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Antecedents of organizational commitment across occupational groups: A meta-analysis

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Summary
This meta-analysis examines whether the relationships between organizational commitment (OC) and its antecedents differ across occupational groups. Two models representing different antecedents are proposed: the member model, presented by the personal variables, and the organization model, presented by role related, structural and work experiences variables. The study is based on 98 samples with correlational data for the relationships between OC and its antecedents. The total sample was divided into two main occupational groups: white collar employees, subdivided into professionals and nonprofessionals, and blue collar employees. The findings reveal that in general the relationship between OC and personal antecedents, representing the member model, is stronger for blue collar and nonprofessional white collar employees than for professional employees. For the role-related, structural, and work experiences antecedents, representing the organization model, differences among the occupational groups were found to be less consistent. In general, the findings demonstrate that the member and the organization model operate differently for varying occupational groups. The findings are discussed in terms of the need for elaboration of the existing explanations for the development of OC.

Introduction
The issue of organizational commitment (OC) continues to receive attention from both scientists and practitioners. Of all the forms of commitment it is the OC which 'is currently enjoying widespread popularity' (Griffin and Bateman, 1986, p. 166). This interest is made apparent by the numerous studies that have examined the relationships between OC and its antecedents and outcomes (e.g. Mathieu and Zajac, 1990; Mowday, Porter and Steers, 1982). A primary reason for such attention is that OC is perceived as an attitude which can predict turnover better than other work attitudes, especially better than job satisfaction (Williams and Hazer, 1986). Moreover, it has been argued that organizations whose members have higher levels of commitment will show higher performance and productivity, and lower levels of absenteeism and tardiness (Bateman and Strasser, 1984; Morris and Sherman, 1981). Aside from the influence of OC on these important behaviors, it is argued that the high degree of attention devoted to this form of commitment stems from the fact that it 'is theory based, broad in focus, holds

The author would like to thank two anonymous reviewers for their helpful comments and suggestions. The author would also like to thank Suzanne Kiely for her editorial assistance.

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0894–3796/92/060539–20$15.00
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Received 7 December 1990
Revised 2 July 1991
significant integrative potential, and may be more manageable than other forms’ (Griffin and Bateman, 1986, p. 166).

Such growth in the number of studies addressing OC aids in determining which factors affect this form of commitment. However, recent literature based on a quantitative summary of findings (Mathieu and Zajac, 1990) argues that while most research has considered simple linear relationships, there is a need for a research that explores which moderators affect the relationships between OC and its antecedents. Mathieu and Zajac (1990), found that the possibility of moderator effects could not be ruled out for almost all of the 48 correlates of OC examined in their meta-analysis. Quite surprisingly, however, one finds little empirical research and few proposed conceptual models of any moderating effects on the relationships between OC and its antecedents. While OC theory and models (e.g. Becker, 1960; Mowday et al., 1982; Ritzer and Trice, 1969) suggest that type of occupation may moderate OC–determinant relationships, a limitation of the current literature is that it offers only a narrow perspective as to the effects of occupational groupings. Very little research has compared the relationships between OC and its antecedents across occupational groups.

The purpose of this meta-analysis is to examine the moderating effect of type of occupation on the relationships between OC and its primary antecedents: personal characteristics (e.g. age, gender), role-related (e.g. role conflict, autonomy), structural (e.g. organizational communication, centralization), and work experiences (e.g. leadership, job involvement). This paper examines two alternative models for the moderator effect of type of occupation. The member model focuses on personal antecedents, while the organization model concentrates on role-related, work experiences and structural antecedents. It is expected that the correlations between personal antecedents and OC will be stronger for employees in low status occupations (e.g. blue collar) than for those in higher status occupations (e.g. white collar, professionals). However, the correlations between the organizational variables (role-related, structural, work experiences) and OC will be stronger for employees in higher status occupations. The findings of this study will help to conclude whether type of occupation moderates the relationship between OC and its antecedents and whether particular theoretical mechanisms and models are more valid for certain occupational groups. The findings will also facilitate a conclusion as to whether the moderator effect of type of occupation explains the large remaining variance in most of the OC correlates in Mathieu and Zajac’s (1990) meta-analysis. From a practical perspective, if OC–determinant relationships vary across occupations, attempts to increase levels of OC should differ correspondingly. This understanding may allow for more effective organizational orientation and training programs and would provide managers with more accurate explanations about the behavior of their subordinates and themselves on the job.

**Organizational commitment and type of occupation**

The argument that type of occupation may moderate the relationship between OC and its antecedents has its roots in early OC literature. Becker (1960) who proposed one of the earliest OC conceptual models, the ‘side-bet’ theory approach, alluded to the potential effects of occupation on OC by arguing that:

‘for a complete understanding of a person’s commitment we need ... an analysis of the system of values or, perhaps better, valuables with which bets can be made in the world he lives in ... In short, to understand commitment fully, we must discover the systems of values within which the mechanisms and processes described earlier operate’ (Becker, 1960, p. 39).
Becker later argued that occupational groups are subcultures with value systems of their own. Based on this, it can be expected that antecedents of commitment would affect commitment differently across occupational groups, because each occupational group has its own value system.

An interesting explanation as to why type occupation may affect OC—determinant relationships was proposed by Ritzer and Trice (1969). They argued that due to lack of meaningful job content, individuals in society’s low status occupations (e.g. janitors, clerks) are unlikely to be very committed to their occupations, but individuals in occupations deemed more meaningful by society (e.g. doctors, lawyers) are much more likely to be committed to their occupations. They concluded that:

"[Organizational commitment] arises from a realization by the individual that the occupation has little to which he can commit himself. In order to make his working life meaningful, an individual must commit himself to something. If the occupation is weak structurally, the organization remains as the major alternative to which the individual may commit himself" (p. 478).

According to Ritzer and Trice, the relationships between OC and its antecedents should be stronger for nonprofessionals than for professionals. Because professionals do not direct their expectation toward the organization but toward their occupation, the organization as an object of commitment is not as important for them as it is for nonprofessionals.

While the two aforementioned approaches do consider some effects of occupation upon OC, the most common theoretical approach to OC, Mowday et al.’s (1982) attitudinal approach does not provide any explanation as to how type of occupation may affect OC—determinant relationships. Rather, OC is defined as the relative strength of an individual’s identification with and involvement in a particular organization.

"Individuals come to organizations with certain needs, desires, skills, and so forth and expect to find a work environment where they can use their abilities and satisfy many of their basic needs" (Mowday et al., 1982, p. 20).

When an organization provides a vehicle for an individual to display his/her abilities and satisfy his/her needs, the person reciprocates with commitment to the organization. However, this explanation, which is considered to represent the main conceptual approach to OC, does not consider the question of whether or how these relationships might differ across occupational groups.

An explanation to this question was proposed by Wiener and Vardi (1980), who examined the relationships between commitment forms (job, career, organizational—calculative, organizational—normative) and work outcomes (performance, attachment, effort, satisfaction). They argued that the magnitude of commitment—outcome relationships may vary across diverse occupational groups and work situations. Organizations differ in the primary mechanisms by which work behavior of their members is controlled. In business organizations, the primary mechanism is probably based on calculative-instrumental processes, as the essence of members’ involvement and ‘contract’ with the organization is economic and incentive oriented. In non-business organizations, commitment is likely independent of direct, ‘selfish’ interests and immediate and/or temporary situational concerns, and may become very important in affecting organizational behavior as members’ involvement is often value based.

Wiener and Vardi (1980) continued that differences in commitment may exist among business organizations themselves. In some organizational settings, a calculative, incentive-oriented ‘contract’ is highly stressed. In such settings, rewards, particularly monetary ones, serve as a basic
control mechanism. An occupational example of such a setting is a commission sales position. Wiener and Vardi (1980) argued that in other work situations, such as professional settings, the economic ‘contract’ is less pronounced and normative considerations assume more importance in controlling work behavior. They further hypothesized and found that the relationship between work-related commitments and work behavior outcomes was stronger for professionals than for insurance salespersons.

A conceptualization that will be applied in this paper along with that of Wiener and Vardi (1980) is that of Angle and Perry (1983) who proposed two alternative models for the formation of OC. In the member model, the locus of commitment resides in the attributes and actions of the individual. According to the other model, the organizational model, OC is a function of the way the member has been treated by the organization. These two approaches are distinguished by whether it is the member or the organization who initiates actions that ultimately lead to an increase in the member’s OC.

**Proposed model of the effect of type of occupation on OC antecedents**

Angle and Perry (1983) argued that commitment to an organization would be member based because the locus of events that culminate in the member’s commitment is his/her own prior behavior. The member based model focuses on what the member brings to the organization as well as what s/he does there. The essential element of this approach is the argument that previous events have certain cost or forfeiture implications for the present and therefore place restraints on a person’s options. Moreover, certain involuntary attributes such as age and gender can also be included in the member model because of their constraining influence on alternative employment.

Several additional writings support these arguments. Becker (1960) argued that OC is based on the accumulation of investments valued by the individual which would be lost or deemed worthless if s/he were to leave the organization. Working in the organization increases an individual’s investments and the costs of leaving cause higher levels of OC. These investments should accumulate over time, and therefore age and tenure are considered to be the best two indicators of investments (Ritzer and Trice, 1969; Meyer and Allen, 1984). Variables such as gender, marital status, and number of children are also forms of investments in the sense that they are synonymous with greater responsibilities and so are considered to be constraining influences on alternative employment (Alutto, Hrebiniai and Alonso, 1973; Ritzer and Trice, 1969).

A more elaborate explanation of this type of relationship was proposed by Farrell and Rusbult (1981). According to their model, commitment is a function of several factors: the rewards and costs derived from one’s job (satisfaction), the quality of one’s job alternatives, and the magnitude of one’s investments in the job. Their investment model predicts that job alternatives ought to be negatively related to commitment. If an individual’s job alternatives are poor (e.g. oversupply of similarly qualified workers), commitment should become greater. Length of service, acquisition of non-portable skills, and retirement programs are common job investments. Such investments serve to increase commitment by increasing the costs of leaving the organization. It is expected that this type of relationship, calculative, incentive-oriented ‘contract’, would characterize employees in low status occupations who, in general, have poor employment alternatives relative to those in higher status occupations.

Support for this can be found in Grusky (1966), who argued that whether or not one must overcome hurdles in order to obtain the rewards of the organization may be an important factor in determining one’s commitment to it. If the rewards are readily obtained, one’s obligation to the organization is likely to be weak as one becomes convinced that it was his/her attributes
rather than those of the organization which provided the rewards. On the other hand, if one obtains great rewards despite apparent obstacles (such as starting out with low status in the organization), commitment should be strong. Following Grusky's argument it can be argued that the hurdles employees in low status occupations must overcome to receive organizational rewards are greater than those facing professionals who are more likely to attribute their rewards to their occupational qualifications rather than to the organization. These hurdles are demonstrated in variables such as tenure, education, gender, and number of children, which will affect OC of employees in low status occupations more than employees in higher status occupations.

Another expectation of this paper is that the relationship between OC and its organizational antecedents (role-related, structural and work experience), would be stronger for employees in high status occupations than for employees in lower status occupations. These organizational antecedents include those factors that the organization has at least some control over and/or allocates to employees. Based on Angle and Perry's (1983) work, it can be argued that the actions which underlie the commitment process occur at the individual end of the individual-organization linkage for nonprofessionals, while for professionals it occurs at the organizational end. A prospective member brings needs and goals with her/him to an organization and agrees to supply her/his skills and energies in exchange for organizational resources capable of satisfying these needs and goals. Specific expectations exist on the side of both parties and, to the extent that there is a balance or match between what the organization provides and the member's expectations, the member's satisfaction appears to be maximized.

Sheldon (1971) found, in a sample of scientists, that professionals with high commitment to the profession tended not to be committed to the organization regardless of investments. For professionals, social involvement, defined as interaction with and identification with other members of the organization, was rewarding in itself and leaving the organization would mean leaving these significant others. Based on this finding Sheldon (1971) concluded that social involvement is important in producing OC among scientists with high levels of professional commitment, and, therefore, is important for assuring that the organization retains personnel with professional competence.

Another such example was proposed by Nystrom (1990) who emphasized the importance of vertical exchange between managers and their subordinates. He argued that bosses secure greater commitments from selected subordinates by providing them with greater discretion, attention, influence, support, information, and other resources. Subordinates reciprocate by offering organizationally desired contributions such as commitment. Nystrom (1990) also argued that bosses tend to initiate more exchanges with subordinates whom they perceive to be more competent and with those subordinates who perceive themselves to be more competent. His sample included managers from business firms because he assumed that these managerial jobs allow greater discretion than do lower level jobs and many public sector jobs, where the quality of vertical exchanges would be more constrained by bureaucratic rigidities. His findings support the expectation that managers who experience low quality exchanges with their immediate superiors tend to feel little commitment toward their organization, whereas managers with high quality vertical exchanges express strong OC. It is logical to assume that an exchange relationship of the kind described by Nystrom (1990) is more common in professional settings.

In short, this paper will argue that the OC of employees in low status occupations (e.g. blue collar) is affected by their fewer employment opportunities, high costs of leaving the organization and desire for stability in employment. Therefore, these employees would be more affected by variables that represent these considerations: i.e. age, tenure, and variables that represent dependency such as marital status and number of children. Gender is also a variable that
represents the above considerations, particularly dependency (e.g. females are affected more by marital status and having children) as well as less employment opportunities (Angle and Perry, 1983). Employees in low status occupations direct their expectations toward the organization. Because these employees direct their expectations toward the organization, the relationships between personal psychological antecedents such as motivation (e.g. feelings of accomplishments and fulfillment), and need for achievement and OC are also expected to be stronger for nonprofessionals than for professionals. For employees in higher status occupations (e.g. professionals) variables of this type would instead affect occupational commitment which is the main focus of their expectations. Many would attribute the extrinsic rewards they received to their qualifications and therefore would not reciprocate with high organizational commitment. For professionals the relationship with the organization can be characterized as an exchange relationship. These employees will be committed to the organization only if the organization meets their expectations regarding aspects of their jobs and occupation. These aspects can include specific features of the job, such as less role conflict and role ambiguity; aspects of the organizational structure, such as less centralization and better flow of organizational communication; and positive work experiences, such as effective leadership.

**Purposes of this research**

Recent developments in meta-analysis (Hunter, Schmidt and Jackson, 1982; Hunter and Schmidt, 1990) have made it possible to re-examine existing studies using quantitative review methods. Such methods permit the statistical aggregation of research findings and the systematic assessment of inter-study moderators. Quantitative effects and samples can be cumulated and, consequently, communalities beyond the scope of narrative reviews can be brought to light.

Given the limited amount of research that has examined the antecedents of OC across occupational groups, a meta-analysis review appeared to be conceptually and practically appropriate. A meta-analysis review can increase insight into the factors that influence the development of OC across occupational groups, an issue that has been neglected in the OC literature (Griffin and Bateman, 1986). A meta-analysis review may enable us to resolve the research question of whether different theoretical mechanisms and models become activated and/or are more valid for different occupational groups.

**Method**

**Identification of articles**

Mowday et al.’s (1982) model of antecedents of OC was used as a guideline when a search for relevant findings in the empirical literature was conducted. Published studies were identified by means of both manual and computer-assisted searches of the social science, psychology and managerial literature. The total number of studies reviewed was over 200, of which 77 included correlational data dealing with the relationships between OC and its antecedents. These studies included 98 independent samples. (The 77 studies are referenced in the Appendix).

**Definition of occupational groups**

The total sample was divided into two main occupational groups: white collar employees and blue collar employees. Blue collar employees included unskilled, semi-skilled and skilled
employees in industrial organizations. The available data did not enable a more detailed categorization of blue collar employees. White collar employees were categorized into two subgroups. Professionals and semi-professionals constituted one subgroup (e.g. scientists, engineers, nurses, accountants). Nonprofessionals (clerical and administrative staff) formed the second subgroup. This categorization will allow for testing of the expectations regarding OC–antecedents relationships in two comparisons. A comparison between blue collar (low status occupations) and white collar (higher status occupations relative to blue collar) employees should reveal stronger relationships for blue collar in the personal antecedents and weaker for the organizational antecedents. A comparison between the two white collar subgroups, nonprofessionals (low status occupations) and professionals (higher status occupations) should reveal stronger relationships for nonprofessionals in the personal antecedents, and weaker for the organizational antecedents.

Meta-analysis

The Hunter et al. (1982) and Hunter and Schmidt (1990) meta-analysis procedure was used in this study because it aggregates correlation coefficients across studies, corrects for the presence of statistical artifacts and provides unbiased estimates of the theoretical population relationships. Following this method, the present study consists of three basic steps: the estimation of population mean correlations and variance, the correction for statistical artifacts, and the analysis of moderating effects.

Several additional points need to be emphasized in order to completely clarify the meta-analysis that was conducted. Statistical artifacts controlled for in this meta-analysis were sampling error, predictor and criteria unreliability. No corrections were made for range restrictions because of insufficient data. Based on Hunter et al.'s (1982) finding that the average correlation does not violate the independence assumption, it was decided that if more than one correlation was reported for a single sample the average of these correlations would be used.

In accordance with arguments in the recent literature (e.g. McDaniel, Hirsh, Schmidt, Raju and Hunter, 1986) regarding the rules for rejecting the situational specificity hypothesis, it was decided to follow not only the Pearlman, Schmidt and Hunter (1980) rule of 75 per cent, but also to adopt McDaniel et al.'s (1986) recommendation that the actual amount of variance remaining after accounting for sample size be considered when determining generalizability. The chi square test suggested by Hunter et al. (1982) was used only as supporting evidence. Additionally, it was decided to adopt Schmidt, Hunter and Raju's (1988) suggestion that confidence intervals be used to interpret validity generalization results.

Moderator effect

In the moderator analysis, a moderating effect would be indicated in two ways: (1) there should be large differences in the mean effect size (correlation) between subsets, and (2) there should be a reduction in variance within subsets (Hunter et al., 1982, p. 293). Hunter and Schmidt (1990, ch. 9) provide a statistical procedure for detecting a moderator among binary variables. Firstly, the overall meta-analysis should be split into two subgroups based on the moderator variable. A meta-analysis should be performed within each subgroup of studies. If the correlations of the two occupational subgroups differ in the predicted direction, this tends to confirm the predicted moderator variable.

However, they argue the possibility that the observed difference between means (i.e. subgroup correlations) is due to second order sampling error. If a meta-analysis is based on a large number of studies, then there is little sampling error in meta-analytic estimates. However, if
it is based on only a small number of studies, then there will be sampling error in the meta-analytic estimates of means and standard deviations. This is called second order sampling error.

Hunter and Schmidt (1990) argue that the range of potential sampling error in each subgroup of studies can be estimated by computing a confidence interval for the mean correlation in each subgroup. To the extent that these confidence intervals do not overlap, there is sharp confirmation of the predicted moderator variable. They propose that the way to measure the extent of the confidence intervals is to compute a significance test on the difference between the two mean correlations. For the present study, Hunter and Schmidt’s (1990) significance test was used to examine the moderator effects and the differences between the occupational subgroups correlations. For each variable two tests were conducted if sufficient data (at least two samples for each subgroup) was available. One test compared the significance of the difference between blue collar and white collar employees. The other test compared the significance of the difference between professional and nonprofessional white collar employees.

Finally, regarding the moderator analysis conducted in this study, it was decided that in cases in which one of the subgroup’s corrected mean was missing because of lack of data, the moderator analysis results would be compared to the total sample mean correlation. In some cases, due to the subgroupings, correction for error of measurement could not take place because there were not enough reports of the reliabilities in one or both of the subgroups. In these cases, the observed variance and the correlation were corrected only for sampling error.

Results

Results of the meta-analysis are presented in Tables 1–3, following Mowday et al.’s (1982) common model of categories of antecedents of OC: personal (results are presented in Table 1), role-related, structural (Table 2) and work experiences (Table 3).

Two sets of findings are presented for each variable: (1) the main effect analysis, which examined the relationship between the variable and OC without controlling for type of occupation, and (2) the moderator analysis which controlled for the two occupational groups, blue versus white collar employees, and for the two subgroups of the white collar group, professionals versus nonprofessionals.

Personal antecedents

Results regarding age demonstrated no significant differences across occupational groups in the relationship between age and OC (see Table 1). For the variable tenure there were no significant differences between blue and white collar, but significant differences were found between professional and nonprofessional employees. These findings partially support the expectation of a stronger relationship between personal antecedents and OC for employees in lower status occupations. Additional support for the research hypothesis was found in the case of education. The negative relationship between education and OC is significantly stronger for blue collar than for white collar employees. That is, less educated blue collar employees are more committed than more educated blue collar employees. The relationship between education and OC is meaningless for white collar employees \((r = -0.03)\) without any differences between professionals \((r = -0.03)\) and nonprofessionals \((r = -0.02)\).

An interesting moderating effect was found for the gender variable. Among blue collar employees, females were more committed to the organization, while among white collar pro-
fessional, males were more committed. This difference was significant and according to expecta-
tion. Relationships between marital status and OC were found to be stronger for blue collar
than for white collar employees. That is, being married has a stronger relationship with OC
for blue collar employees than for white collar employees. Again the differences were significant
and according to expectation. No significant differences were found between white collar and
blue collar employees for the variable number of children.

In regard to the three personal–psychological variables (perceived job alternatives, motivation
and need for achievement), the results for motivation showed an interesting pattern of moderating
effect. The relationship of this variable with OC was significantly stronger for blue collar than
for white collar employees. While no meaningful differences among the occupational groups
were found for the variable perceived job alternatives, the data indicated that the relationship
between need for achievement and OC was stronger for nonprofessional white collar employees
than for the total sample.

It is important to note that for several personal variables there was a considerable increase
in the percentage of variance across sample correlations attributed to statistical artifacts after
controlling for type of occupation. This pattern is consistent for almost all of the personal
variables and especially for the variables gender, number of children, and education. This finding
reveals a reduction in the correlations variance in the occupational subgroups. Along with
the differences between the subgroups correlations for the variables tenure, education, gender
and marital status it indicates the strong moderating effect of type of occupation upon OC–
personal antecedents relationships.

**Role-related, structural and work experiences antecedents**

Counter to expectation, no significant difference was found among the occupational groups
for the variable role conflict. Despite the large difference in the correlations between blue collar
($r = -0.04$) and white collar employees ($r = -0.23$) the difference was not significant, probably
as a result of the large variance of the correlations in the blue collar subgroup (Hunter and
Schmidt, 1990). Also, results regarding role ambiguity contradicted the expectation. The relation-
ship between role ambiguity and OC was significantly stronger for nonprofessional white collar
employees ($r = -0.23$) than for professionals ($r = -0.35$).

For the variable autonomy, the relationship with OC was significantly stronger for white
collar employees ($r = 0.46$) than for blue collar employees ($r = 0.02$) and thus supported the
expectation (see Table 2). While no significant difference was found among the occupational
groups for the variable centralization, significant difference was found for the variable commu-
nication. The relationship between organizational communication and OC was stronger for white
collar ($r = 0.50$) than for blue collar ($r = 0.15$) employees. This finding also supports the expec-
tation. For all the work experiences variables except income (see Table 3), results demonstrated
no differences in the relationships with OC among the occupational groups. For the variable
income, the relationship with commitment was stronger for the white collar group than for
the total and within the white collar group the relationship was significantly stronger for pro-
fessionals ($r = 0.31$) than for nonprofessionals ($r = 0.13$).

Finally, it is important to note that for several organizational variables there was a considerable
increase in the percentage of variance across sample correlations attributed to statistical artifacts
after controlling for type of occupation. These variables are autonomy, organizational communi-
cation, and income. This pattern is, however, weaker for the organizational variables than
it was for the personal antecedents. This finding indicates a stronger moderating effect of type
of occupation upon personal antecedents than upon organizational antecedents.
Table 1. Meta-analysis results of personal correlates of organizational commitment by type of occupation

<table>
<thead>
<tr>
<th>Correlates</th>
<th>k</th>
<th>N</th>
<th>r</th>
<th>r₁</th>
<th>c.i.</th>
<th>ob.VAR</th>
<th>res.VAR</th>
<th>%</th>
<th>χ²</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age—Total</td>
<td>38</td>
<td>12013</td>
<td>0.19</td>
<td>0.20</td>
<td>0.01</td>
<td>0.40</td>
<td>0.0114</td>
<td>0.0084</td>
<td>26</td>
<td>147.08*</td>
</tr>
<tr>
<td>Blue collar</td>
<td>8</td>
<td>2737</td>
<td>0.18</td>
<td>0.19</td>
<td>0.12</td>
<td>0.27</td>
<td>0.0040</td>
<td>0.0012</td>
<td>69</td>
<td>11.66</td>
</tr>
<tr>
<td>White collar</td>
<td>19</td>
<td>6835</td>
<td>0.16</td>
<td>0.17</td>
<td>−0.03</td>
<td>0.37</td>
<td>0.0117</td>
<td>0.0090</td>
<td>23</td>
<td>83.90*</td>
</tr>
<tr>
<td>Professionals</td>
<td>11</td>
<td>4946</td>
<td>0.16</td>
<td>0.17</td>
<td>−0.04</td>
<td>0.38</td>
<td>0.0121</td>
<td>0.0100</td>
<td>18</td>
<td>62.95*</td>
</tr>
<tr>
<td>Nonprofessionals</td>
<td>8</td>
<td>1889</td>
<td>0.17</td>
<td>0.19</td>
<td>0.02</td>
<td>0.35</td>
<td>0.0102</td>
<td>0.0062</td>
<td>39</td>
<td>20.53†</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Tenure—Total</td>
<td>41</td>
<td>13119</td>
<td>0.09</td>
<td>0.09</td>
<td>−0.07</td>
<td>0.25</td>
<td>0.0087</td>
<td>0.0056</td>
<td>35</td>
<td>116.16*</td>
</tr>
<tr>
<td>Blue collar</td>
<td>9</td>
<td>2804</td>
<td>0.06</td>
<td>0.07</td>
<td>−0.15</td>
<td>0.29</td>
<td>0.0139</td>
<td>0.0107</td>
<td>23</td>
<td>39.16*</td>
</tr>
<tr>
<td>White collar</td>
<td>21</td>
<td>7493</td>
<td>0.08</td>
<td>0.08</td>
<td>−0.05</td>
<td>0.22</td>
<td>0.0069</td>
<td>0.0041</td>
<td>40</td>
<td>52.56*</td>
</tr>
<tr>
<td>Professionals</td>
<td>13</td>
<td>5951</td>
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Table 1 continued

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$k$ = the number of samples in each analysis; $N$ = the total number of individuals in the $k$ samples; $r$ = the mean weighted uncorrected correlation; $r_t$ = the mean weighted correlation corrected for attenuation; c.i. = 95 per cent confidence interval for $r_t$; ob.VAR = variance of the uncorrected correlations; res.VAR = ob.VAR corrected for statistical artifacts; $\%$ = the percentage of variance across samples attributed to statistical artifacts; $\chi^2$ = a chi-square test for variance remaining unaccounted for; and $Z$ = $Z$ value for the significance test on the difference between the two mean weighted correlations.

$p < 0.01; \dagger p < 0.001; \ddagger p < 0.05.$

$\dagger$ Female 0 = Male
$\dagger$ Married 0 = Single
$\ddagger$ Because reliabilities were not reported in this subgroup, the variance (ob.VAR) was corrected only for sampling error.
Table 2. Meta-analysis results of role-related and structural correlates of organizational commitment by type of occupation

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<td>0.41</td>
<td>0.49</td>
<td>0.32</td>
<td>0.66</td>
<td>0.0105</td>
<td>0.0052</td>
<td>50</td>
<td>12.63†</td>
</tr>
</tbody>
</table>

$k$ = the number of samples in each analysis; $N$ = the total number of individuals in the $k$ samples; $r = \text{the mean weighted uncorrected correlation}; r_i = \text{the mean weighted correlation for attenuation}; \text{c.i.} = 95\,	ext{per cent confidence interval for } r_i; \text{ob.VAR} = \text{variance of the uncorrected correlations}; \text{res.VAR} = \text{ob.VAR corrected for statistical artifacts}; \% = \text{the percentage of variance across samples attributed to statistical artifacts}; \chi^2 = \text{a chi-square test for variance remaining unaccounted for}; \text{and } Z = \text{Z-value for the significance test on the differences between the two mean weighted correlations.}$

$p < 0.001; \dagger p < 0.05; \ddagger p < 0.01$

$§$ Because reliabilities were not reported in this subgroup, the variance (ob.VAR) was corrected only for sampling error.
Table 3. Meta-analysis results of work experiences correlates of organizational commitment by type of occupation

<table>
<thead>
<tr>
<th>Correlates</th>
<th>$k$</th>
<th>$N$</th>
<th>$r$</th>
<th>$r_i$</th>
<th>c.i.</th>
<th>ob.VAR</th>
<th>res.VAR</th>
<th>%</th>
<th>$\chi^2$</th>
<th>$Z$</th>
</tr>
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<tbody>
<tr>
<td>Professional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Commitment—Total</td>
<td>22</td>
<td>9011</td>
<td>0.30</td>
<td>0.36</td>
<td>-0.01</td>
<td>0.74</td>
<td>0.0280</td>
<td>9</td>
<td>305.91</td>
<td>*</td>
</tr>
<tr>
<td>Blue collar</td>
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<td></td>
<td></td>
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<tr>
<td>White collar</td>
<td>19</td>
<td>7562</td>
<td>0.33</td>
<td>0.40</td>
<td>0.11</td>
<td>0.68</td>
<td>0.0173</td>
<td>15</td>
<td>164.88</td>
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<td>6756</td>
<td>0.33</td>
<td>0.38</td>
<td>0.09</td>
<td>0.67</td>
<td>0.0184</td>
<td>11</td>
<td>155.79</td>
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<td>806</td>
<td>0.38</td>
<td>0.49</td>
<td>0.44</td>
<td>0.54</td>
<td>0.0052</td>
<td>93</td>
<td>5.76</td>
<td>1.05</td>
</tr>
<tr>
<td>Job involvement—Total</td>
<td>12</td>
<td>3424</td>
<td>0.30</td>
<td>0.37</td>
<td>0.05</td>
<td>0.69</td>
<td>0.0205</td>
<td>15</td>
<td>85.17</td>
<td>*</td>
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<tr>
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<td>160</td>
<td>0.23</td>
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<td></td>
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<td>White collar</td>
<td>7</td>
<td>2429</td>
<td>0.26</td>
<td>0.32</td>
<td>0.06</td>
<td>0.58</td>
<td>0.0148</td>
<td>18</td>
<td>41.47</td>
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<tr>
<td>Professionals</td>
<td>3</td>
<td>1090</td>
<td>0.21</td>
<td>0.24</td>
<td>.</td>
<td>.</td>
<td>0.0014</td>
<td>100</td>
<td>1.63</td>
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<td>Nonprofessionals</td>
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<td>1339</td>
<td>0.31</td>
<td>0.39</td>
<td>0.06</td>
<td>0.71</td>
<td>0.0205</td>
<td>13</td>
<td>33.67</td>
<td>1.45</td>
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<tr>
<td>Income—Total</td>
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<td>-0.05</td>
<td>0.44</td>
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<tr>
<td>White collar</td>
<td>6</td>
<td>2070</td>
<td>0.23</td>
<td>0.25</td>
<td>0.05</td>
<td>0.45</td>
<td>0.0116</td>
<td>23</td>
<td>26.86</td>
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<td>0.29</td>
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<td>0.0029</td>
<td>47</td>
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<td>0.12</td>
<td>0.13</td>
<td>0.01</td>
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<td>0.0086</td>
<td>65</td>
<td>6.22</td>
<td>2.93‡</td>
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<tr>
<td>Leadership—initiating structure—Total</td>
<td>9</td>
<td>2022</td>
<td>0.20</td>
<td>0.24</td>
<td>0.04</td>
<td>0.44</td>
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<td>0.06</td>
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<td>White collar</td>
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<td>702</td>
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<td>0.02</td>
<td>0.41</td>
<td>0.0137</td>
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<td>0.17</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Nonprofessionals</td>
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<td>503</td>
<td>0.18</td>
<td>0.21</td>
<td>-0.02</td>
<td>0.45</td>
<td>0.0165</td>
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<td>Leadership—consideration—Total</td>
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<td>Blue collar</td>
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<td></td>
</tr>
<tr>
<td>White collar</td>
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<td>0.24</td>
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<tr>
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<td>.</td>
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<td>100</td>
<td>0.87</td>
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$k =$ the number of samples in each analysis; $N =$ the total number of individuals in the $k$ samples; $r =$ the mean weighted uncorrected correlation; $r_i =$ the mean weighted correlation for attenuation; c.i. $= 95$ per cent confidence interval for $r_i$; ob.VAR $=$ variance of the uncorrected correlations; res.VAR $=$ ob.VAR corrected for statistical artifacts; % $=$ the percentage of variance across samples attributed to statistical artifacts; $\chi^2 =$ a chi-square test for variance remaining unaccounted for; and $Z =$ $Z$ value for the significance test on the difference between the two mean weighted correlations.

*p < 0.001; †p < 0.01; ‡p < 0.05.


**Discussion**

This study examined whether the relationships between OC and its antecedents vary across occupational groups. One of the purposes was to find out which of two proposed models of OC is valid across occupational groups and whether different theoretical mechanisms and models become activated or are more valid for different occupational groups. The findings support the argument that the two proposed models, the member model and the exchange, organizational model operate differently for varied occupational groups. This was demonstrated by the differences among the occupational groups for the personal antecedents and by some of the differences for the organizational antecedents.

The expectation that personal antecedents would affect employees in low status occupations more than those in higher status occupations was supported by the data. For the variables tenure, education, marital status, gender, and motivation, the relationships with OC were stronger for those in blue collar and/or nonprofessional white collars, than for professionals. This demonstrates that personal calculative considerations are important for nonprofessionals in determining their OC. However, the findings of this study demonstrate that OC of nonprofessional employees is not only of the calculative type. The fact that not many differences were found among the occupational groups for the organizational antecedents demonstrates that expectations of nonprofessional employees are not focused only on employment and job security considerations.

One explanation for the inconsistency of the differences among the occupational groups regarding the organizational antecedents is that among professionals themselves there are differences in perceptions of their relationships with the organization. These differences have been demonstrated in the typology of ‘local’ versus ‘cosmopolitan’ that was proposed by Gouldner (1957, 1958). According to this typology not all professionals are ‘cosmopolitan’ or occupation oriented, but are instead more ‘local’ or organizational oriented and therefore direct their expectations toward the organization. A possible reason why the findings demonstrate consistent differences among the occupational groups in the personal variables is that ‘local’ professionals are local in their attitudes, not necessarily because of investments and few employment opportunities, as nonprofessional employees are thought to be, but probably because of their own decision not to look for alternative organizations. For the ‘locals’, satisfactory exchange relationships with the organization, demonstrated in the organizational variables, would increase their OC. The OC of ‘cosmopolitans’, however, would not be affected by the organizational variables because the organization is not their object of commitment.

The results demonstrate that for the personal correlates the pattern of relationship with OC is consistent and can be generalized across most of the personal variables. However, for the organizational variables attention should be paid to the relationships between each of these variables and OC. Several differences warrant more specific attention here. The stronger relationship of role ambiguity with OC for nonprofessionals demonstrates that clarity of expectations regarding the job is an important aspect of nonprofessionals’ OC. Autonomy, which is one of the important dimensions of professionals’ work, and therefore an important component of their expectations, would affect their OC more strongly than that of nonprofessionals. The same argument for autonomy can be applied for organizational communication. These findings imply that specific job aspects are as important for nonprofessionals as for professionals, while more generic aspects of the job that reflect typical expectations of professionals, would affect their OC more strongly. Moreover, they demonstrate that even if nonprofessionals are affected by personal antecedents more than professionals, similarly to professionals they also have exchange relationships with the organization regarding aspects of the job considered important by them.
Results regarding income demonstrated a stronger relationship with OC for professionals than for nonprofessionals. Income was included in the organizational model of antecedents because the organization controls this variable. The fact that such a calculative dimension of work has a strong effect upon professionals demonstrates that the expectations of professionals are not only of the intrinsic type. This indicates that as much as general intrinsic aspects are important to the OC of employees in higher status occupations, extrinsic calculative considerations are also important. Angle and Perry (1981) argued that findings in the literature of stronger relationships of OC with intrinsic rewards than with extrinsic rewards may be largely a function of the type of employees who have typically participated in studies of satisfaction vis-à-vis OC or related concepts. Almost without exception, such research has focused on professional or managerial employees or skilled technical personnel. However, the findings of this study that indicate a strong effect of an extrinsic reward variable such as income upon professionals too, contradict this argument. This certainly warrants more attention in future research.

Results show that in many variables the percentage of variance across samples attributed to statistical artifacts is increased. This finding reveals a reduction in the correlations variance in the occupational subgroups and along with the differences between some of these subgroups correlations it demonstrates that type of occupation is an important moderator. There were also variables, such as gender, autonomy and organizational communication, for which the variance attributed to statistical artifacts was increased substantially when the total sample was divided into the two main occupational groups. There were variables, such as tenure and income, for which the variance attributed to statistical artifacts was increased only when the white collar group was divided into its two subgroups. This last finding demonstrates that more specific categorization of occupational groups allows a better understanding of the relationships between OC and its antecedents.

From a practical point of view, the findings of this study imply that although there are some differences among occupational groups in the ways that OC can be increased, these differences are not very profound. Investments and fewer employment opportunity considerations will probably affect the OC of those in low status occupations more than those in higher status occupations. However, organizations should be aware that many aspects of the job and the organization are as important or more so to the OC of nonprofessionals than to professionals. Moreover, the stronger effect of income upon the OC of professionals indicates that extrinsic rewards can be important factors for professionals when considering their OC. All this indicates that organizations should be cautious when making generalizations when considering ways for increasing the OC of different occupational groups.

Finally, one limitation may have affected or limited the conclusions presented in this paper. For some variables, there was a problem of insufficient data. This was especially true for blue collar employees regarding the work experiences variables. Most of the research regarding OC has focused on white collar occupations. Because of this limitation there were several variables (e.g. need for achievement and leadership) for which comparisons among the occupational subgroups, and especially between white and blue collar employees, could not be conducted. Conclusions from this study should take this into account. Comparisons of OC among occupational groups, such as those by Wiener and Vardi (1980), or works that have examined OC of blue collar employees (Angle and Perry, 1983) are limited in number. There is a need for more research on trade, craft and production types of jobs that will enable better comparisons in future meta-analysis reviews (Griffin and Bateman, 1986). However, despite its limitations, the study demonstrates the importance of the need for a search for moderators of OC–antecedents relationships as previously emphasized by Mathieu and Zajac (1990). Attention in future research regarding OC antecedents should be shifted from main effect analysis to moderating effects.
After controlling for type of occupation there was still a significant amount of unexplained variance for some of the variables examined in this study (e.g. age, tenure, perceived job alternative, motivation, role conflict, role ambiguity, centralization, professional commitment, job involvement). This indicated that type of occupation was a moderator in some cases, but that there were probably other moderators, some of which may have had stronger effects than did type of occupation. Much more empirical research that controls for type of occupation as well as other moderators is needed. More theoretical development and more quantitative summary of findings would assist in detecting other moderators that affect OC–antecedents linkages. Applying at least some of the existing models (Wiener and Vardi, 1980) as well as some of the arguments proposed in this study may well be a good starting point for the research.

References


Pearlman, K., Schmidt, F. L. and Hunter, J. E. (1980). ‘Validity generalization results for tests used


### Appendix

**Published studies used in the meta analysis**


Antecedents of Organizational Commitment Across Occupational Groups: A Meta-Analysis
Aaron Cohen
Stable URL: [http://links.jstor.org/sici?sici=0894-3796%28199211%2913%3A6%3C539%3AAOOC%3E2.0.CO%3B2-%23](http://links.jstor.org/sici?sici=0894-3796%28199211%2913%3A6%3C539%3AAOOC%3E2.0.CO%3B2-%23)

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References

**On Operationalizing the Concept of Commitment**
Joseph A. Alutto; Lawrence G. Hrebiniak; Ramon C. Alonso
Stable URL: [http://links.jstor.org/sici?sici=0037-7732%28197306%2951%3A4%3C448%3AOOTCOC%3E2.0.CO%3B2-9](http://links.jstor.org/sici?sici=0037-7732%28197306%2951%3A4%3C448%3AOOTCOC%3E2.0.CO%3B2-9)

**An Empirical Assessment of Organizational Commitment and Organizational Effectiveness**
Harold L. Angle; James L. Perry
Stable URL: [http://links.jstor.org/sici?sici=0001-8392%28198103%2926%3A1%3C1%3AEOOC%3E2.0.CO%3B2-A](http://links.jstor.org/sici?sici=0001-8392%28198103%2926%3A1%3C1%3AEOOC%3E2.0.CO%3B2-A)

**A Longitudinal Analysis of the Antecedents of Organizational Commitment**
Thomas S. Bateman; Stephen Strasser
Stable URL: [http://links.jstor.org/sici?sici=0001-4273%28198403%2927%3A1%3C95%3AAAOTA%3E2.0.CO%3B2-I](http://links.jstor.org/sici?sici=0001-4273%28198403%2927%3A1%3C95%3AAAOTA%3E2.0.CO%3B2-I)

**Notes on the Concept of Commitment**
Howard S. Becker
Stable URL: [http://links.jstor.org/sici?sici=0002-9602%28196007%2966%3A1%3C32%3ANOTCOC%3E2.0.CO%3B2-U](http://links.jstor.org/sici?sici=0002-9602%28196007%2966%3A1%3C32%3ANOTCOC%3E2.0.CO%3B2-U)
Cosmopolitans and Locals: Toward an Analysis of Latent Social Roles. I
Alvin W. Gouldner
Stable URL: [http://links.jstor.org/sici?sici=0001-8392%28195712%292%3A3%3C281%3ACALTAA%3E2.0.CO%3B2-X](http://links.jstor.org/sici?sici=0001-8392%28195712%292%3A3%3C281%3ACALTAA%3E2.0.CO%3B2-X)

Cosmopolitans and Locals: Toward an Analysis of Latent Social Roles. II
Alvin W. Gouldner
Stable URL: [http://links.jstor.org/sici?sici=0001-8392%28195803%292%3A4%3C444%3ACALTAA%3E2.0.CO%3B2-3](http://links.jstor.org/sici?sici=0001-8392%28195803%292%3A4%3C444%3ACALTAA%3E2.0.CO%3B2-3)

Career Mobility and Organizational Commitment
Oscar Grusky
Stable URL: [http://links.jstor.org/sici?sici=0001-8392%28196603%2910%3A4%3C488%3ACMAOC%3E2.0.CO%3B2-7](http://links.jstor.org/sici?sici=0001-8392%28196603%2910%3A4%3C488%3ACMAOC%3E2.0.CO%3B2-7)

Generalizability of an Organizational Commitment Model
James H. Morris; J. Daniel Sherman
Stable URL: [http://links.jstor.org/sici?sici=0001-4273%28198109%2924%3A3%3C512%3AGOAOCM%3E2.0.CO%3B2-L](http://links.jstor.org/sici?sici=0001-4273%28198109%2924%3A3%3C512%3AGOAOCM%3E2.0.CO%3B2-L)

An Empirical Study of Howard Becker's Side-Bet Theory
George Ritzer; Harrison M. Trice
Stable URL: [http://links.jstor.org/sici?sici=0037-7732%28196906%2947%3A4%3C475%3AAESOHB%3E2.0.CO%3B2-2](http://links.jstor.org/sici?sici=0037-7732%28196906%2947%3A4%3C475%3AAESOHB%3E2.0.CO%3B2-2)

Investments and Involvements as Mechanisms Producing Commitment to the Organization
Mary E. Sheldon
Stable URL: [http://links.jstor.org/sici?sici=0001-8392%28197106%2916%3A2%3C143%3AAIAIAMP%3E2.0.CO%3B2-R](http://links.jstor.org/sici?sici=0001-8392%28197106%2916%3A2%3C143%3AAIAIAMP%3E2.0.CO%3B2-R)