio d. variables		Effect size
					F	significance	F	Significance	F	Significance	d
Career opportunities	3.62		1.41								
	3.27	4.03	1.43	1.28	1.353	> .05	15.739	< .001	15.138	< .001	.55
	3.26	4	1,26	1.47	2.062	> .05	14.655	< .001	15.207	< .001	.54
Pre-merger identification	4.65		1.13								
	4.62	4.69	1.22	1.03	.800	> .05	0.173	> .05	.002	> .05	.06
	4.54	4.77	1.11	1.16	1.461	> .05	2.103	> .05	1.795	> .05	.20
Work climate	4.01		1.24								
	3.74	4.32	1.25	1.16	.787	> .05	11.642	< .01	10.623	< .01	.48
	4.07	3.95	1.21	1.27	.463	> .05	.474	> .05	.419	> .05	-.09
Fairness	3.28		1.41								
	2.99	3.62	1.4	1.35	.411	> .05	10.686	< .01	8.595	< .01	.46
	3.08	3.49	1.27	1.52	4.898	< .05	4.354	< .05	5.551	< .05	.29
Post-merger identification	4.56		1.12								
	4.4	4.75	1.12	1.09	.272	> .05	5.179	< .05	5.453	< .05	.32
	4.39	4.74	1.16	1.05	.902	> .05	5.106	< .05	4.708	< .05	.31
Job motivation	5.84		0.43								
	5.89	5.79	0.23	0.58	9.922	< .01	2.837	< .1	1.891	> .05	-.24
	5.8	5.88	0.44	0.41	2.518	> .05	1.964	> .05	1.875	> .05	.18
Job satisfaction	4.64		1								
	4.46	4.85	1.07	0.87	3.142	> .05	8.137	< .01	6.559	< .05	.40
	4.57	4.72	0.98	1.02	.004	> .05	1.219	> .05	1.553	> .05	.15
OCB	5.35		0.67								
	5.28	5.43	0.67	0.67	1.015	> .05	2.466	> 0.5	2.999	< .1	.22
	5.21	5.49	0.7	0.62	.199	> .05	9.621	< .01	7.435	< .01	.42
Turnover intentions	2.63		1.57								
	2.72	2.53	1.61	1.52	2.896	> .05	0.744	> .05	.690	> .05	-.12
	3.01	2.23	1.53	1.51	1.803	> .05	13.625	< .001	11.924	< .01	-.51

Note. Entire sample (n = 207); low dominance (n = 111), high dominance (n = 96); low status (n = 105), high status (n = 102);

ANOVA test were performed with dominance and then with status as independent variables; d: effect size (DeCoster, 2003)

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Multivariate analyses of variance –MANOVA-

In order to explore the influence of the variable dominance simultaneously on all the variables included in the model, we executed a multivariate analysis of variance MANOVA [5], which tests "whether mean differences among groups on a combination of dependent variables are likely to have occurred by chance" (Tabachnick & Fidell, 2001, p. 322). Some of the advantages of MANOVA over ANOVA [6] are the possibility to examine more that one dependent variable simultaneously and their relationship (Visauta & Martori, 2003), and to protect "against inflated Type I error due to multiple tests of (likely) correlated dependent variables" (Tabachnick & Fidell, 2001, p. 323).

Since one of the pre-requisites of a MANOVA is equality of variance for all groups, we applied the Levene-test for equality of variance. We found equal group variances for low/high dominant groups, except for the variable job motivation in which the variance is different among low and high dominant groups (Table 6-4). Since F statistics is robust against heterogeneity of variances (Visauta & Martori, 2003), we continued with the analyses.

To perform a multivariate analysis of variance, two steps are recommended: the first one consists of obtaining the overall F-test. With this we can examine whether there are differences in the means of the dependent variables (in this case all variables included in our model) for the different levels of the independent variable (in this case low/high dominance). Of the four multivariate tests (Pillai's Trace, Wilks` Lambda, Hotelling's Trace, and Roy's Largest Root), all with a significance below .001, the Hotelling's Trace multivariate test revealing $F_{(9,197)} = 3.644$, $p < .001$ is the most recommended for our purpose. This is due to

[5] Multivariate analysis of variance works with various dependent variables simultaneously (Howell, 2002).

[6] Univariate one-way analysis of variance includes only one dependent variable in the analyses (Howell, 2002).

the fact that the independent variable (being dominance in this case) has two levels (Visauta & Martori, 2003). We obtained similar results: $F_{(9,194)} = 3.614$, $p < .001$ from the Hotelling's Trace multivariate test, when we included gender, age, and level of education as covariates. These results indicate that there are significant differences between the different levels (low/high dominance) of some of the analyzed variables.

The second optional step is to obtain several ANOVA tests in order to examine, in more detail, differences of the means. With univariate analyses ANOVA (Table 6-4) we found that the main differences among low/high dominance are: in career opportunities $F_{(1,205)} = 15.739$, $p < .001$, work climate $F_{(1,205)} = 11.642$, $p < .01$, fairness $F_{(1,205)} = 10.686$, $p < .01$, post-merger identification $F_{(1,205)} = 5.179$, $p < .05$, job motivation $F_{(1,205)} = 2.837$, $p = .094$ (marginal), and job satisfaction $F_{(1,205)} = 8.137$, $p < .01$. These results remained similar even when controlling for socio-demographic variables (Table 6-4).

We performed MANOVA again, including status as independent variable. All four multivariate tests (Pillai's Trace, Wilks` Lambda, Hotelling's Trace, and Roy's Largest Root) showed significances below .001, the Hotelling's Trace multivariate test revealed $F_{(9,197)} = 5.403$, $p < .001$. Similar results were obtained when we controlled for socio-demographic variables; all four multivariate tests showed again a significance below .001, the Hotelling's Trace multivariate test revealing $F_{(9,193)} = 4.988$, $p < .001$. Based on both results, we state that there are significant differences between low/high status regarding some of the analyzed variables, having established these differences with the univariate test ANOVA (Table 6-4).

In summary, and in line with our expectations, we proved that there are significant differences among low/high dominant and low/high status groups in regard to the majority of the examined variables. This led us to accept hypothesis H2.

6.3.2.4.3   Mediation

Regarding our third hypothesis, we propose that post-merger identification (H3a) is a mediator for the relation of career opportunities, pre-merger identification, work climate, and fairness on the one hand, and job motivation and job satisfaction on the other hand. Additionally, we propose that job motivation (H3b) and job satisfaction (H3c) act as mediators for the relation between post-merger identification on the one hand, and organizational outcomes such as organizational citizenship behavior and turnover intentions, on the other hand.

In order to examine these mediation effects, and to establish the consistency and acceptability of the model (see Figure 6-1), we tested them with two data analysis strategies. One consisted of multiple regression analyses, and the other of a structural equation modeling, SEM [7], and, more specifically AMOS [8].

Multiple regression analyses

A variable can be entitled as a mediator when it carries the impact of the independent variable on the dependent variable (Preacher & Leonardelli, 2001). To test for mediation, we followed the four steps proposed by Baron and Kenny (1986) which are: regressing the mediator on the independent variable, regressing the dependent variable on the independent variable, regressing the dependent variable on the mediator variable; and finally, regressing the dependent variable on independent and mediator variables.

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[7] SEM is considered a "standard tool in many scientific disciplines for investigating the plausibility of theoretical models that might explain the interrelations among a set of variables" (Hu & Bentler, 1999, p.2).

[8] The name AMOS "is actually an acronym for –Analysis of Moment Structures- or, in other words, the analysis of mean and covariance structures" (Byrne, 2001, p. 15).

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Baron and Kenny (1986) argue that to establish mediation, the following conditions must be present: The independent variable must affect the mediator variable in the first equation, the independent variable must be shown to affect the dependent variable in the second equation, the mediator variable must affect the dependent variable in the third equation, and if these conditions all hold in the predicted direction, there is no effect of the independent variable on the dependent variable when the mediator is included.

First, we performed the above mentioned steps without any socio-demographic variable, then we performed the same procedure controlling for socio-demographic variables. In both cases, we obtained the multiple regression coefficients R, R^2, and the adjusted multiple regression coefficients. Finally, we used the Sobel test to determine whether each of the mediation effects was significant or not (Preacher & Leonardelli, 2001).

Examining post-merger identification as mediator, it can be observed that the above-mentioned conditions are fulfilled in almost all mediation groups, both excluding and including socio-demographic variables (Tables 6-5 and 6-6). Analyzing each of these mediation groups, we observed that the influence of the independent variable on the mediator variable in the first equation, the influence of the independent variable on the dependent variable in the second equation, and the influence of the mediator variable on the dependent variable in the third equation are significant. Additionally, the influence of the independent variable on the dependent variable in the fourth equation is less in comparison with the second equation, indicating a partial mediation. Using the Sobel test, we proved that these mediation effects were significant.

The exceptions were the following: in the triad work climate, post-merger identification, and job motivation, we found first that without controlling for socio-demographic variables the influence of the independent variable (work climate) on the dependent variable (job motivation) in the second equation was not significant; however, the influence of the first one on the second was reduced in presence of the mediator variable

(post-merger identification). Second, when controlling for socio-demographic variables, the influence of work climate on job motivation in the second equation became significant, and the impact of the first variable on the second was also less in the presence of the mediator variable (post-merger identification). The Sobel test indicated that the partial mediation was significant.

The only circumstance in which we did not find any mediation effect was in the case of post-merger identification as mediator for the relation between fairness and job motivation. The influence of the independent variable on the dependent variable in the second equation is not significant. We observed the same situation with and without controlling for socio-demographic variables. Since one of the conditions to establish mediation is missing (Baron & Kenny, 1986), we concluded that in this case, there is no mediation effect. Based on these results, we conclude that post-merger identification partially mediates the relationship among career opportunities, pre-merger identification, work climate on the one hand, with job motivation and job satisfaction on the other hand. In regard to fairness, post-merger identification partially mediates the relationship between fairness and job satisfaction but not with job motivation. Since we proved the role of post-merger identification as a mediator in the majority of the cases, we accept hypothesis H3a, but only partially.

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Table 6-5. Testing post-merger identification as mediator without socio-demographic variables

	Triads of Independent - Mediator - Dependent Variables							
Regression equations	care-post-mot	care-post-sat	pre-post-mot	pre-post-sat	clima-post-mot	clima-post-sat	fair-post-mot	fair-post-sat
1rst equation	β	β	β	β	β	β	β	β
Independent - mediator variables	.52 ***	.52 ***	.31 ***	.31 ***	.58 ***	.58 ***	.43 ***	.43 ***
2nd equation								
Independent - dependent variables	.17 *	.62 ***	.16 *	.27 ***	.12 ns	.63 ***	.05 ns	.52 ***
3rd equation								
Mediator - dependent variables	.31 ***	.59 ***	.31 ***	.59 ***	.31 ***	.59 ***	.31 ***	.59 ***
4th equation								
Independent - dependent variables	.02 ns	.43 ***	.07 ns	.09 ns	- .09 ns	.44 ***	-.10 ns	.32 ***
Mediator - dependent variables	.31 ***	.36 ***	.29 ***	.56 ***	.36 ***	.34 ***	.36 ***	.45 ***
R^2	.099	.479	.103	.35	.103	.47	.107	.428
Adjusted R^2	.090	.474	.094	.345	.094	.465	.098	.423
Sobel test: Z (p-value)	3.58 (p< .001)	5 (p< .001)	3.08 (p< .010)	4.10 (p< .001)	4.11 (p< .001)	4.70 (p< .001)	4 (p< .001)	5.11 (p< .001)

Note.   *** p< .001;   ** p< .01;   * p<.05;   + p< .1;   ns = not significant

Care = career opportunities;   pre = pre-merger identification;   clima = work climate;   fair = fairness;   post = post-merger identification;

Mot = job motivation;   sat = job satisfaction

Table 6-6 Testing post-merger identification as mediator with socio-demographic variables

Regression equations	care-post-mot	care-post-sat	pre-post-mot	pre-post-sat	clima-post-mot	clima-post-sat	fair-post-mot	fair-post-sat
1st equation								
Step 1: Socio-demographic variables &								
Step 2: Socio-demographic variables &								
Independent-mediator variables	.45 ***	.45 ***	.20 **	.20 **	.52 ***	.52 ***	.39 ***	.39 ***
2nd equation								
Step 1: Socio-demographic variables &								
Step 2: Socio-demographic variables &								
Independent-dependent variables	.23 **	.58 ***	.16 *	.16 *	.16 *	.58 ***	.12 ns	.45 ***
3rd equation								
Step 1: Socio-demographic variables &								
Step 2: Socio-demographic variables &								
Mediator-dependent variables	.33 ***	.56 ***	.33 ***	.56 ***	.33 ***	.56 ***	.33 ***	.56 ***
4th equation								
Step 1: Socio-demographic variables &								
Step 2: Socio-demographic variables &								
Independent-dependent variables	.10 ns	.41 ***	.10 ns	.06 ns	- .02 ns	.40 ***	- .01 ns	.28 ***
Mediator-dependent variables	.29 ***	.38 ***	.31 ***	.54 ***	.34 ***	.34 ***	.34 ***	.44 ***
R^2	.185	.50	.186	.39	.179	.493	.178	.448
Adjusted R^2	.156	.48	.158	.37	.150	.475	.150	.429
Sobel test: Z (p-value)	3.15 (p< .001)	4.65 (p< .001)	2.32 (p< .050)	2.60 (p< .01)	3.76 (p< .001)	4.5 (p< .001)	3.58 (p < .001)	4.6 (p< .001)

Note. & age, gender, education, years, dominance;   *** p< .001;   ** p< .01;   * p<.05;   + p< .1;   ns = not significant

Care = career opportunities;   pre = pre-merger identification;   clima = work climate;   fair = fairness;   post = post-merger identification;

Mot = job motivation; sat = job satisfaction

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In regard to job motivation as a mediator (H3b), we proved that this variable partially mediates the relationship among post-merger identification and OCB in both cases: excluding and including socio-demographic variables (Tables 6-7 and 6-8). We did not find a mediation effect of job motivation on the relation between post-merger identification and turnover intentions; we observed that the influence of the independent on the dependent variable in the fourth equation remained similar to the second equation, even though including the mediator variable. Therefore there is no mediation effect, no matter whether or not controlling for socio-demographic variables. These results led us to only partially accept hypothesis H3b.

Table 6-7 Testing job motivation and job satisfaction as mediators without socio-demographic variables

Regression equations	Triads of Independent - Mediator - Dependent Variables			
	post-mot-ocb	post-mot-turn	post-sat-ocb	post-sat-turn
1st equation	β	β	β	β
Independent – mediator variables	.31 ***	.31 ***	.59 ***	.59 ***
2nd equation				
Independent - dependent variables	.23 **	- .38 ***	.23 **	- .38 ***
3rd equation				
Mediator - dependent variables	.35 ***	- .17 **	.13 ns	-. 31 ***
4th equation				
Independent - dependent variables	.13 ns	- .36 ***	.23 **	-.31 ***
Mediator - dependent variables	.31 ***	- .05 ns	- .01 ns	-.13 ns
R²	.138	.147	.052	.156
Adjusted R²	.130	.139	.042	.147
Sobel test: Z (p-value)	3.24 (p< .001)	-.76 (p> .050)	-.10 (p> .050)	-1.58 (p> .050)

Note. *** $p < .001$;   ** $p < .01$;   * $p <.05$;   + $p < .1$;   ns = not significant

Post = post-merger identification;   mot = job motivation;   sat = job satisfaction;

OCB = organizational citizenship behavior;   turn = turnover intentions

Table 6-8 Testing job motivation and job satisfaction as mediators with socio-demographic variables

Regression equations	Triads of Independent - Mediator - Dependent Variables			
	post-mot-ocb	post-mot-turn	post-sat-ocb	post-sat-turn
1st equation				
Step 1: Socio-demographic variables &				
Step 2: Socio-demographic variables &				
Independent-mediator variables	33 ***	.33 ***	.56 **	.56 ***
2nd equation				
Step 1: Socio-demographic variables &				
Step 2: Socio-demographic variables &				
Independent-dependent variables	.18 **	-.37 ***	.18 *	-.37 ***
3rd equation				
Step 1: Socio-demographic variables &				
Step 2: Socio-demographic variables &				
Mediator-dependent variables	.34 ***	-.16 *	.11 ns	-. 30 ***
4th equation				
Step 1: Socio-demographic variables &				
Step 2: Socio-demographic variables &				
Independent-dependent variables	.07 ns	-.35 ***	.17 ns	-. 29 **
Mediator-dependent variables	.31 ***	-.05 ns	.03 ns	-.14 ns
R^2	.184	.161	.101	.172
Adjusted R^2	.156	.132	.069	.142
Sobel test: Z (p-value)	3.27 (p< .001)	-.70 (p> .050)	.29 (p> .050)	-1.67 (p< .10)

Note. & age, gender, education, years, dominance;

*** $p < .001$;   ** $p < .01$;   * $p < .05$;   + $p < .1$;   ns = not significant

Post = post-merger identification;   mot = job motivation;   sat = job satisfaction;

OCB = organizational citizenship behavior;   turn = turnover intentions

Examining job satisfaction as mediator (H3c), we found that this variable partially

mediates the relationship between post-merger identification and turnover intentions, being

marginally significant after including socio-demographic variables (Tables 6-7 and 6-8). Finally, examining the mediation effect of job satisfaction on the relation between post-merger identification and OCB, we observed that in the third equation the impact of the mediator variable (job satisfaction) on the dependent variable OCB is not significant. Since one of the pre-requisites for establishing mediation was not fulfilled, we concluded that there is no mediation effect both with and without controlling for socio-demographic variables. Based upon these results, we only partially accept the hypothesis H3c.

Examining R^2, where R denotes the multiple correlation coefficient, we observed that the variables career opportunities and post-merger identification ($R^2 = .48$), work climate and post-merger identification ($R^2 = .47$), fairness and post-merger identification ($R^2 = .43$), pre- and post-merger identification ($R^2 = .35$) accounted for a significant amount of variance in the criterion variable job satisfaction. Similar results were obtained when controlling socio-demographic variables (Tables 6-5 and 6-6).

Regarding the prediction of the variable job motivation (Tables 6-5 and 6-6), we found that the variables career opportunities and post-merger identification ($R^2 = .10$), pre- and post-merger identification ($R^2 = .10$), work climate and post-merger identification ($R^2 = .10$), fairness and post-merger identification ($R^2 = .10$) accounted for a lower amount of variance in this criterion variable (job motivation).

Similarly, post-merger identification and job motivation ($R^2 = .14$), followed by post-merger identification and job satisfaction ($R^2 = .05$), accounted for a lower amount of OCB variance (Tables 6-7 and 6-8).

Finally, examining the criterion variable turnover intentions, we observed that the variables post-merger identification and job motivation ($R^2 = .15$), as well as post-merger identification and job satisfaction ($R^2 = .16$) accounted for a lower variance of the criterion (Tables 6-7 and 6-8).

Structural equation modeling –SEM-

In order to examine the relationship among the variables depicted in our model (Figure 6-1) and to establish its plausibility, we tested it using AMOS. In this model we propose that post-merger identification (H3a), job motivation (H3b) and job satisfaction (H3c) mediate the relationship between career opportunities, pre-merger identification, work climate, and fairness on the one hand, with organizational citizenship behavior and turnover intentions on the other hand. In general terms, the hypothesis to be tested through SEM is, if the model fits exactly or approximately the data (Tomarken & Waller, 2005).

The advantage of any SEM is that it "provides information about hypothesized impact, both directly from one variable to another and via other variables positioned between the other two" (Maruyama, 1998, p. 4). In addition, AMOS allows to statistically test a model through a simultaneous analysis of the variables, in order to determine, whether the model fits the data well (Byrne, 2001). Furthermore, SEM offers the possibility to examine the relationship both: among manifest indicators in the measurement analyses, and among constructs in the structural analyses (Tomarken & Waller, 2005).

Model fit refers to the degree to which the structural equation model fits the sample data (Hu & Bentler, 1999; Schermelleh-Engel, Moosbrugger & Müller, 2003; Tomarken & Waller, 2005). The method used for parameter estimation was the maximum likelihood, ML, which is also preferred for small sample sizes (Schermelleh-Engel et al., 2003). "This method leads to estimating the parameter ϕ, which maximizes the likelihood L that the empirical covariance matrix S is drawn from a population for which the model implied covariance matrix is valid" (Schermelleh-Engel et al., 2003, p. 25). This approach allows obtaining the parameter values that are more adjusted to the data.

Anderson and Gerbing (1984) and Boomsma (1985), based on Monte-Carlo research, examined various problems derived from very small samples and model characteristics, when performing maximum likelihood confirmatory factor analyses. They concluded that small

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sample size and model characteristics such as a low number of indicators per factor, led to convergence failures and improper solutions (when n < 100, and two indicators per factor), and accuracy problems (sample size between 25 and 50 cases). In order to avoid these kind of inconveniences, Loehlin (1998, p. 62) recommends to "use more indicators per factor if you can and plan towards replication in another sample". Anderson and Gerbing (1984), advise using a sample size of at least 100 cases and at least 3 indicators per factors. Boomsma (1985) also suggests a sample size greater than 100 and argues that replication and cross-validation are necessary. Although there is no rule regarding the minimal sample size to be considered when using SEM, Loehlin (1998), Tomarken and Waller (2005) point out that a sample size with at least 200 cases seems to be adequate in order to reduce bias. Tabachnick and Fidell (2001) argue that the guide of Comrey and Lee (1992) regarding sample size may be applied in SEM analyses. They classify sample sizes as very poor (n = 50), poor (n = 100), fair (n = 200), good (n = 300), very good (n = 500), or excellent (n = 1000).

In summary, sample size and number of indicators per factor are issues to be considered when using SEM because they affect power, overall model fit, etc. (Anderson & Gerbing, 1984; Boomsma, 1985; Boomsma, 2000; Tomarken & Waller, 2005). With a sample size of n=207, and with the number of indicators per factor being between three and six, we judge that the characteristics of our study are in line with these recommendations.

Several authors suggest examining the fit of the model based on various fit indices, and in particular on those less sensible to sample size (Hu & Bentler, 1999; Schermelleh-Engel et al., 2003). We evaluated the fit of the structural equations based on a variety of tests: statistical tests such as Chi², and descriptive tests such as CFI, RMSEA, and SRMR.

χ^2 goodness-of fit statistics "assesses the magnitude of discrepancy between the sample and fitted covariance matrices" (Hu & Bentler, 1999, p. 2). χ^2 has an associated significance test, which is ideally a non significant p-value of χ^2. The non significance of χ^2 indicates that the model fits the data (Schermelleh-Engel et al., 2003). Due to the fact that the

sample size influences χ^2 (Maruyama, 1998), Schermelleh-Engel et al. (2003) do not recommend to put much attention to the p-value derived from χ^2. An alternative, proposed by Jöreskog and Sörbom (1993), is to obtain a value of χ^2 and divide it by the degrees of freedom: χ^2/df. The smaller the value, the better the model fits. Although there is not an absolute standard, a ratio lower than 2 reveals a good fit, and a ratio between 2 and 3 an acceptable fit.

From χ^2, one can also obtain a $\Delta\chi^2$ and Δdf, which are the differences in χ^2 and degrees of freedom, df, between two models, respectively. They permit to compare two models and to decide whether the nested model is better than the original one or not. If the $\Delta\chi^2$ is significant, it means that the modified model fits the data better and should be accepted (Schermelleh-Engel et al., 2003).

Since χ^2, $\Delta\chi^2$, and Δdf are very sensible to sample size (Schermelleh-Engel et al., 2003), it is recommended to examine various descriptive measures (Hu & Bentler, 1999; Schermelleh-Engel et al., 2003). Therefore, we evaluated the model fit also with descriptive fit indexes such as CFI, RMSEA and SRMR. In the following we will briefly describe all of them.

The Comparative Fit Index CFI is the result of comparing the hypothesized with the independent model (Loehlin, 1998). The cutoff criterion should be a value close to .95 (Hu & Bentler, 1999); a value between .95 and .97 is considered an acceptable fit, between .97 and 1 a good fit (Schermelleh-Engel et al., 2003). From the set of measures based on model comparison, CFI has the advantage of being less influenced by sample size (Schermelleh-Engel et al., 2003; Hu & Bentler, 1998; Hu & Bentler, 1999). For small samples, Hu and Bentler (1999) propose to use a combination of CFI with SRMR, where the cutoff criterion may be .95 and .09, respectively.

The Root Mean Square Error of Approximation RMSEA, which is "a measure of approximation fit in the population" (Schermelleh-Engel et al., 2003, p. 36) is a descriptive

measure of overall model fit, and is one of the most relevant indices in covariance structure modeling (Byrne, 2001). The cutoff criterion should be a value close to .06 (Hu & Bentler, 1999) and values can be grouped as follows: lower or equal to .05, between .05 and .08, between .08 and .10, reflecting good, adequate and mediocre fit, respectively; and values greater than .10 being not acceptable (Browne & Cudeck, 1993). One advantage of RMSEA is that it is less influenced by sample size (Loehlin, 1998; Schermelleh-Engel et al., 2003). In cases of examining the combination of RMSEA and SRMR, Hu and Bentler (1999) propose a cutoff value greater than .06 and .09, respectively, however, they do not recommend this combination when the sample size is small.

The Standardized Root Mean Square Residual SRMR is an overall badness-of fit measure that is based on the standardized residuals. The cutoff criterion should be a value close to .08 (Hu & Bentler, 1999); values lower than .05 indicate a good fit, and values lower than .10 are acceptable (Schermelleh-Engel et al., 2003). One should, however, analyze this index carefully because of the influence of sample size (Hu & Bentler, 1999; Schermelleh-Engel et al., 2003).

A full structural equation modeling SEM includes a measurement and a structural model (Byrne, 2001; Tomarken & Waller, 2005). The first one "defines relations between the observed and unobserved variables" (Byrne, 2001, p. 12), which are the items and their latent constructs, respectively. The structural model "specifies the manner by which particular latent variables directly or indirectly influence changes in the value of certain other latent variables in the model" (Byrne, 2001, p. 12). Here, the relationship among latent variables is the main concern. We test our heuristic model, performing both analyses, which will be presented in the sequel.

Measurement analyses

In order to evaluate the relation between each set of items and their latent variables, we drew a model and observed that each group of items loaded adequately on the correspondent latent variable. Most of the fit indices of the initial measurement model (χ^2 = 937.937, df = 559, χ^2 / df = 1.678, RMSEA = .057, SRMR = .063) indicate an acceptable fit between the model and the data, except for CFI = .90. Since χ^2 can be influenced by sample size, we prefer to analyze the value of χ^2 divided by the degrees of freedom χ^2 / df, which, based on Jöreskog and Sörbom (1993), indicates a good fit. As the modification indices section showed us some areas of improvement, we included the correlation between the items pre-merger identification # 20 and post-merger identification # 28, then pre-merger identification # 18 and post-merger identification # 26, which are in fact the same questions, only formulated in past and in present tense. Afterwards we included the correlation between items # 3 and # 4 of the variable career opportunities, and finally the correlation between the pre-merger identification items # 17 and # 18. This way, we obtained a modified measurement model (Figure 6-4, Table 6-9 and Table 6-10) that is valid and fits the data better: χ^2 = 796.630, df = 555, χ^2 / df = 1.435, CFI = .94, RMSEA = .046, SRMR = .06. Since the difference between the final model and the previous one ($\Delta\chi^2$ = 16.99, Δdf = 1, p < .001) as well as between the final model and the initial one ($\Delta\chi^2$ =141.307, Δd = 4, p < .001) are statistically significant, we chose the final (last modified) model as the better solution (Table 6-10).

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Figure 6-4. Final measurement model
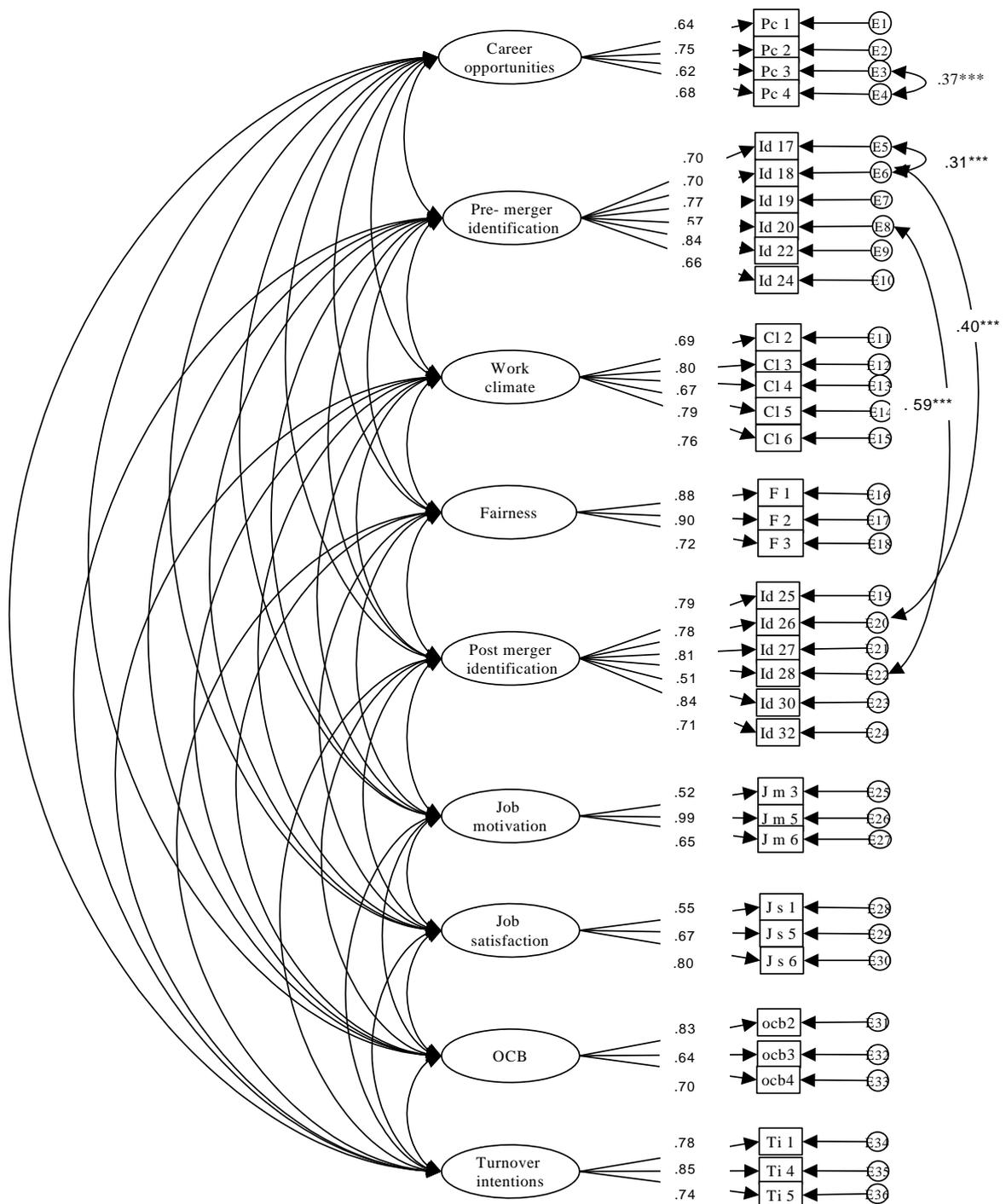
Note. $\chi^2 = 796.630$ df= 555 $\chi^2/df = 1.435$ CFI= .94   RMSEA= .046   SRMR= .060
$\Delta\chi^2 = 16.995$ $\Delta df = 1$, $p < .001$ n = 207.

The correlations between the latent variables are displayed in table 6-9.

Table 6-9. Correlations among latent variables in the measurement model.

Correlation	Regression paths β	Significance
Pre-merger ↔ permeability	.257	.005
Pre-merger ↔ fairness	.096	n.s.
Pre-merger ↔ work climate	.303	***
Pre-merger ↔ post-merger	.301	***
Pre-merger ↔ job motivation	.152	n.s.
Pre-merger ↔ job satisfaction	.375	***
Pre-merger ↔ ocb	.093	n.s.
Pre-merger ↔ turnover intentions	-.071	n.s.
Permeability ↔ fairness	.654	***
Permeability ↔ work climate	.690	***
Permeability ↔ post-merger	.628	***
Permeability ↔ job motivation	.190	*
Permeability ↔ job satisfaction	.860	***
Permeability ↔ ocb	.112	n.s.
Permeability ↔ turnover intentions	-.354	***
Work climate ↔ fairness	.547	***
Work climate ↔ post-merger	.658	***
Work climate ↔ job motivation	.154	n.s.
Work climate ↔ job satisfaction	.812	***
Work climate ↔ ocb	-.036	n.s.
Work climate ↔ turnover intentions	-.334	***
Fairness ↔ post-merger	.463	***
Fairness ↔ job motivation	.055	n.s.
Fairness ↔ job satisfaction	.601	***
Fairness ↔ ocb	.073	n.s.
Fairness ↔ turnover intentions	-.380	***
Post-merger ↔ job motivation	.322	***
Post-merger ↔ job satisfaction	.750	***
Post-merger ↔ ocb	.267	**
Post-merger ↔ turnover intentions	-.455	***
Job satisfaction ↔ Job motivation	.108	n.s.
Ocb ↔ job motivation	.346	***
Turnover intentions ↔ job motivation	-.187	*
Ocb ↔ job satisfaction	.163	n.s.
Ocb ↔ turnover intentions	-.125	n.s.
Turnover intentions ↔ Job satisfaction	-.352	***

Note.　　*** $p < .001$;　　** $p < .01$;　　* $p < .05$;　　↔　Correlation

n.s. not significant

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Table 6-10. Fit indices of the initial and modified measurement and structural models

Model	χ²	Df	χ²/df	CFI	RMSEA	SRMR	Δχ²	Δdf	p
Measurement model									
1. Initial model	937.937	559	1.678	.898	.057	.0629			
The following were added to the model:									
2. Item pre-m # 20 ↔ item post-m # 28	863.665	558	1.548	.918	.052	.0608	74.272	1	.000
3. Item pre-m # 18 ↔ item post-m # 26	834.258	557	1.498	.925	.049	.0604	29.407	1	.000
4. Items career opportunities # 3 ↔ # 4	813.625	556	1.463	.931	.047	.0597	20.633	1	.000
5. Item pre-m # 17 ↔ Item pre-m # 18	796.630	555	1.435	.935	.046	.0595	16.995	1	.000
Structural model									
1. Initial model	888.922	573	1.551	.915	.052	.0714			
The following path was added									
2. Job satisfaction ß Career opportunities	832.972	572	1.456	.93	.047	.0641	55.95	1	.000

Note.   Δχ², Difference in χ² values between models;   Δdf, difference in number of degrees of freedom between models;

p = statistical significance: *** p <.001;   ** p <.01;   * p <.05.   pre-m = pre-merger identification;   post-m = post-merger identification

↔ correlation;   ß regression path

Structural analyses

The purpose of these analyses was to evaluate the relationship between the variables of the heuristic model (Figure 6-1). Most of the fit indices of the initial structural model reflect an acceptable fit between the model and the data: χ^2 = 888.922, df = 573, χ^2 / df = 1.551, RMSEA = .052, SRMR = .071, except for CFI = .92 (poor fit). The modification indices section suggested including a path from career opportunities to job satisfaction (Figures 6-5 and 6-6).

Figure 6-5. Final structural model with latent variables and their indicators

Note. χ^2 = 832.972   df = 572 χ^2/df = 1.456   CFI = .93   RMSEA = .047   SRMR = .064

$\Delta\chi^2$ = 55.95 Δdf = 1   n = 207   *** p< .001;   ** p< .01;   * p< .05;   + p< .1;   n.s. = not

significant.   The correlations between the items pre-merger identification # 18, # 20 and post-merger

identification # 26, # 28, respectively; between career opportunities # 3 and # 4, pre-merger identification # 17

and # 18 were included in the statistical analyses but are not shown in order to simplify the figure.

Dashed line indicates added path. The correlations among latent variables are displayed in figure 6-6.

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We included this path, due to the fact that in previous analyses with regression equations we proved a partial mediation of post-merger identification for the relationship between career opportunities and job satisfaction. Most of the obtained fit indices such as $\chi^2 = 832.972$, df = 572, $\chi^2 / df = 1.456$, RMSEA = .047, SRMR = .064 point toward an adequacy of the model referring to the data, except for CFI = .93, which reflects poor fit (Table 6-10).

Figure 6-6. Final structural model with correlations among latent variables
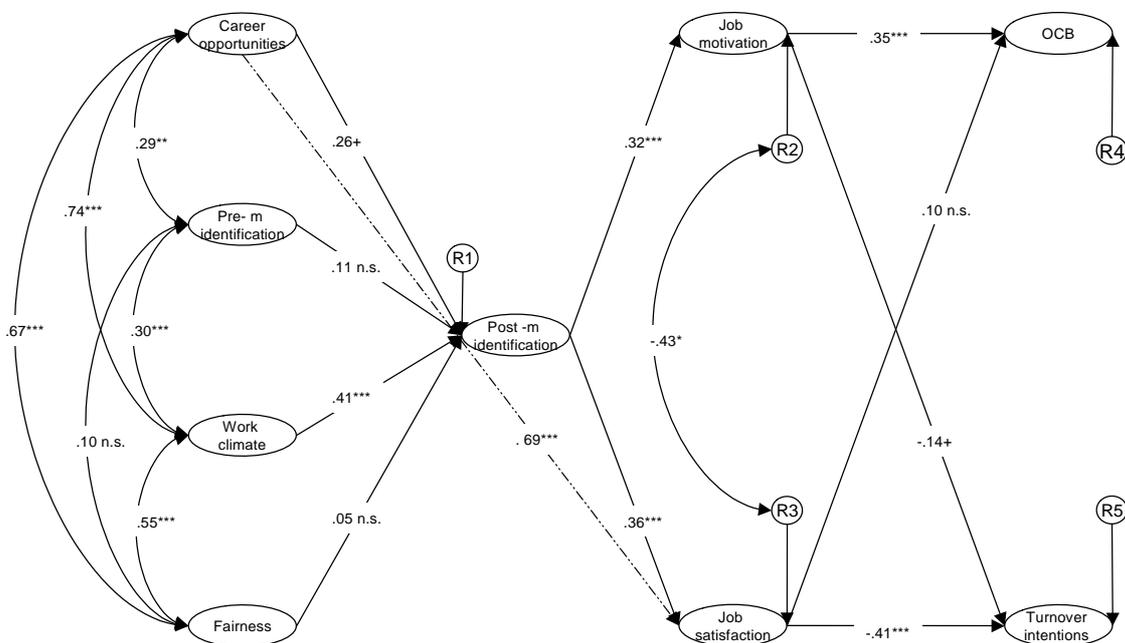
Note. $\chi^2 = 832.972$ df = 572 $\chi^2/df = 1.456$ CFI = .93   RMSEA = .047   SRMR = .064
$\Delta\chi^2 = 55.95$ $\Delta df = 1$ n = 207   Dashed line indicates added path.
*** p < .001;   ** p < .01;   * p < .05;   + p < .1;   n.s. = not significant.

Based on these results, we can conclude that post-merger identification is positively impacted by career opportunities ($\beta = .26$, p = .068), and by work climate ($\beta = .41$, p < .001). Job motivation ($\beta = .32$, p < .001) and job satisfaction ($\beta = .36$, p < .001) are positively influenced by post- merger identification. OCB is positively impacted by job motivation ($\beta = .35$, p < .001), whereas turnover intentions is negatively impacted by job satisfaction ($\beta = -.41$, p < .001) and job motivation ($\beta = -.14$, p = .059).

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In summary, the results obtained with these two approaches: regression analysis and structural equation modeling are complementary, provide a better understanding of the model and lead us to partially accept hypotheses H3a, H3b, and H3c.

6.3.2.4.4 Cross-Validation

We have several reasons to perform this method. The first is to obtain more complete information regarding the model fit. In a case like ours, as we have introduced some modifications (suggested by AMOS) into the original model in order to obtain a model that fits the data better, it is recommended to perform cross-validation (Tabachnick & Fidell, 2001). Thereby one can also prevent against inflated Type I [9] error levels. The second reason is to detect whether we may have problems derived from the size of our sample (n=207). Indeed, Boomsma (1985) suggests carrying out this method, when the sample size is not too large. The third is to determine whether the model can be generalized among subgroups (Maruyama, 1998; Byrne, 2001); this also assures its reliability (Meredith & Horn, 2001). In addition, it is necessary to test our heuristic model under different subgroups and to examine if the items measure the same latent variables along different subgroups (Meredith & Horn, 2001). Finally, cross-validation provides relevant information in which "relationships that represent scientific principles must be identifiable under different conditions of measurement and sampling" (Meredith & Horn, 2001, p. 203). We know in advance, that the sample size of

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[9] "There are two kinds of errors that can be made in significance testing: (1) a true null hypothesis can be incorrectly rejected and (2) a false null hypothesis can fail to be rejected. The former error is called a Type I error and the latter error is called a Type II error" (HyperStat Online Contents, 2005b).

each subgroup can be a disadvantage for cross-validation (Byrne, Shavelson & Muthén, 1989).

On that basis, we propose in our fourth hypothesis that the model of our research (Figure 6-1) should be the same and applicable along subgroups regarding dominance (H4a) and status (H4b).

To confirm that the model can be generalized among subgroups, factor loadings and latent variables must be invariant across such groups. "A test of invariance of the factor pattern provides objective evidence indicating whether the linear composites assumed to measure a given set of concepts in different groups, or at different times, are indeed measuring those concepts in the same way in the different circumstances" (Meredith & Horn, 2001, p. 206).

Cross-validation, using multi-group analyses, consists of comparing factor structures in multiple subgroups. Byrne (2001) points out that factor loading paths and structural regression paths are part of the most relevant information in testing for invariance, therefore two steps were performed. In the first one, the measurement invariance, we tested whether the factor loadings of items were invariant among the defined subgroups. Meredith and Horn (2001) point out that in testing for invariance, one should analyze specific factors (factor loadings), since they produce variation. In addition, they argue that the variation derived from indicators may mix with the ones derived from latent constructs, making it difficult to test for invariance.

To start, we compared the initial model, in which all factor loadings are unconstrained, with a modified model with all factor loadings equally constrained across groups. Then, looking at $\Delta\chi^2$ (differences in the χ^2) and Δdf (differences in the degrees of freedom) between both models, we determined whether the measurement model was cross-equivalent (Steinmetz, Schmidt, Tina-Booh, & Wieczorek, 2004). In those cases in which groups were not equivalent ($p < .05$), we sequentially freely estimated those factor loadings, which showed

greater differences across groups. After that, we obtained a partial measurement invariance among the established subgroups (p >.05).

In the second step, the structural invariance, the structural paths among latent variables were of main concern. The task consisted of testing whether these parameters were cross-invariant among subgroups. We began by comparing an initial model with unconstrained parameters with a model with these paths equally constrained among subgroups. In cases where subgroups were cross-variant, we identified the parameters with higher differences; afterwards, one by one, we unconstrained these parameters and obtained a structural model, which was invariant across the established subgroups (p > .05).

Results of cross validation among subgroups based on the variables dominance, and then on status, are presented next.

Cross-invariance among low/high dominant groups

We performed multi-group analyses among low (n = 111) and high (n = 96) dominant groups. This strategy included both measurement and structural analyses (Table 6-11).

Measurement invariance

The initial model[10] with all factor loadings unconstrained (χ^2 = 1666.261, df = 1146, χ^2/ df = 1.454, CFI = .87, RMSEA = .047, SRMR = .0829) was compared to a model with all factor loadings equally constrained among both groups, and we found that there were some differences ($\Delta\chi^2$ = 52.763; Δdf = 27, p = .002).

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[10] The measurement error corresponding to the variable job motivation # 5 displayed a negative variance, and the covariance matrix of job motivation-job satisfaction was not positively defined; since we considered that these may be a consequence of the sample size (Jöreskog & Sörborn, 1993), we constrained them to zero.

Study I

After leaving the parameter post-merger identification # 28 freely estimated (Table 6-11), we proved a partial measurement invariance ($\Delta\chi^2 = 30.023$; $\Delta df = 26$, $p = .267$) across low and high levels of the mentioned variable. The fit indices $\chi^2 = 1696.284$, $df = 1172$, $\chi^2/df = 1.447$, RMSEA $= .047$, SRMR $= .0856$ point towards a fit between the model and the data, except for CFI $= .864$ (poor fit).

Structural invariance

Regarding structural invariance (Fit indices of the initial model: $\chi^2 = 1666.261$, $df = 1146$, $\chi^2/df = 1.454$, CFI $= .87$, RMSEA $= .047$, SRMR $= .0829$), we obtained a partially structural invariant model ($\Delta\chi^2 = 46.477$; $\Delta df = 36$, $p = .113$) for low and high levels of the variable dominance, with one parameter (from post-merger identification to job motivation) freely estimated (Table 6-11). The fit indices $\chi^2 = 1712.737$, $df = 1182$, $\chi^2/df = 1.449$, RMSEA $= .047$, SRMR $= .0899$ pointed towards an acceptable fit with the data, except for CFI $= .863$ (poor fit). Since these results support the reproducibility of the model across both groups, we accept hypothesis H4a. Although these regression paths are almost invariant among the groups (Table 6-12), the influence of post-merger identification on job motivation ($\beta = .43$, $p < .001$) and of job motivation on OCB ($\beta = .44$, $p < .001$) are slightly higher for the group with high dominance.

Table 6-11. **Fit indices of tests for measurement and structural invariance across low/high dominant groups**

Model	χ^2	Df	χ^2/df	CFI	RMSEA	SRMR	$\Delta\chi^2$	Δdf	p
Measurement invariance									
1. Unconstrained	1666.261	1146	1.454	.865	.047	.0829			
2. All factor loadings constrained	1719.024	1173	1.465	.859	.048	.0873	52.763	27	.002
3. Item post-m identification #28 f.e.	1696.284	1172	1.447	.864	.047	.0856	30.023	26	.267 n.s.
Structural invariance									
1. All paths constrained	1723.732	1183	1.457	.860	.047	.0909	57.471	37	.017
2. Job motivation ß Post m identification f.e.	1712.737	1182	1.449	.863	.047	.0899	46.477	36	.113 n.s.

Note.   f.e. freely estimated; $\Delta\chi^2$, Difference in χ^2 values between models; Δdf, difference in number of degrees of freedom between models;

p = statistical significance: *** p<.001;   ** p<.01;   * p<.05;   n.s. = not significant;   ß regression path

Study I

Table 6-12. Cross-validation among low/high dominance and low/high status.
Regression weights of the final structural model.

Regression paths	Entire sample N = 207	Low Dominance n = 111	High Dominance n= 96	Low Status n = 105	High Status n = 102
	β	β	β	β	β
Post-m identification ß Career opportunities	.26 +	.29 *	.28 *	.35 *	.21 n.s.
Post-m identification ß Pre-m identification	.11 n.s.	.09 n.s.	.08 n.s.	.06 n.s.	.07 n.s.
Post-m identification ß Work climate	.41***	.40 ***	.38 ***	.42 ***	.52 ***
post-m identification ß Fairness	.05 n.s.	.03 n.s.	.03 n.s.	-.02 n.s.	-.03 n.s.
Job motivation ß post-m identification	.32***	.27 *	.43 ***	.18 **	.36 **
Job satisfaction ß post-m identification	.36***	.28 **	.31 **	.37 ***	.28 ***
Job satisfaction ß Career opportunities	.69***	.73 ***	.78 ***	.70 ***	.74 ***
OCB ß job motivation	.35***	.13 ***	.44 ***	.68 ***	.04 n.s.
Turnover intentions ß Job satisfaction	-.41***	-.45 ***	-.36 ***	-.67 ***	-.19 +
Turnover intentions ß job motivation	-.14 +	-.03 n.s.	-.09 n.s.	..009 n.s.	.004 n.s.
OCB ß Job satisfaction	.10 n.s.	.08 n.s.	.06 n.s.	.02 n.s.	.03 n.s.

Note. *** p < .001 ; ** p < .01; * p <.05; + p < .1; n.s. = not significant

β = Standardized regression weights; ß regression path

Cross-invariance among low/high status groups

In order to determine whether the model applies to both low (n = 105) and high (n = 102) status groups (H4b), we performed multi-group analyses. Again, it was necessary to obtain a measurement and a structural model that were both invariant among groups.

Measurement invariance

We obtained the indices of the baseline model without any constraint: χ^2 = 1684.092, df = 1145, χ^2/ df = 1.471, CFI = .87, RMSEA = .048, SRMR = .0846. These indices were the starting point against which we compared the following models when testing for invariance. After constraining all measures and comparing the fit indices of this re-specified model, we found that there is variability throughout the groups ($\Delta\chi^2$ = 63.521; Δdf = 27, p = .000). Subsequently, one by one, we freely estimated 3 parameters (items of job motivation # 5 and # 6, work climate # 3) where differences were substantial (Table 6-13), and we proved partial measurement invariance ($\Delta\chi^2$ = 34.532; Δdf = 24, p = .076). The fit indices indicated an adequate fit between the model and the data: χ^2= 1718.624, df = 1169, χ^2/ df = 1.470, RMSEA = .048, SRMR = .0854, except for CFI = .863 (poor fit).

Structural invariance

The fit indices of the baseline model without any constraint were: χ^2 = 1684.092, df=1145, χ^2/ df = 1.471, CFI = .87, RMSEA = .048, SRMR = .0846. After obtaining and comparing the parameter estimates and standard error across low and high status, we identified those paths that were strongly different. Based on this information, we unconstrained the path from job satisfaction to turnover intentions, then the path from job motivation to OCB, and finally from career opportunities to post-merger identification. After having freely estimated these three parameters, we obtained an equivalent structural model ($\Delta\chi^2$ = 44.905, Δdf = 32, p = .065) across both low and high status groups (Table 6-13). Therefore we accept the hypothesis (H4b). Indices such as χ^2 = 1728.997, df = 1177, χ^2 / df = 1.469, RMSEA = .048, SRMR = .0899 were between the ranges of acceptance, except for the poor fit of CFI = .863.

Study I

Examining the regression paths (Table 6-12), we found that the influence of the variable job motivation on OCB was higher for the low status group (low: $\beta = .68$ p $< .001$; high: $\beta = .04$, p $> .05$). In addition, the impact of job satisfaction on turnover intentions was higher for the low status group ($\beta = -.67$, p $< .001$) in comparison with the high status group ($\beta = -.19$, p $= .086$).

Table 6-13. **Test for measurement and structural invariance among low/high status**

Model	χ²	df	χ²/df	CFI	RMSEA	SRMR	Δχ²	Δdf	p
Measurement invariance									
1. Unconstrained	1684.092	1145	1.471	.866	.048	.0846			
2. All factor loadings constrained	1747.614	1172	1.491	.857	.049	.0878	63.521	27	.000
3. Item job motivation # 5 f.e.	1738.712	1171	1.485	.859	.049	.0860	54.620	26	.001
4. Item job motivation # 6 f.e	1723.073	1170	1.473	.862	.048	.0856	38.981	25	.037
5. Item work climate # 3 f.e.	1718.624	1169	1.470	.863	.048	.0854	34.532	24	.076 n.s.
Structural invariance									
1. All paths constrained	1747.358	1180	1.481	.859	.048	.1	63.266	35	.002
2. Turnover intentions ß Job satisfaction f.e.	1736.600	1179	1.473	.861	.048	.0953	52.508	34	.022
3. OCB ß Job motivation f.e.	1732.172	1178	1.470	.862	.048	.0932	48.080	33	.044
4. Post-m identification ß Career opportunities	1728.997	1177	1.469	.863	.048	.0899	44.905	32	.065 n.s.

Note.   f.e. "freely estimated";   Δχ², Difference in χ² values between models;   Δdf, difference in number of degrees of freedom between models;

p = statistical significance: *** p<.001;   ** p<.01;   * p<.05;   n.s. = not significant;   ß regression path

6.4 **Study II German Sample**

The German data was provided by other researchers [11] who elaborated and applied the questionnaires in the medical pre-merger institutions. Details, relating to these issues will be presented in the method section. Based on this data, we performed all analyses that are explained in the result section.

6.4.1 Method

6.4.1.1 Participants

The negotiations regarding the merger of the two German health organizations (in the following referred to as institutions C and D [12]) began in 2001 and were concluded in 2002 by an agreement of the parties involved. At present, the merger is completed. The steering committee determined the necessity of carrying out a survey of the employees, in order to evaluate several aspects, including pre- and post-merger identification. The questionnaire was distributed among the employees in September of 2003, nine months after the agreement of the fusion. Of the 1.244 employees of both organizations combined, 459 employees responded to the survey. After screening the data (in a manner explained below), the final sample consisted of 319 cases distributed as follows: 57% from institution C and 43 % from institution D. The ages of the participants were distributed as follows: 10 % were younger than 25 years, 16 % between 25-34 years, 39 % between 35-44 years, 28 % between 45-54 years, and 7 % were 55 years or older. 60% of the participants were female. 9% of the employees had been with the organizations less than 2 years, 36% between 2 and 10 years, 36% between 11 and 20 years, and 19 % were with the institutions for 21 years or more.

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[11] We thank Ulrich Wagner for his permission to use the data in this research.

[12] We did not reveal the names of these institutions to treat their information with confidentiality.

Participants came from all departments of the organization and from all job positions ranging from doctor to student nurse.

6.4.1.2 Measure

The survey consisted of socio-demographic information, such as gender, age, place of living, former work, years of work, work assignment, job position, work unit, amount of employment, type of contract, number of training courses, member of union, intention of early retirement, absenteeism and further variables of which we only mention those that are of interest for the current study: *career opportunities* was measured through 1 item "Because of the fusion there are for me great chances to develop my career" (Van Dick, Wagner, & Lemmer, 2004). The answer format allowed respondents to choose one out of six possibilities, ranging from 1 (strongly disagree) to 6 (strongly agree). *Pre-* and *post-merger identification* were each measured through 4 items (Van Dick, Wagner, & Lemmer, 2004) formulated in past and present form, respectively; examples of all items are presented in appendix D. Work climate and fairness were each measured by 3 items, adapted from Van Dick, Wagner and Lemmer (2004). *Job motivation* and *job satisfaction* were assessed using items based on the Job Diagnostic Survey (Hackman & Oldman, 1975). *Organizational citizenship behavior* was assessed through 7 items derived from Organ (1988), *turnover intention* by 4 items (Van Dick, Wagner, & Lemmer, 2004). Perception of dominance of the in-group as well as the out-group was measured by two items from Van Dick, Wagner and Lemmer (2004). All of these variables had also been examined in the Colombian study mentioned earlier. There, the variable level of education was additionally considered.

Table 6-14 contains the items that were included in the final analyses, together with their statistical information such as factor loadings, means, standard deviations, and item-scale correlations.

Study II

Table 6-14. Exploratory factor analyses for each scale based on a principal component analysis

Career opportunities	Factor loadings	Mean	Sd	r (i-t)
01 Because of the fusion there are for me great chances to develop my career	n.a.	1.72	1.13	n.a.
Pre-merger identification				
10. I like to work for my former entity	.888	4.31	1.47	.78
12 For my former entity I commit myself beyond what is required	.872	3.66	1.53	.75
09 I identify myself with my former entity	.857	4.09	1.59	.73
11 My former entity is well respected by other people in my vicinity whose opinions are important to me.	.779	3.44	1.47	.63
Work climate				
03 We are a team.	.919	4.44	1.27	.80
02 We are in the same boat	.892	4.18	1.35	.75
01 We talk about relevant themes that are interesting for all	.849	4.77	1.13	.67
Fairness				
02 The clinic, branch leadership care about the well being of the co-workers	.935	3.21	1.31	.83
03 The clinic appreciate the work of the co-workers	.879	3.40	1.34	.72
01 The co-workers are usually been treated fairly by the clinic, branch leadership	.845	3.84	1.25	.67
Post-merger identification				
14 I like to work for my merged entity	.906	3.77	1.67	.82
13 I identify myself with my merged entity	.878	3.28	1.69	.78
16 For my merged entity I commit myself beyond what is required	.873	3.22	1.57	.77
15 My former entity is well respected by other people in my vicinity whose opinions are important to me	.863	3.03	1.57	.75
Job motivation				
06 My work means too much to me	.783	5.29	1.01	.51
01 My job is very diversified	.716	4.95	1.19	.44
07 I am clearly responsible whether my work will be successfully completed or not	.697	5.11	1.10	.41
03 All together all my work is not very important or meaningful (recoded)	.592	5.19	1.25	.33

Job satisfaction	Factor loadings	Mean	Sd	r (i-t)
10. I am content with the possibilities to develop further in a personal way my work	.887	4.19	1.52	.71
09 I am very satisfied with my job	.824	4.87	1.21	.61
11 I am very content with the feeling to do something very valuable through my work	.804	4.72	1.25	.58
Organizational citizenship behaviour				
03 I obey regulations with great care	.737	5.08	1.04	.53
05 When colleagues are over worked I help what I can	.711	5.38	.82	.48
06 I inform my colleagues and superiors always early if I can not come to work	.699	5.77	.62	.48
04 With the colleagues I have to work in, I like to cooperate	.649	5.31	.90	.40
02 I always come to work punctually	.603	5.25	1.22	.38
Turnover intentions				
01 I often think of resigning from work (recoded)	n.a.	2.27	1.65	n.a.
02 I have already inquired about other jobs (recoded)	n.a.	2.39	1.93	n.a.

Note. Method of extraction: principal component analysis with varimax rotation.

Sd = Standard deviation;   r (i-t) = Item-total correlation;   n.a. = not applicable

N = 319 without missing values.

Appendix D shows the items of the questionnaire that was applied to the employees. The items are displayed together with their factor loadings, reasons for items exclusion, and statistical information.

6.4.1.3 Procedure

The initial survey was revised with a group of employees from different sectors of the organizations such as director of medical area, union, women representative, etc. After some improvement, the questionnaire was tested with 8 employees from different job levels, leading to some further improvements. The final questionnaire was distributed to all of the personnel. They were given the possibility to answer and return it anonymously within five weeks.

Study II

6.4.2 Results

6.4.2.1 Screening data

To screen the data, we followed the same procedure as in study I. From the initial sample of 452 cases, we excluded 14 cases corresponding to employees who worked for another institution before the merger started. Screening the new sample, we found that between 15 and 20 % of the missing values were related to the variables *pre- and post-merger identification*. We included those cases in which employees responded 50 % (2 answers out of 4) of the identification items. With that we excluded 83 cases, reducing the sample to 355. The range of missing values for the remaining variables oscillated between 0.2 % and 1.8 %. Those cases were accepted in which employees did answer at least 90 % of the questions of all these scales. This led to the exclusion of 36 cases. The remaining missing values in the final sample of 319 cases (70 %) were replaced by the mean of the available data for each item (Tabachnick & Fidell, 2001).

We went on to test, whether similar results were obtainable both with and without missing values (Tabachnick & Fidell, 2001). First we obtained factor analyses and reliability, means, standard deviations, and correlations for all variables included in the model, with the entire sample including missing values. Then we performed the same analyses excluding missing values (Table 6-15).

With or without missing values, we found no differences regarding factor analysis, reliability of scales, or correlations among the variables. Consequently, we performed the following analyses with the sample without missing values.

Table 6-15. Descriptive statistics and correlation matrix among the scales including and excluding missing values

	Mean	s. d.	1	2	3	4	5	6	7	8	9	10
1. Career opportunities												
Including missing values	1.70	1.16		.05	.122 *	.161 **	.226 **	.081	.157 **	.125 *	-.037	
Excluding missing values	1.72	1.13	n.a.	.023	.056	.170 **	.256 **	.068	.170 **	.135 *	-.049	.018
2. Pre merger Identification												
Including missing values	3.87	1.31		.88	.248 **	.147 **	.252 **	.208 **	.217 **	.138 **	-.221 **	
Excluding missing values	3.88	1.29		.87	.209 **	.145 **	.224 **	.210 **	.248 **	.132 *	-.235 **	-.139 *
3. Work climate												
Including missing values	4.46	1.20			.88	.288 **	.186 **	.276 **	.397 **	.103 *	-.366 **	
Excluding missing values	4.47	1.11			.86	.324 **	.157 **	.318 **	.414 **	.076	-.422 **	-.049
4. Fairness												
Including missing values	3.54	1.24				.88	.175 **	.254 **	.452 **	.189 **	-.361 **	
Excluding missing values	3.48	1.16				.86	.187 **	.242 **	.436 **	.191 **	-.388 **	-.077
5. Post merger Identification												
Including missing values	3.43	1.52					.92	.245 **	.212 **	.288 **	-.211 **	
Excluding missing values	3.33	1.43					.90	.233 **	.227**	.261 **	-.209 **	.048
6. Job motivation												
Including missing values	5.12	.84						.65	.552 **	.225 **	-.185 **	
Excluding missing values	5.14	.79						.64	.530 **	.187 **	-.197 **	-.011
7. Job satisfaction												
Including missing values	4.60	1.13							.78	.192 **	-.351 **	
Excluding missing values	4.59	1.11							.79	.120 *	-.390 **	.043
8. OCB												
Including missing values	5.41	.65								.72	-.089 +	
Excluding missing values	5.36	.62								.69	-.086	-.037
9. Turnover intentions												
Including missing values	2.24	1.60									n.a.	
Excluding missing values	2.33	1.60									n.a.	.043
10. Dominance												
Excluding missing values	-1.35	2.82										n.a.

Note. The alpha coefficients are on the diagonal. *p <.05, ** p < .01, + p < .1; Including missing values n = 438; Excluding missing values n = 319; n.a. = not applicable; s.d. = standard deviation; we did not calculate Cronbach´s Alphas for the following cases: career opportunities (measured with one single item), turnover intentions and dominance (measured with two items).

6.4.2.2 Quality of the scales

We performed exploratory factor analyses (EFA) for each scale, based on a principal component analysis with varimax rotation by SPSS. As in study I, we accepted those items which had good loadings (above .30), low cross-loading and good item-scale correlation (above .30). The final items are displayed in table 6-14.

The reliability of each instrument was assessed using Cronbach´s alpha coefficients. Items with low item-scale correlation (below .30) were excluded in the following analyses. Reliability, mean, standard deviation, and inter-correlation between the scales are shown in table 6-15.

We now discuss the results of the exploratory factor analyses (EFA) and the reliability of each one of the variables under study. The variable career opportunities was assessed by one item ("Because of the fusion there are for me great chances to develop my career"); therefore, there is no information regarding EFA and Cronbach´s alpha coefficient.

The variable pre-merger identification showed one factor solution with eigenvalue above 1 (2.89), which explains 72.2 % of the total variance. The factor loadings were above .78. Cronbach´s alpha was .87 and the item-scale correlations were above .63.

Regarding work climate, the three items loaded on one factor with eigenvalue 2.36, explaining 78.75 % of the total variance. The factor loadings were between .85 and .92. Cronbach´s alpha was .86 and the item-scale correlations were above .68.

The variable fairness displayed one factor solution with eigenvalue of 2.36, which explains 79 % of the total variance. The factor loadings were above .85. Cronbach´s alpha coefficient was .86 and the item-scale correlations were above .67.

The variable post-merger identification showed one factor with eigenvalue above 1 (3.1), explaining 77.4 % of the total variance. The factor loadings were above .86. Regarding

reliability, the internal consistence was .90, and the scores of item-scale correlations were between .75 and .82.

The variable job motivation showed one factor solution with eigenvalue above 1 (1.96), which explains 49 % of the total variance. The factor loadings ranged from .59 to .78. Cronbach´s alpha coefficient was .64 and the item-scale correlations were above .43.

The variable job satisfaction displayed one factor solution with eigenvalue above 1 (2.11), explaining 70.4 % of the total variance. The factor loadings were above .80. Reliability analysis showed a Cronbach´s alpha of .79 and item-scale correlations above .58.

EFA of the variable OCB displayed two factors with eigenvalue above 1: factor 1 = 2.38, factor 2 = 1.26, explaining 34 % and 18 % of the total variance, respectively. Since the variance explained by the second factor was only 18 %, we examined, whether the items loading onto the second factor could belong to the first factor. The items loading onto the second factor (item # 1 "Sometimes I am willing to work longer" and item # 7 "The time that I work is absolutely sufficient and I don't intend to engage myself more than that") also displayed low factor loadings (.21 and .27, respectively) and low item-scale correlations (.16 and .21, respectively), so we excluded them. The factor loadings of the remaining items, loading onto one factor solution above one (2.322) and accounting for 46.43 % of the total variance, ranged from .60 to .73. Reliability analysis showed a Cronbach´s alpha of .69 and item-scale correlations above .39.

The variable turnover intentions revealed two factors with eigenvalue above one: factor 1 = 1.79 and factor 2 = 1.26, explaining 44.78 % and 31.71 % of the total variance, respectively. Revising the items, we found that the two items loading onto the second factor referred to some others aspects of withdrawal (item # 3 "If I don't like it anymore in my current employment I have a good chance to get a comparable position with another employer", and item # 4 "I see good chances with my current employer to advance myself in my career"). We also examined all items under one factor and observed low factor loadings of

both: item # 4 (-.37), and item # 3 (.35); the item-scale correlation of item # 4 (-.08) and item # 3 (.29) were also low; therefore we dropped them. The correlation between the two remaining items: item # 1 "I often think of resigning from work" and item # 2 "I have already inquired about other jobs" was significant ($r = .60$, $p < .001$).

The initial variable dominance was composed by two items: item # 1: Institution C was dominating, Institution D was absorbed; item # 2: Institution D was dominating, Institution C was absorbed. The correlation among these items was significant ($r = .26$, $p<.001$). We created a new variable "relative in-group dominance" as the difference of the previous variables perception of in-group dominance and perception of out-group dominance. This variable, which includes the subjective appreciation of the employees regarding both the in-group and the out-group dominance, is the one that we will use in the following analyses. We will refer to it as "dominance".

6.4.2.3   Validity of dominance assignment

Since there was no objective difference regarding the status position of each institution in this merger, we decided to perform the analyses based on the subjective appreciation of the employees regarding dominance. As in study 1, dominance of both institutions (C and D) was obtained in the following steps: first, we examined the answers of all employees regarding the dominance role of their in-group (item # 1: Institution C was dominating, Institution D was absorbed; item # 2: Institution D was dominating, Institution C was absorbed). We found that the perception of the employees from the former institution D regarding their dominant role is stronger ($M = 3.10$, $SD = 1.5$) than the perception of the employees from the former institution C regarding the same questions ($M = 1.59$, $SD = 1.03$); the difference between both groups is significant (T-test = -10, df = 317, $p < .001$).

Secondly, we examined the answers of employees respecting the dominance of the out-group. The obtained results show that the perception of the employees from institution C that the other institution would have the higher dominance, is stronger (M = 4.62, SD = 1.5) than the perception of the employees from the institution D, that the opposite institution would have the higher dominance (M = 2.20, SD = 1.3); the difference between both groups is significant (T-test = 15.1, df = 317, p < .001).

We then created the variable relative in-group dominance [13], as explained above, as the difference of in-group dominance and out-group dominance. The results indicated that the difference between both groups is significant.

This procedure permitted us to establish the perception of employees as members of the low or high relative dominant in-group, and provided us with an equivalent variable in both the Colombian and the German sample. After that, we divided the sample into two groups (using the median as cut-off point). The following analyses were based on the subjective perception of employees regarding dominance.

6.4.2.4 Testing the hypotheses

As in the first study, we are going to present, one by one, the hypotheses, the strategies to test them and the consequent results. Although the heuristic model (Figure 6-7) is the same as before (Figure 6-1), we present it again for clarity purpose.

6.4.2.4.1 *Type of Relationship among the Variables Depicted in the Model*

In our first hypothesis, we propose that in the context of a merger, career opportunities (H1a), pre-merger identification (that employees had with their former organizations, H1b), work climate (H1c), and fairness (H1d) will be related with post-merger identification with the new organization. Similarly, we expect that post-merger identification is related with job

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[13] In the following analyses we will call this variable *dominance*.

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motivation (H1e) as well as with job satisfaction (H1f). Finally, we expect that job motivation (H1g) and job satisfaction (H1h) will be related with organizational citizenship behavior and that job motivation (H1i) and job satisfaction (H1j) will be related with turnover intentions.

In order to test our first hypothesis, we will examine the relationships among the variables depicted in our heuristic model (Figure 6-7), and whether these relationships remain stable across low/high dominance. SIT argues that attitudes and behavior are influenced by the membership to a group and the salience of personal or social identity (Hogg & Terry, 2000).

Figure 6-7 Heuristic model
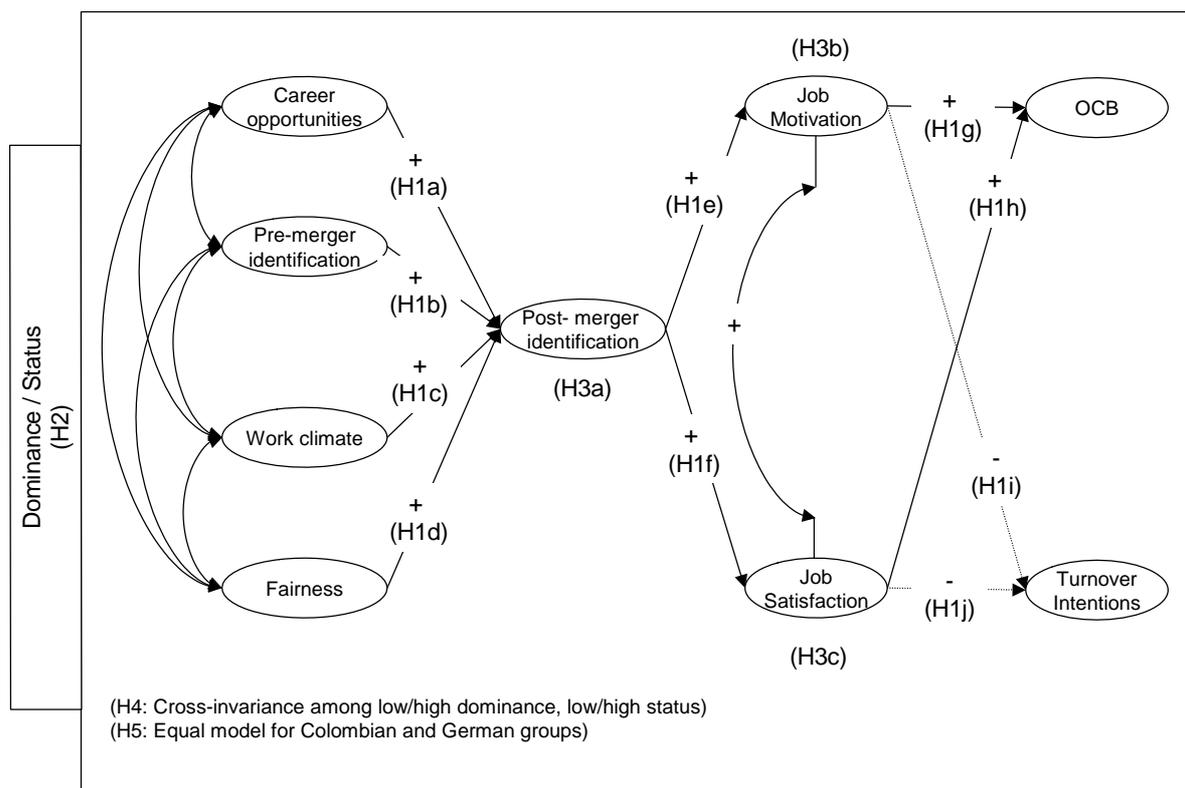
Note. The heuristic models shown in figure 5-1, 6-1 and 6-7 are the same.

In order to determine the type and the strength of the relation among the variables, we obtained a set of three correlations, first for the total sample (n = 319), then for the high

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dominant group (n = 169), and finally for the low dominant group (n = 150). These results are displayed in table 6-16.

Examining the entire sample, we obtained positive and significant relationships between external variables (career opportunities, pre-merger identification, work climate and fairness) and post-merger identification. The latter one is positively and significantly related with job motivation and job satisfaction. Job motivation and job satisfaction are positively and significantly related with OCB, and negatively and significantly related with turnover intentions. These results support the acceptability of the respective hypotheses (from H1a to H1j).

Examining the relationship of the variables across low and high dominance, we observed that only career opportunities and fairness remained positively and significantly related with post-merger identification across the mentioned groups. The relationship between pre- and post-merger identification remained positive and significant only for the dominant group. Work climate is positively and significantly related with post-merger identification only for the dominated group. The relationships between post-merger identification and both job motivation and job satisfaction remained positive and significant among the examined groups.

Job motivation is positively and significantly related to OCB for the dominant group, while positively but marginally significantly for the dominated group. The correlation among job satisfaction and OCB is positive and marginally significant for the dominant group, while positive but not significant for the dominated group.

Correlation among job motivation and turnover intentions is negative in both groups, significant for the dominant group, and marginally significant for the dominated group. The relationship among job satisfaction and turnover intentions is negative and significant in both groups.

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In summary, in table 6-16 one can find the strength of these relationships and their significance levels. We can also observe that the relationships among the studied variables mostly remain significant across the different groups (entire sample, dominant and dominated group). The interpretation of cross-invariance will be based on multi-group analyses, which will be presented later in the section 6.4.2.4.4.

Table 6-16. Correlations among all variables

		2	3	4	5	6	7	8	9	Domin
1. Career	Entire sample	.023	.056	.170 **	.256 **	.068	.170 **	.135 *	-.049	.018
Opportunities	Dominant group	.136+	.074	.189 *	.194 *	.118	.173 *	0,125	-.053	-.061
	Dominated group	-.107	.039	.149+	.319 **	.003	.165 *	.146+	-.046	.125
2. Pre-merger	Entire sample		.209 **	.145 **	.224 **	.210 **	.248 **	.132 *	-.235 **	-.139 *
identification	Dominant group		.132+	.087	.373 **	.207 **	.285 **	.128+	-.305 **	.013
	Dominated group		.279 **	.205 *	.076	.219 **	.224 **	.142+	-.132	-.047
3. Work climate	Entire sample			.324 **	.157 **	.318 **	.414 **	.076	-.422 **	-.049
	Dominant group			.267 **	.093	.218 **	.347**	.018	-.430 **	-.012
	Dominated group			.389 **	.225 **	.447 **	.492 **	.132	-.411 **	.091
4. Fairness	Entire sample				.187 **	.242 **	.436 **	.191 **	-.388 **	-.077
	Dominant group				.208 **	.241 **	.401 **	.184 *	-.366 **	-.189 *
	Dominated group				.170 *	.242 **	.489 **	.202 *	-.414 **	.177 *
5. Post-merger	Entire sample					.233 **	.227**	.261 **	-.209 **	.048
identification	Dominant group					.266 **	.235 **	.148+	-.171 *	.041
	Dominated group					.197 *	.217 **	.366 **	-.257 **	.067
6. Job motivation	Entire sample						.530 **	.187 **	-.197 **	-.011
	Dominant group						.573 **	.220 **	-.232 **	-.025
	Dominated group						.480 **	.152+	-.146+	.025
7. Job satisfaction	Entire sample							.120 *	-.390 **	.043
	Dominant group							.13+	-.339 **	-.049
	Dominated group							.11	-.461 **	.142
8. OCB	Entire sample								-.086	-.037
	Dominant group								-.127	-.125
	Dominated group								-.043	-.022
9. Turnover	Entire sample									.043
Intentions	Dominant group									.112
	Dominated group									-.180 *

Note. ** p < .01;   * p < .05;   + p < .1   two tailed tests

Entire sample n = 319,   dominant group n = 169,   dominated group n = 150,   Domin = Variable Dominance

6.4.2.4.2 Perception of the Organization from the Low/high Dominance Perspective

In the second hypothesis, we expect that employees who perceive themselves as members of the formerly high dominant group perceive being in the organization as having more career opportunities, fairness and work climate, they show higher pre- and post-merger organizational identification, job motivation, job satisfaction, organizational citizenship behavior, as well as lower turnover intentions after the merger than employees from the previous low dominant group.

In order to test this hypothesis, we performed, just as in the Colombian study, two main analyses. The first one consisted of means comparisons: we started obtaining mean scores for each variable, considering the entire sample, and then we obtained the mean for low and high dominance. Splitting at the median, we distributed the employees into the two groups: low and high dominance. The second one consisted of multivariate analyses of variance MANOVA, which was performed in order to determine the effects of the variable dominance simultaneously on all the variables depicted in the model (Figure 6-7). After that we obtained a series of ANOVA tests, in order to confirm the differences.

Comparison of means

Table 6-17 shows the mean values and their standard deviations for the total sample, the low and high dominant groups.

We observe that the high scores sometimes belong to the high dominant group, but at other times to the low dominant group (Figure 6-8).

Comparing mean values for both groups (Table 6-17), we found that there are no differences among low/high dominant groups (M = -3.97, SD = 1.16; M = .96, SD = 1.53, respectively) regarding career opportunities (T-test = – .227, df = 317, p > .05), work climate (T-test = 1.324, df = 316, p > .05), fairness (T-test = 1.063, df = 317, p > .05), post-merger

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identification (T-test = − .481, df = 317, p > .05), job motivation (T-test = .156, df = 317, p > .05), job satisfaction (T-test = − .589, df = 317, p > .05), OCB (T-test = − .030, df = 317, p > .05) and turnover intentions (T-test = − .865, df = 317, p > .05). The only significant difference was displayed in the variable pre-merger identification (T-test = 2.768, df = 317, p< .01) being higher in the low dominant group.

Figure 6-8. Comparison of means among low/high dominance
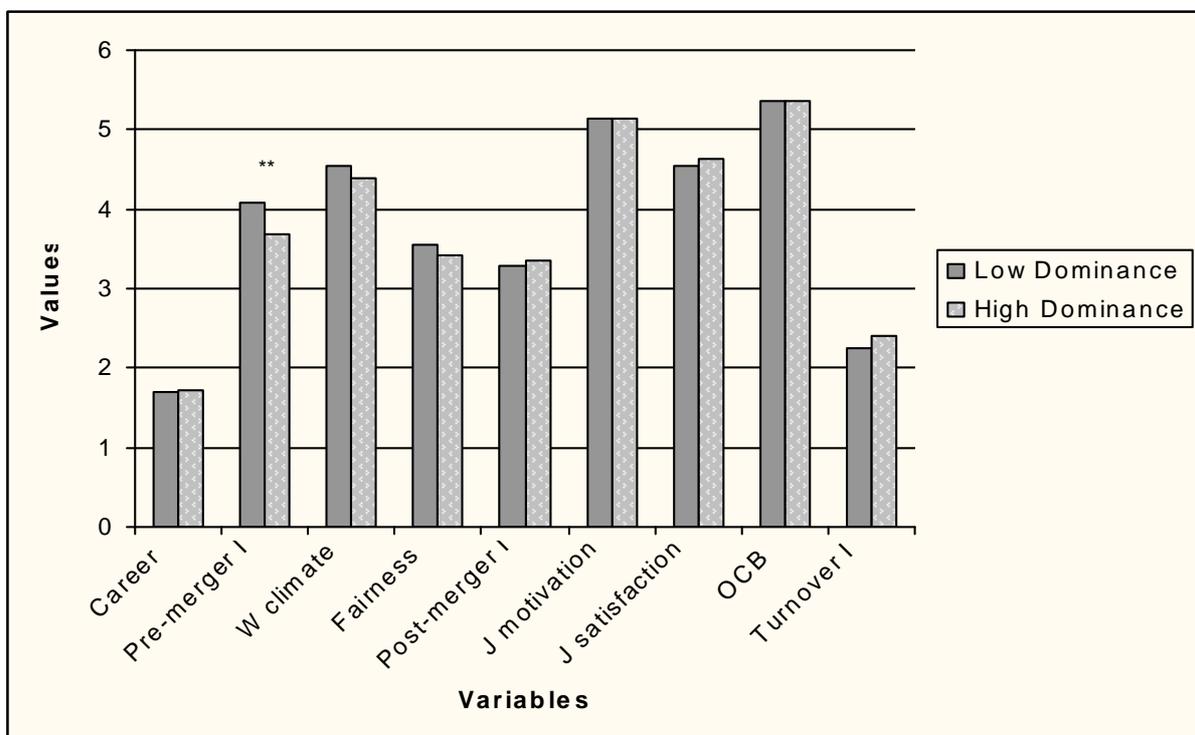
Note.   ***p < .001;   **p < .01;   *p < .05

Table 6-17. Descriptive statistics and effect sizes comparing low/high dominant groups

| | Mean | | Standard deviation | | Levene test | | ANOVA excluding | | ANOVA including | | Effect size |
| | entire sample | | entire sample | | | | socio d. variables | | socio d. variables | | |
	low domin	high domin	low domin	high domin	F	significance	F	significance	F	significance	d
Career opportunities	1.72		1.13								
	1.7	1.73	1.13	1.13	.019	> .05	.051	> .05	0	> .05	.03
Pre-m identification	3.88		1.29								
	4.09	3.69	1.23	1.31	.750	> .05	7.662	< .01	7.135	< .05	-.31
Work climate	4.47		1.11								
	4.55	4.39	1.14	1.09	.041	> .05	1.686	> .05	1.467	> .05	-.14
Fairness	3.48		1.16								
	3.55	3.41	1.09	1.23	2.574	> .05	1.131	> .05	1.049	> .05	-.12
Post-m identification	3.33		1.43								
	3.29	3.36	1.49	1.38	2.199	> .05	.231	> .05	.277	> .05	.05
Job motivation	5.14		.79								
	5.14	5.13	.73	.84	2.330	> .05	.024	> .05	.001	> .05	-.01
Job satisfaction	4.59		1.11								
	4.55	4.63	1.13	1.11	.138	> .05	.346	> .05	.264	> .05	.07
OCB	5.36		0.62								
	5.36	5.36	.67	.59	.189	> .05	.001	> 0.5	.051	> .05	0
Turnover intentions	2.33		1.6								
	2.25	2.4	1.51	1.68	2.559	> .05	.748	> .05	.451	> .05	.09

Note. Entire sample n = 319;   low dominance n = 150;   high dominance n = 169

ANOVA tests were performed with dominance as independent variable;   Socio-demographic variables: gender, age;   d: effect size (DeCoster, 2003).

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Multivariate analyses of variance –MANOVA-

As in study I, we performed MANOVA in order to see whether the low/high dominant groups differ among all dependent variables, in this case, all variables depicted in our model (Figure 6-7). One of the advantages (as already mentioned in study I) of this procedure is the possibility to handle various dependent variables at the same time (Howell, 2002).

We began with applying the Levene-test for equality of variance (Table 6-17) and found equal group variances for low and high dominant groups. We then performed the two suggested steps for MANOVA: In the first one, we obtained the overall F-test, in order to see whether there are differences in means of the dependent variables for the different levels of the independent variable. The four multivariate tests (Pillai's Trace, Wilks` Lambda, Hotelling's Trace, and Roy's Largest Root) revealed the same results with significances above .050; here, we present the results of Hotelling's Trace with $F_{(9,309)} = 1.540$, $p > .05$, since it is the most recommended test when the independent variable has two levels (Visauta & Martori, 2003). In the second step, after performing ANOVA tests (Table 6-17), we confirmed that the differences among low and high dominant groups were again significant only for the variable pre-merger identification $F_{(1,317)} = 7.662$, $p < .01$.

Again performing MANOVA, this time controlling for socio-demographic variables, such as age and gender as covariates, Hotelling's Trace test with $F_{(9,307)} = 1.433$, $p > .05$ confirmed that there are no significant differences among low/high dominance regarding the dependent variables. Applying the ANOVA tests once again, we found the F-values and their significance levels being very similar with and without socio-demographic variables. The F-values and their significance levels are displayed in table 6-17.

In summary, the analyses derived from the mean comparisons and from MANOVA led us to conclude that there are no significant differences among low and high dominant groups regarding the variables displayed in our heuristic model, except for the variable pre-

merger identification. Additionally, we are assured that the results remain stable after controlling for socio-demographic variables. Therefore we reject hypothesis H2.

6.4.2.4.3 *Mediation*

In our third hypothesis, we propose that post-merger identification (H3a) is a mediator for the relation of career opportunities, pre-merger identification, work climate, and fairness on the one hand, with job motivation and job satisfaction on the other hand. Additionally, we propose that job motivation (H3b) and job satisfaction (H3c) act as mediators for the relation between post-merger identification on the one hand, and organizational outcomes such as organizational citizenship behavior and turnover intentions, on the other hand.

In order to test these hypotheses and to determine the acceptability of our model (Figure 6-7), we first performed multiple regression analyses, and then structural equation modeling SEM with AMOS, just as in study I.

Multiple regression analyses

To test for mediation, we obtained the four regression equation suggested by Baron and Kenny (1986). Initially, we did not consider any socio-demographic variables, only later, we included them in the analyses. In both cases, we tested the significance of the mediation effect using the Sobel test (Preacher & Leonardelli, 2001).

Analyzing the coefficients of each triad of variables, and according to the hypothesis (H3a), we proved that post-merger identification partially mediates the relationship of pre-merger identification, work climate and fairness with job motivation and job satisfaction. With the Sobel test we confirmed the significance of these mediation effects (Table 6-18). They remained stable even after controlling for socio-demographic variables (Table 6-19).

Table 6-18. Testing post-merger identification as mediator without socio-demographic variables

	Triad of Independent - Mediator - Dependent Variables							
Regression equations	care-post-mot	care-post-sat	pre-post-mot	pre-post-sat	clima-post-mot	clima-post-sat	fair-post-mot	fair-post-sat
1rst equation	β	β	β	β	β	β	β	β
Independent - mediator variables	.26 ***	.26 ***	.22 ***	.22 ***	.16 **	.16 **	.19 **	.19***
2nd equation								
Independent - dependent variables	.07 ns	.17 **	.21 ***	.25 ***	.32 ***	.41 ***	.24 ***	.44 ***
3rd equation								
Mediator - dependent variables	.23 ***	.23 ***	.23 ***	.23 ***	.23 ***	.23 ***	.23 ***	.23 ***
4th equation								
Independent - dependent variables	.01 ns	.12 *	.17 **	.21 ***	.29 ***	.39 ***	.21 ***	.41 ***
Mediator - dependent variables	.23 ***	.20 **	.20 ***	.18 **	.19 ***	.17 **	.19 ***	.15 **
R²	.054	.065	.080	.093	.135	.198	.095	.212
Adjusted R²	.048	.059	.075	.087	.130	.193	.089	.207
Sobel test: Z (p-value)	3.16 (p< .001)	3.1 (p< .01)	2.96 (p< .01)	2.89 (p< .01)	2.36 (p< .05)	2.33 (p< .05)	2.65 (p< .01)	2.61 (p< .01)

Note.   *** p< .001;   ** p< .01;   * p<.05;   + p< .1;   ns = not significant

Care = career opportunities;   pre = pre-merger identification;   clima = work climate;   fair = fairness;   post = post-merger identification;

Mot = job motivation;   sat = job satisfaction;   OCB = organizational citizenship behavior;   turn = turnover intention

Table 6-19 Testing post-merger identification as mediator with socio-demographic variables

Regression equations								
	care-post-mot	care-post-sat	pre-post-mot	pre-post-sat	clima-post-mot	clima-post-sat	fair-post-mot	fair-post-sat
1rst equation								
Step 1: Socio-demographic variables &								
Step 2: Socio-demographic variables &								
Independent-mediator variables	.25 ***	.25 ***	.27 ***	.27***	.16 **	.16 **	.18 **	.18 **
2nd equation								
Step 1: Socio-demographic variables &								
Step 2: Socio-demographic variables &								
Independent-dependent variables	.09 ns	.15 **	.22 ***	.28 ***	.31 ***	.42 ***	.24 ***	.44 ***
3rd equation								
Step 1: Socio-demographic variables &								
Step 2: Socio-demographic variables &								
Mediator-dependent variables	.23 ***	.22 ***	.23 ***	.22 ***	.23 ***	.22 ***	.23 ***	.22 ***
4th equation								
Step 1: Socio-demographic variables &								
Step 2: Socio-demographic variables &								
Independent-dependent variables	.04 ns	.10 ns	.17 **	.24 ***	.28 ***	.40 ***	.20 ***	.42 ***
Mediator-dependent variables	.22 ***	.20 **	.19 **	.16 **	.19 **	.16 **	.20 ***	.15 **
R^2	.062	.072	.092	.114	.145	.216	.106	.228
Adjusted R^2	.053	.057	.077	.100	.131	.204	.092	.216
Sobel test: Z (p-value)	3.01 (p< .01)	2.96 (p< .01)	3.19 (p< .01)	3.09 (p< .01)	2.36 (p< .05)	2.33 (p< .05)	2.55 (p <.05)	2.56 (p< .05)

Note. &: age, gender, dominance; *** p< .001; ** p< .01; * p<.05; + p< .1; ns = not significant

Care = career opportunities; pre = pre-merger identification; clima = work climate; fair = fairness; post = post-merger identification;

Mot = job motivation; sat = job satisfaction; OCB = organizational citizenship behavior; turn = turnover intentions

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We observed that post-merger identification partially mediates the relationship among career opportunities with job satisfaction, but not with job motivation. We found that one of the conditions to establish mediation was not fulfilled: the coefficient in the second equation (the impact of career opportunities on job motivation) is not significant ($\beta = .07$, $p > .05$). The situation remained unchanged when controlling for socio-demographic variables. Since one of the prerequisites for establishing mediation was not fulfilled (Baron & Kenny, 1986), we concluded that there was no mediation effect on this triad of variables. In summary, we accept hypothesis H3a, but only partially.

We proved that job motivation (H3b) partially mediates the relationship between post-merger identification and OCB (being significant with and without socio-demographic variables). Job motivation also partially mediates the relationship between post-merger identification and turnover intentions (being significant with and without socio-demographic variables). Results of these equations are displayed in tables 6-20 and 6-21.

Examining the hypothesis H3c, we proved that job satisfaction partially mediates the relationship between post-merger identification and turnover intentions. This mediation effect was significant with and without socio-demographic variables (Tables 6-20 and 6-21). Regarding the triad post-merger identification, job satisfaction and OCB, the Sobel test indicated that the mediation effect was only marginally significant ($p = .055$). After controlling for socio-demographic variables, however, the mediation effect became significant ($p = .042$).

The multiple correlation coefficients R and R^2 of all regression equations mentioned above, with and without controlling for socio-demographic variables, were similar (Tables from 6-18 to 6-21). These results permitted us to examine to which extent the independent and mediator variables (in each triad) account for the variance of the dependent variable.

Table 6-20 Testing job motivation and job satisfaction as mediators without socio-demographic variables

Regression equations	Triads of Independent - Mediator - Dependent Variables			
	post-mot-ocb	post-mot-turn	post-sat-ocb	post-sat-turn
1rst equation	β	β	β	β
Independent - mediator variables	.23 ***	.23 ***	.23 ***	.23 ***
2nd equation				
Independent - dependent variables	.26 ***	- .21 ***	.26 ***	-.21 ***
3rd equation				
Mediator - dependent variables	.19 **	-.20 ***	.12 *	-.39 ***
4th equation				
Independent - dependent variables	.23 ***	-.17 **	.25 ***	-.13 *
Mediator - dependent variables	.13 *	-.16 **	.06 ns	-.36 ***
R²	.085	.067	.072	.167
Adjusted R²	.079	.061	.066	.162
Sobel test: Z (p-value)	2.64 (p< .01)	-2.75 (p< .01)	1.91 (p< .1)	-3.61 (p< .001)

Note.   *** $p < .001$; ** $p < .01$; * $p <.05$; + $p < .1$;   ns = not significant

post = post-merger identification   mot = job motivation;   sat = job satisfaction;

OCB = organizational citizenship behavior;   turn = turnover intentions

The variables work climate and post-merger identification ($R^2 = .20$), as well as fairness and post-merger identification ($R^2 = .21$), accounted for a relatively higher amount of variance in the variable job satisfaction, in comparison to the variables pre and post-merger identification ($R^2 = .09$), and career opportunities and post-merger identification ($R^2 = .07$).

The amount of variance in job motivation was slightly better explained by the variables work climate and post-merger identification ($R^2 = .14$), fairness and post-merger identification ($R^2 = .10$), followed by the variables pre- and post-merger identification ($R^2 = .08$), and career opportunities and post-merger identification ($R^2 = .05$).

The amount of variance in OCB, was similarly explained by post-merger identification and job motivation ($R^2 = .09$), as well as by post-merger identification and job satisfaction ($R^2 = .07$).

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Regarding turnover intentions, the variables post-merger identification and job satisfaction ($R^2= .17$), followed by post-merger identification and job motivation ($R^2= .07$), accounted for a smaller part of its variance.

Table 6-21 Testing job motivation and job satisfaction as mediators with socio-demographic variables

	Triads of Independent - Mediator - Dependent Variables			
Regression equations	post-mot-ocb	post-mot-turn	post-sat-ocb	post-sat-turn
1rst equation				
Step 1: Socio-demographic variables &				
Step 2: Socio-demographic variables &				
Independent-mediator variables	.23 ***	.23 ***	.22 ***	.22 ***
2nd equation				
Step 1: Socio-demographic variables &				
Step 2: Socio-demographic variables &				
Independent-dependent variables	.26 ***	-.22 ***	.26 ***	-.22 ***
3rd equation				
Step 1: Socio-demographic variables &				
Step 2: Socio-demographic variables &				
Mediator-dependent variables	.17 **	-.19 **	.13 *	-.41 ***
4th equation				
Step 1: Socio-demographic variables &				
Step 2: Socio-demographic variables &				
Independent-dependent variables	.23 ***	-.19 **	.24 ***	-.14 **
Mediator-dependent variables	.12 *	-.15 **	.08 ns	-.38 ***
R²	.096	.077	.088	.189
Adjusted R²	.082	.063	.074	.176
Sobel test: Z (p-value)	2.50 (p< .05)	-2.67 (p< .01)	2.03 (p< .05)	-3.58 (p< .001)

Note. & age, gender, dominance; *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$; ns = not significant

post = post-merger identification   mot = job motivation;   sat = job satisfaction;

OCB = organizational citizenship behavior;   turn = turnover intentions

Structural equation modeling SEM

As in study I, we wanted to test the heuristic model (Figure 6-7), and specifically, whether post-merger identification (H3a), job motivation (H3b) and job satisfaction (H3c) mediate the relationship between career opportunities, pre-merger identification, work climate, and fairness with the dependent variables: organizational citizenship behavior and turnover intentions. We tested it using AMOS.

In comparison to multiple regressions, which provide separate tests of the variables included in the model, SEM has the advantage that one can simultaneously test a model and determine an overall global fit. It is also possible to propose alternative models, evaluate them through model comparison, and decide which of them fits the data better (Tomarken & Waller, 2005). The method used for parameter estimation was the maximum likelihood (ML) method. In order to determine the goodness of data fit, we examined fit indices such as χ^2/df (value of Chi² divided by its degrees of freedom), CFI, RMSEA, and SRMR. The advantages of SEM, the characteristics of ML, as well as the significance level of the above mentioned fit indices have already been elaborated in the same section of the first study. Following Comrey and Lee (1992), we consider that the German data (n = 319) has a good size for performing SEM analyses.

Testing the model with SEM consisted of two steps: first, we tested the measurement model, in which the goal is to examine the relationship among items and their respective factors (Byrne, 2001; Tomarken & Waller, 2005). Then we tested the structural model, examining the structural paths from one variable to another and thereby their relationship (Byrne, 2001; Tomarken & Waller, 2005). Next, we are going to present the results derived from these steps.

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Measurement analyses

The fit indices of the initial model (n = 319) such as χ^2 = 936.648, df = 342, χ^2/df=2.739, RMSEA = .074, SRMR = .0561, indicate an adequate fit between the model and the data (Table 6-22), except for the CFI = .862 (poor fit).

Although all factor loadings of items on their corresponding variables were significant in the initial model, the result of the first analysis showed that there were some significant modifications to be included (we included them sequentially), such as the correlation between the items of pre- and post-merger identification: # 11 and # 15, # 12 and # 16, # 10 and # 14. Each of these pairs of items refers to the same question regarding identification, but formulated in past and present tense, asking about identification with the former or with the new merged organization, respectively. Therefore, we included them. After these re-specifications, we obtained a final measurement model (Table 6-22 and Figure 6-9), which is the better solution: $\Delta\chi^2$ = 41.505, Δdf = 1, p = .005. The fit indices of this final measurement model (n = 319) such as χ^2 = 595.565, df = 339, χ^2/df = 1.757, CFI = .94, RMSEA = .049, SRMR = .0536 were also better than the ones of the initial model and indicate that the final measurement model fit the data better.

Table 6-22. Fit indices of the initial and modified measurement and structural models

Model	χ²	df	χ²/df	CFI	RMSEA	SRMR	Δχ²	Δdf	p
Measurement model									
1. Initial	936.648	342	2.739	.862	.074	.0561			
The following were added to the model:									
2. Item pre-m # 11 ↔ item post-m # 15	791.708	341	2.322	.895	.064	.0541	144.940	1	.005
3. Item pre-m # 12 ↔ item post-m # 16	637.070	340	1.874	.931	.052	.0543	154.638	1	.005
4. Item pre-m # 10 ↔ item post-m # 14	595.565	339	1.757	.940	.049	.0536	41.505	1	.005
Structural model									
Initial	749.739	358	2.094	.896	.059	.1007			
These paths were added:									
Job satisfaction ß Work climate	700.422	357	1.962	.909	.055	.0828	9.693	1	.001
Job motivation ß Work climate	673.112	356	1.891	.916	.053	.0741	27.31	1	.000

Note. Δχ² = Difference in χ² values between models; Δdf = difference in number of degrees of freedom between models;

p = statistical significance: *** p <.001; ** p <.01; * p <.05

Pre-m = Pre-merger identification; post-m = post-merger identification ↔ correlation; ß regression path

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Figure 6-9. Final measurement model
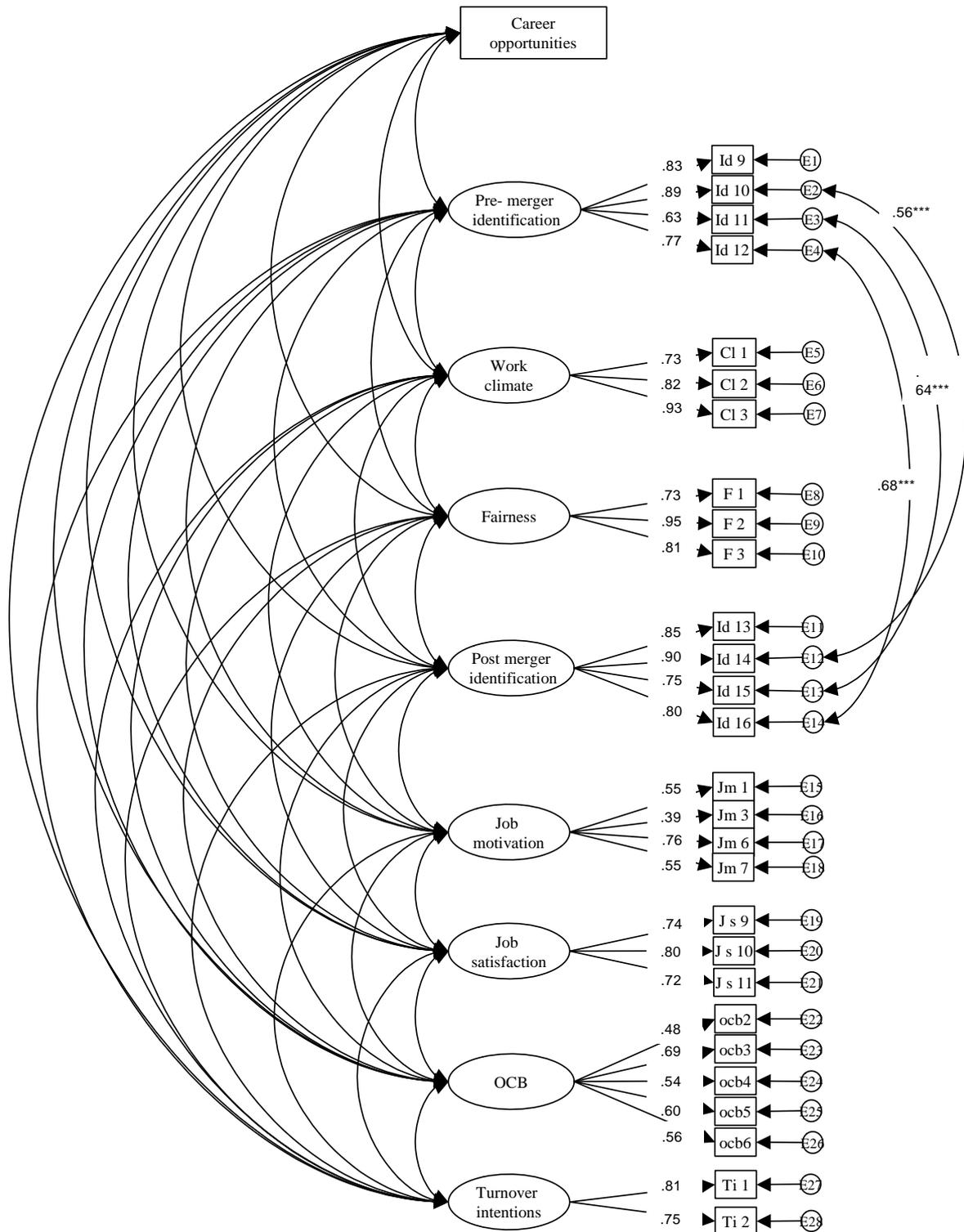
Note. χ^2= 595.565   df= 339 χ^2/df = 1.757   CFI= .94   RMSEA= .049   SRMR= .054

$\Delta\chi^2$ = 41.505 Δdf = 1,   p = .005   n = 319.

The correlations between the latent variables are displayed in table 6-23.

Table 6-23. Correlation among latent variables in the measurement model

Correlation	Estimate	Significance
Pre-merger ↔ career opportunities	.005	n. s.
Pre-merger ↔ fairness	.096	*
Pre-merger ↔ work climate	.303	**
Pre-merger ↔post-merger	.160	*
Pre-merger ↔ job motivation	.318	***
Pre-merger ↔ job satisfaction	.280	***
Pre-merger ↔ OCB	.158	*
Pre-merger ↔ turnover intentions	-.280	***
Career opportunities ↔ fairness	.193	**
Career opportunities ↔ work climate	.064	n. s.
Career opportunities ↔ post-merger	.250	***
Career opportunities ↔ job motivation	.078	n. s.
Career opportunities ↔ job satisfaction	.194	**
Career opportunities ↔ OCB	.152	*
Career opportunities ↔ turnover intentions	-.077	n. s.
Work climate ↔ fairness	.347	***
Work climate ↔ post-merger	.161	*
Work climate ↔ job motivation	.410	***
Work climate ↔ job satisfaction	.511	***
Work climate ↔ OCB	.134	n. s.
Work climate ↔ turnover intentions	-.517	***
Fairness ↔ post-merger	.203	**
Fairness ↔ job motivation	.302	***
Fairness ↔ job satisfaction	.503	***
Fairness ↔ OCB	.242	**
Fairness ↔ turnover intentions	-.421	***
Post-merger ↔ job motivation	.275	***
Post-merger ↔ job satisfaction	.261	***
Post-merger ↔ OCB	.297	***
Post-merger ↔ turnover intentions	-.238	***
Job satisfaction ↔ Job motivation	.744	***
OCB ↔ job motivation	.327	**
Turnover intentions ↔ job motivation	-.302	***
OCB ↔ job satisfaction	.179	*
OCB ↔ turnover intentions	-.122	n. s.
Turnover intentions ↔ Job satisfaction	-.500	***

Note.   *** p < .001;   ** p < .01;   * p <.05;   ↔ correlation   n.s. = not significant

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Structural analyses

The fit indices of the initial structural model (n = 319) such as χ^2 = 749.739, df = 358, χ^2/df = 2.094, RMSEA = .059, indicate that the fit between the model and the data is acceptable, except for CFI = .90 and SRMR = .1007. Revising the modification section, we found two significant modifications to be considered. We included, one by one, the path from work climate to job satisfaction, and then from work climate to job motivation, thus obtaining a model (Table 6-22, Figures 6-10 and 6-11) which is the optimal solution: $\Delta\chi^2$ = 27.31, Δdf=1, p < .001.

Additionally, the fit indices pointed towards a better fit between the re-specified structural model and the data: χ^2 = 673.112, df = 356, χ^2/df = 1.891, RMSEA = .053, SRMR = .0741, n = 319, except for CFI = .92 (poor fit).

Figure 6-10. Final structural model with latent variables and their indicators

Note.   χ² = 673.112   df = 356   χ²/df = 1.891   CFI = .92   RMSEA = .053   SRMR = .0741

Δχ² = 27.31   Δdf = 1   p < .001   n = 319

*** p < .001;   ** p < .01;   * p <.05;   n.s. = not significant.

The correlations between the items pre-merger identification # 10, # 11 and # 12 and post-merger identification #14, # 15 and # 16 respectively, were included in the statistical analyses but are not shown in order to simplify the figure.

Dashed lines indicate added path.

The correlations between the latent variables are displayed in figure 6-11.

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Figure 6-11. Final structural model with correlations among latent variables
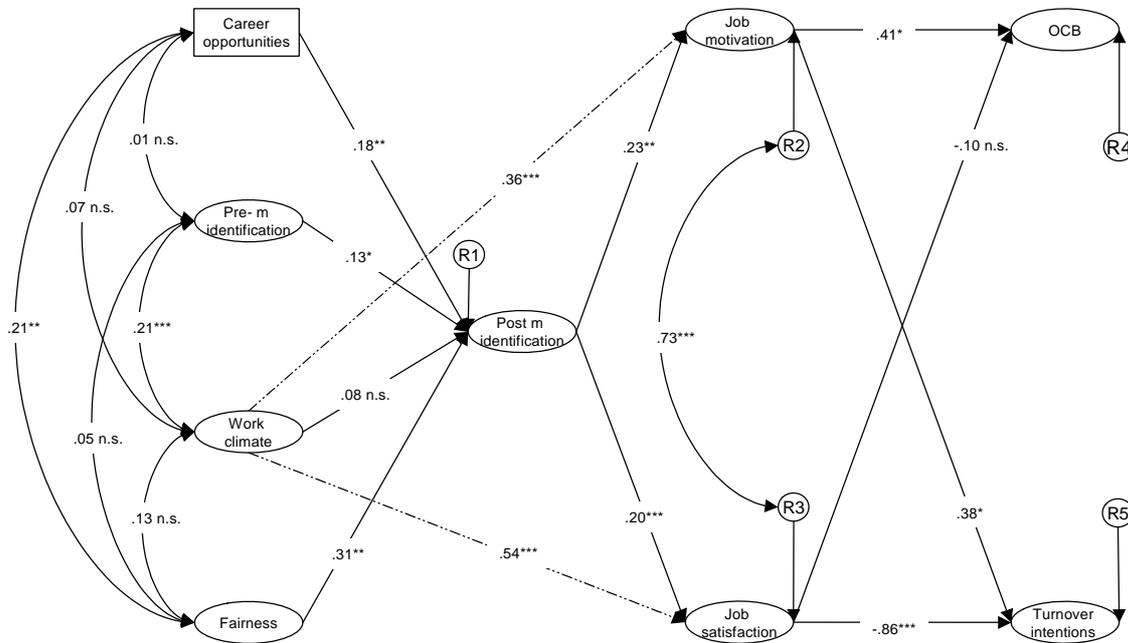
Note. $\chi^2 = 673.112$ df $= 356$ $\chi^2/$df $= 1.891$ CFI $= .92$ RMSEA $= .053$ SRMR $= .0741$

$\Delta\chi^2 = 27.31$ Δdf $= 1$ $p < .001$ n $= 319$

*** $p < .001$;   ** $p < .01$;   * $p < .05$;   n.s. = not significant.   Dashed lines indicate added path.

Looking at the regression paths (Figures 6-10 and 6-11), we found that career opportunities ($\beta = .18$, $p < .01$), pre-merger identification ($\beta = .13$, $p < .05$), and fairness ($\beta = .31$, $p < .01$) positively affect post-merger identification. The initial significant impact of work climate on post-merger identification became non-significant ($\beta = .08$, $p > .05$) after including the paths from work climate to job satisfaction ($\beta = .54$, $p < .001$) and to job motivation ($\beta = .36$, $p < .001$), respectively. Post-merger identification positively impacts on job motivation ($\beta = .23$, $p < .01$) and on job satisfaction ($\beta = .20$, $p < .001$). Job motivation positively influences OCB ($\beta = .41$, $p < .05$) and turnover intentions ($\beta = .38$, $p < .05$),

whereas job satisfaction negatively affects turnover intentions (β = -.86, p < .001). The effect of job satisfaction on OCB is not significant (β = -.10, p > .05).

In summary, the analyses that we performed through regressions and structural equation modeling are complementary, they offer a broader understanding of the model, they support the hypotheses H3a and H3b, and partially the hypothesis H3c.

6.4.2.4.4 Cross–Validation

Properties and advantages of this procedure were already mentioned in study I. It permitted us to examine whether the relationships of the variables included in the model (Figure 6-7) are equivalent or different across the subgroups low/high dominance. We tested for measurement and structural invariance with multi-group analyses.

Cross-invariance among low/high dominant groups

We started by forming two groups regarding the low (n = 150) or high (n = 169) dominance (choosing the median of the variable as cut-off point). Then we performed multi-group analyses, testing the model across each sub-sample. Measurement and structural analyses were performed in order to test for invariance.

Measurement invariance

The measurement model with all factor loadings constrained (Table 6-24) among both low and high levels of the mentioned variable turned out not to be invariant ($\Delta\chi^2$ = 35.999; Δdf = 19, p = .011). After leaving one factor loading freely estimated (pre-merger identification # 11), we obtained a model that is partially cross-invariant ($\Delta\chi^2$ = 29.312; Δdf =19, p = .061) among those mentioned groups. The fit indices reflected an acceptable fit

Study II

between the model and the data: $\chi^2 = 1108.037$, df = 731, χ^2/df = 1.516, RMSEA = .040, and

SRMR = .092, except for CFI = .90.

between the model and the data: $\chi^2 = 1108.037$, df = 731, χ^2/df = 1.516, RMSEA = .040, and

Table 6-24. Fit indices of tests for measurement and structural invariance across low/high dominant groups

Model	χ^2	df	χ^2/df	CFI	RMSEA	SRMR	$\Delta\chi^2$	Δdf	p
Measurement invariance									
1. Unconstrained	1078.725	712	1.515	.905	.040	.0914			
2. All factor loadings constrained	1114.724	731	1.525	.901	.041	.0920	35.999	19	.011
3. Item pre-merger identification # 11 f.e.	1108.037	731	1.516	.903	.040	.0918	29.312	19	.061 n.s.
Structural invariance									
1.All paths constrained	1116.365	743	1.503	.904	.040	.0918	37.640	31	.191 n.s.

Note.   f.e. = "freely estimated". $\Delta\chi^2$ = Difference in χ^2 values between models; Δdf = difference in number of degrees of freedom between models;

p = statistical significance: *** p <.001;   ** p <.01;   * p <.05

Structural invariance

Regarding structural invariance, we obtained a fully cross-invariant model ($\Delta\chi^2 = 37.640$; $\Delta df = 31$, p = .191) for low and high levels of the variable dominance with all parameters equally constrained for both groups (Table 6-24). The fit indices ($\chi^2 = 1116.365$, df = 743, $\chi^2/df = 1.503$, RMSEA = .040 and SRMR = .092) pointed toward an acceptable fit of the model with the data, except for the poor fit of CFI = .90. Although all regression paths are invariant among both groups, the influence of job motivation on OCB ($\beta = .56$, p < .01) is slightly higher for the high dominant group (Table 6-25).

Table 6-25. Cross-validation among low/high dominance.
Regression weights of the final structural model

Regression paths	Entire Sample n = 319	Low Dominance n = 111 β	High Dominance n= 96 β
Post-merger identification ß Career opportunities	.18**	.13*	.14*
Post-merger identification ß Pre-merger identification	.13*	.11*	.14*
Post-merger identification ß Work climate	.08 n.s	.08 n.s	.09 n.s.
Post-merger identification ß Fairness	.31**	.36**	.38**
Job motivation ß Post-merger identification	.23**	.24**	.18**
Job satisfaction ß Post-merger identification	.20***	.20***	.18***
Job satisfaction ß work climate	.54***	.59***	.54***
Job motivation ß work climate	.36***	.44***	.34***
OCB ß Job motivation	.41*	.36**	.56**
Turnover intentions ß Job satisfaction	-.86***	-.97***	-.91***
Turnover intentions ß job motivation	.38*	.42*	.46**
OCB ß job satisfaction	-.10 n.s.	-.13n.s.	-.17n.s.

Note.   *** p < .001;   ** p < .01;   * p <.05;   n.s. = not significant

Based on these results, we can conclude that the model can be reproduced in both sub-samples (Byrne, 2001), and that the pattern of relationship between the variables is equally reliable along these groups. Therefore we accept the hypothesis H4a.

7   DISCUSSION AND CONCLUSIONS

Before going through our hypotheses, we will point out some similarities and differences in both studies. Firstly, in both samples, the proportion of employees coming from the two former entities, were similar (51 % vs. 49 % and 57 % vs. 43 % in samples 1 and 2 respectively). Secondly, the information in both samples was collected through a survey.

One important difference refers to dominance and status assignment. In the Colombian sample, they were determined, first by the subjective appreciation respecting dominance of the in and the out-group, and second by the status position of each group, depending on the institutions from which the employees came. Additionally, there is a positive and significant correlation between the variables status, in-group dominance, out-group dominance, and relative in-group dominance. In the German sample, however, we cannot talk about status position of each pre-merger institution, since there was not an objective difference between these two groups. This situation led us to creating, for both samples, a new variable which we initially called relative in-group dominance (we referred to this variable as dominance). It reflects the subjective appreciation of employees regarding the dominance of their in-group minus the dominance of the out-group. Some advantages are that the analyses are based on the subjective appreciation of all employees regarding dominance, and that we can perform comparable analyses among both samples. According to SIT, it is important to take into consideration those memberships that are self-relevant, as they become part of the self-concept and influence perceptions and behaviors (Hogg & Terry, 2001; Haslam et al., 2003).

Another important difference is that the study in Colombia was performed briefly after the merger took place, whereas in Germany, the survey was applied while the fusion was in process. This difference may lead employees to assume different positions regarding identification with the former and current organization. If this is the case, we could understand

first, why the pre-merger identification in the Colombian sample is not a subject of prime interest as it is for the German sample, and second, why work climate has a strong influence on job motivation and job satisfaction in the German sample. One might think that while the merger was still in process, employees considered it very important to have a pleasant work climate, and they may have big expectations regarding the future working conditions.

Regarding our first hypothesis, we proved for both samples first, that career opportunities (H1a), pre-merger identification (with the former organization, H1b), work climate (H1c) and fairness (H1d) are related with post-merger identification with the new organization; secondly, post-merger identification is related with job motivation (H1e) and job satisfaction (H1f); thirdly, job motivation is related with OCB (H1g) and turnover intentions (H1i), and finally, job satisfaction is related with turnover intentions (H1j) and marginally with OCB (H1h) in the Colombian sample, and it is related with both OCB and turnover intentions in the German sample. In general, these results are in line with previous findings that were already mentioned in the theoretical part. They allow us to accept the above mentioned hypotheses, except for hypothesis (H1h), because in the Colombian sample the correlation among job satisfaction and OCB is only marginally significant.

Pertaining to the impact of perceived dominance on external, mediator, and dependent variables, as explained in the second hypothesis, the results of the Colombian study supported the hypothesis H2, whereas the German results did not. On the one hand, we believe that when differences among dominant-dominated groups exist, such as in the Colombian study, perceived dominance and status influence how employees perceive the organization, their post-merger identification, attitudes, behaviors and intentions. On the other hand, we believe that when there are no objective differences among groups (regarding dominance), such as in the German study, there are also no differences in the perception that employees from each group may have regarding the external variables, post-merger identification, attitudes, and behaviors. With MANOVA, we corroborated that there are significant differences among

low/high dominant and low/high status groups in the Colombian sample, whereas there are no significant differences regarding dominance in the German sample.

The differences between Colombian and German mergers regarding the dominance and status position of each pre-merger organization may suggest that the Colombian merger can be classified as an acquisition in which one pre-merger organization was taking over the other one. The German merger may rather be a case of merger of two equal partners. This may explain the slight differences among both samples.

In the Colombian sample, the results obtained through the calculation of mean differences and through t-tests, as well as through MANOVA, and then ANOVA, indicate first, that there are significant differences among low/high dominant groups regarding career opportunities, work climate, fairness, post-merger identification, and job satisfaction. Indeed, employees who perceive themselves as members of the high dominant group are more positively inclined towards aspects such as career opportunities, work climate, fairness, displayed higher post-merger identification and job satisfaction, in comparison with employees who perceive themselves as members of the low dominant group.

Secondly, the mentioned tests indicate that there is a marginal difference of job motivation among low/high dominant groups. We found that the low dominant group displayed higher job motivation, which indeed is in accordance with SIT. This theory asserts that if members of the low dominant group perceive open boundaries, opportunities, etc., then they will respond positively to the merger.

Finally, the tests show that there are no differences on pre-merger identification, OCB, and turnover intentions between low and high dominant groups. Regarding the variable pre-merger identification, the high dominant group revealed higher score, but they were not significant. The reason for this might be that the questionnaires were applied after the merger took place, and that therefore some other aspects may have been more relevant at this point of the merger process. Regarding OCB, the high dominant group revealed a higher score;

however the differences were not significant. This may indicate that people from the low dominant group have similar levels of OCB as people from the high dominant group. This situation may be related with the results regarding the variable job motivation explained above. Analyzing the variables turnover intentions, we found out that the difference among low/high dominant groups were not significant (the unemployment rate in Colombia and retaining plans in the merged organization may influence this result). However, we observed that those employees, who evaluated themselves as belonging to the low dominant group, were the ones displaying higher tendency to leave their jobs. This finding corroborates an explanation of SIT, which argues that in case of unsatisfactory social identity, people tend to mentally or even actually leave their group in order to join a group where they can reestablish the balance (Turner et al., 1987). These results remained similar even when controlling for socio-demographic variables.

Analyses of all above mentioned variables, but this time taking into account low and high status, partially corroborated the obtained results across low/high dominance. Indeed, employees from the high status group had a more positive perception regarding career opportunities and fairness, and they displayed higher post-merger identification, OCB and lower turnover intentions. However, there are two differences among dominance and status regarding the variables work climate and job motivation. Both the low status and the high dominant groups perceived the work climate as more positive in comparison to their opposite groups. Finally, the high status and the low dominant groups showed higher job motivation.

The above mentioned results indicated that the low dominant and the low status group perceived the merger as more negative than the opposite groups; this is in line with previous findings of Terry and Callan (1998), Terry and O'Brien (2001), and Terry, Carey and Callan (2001).

Some events prior in Colombia [14] might have influenced the perception of the employees regarding the dominance position of their group. When the Government of Colombia informed the public about the fusion between the two governmental organizations, naturally, speculations regarding the future of each of the former organizations started circulating. Some spoken and written media suggested that institution A would dominate the process due to the number of employees and to the relative importance within the government. Nevertheless, the results of the survey applied to the personnel and some directors of the merged entity indicated that group B was the dominant one. That is to say, neither the size of each company before the fusion, nor the popular recognition of one institution as the more important within the government, determined the dominance position of each group.

In agreement with SIT, the comparison between both groups allowed to establish the dominance position of each one. Here, dominance and status refer to the position of groups based upon some evaluative dimensions and are consequences of intergroup comparison (Tajfel & Turner, 1986).

Once the Colombian government announced the fusion between the two institutions, each one of them began to prepare itself for the fusion. Institution A (that seemed to be the one of higher status, having a bigger number of employees) reduced the size of its personnel considerably. Institution B initiated a program of internal restructuring; employees' conditions were widely improved, while the number of personnel remained almost the same. The merged organization inherited the combined name of the two former institutions and chose the building of the former institution B as the workplace for its employees. Manager positions were mostly occupied by personnel from organization B.

The unequal treatment that employees from each institution received (before, during or after the merger) might have influenced their perception as to which group was dominating in the fusion, and which one was absorbed.

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[14] This information was provided by the human resources team of the merged organization.

Discussion and conclusions

Group A, apparently the less favoured before and during the fusion, was perceived (by employees and some directors) as the dominated one, whereas group B, which received advantages as a result of the fusion, was alleged to be the dominant group. Since group B held a favourable position in comparison to group A, it is understandable why employees from group B displayed a positive identity as well as better attitudes towards the merger than the opposite group.

This situation, in which status does not depend on group size, has already been examined by Sachdev and Bouhris (1991), who argued that both (status and group size) are independent and not necessarily correlated characteristics.

Examining the second hypothesis with the German sample, we found that there are no significant differences among low and high dominant groups regarding the variables displayed in our heuristic model, except for the variable pre-merger identification. Additionally, we are assured that the results remained stable after controlling for socio-demographic variables. The fact that the merger was in process by the time the questionnaire was applied might explain the significant differences among low/high dominant groups regarding pre-merger identification. The reasons why the low dominant group displayed higher pre-merger identification are in line with the arguments already exposed by previous researchers. Van Knippenberg, et al. (2002) explained that the low dominant group perceives a discontinuity between the old and the new merger organization. Similarly, Terry and Callan (1998) argue that the low status group tends to maintain its pre-merger identification. Van Leeuwen and van Knippenberg (2003) point out that the low status group feels that its self-definition is in threat.

The type of merger taking place in the German study (merger among equal partners) might explain why there are no differences among low/high dominance regarding the remaining studied variables. In summary, we think that the differences between both samples (Colombian and German) are associated with the type of merger taking place, respectively.

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Our conclusion is in line with theoretical bases of SCT and previous studies, confirming that mergers impact differently on identification with the organization, depending on employees' status or dominance position.

The intergroup comparisons among low/high dominant groups were different in both samples. In the Colombian sample, each group defined the out-group as dominant, meaning that for both the other one was perceived as a threat. If such is the case, we might expect that each group discriminates against the out-group, which, according to SIT, is a consequence of group identification (Turner et al., 1987). Additionally, this comparison and differentiation between the in-out groups is an example of a categorization process, which is widely explained in SCT (Turner et al., 1987). Recalling one of our research questions, in which we wanted to identify the group that might be more vulnerable or affected as a consequence of a merger, we might argue that the low dominant and the low status group perceive the merger more negatively. However, since both low/high dominant and low/high status groups perceive the opposite group as dominant and therefore as a threat, we may expect that both groups display negative behaviors towards the out-group. In the German sample, we observed that the low dominant group perceived the out-group as a dominant one, whereas the high dominant group perceived the out-group as dominated. In this case it is clear that the low dominant group perceives the opposite group as a threat.

Concerning our third hypothesis, we found that post-merger identification, job motivation and job satisfaction partially mediate the relation between career opportunities, pre-merger identification, work climate and fairness on the one hand, and organizational citizenship behavior with turnover intentions, on the other hand. This hypothesis was tested, in both samples, with regression equations and structural equation modeling (SEM).

Using regression equations, we demonstrated in both studies, with and without controlling for socio-demographic variables, that in the context of merged organizations the influences of these external variables on organizational behaviours and intentions, such as

Discussion and conclusions

OCB and turnover intentions went through the mentioned mediators. The exceptions were as follows:

In the Colombian sample one of the pre-requisites to establish mediation (Baron and Kenny, 1986) was not fulfilled in the triad: work climate, post-merger identification and job motivation. However, we proved a mediation effect after including socio-demographic variables. In the triad fairness, post-merger identification and job motivation, we did not find mediation effects, whether including or excluding socio-demographic variables. Most of the mediational triads were significant, except for the mediation role of job motivation for the relationship between post-merger identification and turnover intentions, as well as the mediation role of job satisfaction for the relationship between post-merger identification and OCB. In these cases, the Sobel Test indicated that the mediations' effects were not significant. With multiple correlation coefficients derived from the regression equations, we found that each of the external variables (career opportunities, pre-merger identification, work climate, fairness) together with the mediator variable post-merger identification strongly contributed to the prediction of job satisfaction, whereas independent and mediator variables moderately contributed in predicting job motivation, OCB and turnover intentions.

In the German sample, one of the pre-requisites to establish mediation was not fulfilled in the triad career opportunities, post-merger identification and job motivation; in this case, there is no mediation effect. In the remaining mediational triads the pre-requisites to establish mediation were present and significant. The only exception was the mediation role of job satisfaction for the relationship between post-merger identification and OCB, being marginally significant. After controlling for socio-demographic variables, however, it did become significant. Multiple correlation coefficients indicated that independent and mediator variables moderately contributed in predicting the criterion variables (job satisfaction, job motivation, OCB and turnover intentions).

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The relationships among the variables depicted in the model were also tested with SEM. Since sample size and number of indicators per latent variable affect power, model fit, etc. (Anderson & Gerbing, 1984), we will have a look at these issues.

Following Comrey and Lee (1992), the sample size in the Colombian study might be considered a fair number. Although we proved the adequacy of the model, we consider that the sample size influenced the obtained fit indices and the relationship among the variables. Regarding the number of indicators per factor, in the Colombian study, each latent variable had at least three indicators, contributing in obtaining admissible solutions. Examining in more detail the relationship among the variables included in the model, we found that post-merger identification is positively and significantly affected only by career opportunities and work climate. We corroborated these effects when performing multi-group analyses. Multiple regression analyses indicated that the relationship of pre-merger identification with job motivation as well as with job satisfaction was partially mediated by post-merger identification. However, with SEM, we found that the initial significant impact of pre-merger identification on post-merger identification decreased and became non-significant as soon as we examined its influence together with career opportunities, work climate and fairness. Since the employees were already working in the new merged organization when they answered the questionnaire, we think that some other aspects, such as the possibility of becoming part of the new organization, pursuing a career, and working in a pleasant work climate might have become more relevant and might to some extent have been determinants of their current and future situation and therefore might have impacted post-merger identification. Using multiple regression analyses, we observed that post-merger identification partially mediated the relationship between fairness and job satisfaction, but not with job motivation. Using SEM, we found that the effect of fairness on post-merger identification is non-significant. One reason might be that post-merger identification does not mediate the relationship among fairness with job motivation, as we observed with multiple regression analyses. Post-merger

identification positively impacts on job motivation and job satisfaction, and, moreover, post-merger identification serves as a mediator for the relationship among the external variables with job motivation and job satisfaction. Since post-merger identification partially mediates the relationship among career opportunities and job satisfaction, the direct influence of career opportunities on job satisfaction is understandable. The relationship between post-merger identification and OCB established through job motivation was supported, but not one through job satisfaction. In the same way, the relationship between post-merger identification and turnover intention was supported through job satisfaction and only marginally through job motivation.

Before going through the results obtained when testing the third hypothesis in the German study, it is necessary to point out that it had a good sample size (Comrey & Lee, 1992), and that it may compensate the cases in which we had less than three indicators per factor (career opportunities and turnover intentions). Analyzing the model, we found out that the initial influence of pre-merger identification on post-merger identification remained stable and significant even when including, simultaneously, the other external variables such as career opportunities, work climate and fairness. These effects remained stable and significant when controlling for dominance. We believe that the positive relation between pre- and post-merger identification is evident due to the fact that the merger had not yet taken place in this case, and perhaps the employees were continuing thinking in terms of their former organization. With multiple regression analyses we proved that the relationship of work climate with job motivation as well as with job satisfaction was partially mediated by post-merger identification. Therefore, a direct effect of the first one on the following two variables might be justified. The significant impact of fairness on post-merger identification remained stable and significant even when including the above mentioned external variables and also controlling for dominance. Job motivation carries out the influence of post-merger

identification on both OCB and turnover intentions, whereas job satisfaction only conveys the influence of post-merger identification on turnover intentions.

Next we will briefly examine some relevant features of the two methods for testing our third hypothesis: the first one from Baron and Kenny (1986), which is based on multiple regression analyses; and the second one based on structural equation modeling SEM (Byrne, 2001). In spite of their similarities, there are also some important differences among these two procedures. The first one tests not only for the mediation effect of the determined variable, but also for the direct effect of the antecedent on the consequent (James, Mulaik & Brett, 2006). Using the second one, one tests the impact of the antecedent on the consequent through the mediator variable, meaning that one starts examining a complete mediation effect (James, Mulaik & Brett, 2006). We consider it valuable having examined our third hypothesis following both procedures. With the four steps proposed by Baron and Kenny (1986) we were able to examine each triad of independent-mediator-dependent variables. The disadvantage might be that we analyzed each effect separately. Although we examined the influence of socio-demographic variables, we did not examine the collateral effect of other (independent, mediator or dependent) variables. On the contrary, when performing SEM, we examined more than one independent variable, and analyzed the mutual influences of all variables simultaneously. Thus SEM helped us testing our heuristic model examining all variables at the same time, and determining to which extent the model fits the data (Byrne, 2001).

In summary, and based on our results, we conclude that the model is based on empirically supported assumptions, and is statistically valid. Additionally, the results obtained across two samples from two different contexts may help us in answering another of our research questions regarding the impact of a merger on identification, attitudes and behaviors. Indeed, post-merger identification is affected by several variables. Some of them can be defined as organizational characteristics, such as career opportunities, work climate and fairness, but others appear more related to the individual, such as the variable pre-merger

identification. Furthermore, post-merger identification influences attitudes, organizational behaviors and intentions. One cannot place more or less importance to one of these factors without a careful analysis of the context in which the mergers are taking place. Moreover, analyses including several variables simultaneously, such as the ones we performed in these two studies, offer a wider panorama of the factors that may be influencing post-merger identification and the attitudes and behaviors that are impacted by identification.

Cross validation through multi-group analysis permitted us to examine the fourth hypothesis, in which we proposed that our model will be applicable along subgroups regarding dominance (H4a) in the Colombian and German groups, and status (H4b) in the Colombian group. The following results support the acceptability of these hypotheses.

In the Colombian sample we cross-validated the model among low/high dominance and low/high status. After obtaining partial invariance in the measurement and in the structural models, we proved that the model is equivalent among the analyzed subgroups. We confirmed a partial cross-invariant model among low/high dominant groups, except for the impact of post-merger identification on job motivation being slightly higher for the high dominant group. The model was also tested among low/high status and we obtained a partially cross-invariant model, in which the influences of career opportunities on post-merger identification, of job satisfaction on turnover intentions, and of job motivation on OCB, were higher for the low status group.

Examining the fourth hypothesis with the German sample, we obtained a measurement model that is partially cross-invariant and a structural model that is completely cross-invariant among low/high dominant groups, causing us to accept the fourth hypothesis as well. Although their regression paths are very similar, the influence of work climate on job motivation is slightly higher for the low dominant group.

We considered it important to examine whether the model was valid across sub-groups (low/high dominance, low/high status) representing two cultures (Colombia and Germany).

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We proved partial measurement and structural invariance in all cases. Since the results indicated that the model can be replicated among these subgroups, we accept our fourth hypothesis.

The similarity of the findings in the Colombian and German studies, here a governmental and there a medical institution, suggest that they are independent of the specific type of organization and of the specific culture, allowing us to accept our fifth hypothesis. We proved that our heuristic model is valid and generalizable across both groups, representing Colombian and German cultures, and among low/high dominant groups. We can also confirm that these psychological processes are similar among these two groups, and that the main differences are derived from the specific circumstances of the merger.

The influences of cultural, economical, and social differences on the process and the results of organizational mergers are not within the scope of this investigation. Nevertheless, we may expect the same psychological processes in both groups, such as the influence of identification on attitudes and behaviours. The possible differences may be found in the manner how each group handles changes as provided by a merger.

People from each country, whether from Colombia or from Germany, may have different economical, social, and normative environments, which may or may not provide them with the necessary resources for adapting to the new circumstance as presented by the merger, experiencing it as more or less painful.

We know that attitudes influence organizational behaviours and intentions, such as OCB, intentions of retirement, and also retirement, among others; but the extent to which these behaviors are expressed might depend on cultural, social, and economical characteristics and circumstances.

7.1 **Importance**

We consider the results of this study as relevant for the companies in societies comparable to Germany and Colombia, and, more specifically, for managers of human resources who are responsible for designing the personnel programs. Partially answering our question for reasons of failures in merger processes, we think that the lack of knowledge regarding those external factors that may be impacting psychological processes, that in turn influence organizational behaviors and intentions, leads to mistakes in personnel management. Those mistakes can jeopardize the goals of any merger. We conclude that it is necessary not only to focus on post-merger identification but also to consider aspects such as the perception of career opportunities, pre-merger identification, work climate, fairness, job motivation, job satisfaction, among others, because all of them determine the attitudes and behaviors of the employees under the circumstance of a merger. Additionally, human resources should be directed to specifically focus their efforts on the groups that we have confirmed as being most vulnerable, consisting of those employees who perceive themselves as members of the low dominant group or of the out-group. As mentioned in the beginning, we consider it important to carry out studies among groups with cultural and organizational differences, because they can reveal whether mergers affect identification, attitudes and behaviors of employees involved in such a process similarly or differently. We find it valuable that this type of research can be extended to a developing country, such as Colombia, where a shortage of resources and personnel and lack of collaboration from the management side do not permit researchers to study scientifically the psychological and social situation of employees involved in a merger.

7.2 **Limitations**

Although several psychological and social factors might play a role in the results of a fusion, this investigation only centered at the analysis of those variables which were the most relevant. Nevertheless, we hope that future investigations may contribute to a better and wider understanding of this process through cultural diversity. In addition, it would be of great value to carry out similar analyses, but leaving a considerable time interval between the measurements before and after the merger, in spite of the difficulties mentioned earlier.

The sample size is another factor to be considered as a limitation in the Colombian study. However, we found that the results are replicable and generalizable among low/high dominant and low/high status groups and among these two types of organizations. Future research might consider a larger sample size. With small samples one should consider having at least three 3 items per factor, in order to obtain proper solutions.

We believe that the way we formulated the items in the organizational identification section may have caused confusion among some employees and may be the reason for the high amount of missing values. Future studies should reformulate the answer format of these items.

The questionnaire that we applied in the Colombian sample had some items formulated in a positive but others in a negative way. However, after performing exploratory factor analyses and obtaining reliability, we found that most of the recoded ones had low factor loading, cross loading or low item-scale correlation, causing us to exclude them.

This being a cross-sectional research, we can neither propose nor test causality effects between the studied variables. However, it is important to encourage researchers to perform longitudinal studies, from which to determine the direction of these relations. In the meantime, we have based our propositions on previous theoretical and empirical findings, which have already examined these relations.

Discussion and conclusions

One of our main goals was to examine the impact of a merger on organizational identification, attitudes, organizational behaviors and intentions, as well as the role of organizational identification, job motivation and job satisfaction being mediators for the relationship between antecedent and consequences. We created a heuristic model based on the available theories, which reflect a European perspective, as well as on previous studies, most of them performed in individualistic cultures (according to Hofstede studies, 1980, 1991). The model was examined in two different contexts: Colombia and Germany. With that, we were able to observe whether there was a cross-cultural invariance or not. The statistical results indicated that the model might be applied in both contexts. We recognize, however, that based on just two case studies, we can not claim a cross-cultural generalization of our results from the psychological point of view.

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APPENDICES

Appendix A Questionnaire for the Colombian sample (English translation).

The original questionnaire applied to the Colombian sample was in Spanish and contained several variables. Here we show the English translation only of those items that are related to variables included in our heuristic model.

Dear employee:

Thank you for participating in our survey and for filling out this questionnaire. This will take 20 to 30 minutes. Please return this completed questionnaire.

You will help us contributing to a better understanding of the feelings, ideas, fears, etc., regarding the merger and the on-going improvement of this merger. In this investigation, we are interested in some aspects of your work with your former organization A or B, and the merged institution, your current work team, and workplace. You will be asked to respond to statements about the organizations participating in the merger.

This is a scientific investigation and all your answers will be taken confidentially.

Before starting with the questions regarding the fusion, we appreciate if you give us the following information:

<u>Age</u>:   Younger than 25 ¨   25-34 ¨   35-44 ¨   45-54 ¨   55 or more ¨

<u>Gender</u>:   Female ¨   Male ¨

Appendix A

<u>Studies:</u>

Up to 5th grade ……………………………		Bachelor's degree ……………….……..	
Some high school ……………………………		Some graduate/professional school degree ……………………	
High school graduate ………………………….		Graduate/professional school degree ……………………….…	
Some college, technical school ………………………..		Doctorate ………………………………………………	

Up to 5th grade
……………………………

Some high school
……………………………

High school graduate
………………………….

Some college, technical school
………………………..

Bachelor's degree ……………….……..

Some graduate/professional school degree
……………………

Graduate/professional school degree
……………………….…

Doctorate
………………………………………………

<u>Marital status:</u>   Single ¨   Married ¨   Divorced ¨   Widowed ¨   Free Union ¨

Are you head of family?   Yes ¨   Not ¨

You worked with the former institution A ¨   Institution B ¨   Other institution ¨

Which? _____

How many years have you been working by the merged Organization? (Include the time that you worked by the former institution A or B)

Less than 2 years ¨   2-10 years ¨   11-20 years ¨   21-30 years ¨   31 or more ¨

How to answer this Questionnaire?

You will find six possibilities to answer, please choose one of them according to the degree of your agreement or disagreement. You should mark with X the number according to the following scale:

1	2	3	4	5	6
Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

Example:

I am satisfied with my work place	Strongly disagree	1 2 3 4 5 6	Strongly agree

If you are not satisfied with you work place, you should answer from 1 to 3 depending how strong your feeling is: from strongly disagree (1) to slightly disagree (3).

If you are satisfied with you work place, you should answer from 4 to 6 depending how strong your feeling is: from slightly agree (4) to strongly agree (6).

1. Career opportunities

Individuals from both pre-merger organizations are welcome to work for the success of the merged organization	Strongly disagree	1 2 3 4 5 6	Strongly agree
In my department there is a team spirit among people from different organizations	Strongly disagree	1 2 3 4 5 6	Strongly agree
The merger provides me with better career opportunities	Strongly disagree	1 2 3 4 5 6	Strongly agree
Employees from both pre-merger organizations have the same possibilities to advance in their career	Strongly disagree	1 2 3 4 5 6	Strongly agree

2. What do you think about the integration resulting from the merger of organization A and organization B?

Organization B is dominant, Organization A is absorbed by Organization B	Strongly disagree	1 2 3 4 5 6	Strongly agree
Organization A is dominant, Organization B is absorbed by Organization A	Strongly disagree	1 2 3 4 5 6	Strongly agree

3. Fairness and justice policies: Think about the norms for the employees

I feel that the merged organization makes decisions in fair ways	Strongly disagree	1 2 3 4 5 6	Strongly agree
The rules and procedures in the merged Organization are equally fair to everyone	Strongly disagree	1 2 3 4 5 6	Strongly agree
Organizational authorities in the merged organization try very hard to be very fair to their employees	Strongly disagree	1 2 3 4 5 6	Strongly agree

4. Overall job satisfaction: Think about how you feel in your job

I am satisfied with my job	Strongly disagree	1 2 3 4 5 6	Strongly agree
In general, I like working for this Organization	Strongly disagree	1 2 3 4 5 6	Strongly agree
I am satisfied with the payment	Strongly disagree	1 2 3 4 5 6	Strongly agree
I am satisfied with policies and norms of the Organization	Strongly disagree	1 2 3 4 5 6	Strongly agree
I am satisfied with the quality of supervisors	Strongly disagree	1 2 3 4 5 6	Strongly agree
I am satisfied with other workers	Strongly disagree	1 2 3 4 5 6	Strongly agree

5. Job motivation

I feel a sense of personal satisfaction when I do this job well	Strongly disagree	1 2 3 4 5 6	Strongly agree
My self esteem lowers when I do this job badly	Strongly disagree	1 2 3 4 5 6	Strongly agree
I take pride in doing my job as well as I can	Strongly disagree	1 2 3 4 5 6	Strongly agree
I feel unhappy when my work is not up to my usual standard	Strongly disagree	1 2 3 4 5 6	Strongly agree
I like to look back on the day's work with a sense of a job well done	Strongly disagree	1 2 3 4 5 6	Strongly agree
I try to think of ways of doing my job effectively	Strongly disagree	1 2 3 4 5 6	Strongly agree

6. What do you think about your behaviour in your workplace?

I often make innovative suggestions.	Strongly disagree	1 2 3 4 5 6	Strongly agree
I help others who have been absent	Strongly disagree	1 2 3 4 5 6	Strongly agree
I help orienting new people	Strongly disagree	1 2 3 4 5 6	Strongly agree
I help others who have heavy work loads	Strongly disagree	1 2 3 4 5 6	Strongly agree
I use the time at work in a proper manner	Strongly disagree	1 2 3 4 5 6	Strongly agree
I do not expend a lot of time in idle conversations	Strongly disagree	1 2 3 4 5 6	Strongly agree
I am very punctual	Strongly disagree	1 2 3 4 5 6	Strongly agree

7. Have you thought about leaving your present work?

I would like to leave my job	Strongly disagree	1 2 3 4 5 6	Strongly agree
I would be happy to spend the rest of my life where I work now	Strongly disagree	1 2 3 4 5 6	Strongly agree
I feel emotionally attached to my current job	Strongly disagree	1 2 3 4 5 6	Strongly agree
I often think about quitting	Strongly disagree	1 2 3 4 5 6	Strongly agree
I would be willing to consider leaving my current work organization	Strongly disagree	1 2 3 4 5 6	Strongly agree

8. How do you perceive the work climate?

The labor environment in the previous Organization which I belonged, was pleasant	Strongly disagree	1 2 3 4 5 6 · Strongly agree
The present Organization offers a good environment of work	Strongly disagree	1 2 3 4 5 6 · Strongly agree
There is a good contribution between my work team and other work teams of the merged organization	Strongly disagree	1 2 3 4 5 6 · Strongly agree
We speak about themes that are interesting for all of us	Strongly disagree	1 2 3 4 5 6 · Strongly agree
We feel that all of we are in the same team	Strongly disagree	1 2 3 4 5 6 · Strongly agree
We have respectful and harmonic relations to every level	Strongly disagree	1 2 3 4 5 6 · Strongly agree

Complete the sentence with the words that appear in each column and then mark the number according to the degree of your agreement or disagreement

Example:

I am identifying myself with my Career

I am identifying myself with my Team

I am identifying myself with my Former Organization

I am identifying myself with my Merged Organization

9. Identification

	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
	.......Career						..........Team						.....Former Organization						........Merged Organization					
I am identifying myself with my …																								
Identifying myself with my … reflects my personality well.																								
I like to work for my …																								
My … is positively judged by others.																								
I work for my … more than necessary.																								
I am pleased with my …																								
If someone says something bad about my …, they say something bad about me.																								
I really care about the fate of my …																								

Thanks you very much for your participation

Appendix B Questionnaire for the Colombian sample (Spanish version)

The original questionnaire applied to the Colombian sample was in Spanish and contained several variables. Here we only show those items that are related to variables included in our heuristic model.

Estimado funcionario:

Gracias por participar en este estudio y por diligenciar este cuestionario. Esto le tomará entre 20 y 30 minutos. Por favor devolverlo diligenciado en su totalidad

Usted nos ayudará a un mejor entendimiento de los sentimientos, temores, ideas, etc. en relación con el proceso de fusión de las entidades, así como con el mejoramiento del mismo. En esta investigación nosotros estamos interesados en conocer algunos aspectos de su trabajo con la antigua entidad A o B a la cual usted pertenecía, y la entidad fusionada, su actual equipo y lugar de trabajo.

Esta es una investigación científica y todas sus respuestas serán tomadas confidencialmente

Antes de iniciar con las preguntas en relación a la fusión, nos gustaría obtener la siguiente información. Marque con una X:

Edad: Menor de 25 ¨   25-34 ¨   35-44 ¨   45-54 ¨   55 o más ¨

Sexo: Femenino ¨   Masculino ¨

Estudios:

Hasta 5th grado ………………… [ ]   Carrera professional incompleta …..…….. [ ]

Bachillerato incompleto ………... [ ]   Carrera professional completa ………… [ ]

Bachillerato completo ………. [ ]   Postgrado……… ……………………………. [ ]

Estudios técnicos.……………… [ ]   Doctorado………………………………… [ ]

Estado civil: Soltero ¨   Casado ¨   Divorciado ¨   Viudo ¨   Unión libre ¨

Es usted cabeza de familia?   Si ¨   No ¨

Usted trabajó con la anterior institución A ¨   Institución B ¨

Otra institución ¨   Cual?_____

Cuantos años hace que está trabajando para la entidad fusionada? (incluya el tiempo que trabajó para la anterior institución A or B)

   Menos de 2 años   ¨   2-10 años ¨   11-20 años ¨   21-30 años ¨   31 o más ¨

Cómo responder este cuestionario?

Usted encontrará seis posibilidades para responder, por favor escoja la que más se acomode a sus preferencias. Usted debe marcar con una X un número de acuerdo a la siguiente escala:

1	2	3	4	5	6
Totalmente en desacuerdo	Moderadamente en desacuerdo	Ligeramente en desacuerdo	Ligeramente de acuerdo	Moderadamente de acuerdo	Totalmente de acuerdo

Ejemplo:

Yo estoy satisfecho con mi lugar de trabajo	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo

Si usted no está satisfecho con su lugar de trabajo, usted debe responder entre 1 y 3 dependiendo que tan fuerte es su sentimiento desde totalmente en desacuerdo (1), hasta ligeramente en desacuerdo (3).

Appendix B

Si usted está satisfecho con su lugar de trabajo, usted debe responder entre 4 y 6 dependiendo de que

tan fuerte es su sentimiento: desde ligeramente de acuerdo (4), hasta totalmente de acuerdo (6).

1. Oportunidades de carrera

Todos tenemos la misma oportunidad de hacer aportes para el logro de los objetivos de la entidad fusionada	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
En mi dependencia existe un espíritu de equipo entre la gente de las dos entidades fusionadas	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
La fusión me ha brindado mejores oportunidades de progreso laboral	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Funcionarios de las dos antiguas entidades tienen las mismas posibilidades para desarrollar y mejorar en su trabajo	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo

2. Que piensa usted de la integración que resultó de la fusion de la entidad A y B?

Organización A es dominante, Organización B fue absorbida por Organization A	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Organización B es dominante, Organización A fue absorbida por Organization B	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo

3. Normas para los funcionarios

Yo siento que en la entidad fusionada se toman decisiones de manera justa	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Las reglas y procedimientos en la entidad fusionada son igualmente Justas para todos	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Quienes ejercen la autoridad dentro de la entidad fusionada son justos con los funcionarios	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo

4. Satisfacción en el trabajo: cómo se siente en su trabajo?

Yo estoy satisfecho con mi trabajo	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
En general, a mi me gusta estar trabajando para la entidad fusionada	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo estoy satisfecho con mi salario	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo estoy satisfecho con las normas y políticas de la entidad	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo estoy satisfecho con la calidad de jefes	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo estoy satisfecho con los funcionarios de la entidad	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo

5. Motivación en el trabajo

Yo siento satisfacción personal cuando hago mi trabajo bien	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
La opinión de mi mismo desmejora cuando hago mi trabajo mal	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Me siento orgulloso de hacer mi trabajo lo mejor que yo pueda	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Me siento triste cuando mi trabajo no alcanza mi usual promedio	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
A mi me gusta echar un vistazo a mi trabajo y saber que lo he hecho bien	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo busco la forma de hacer mi trabajo efectivamente	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo

6. Qué piensa usted acerca de su comportamiento en su lugar de trabajo?

A menudo hago sugerencias innovativas	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Colaboro con el trabajo de otros cuando no pueden venir a trabajar	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo ayudo orientando a nuevos funcionarios	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo ayudo a quienes tienen sobrecarga de trabajo	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo hago buen uso del tiempo en mi trabajo	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo gasto poco tiempo en conversaciones de pasillo	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo soy puntual	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo

7. Ha pensado dejar su actual empleo?

Me gustaría dejar mi empleo	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo sería feliz estando el resto de mi vida donde yo trabajo ahora	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo me siento emocionalmente ligado con mi actual trabajo	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo pienso a menudo en renunciar	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Yo ya he contemplado y mirado otras oportunidades laborales	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo

8. Como evalúa usted el ambiente laboral?

El ambiente laboral en la entidad a la que yo pertenecía, era agradable	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
La actual entidad fusionada ofrece un buen ambiente de trabajo	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Existe una Buena colaboración entre mi grupo de trabajo y otros grupos de trabajo de la entidad fusionada	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Nosotros hablamos acerca de temas que son interesantes para todos	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Nosotros sentimos que todos estamos en el mismo equipo	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo
Nosotros tenemos relaciones armónicas y respetuosas a todo nivel	Totalmente en desacuerdo	1 2 3 4 5 6	Totalmente de acuerdo

Complete la oración con las palabras que aparecen en cada columna y luego marque un número

de acuerdo a su grado de acuerdo o desacuerdo.

Ejemplo:

Yo me identifico con mi carrera

Yo me identifico con mi equipo

Yo me identifico con mi antigua empresa

Yo me identifico con mi empresa fusionada.

9. Identificación

	1 2 3 4 5 6 ....Carrera	1 2 3 4 5 6 ....Equipo	1 2 3 4 5 6 .....Antigua empresa	1 2 3 4 5 6 ....Empresa fusionada
Yo me identifico con mi …				
Identificarme con mi……..... refleja bien mi personalidad.				
Me gusta trabajar para mi…….. …				
Mi … es positivamente juzgada por otros.				
Yo trabajo para mi ……. más de lo necesario				
Yo estoy contento con mi……….				
Si alguien dice alguna cosa mala acerca de mi….... está diciendo algo malo acerca de mi.				
Yo realmente me preocupo por el destino de mi…….				

Muchas gracias por su participación

Appendix C Items included in the Colombian questionnaire with their factor loadings and descriptive statistics

Career opportunities	Factor loadings					
	1	2	3	Mean	Sd	r (i-t)
04 Employees from both pre-merger institutions have the same possibilities to advance in their career	.844			3.37	1.93	.68
01 Individuals from both pre-merger organizations are welcome to work for the success of the merged organization	.778			3.99	1.83	.59
03 The merger provides me with better career opportunities	.766			3.03	1.75	.57
02 In my department there is a team spirit among people from both organizations	.750			4.1	1.69	.56
Pre-merger identification						
22 I am pleased with my former organization	.827			4.93	1.36	.73
19 I like to work for my former organization	.802			4.67	1.6	.69
18 Identifying myself with my former organization reflects my personality well	.784			4.61	1.39	.67
24 I really care about the fate of my former organization	.757			4.35	1.77	.67
17 I am identifying myself with my former organization	.745			4.99	1.23	.62
21 I work for my formed organization more than necessary [d,e]	.697			4.23	1.71	.6
20 My former organization is positively judged by others	.642			4.36	1.46	.53
23 If someone says something bad about my former organization, they say something bad about me [a]	.543			3.88	1.9	.45
Work climate						
05 We feel that all of we are in the same team	.845			3.62	1.74	.73
03 There is good contribution between my work team and other work teams of the merged organization	.821			3.93	1.49	.7
06 We have respectful and harmonic relations to every level	.819			4.5	1.56	.7
04 We speak about themes that are interesting for all of us	.746			4.55	1.43	.6
02 The merged organization offers a good environment of work	.741			3.44	1.51	.59
01 The labor environment in the previous organization which I belonged to, was pleasant [c]	.394			5.02	1.32	.28

Factor loadings						
Fairness	1	2	3	Mean	Sd	r (i-t)
02 The rules and procedures in the merged organization are equally fair to everyone	.918			3.25	1.68	.79
01 I feel that the merged organization makes decisions in fair ways	.909			3.21	1.55	.78
03 Organizational authorities in the merged organization try very hard to be fair to their employees	.838			3.38	1.53	.66
Post-merger identification						
30 I am pleased with my merged organization	.854			4.53	1.45	.76
27 I like to work for my merged organization	.838			4.96	1.3	.73
25 I am identifying myself with my merged organization	.799			4.25	1.45	.68
26 Identifying myself with my merged organization reflect my personality well	.797			4.32	1.43	.68
32 I really care about the fate of my merged organization	.769			5.13	1.34	.66
28 My merged organization is positively judged by others	.679			4.18	1.43	.58
31 If someone says something bad about my merged organization, they say something bad about me [e]	.549			3.79	1.9	.45
29 I work for my merged organization more than necessary [a]	.455			4.72	1.48	.36
Job motivation						
05 I like to look back on the day's work with a sense of a job well done.	.878	.160	.169	5.71	.73	.42
06 I try to think of ways of doing my job effectively	.866	.014	-.030	5.92	.44	.31
02 My self esteem lowers when I do this job badly (recoded) [a,b,c]	-.112	.876	.113	4.78	1.53	.27
04 I feel unhappy when my work is not up to my usual standard (recoded) [b,c]	.323	.778	-.088	5.24	1.25	.45
01 I feel a sense of personal satisfaction when I do this job well [a,b,c]	-.006	.022	.915	5.85	.51	.12
03 I take pride in doing my job as well as I can	.547	.022	.586	5.89	.39	.31

Job satisfaction	Factor loadings			Mean	Sd	r (i-t)
	1	2	3			
02 In general, I like working for this organization [d]	.762			5.31	1.04	.59
01 I am satisfied with my job	.747			5.04	1.17	.55
06 I am satisfied with other workers	.713			4.45	1.18	.51
05 I am satisfied with the quality of supervisors	.706			4.43	1.42	.49
04 I am satisfied with policies and norms of the entities of the organization [d]	.634			3.93	1.47	.47
03 I am satisfied with the payment [c]	.507			3.27	2.02	.34
Organizational citizenship behavior						
02 I help others who have been absent	.841	.126		5.26	.89	.51
04 I help others who have heavy work loads	.804	.102		5.21	.85	.48
03 I help orienting new people	.780	.062		5.57	.7	.45
05 I use the time at work in a proper manner [c]	.378	.319		5.54	.72	.28
06 I do not expend a lot of time in idle conversations (recoded) [a,b,c]	.039	.681		5.38	1.11	.23
01 I often make innovative suggestions [a,b,c]	.052	.669		4.81	1.1	.23
07 I am very punctual [b,c]	.186	.575		5.58	.77	.28
Turnover intentions						
04 I often think about quitting (recoded)	.891	.056		2.37	1.68	.6
01 I would like to leave my job (recoded)	.837	.202		2.6	1.86	.64
05 I would be willing to consider leaving my current work organization (recoded)	.829	.168		2.91	1.91	.61
03 I feel emotionally attached to my current job [b]	.105	.882		2.24	1.35	.39
02 I would be happy to spend the rest of my life where I work now [b]	.180	.858		3.41	1.71	.42

Note. Method of extraction: Principal component analysis with varimax rotation.

Reasons for item exclusion: (a) low factor loading; (b) loading in other factor; (c) low item-scale correlation; (d) cross loading when performing structural equation modeling; (e) because the exclusion of its counterpart in post-merger identification;

Sd = Standard deviation; r (i-t) = Item-total Correlation

n = 207 without missing values

Appendix D Items included in the German questionnaire with their factor loadings and descriptive statistics

	Factor loadings				
Career opportunities	1	2	Mean	Sd	r (i-t)
01 Because of the fusion there are for me great chances to develop my career	n.a.		1.72	1.13	n.a.
Pre-merger identification					
10 I like to work for my former entity	.888		4.31	1.47	.78
12 For my former entity I commit myself beyond what is required	.872		3.66	1.53	.75
09 I identify myself with my former entity	.857		4.09	1.59	.73
11 My former entity is well respected by other people in my vicinity whose opinions are important to me	.779		3.44	1.47	.63
Work climate					
03 We are a team	.919		4.44	1.27	.80
02 We are in the same boat	.892		4.18	1.35	.75
01 We talk about relevant themes that are interesting for all	.849		4.77	1.13	.67
Fairness					
02 The clinic, branch leadership care about the well being of the co-workers	.935		3.21	1.31	.83
03 The clinic appreciate the work of the co-workers	.879		3.40	1.34	.72
01 The co-workers are usually been treated fairly by the clinic, branch leadership	.845		3.84	1.25	.67
Post-merger identification					
14 I like to work for my merged entity	.906		3.77	1.67	.82
13 I identify myself with my merged entity	.878		3.28	1.69	.78
16 For my merged entity I commit myself beyond what is required	.873		3.22	1.57	.77
15 My merged entity is well respected by other people in my vicinity whose opinions are important to me	.863		3.03	1.57	.75

	Factor loadings				
Job motivation	1	2	Mean	Sd	r (i-t)
06 My work means too much to me	.783		5.29	1.01	.51
01 My job is very diversified	.716		4.95	1.19	.44
07 I am clearly responsible whether my work will be successfully completed or not	.697		5.11	1.10	.41
03 All together all my work is not very important or meaningful (recoded)	.592		5.19	1.25	.33
Job satisfaction					
10 I am content with the possibilities to develop further in a personal way my work	.887		4.19	1.52	.71
09 I am very satisfied with my job	.824		4.87	1.21	.61
11 I am very content with the feeling to do something very valuable through my work	.804		4.72	1.25	.58
Organizational citizenship behaviour					
03 I obey regulations with great care	.740	.043	5.08	1.04	.42
06 I inform my colleagues and superiors always early if I can not come to work	.701	.035	5.77	.62	.39
05 When colleagues are over worked I help what I can	.665	.326	5.38	.82	.47
02 I always come to work punctually	.659	-.296	5.25	1.22	.21
04 With the colleagues I have to work in, I like to cooperate	.619	.181	5.31	.90	.33
01 Sometimes I am willing to work longer [b,c]	.008	.801	4.62	1.61	.16
07 The time that I work is absolutely sufficient and I don't intent to engage myself more than that (recoded) [b,c]	.107	.680	3.42	1.81	.21
Turnover intentions					
01 I often think of resigning from work (recoded)	.875	-.093	2.27	1.65	.29
02 I have already inquired about other jobs (recoded)	.868	.093	2.39	1.93	.38
03 If I don't like my current employment any more, I have a good chance of obtaining a comparable positions with another employer [b,c]	.366	.792	3.16	1.80	.37
04 I see a good chance of advancing my career with my current employer [b,c]	-.371	.790	2.77	1.63	-.08

Note. Method of extraction: Principal component analysis with varimax rotation.

Reasons for item exclusion: (a) low factor loading; (b) loading in other factor; (c) low item-scale correlation;

Sd = Standard deviation; r (i-t) = Item-total correlation; n.a. = not applicable

n = 319 without missing values