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**Dynamics between Occupational and Organizational
Commitment in the Context of Flexible Labor Markets:
A Review of the Literature and Suggestions
for a Future Research Agenda**

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Zusammenfassung

Dieser Forschungsbericht hat eine doppelte Zielsetzung. Zunächst skizziert er die wichtigsten nordamerikanischen Ansätze zum organisationalen und beruflichen Commitment und die Beziehung dieser beiden Konstrukte zueinander. Hierbei wird davon ausgegangen, dass beide Commitmentformen Parallelen in ihrer konzeptionellen Entwicklung aufweisen und dass die Konzeptionalisierung und Operationalisierung von organisationalem Commitment einen großen Einfluss auf Ansätze des beruflichen Commitments haben. Der zweite Abschnitt diskutiert beide Konstrukte vor dem Hintergrund eines international vergleichenden Forschungsansatzes und wirft Forschungsfragen auf, die sich aus der Übertragung der nordamerikanisch geprägten Commitmentforschung auf den europäischen Kontext ergeben. Insbesondere wird davon ausgegangen, dass sich Abweichungen für beruflich geprägte Arbeitsmärkte und Ausbildungssysteme ergeben wie es beispielsweise in der Schweiz, Österreich und Deutschland der Fall ist. In solchen Kontexten, so die These, könnten die in erster Linie auf die Organisation ausgerichteten nordamerikanischen Commitmentkonzepte möglicherweise weniger erklärungskräftig sein. Es ist anzunehmen, dass die Ausprägung und die Effekte von Commitment auf die Arbeitseinstellung von Arbeitnehmern mit dem jeweiligen Ausbildungssystem variieren. Abschließend gibt der Forschungsbericht einen Ausblick auf mögliche zukünftige Forschungsfelder und –schwerpunkte in diesem Gebiet.

Abstract

The goal of this paper is twofold. First, it reviews the leading approaches of organizational and occupational commitment developed in the North American setting. It also reviews the main approaches to the study of the relationship between the two concepts of commitments. The main theme behind the review is that there is a similarity in the development of the two concepts and that the conceptualization and operationalisation of organizational commitment has affected the development of occupational commitment. The second part of this paper focuses on different cultural settings and suggests that the current approaches be examined and tested in other work settings such as European ones. It would be particularly worthwhile to apply the commitment concepts to settings that have different vocational training and educational systems, such as those in Switzerland, Austria, and Germany. Such systems emphasize the occupation as the main focus of commitment, an attitude that might lead to different views of commitment than in North American systems that strongly emphasize the organization as the main focus of commitment. The development and effect of commitment on employees' attitudes and behaviours might also differ in various systems of vocational education and training (VET). The paper concludes with specific suggestions for future research on these issues.

1. Introduction to the concept of commitment

Commitment in the workplace is a concept that has attracted a great deal of attention from scholars in many disciplines including industrial psychology, industrial sociology, management, business administration, and public administration. A recent book on this topic (Cohen, 2003) has demonstrated the importance of commitment to different foci in the workplace for a better understanding of employees' attitudes and performance. Forms of commitment have been found to be important predictors of behaviors such as actual performance, organizational citizenship behavior, turnover, and absenteeism (Cohen, 1993a; Cohen, 1993b; Cohen, 2000, Cohen, 2003; Cohen, 2006). Of all the forms of commitment, organizational commitment has received the most attention. The majority of conceptual frameworks as well as empirical research have focused on this form as the main form of commitment that should be the strongest determinant of outcomes (Cohen, 2003). In recent years, other foci of commitment such as the occupation, the job, or the workgroup have also become important targets for commitment research.

The reason for the extensive interest in organizational commitment seems to be cultural in nature. The majority of research, as well as the conceptual frameworks about commitment, have developed in North America (Cohen, in press) where the employer, the organization, is the most important unit in the work environment. Therefore, commitment to the employer and the organization respectively has traditionally dominated the North American literature on commitment in the workplace. However, several reasons can be advanced for suggesting that commitment to other foci, particularly the occupation, should receive more attention in research. Moreover, it is important that more attention be placed on the examination of the mutual development of organizational and occupational commitment and their effect on work outcomes for a better understanding of commitment in the workplace.

First, the role that vocational and educational training (VET) plays in a society may very well affect the concept of commitment. In North America, such training is held in relatively low esteem. In many European countries, however, vocational educational is prized, and commitment to one's vocation may be as significant in these cultures as commitment to the organization is in North America. In Germany, Austria, Switzerland, or Australia, for example, apprenticeships are important tools for training a large portion of the workforce for their occupational career. Such training, along with earlier socialization, helps inculcate basic work values in its students (Ertl, 2000; Rauner, 2004; Rauner & MacLean, in press). Given the fact that having several different occupations during the course of one's working career is still not common in many of these cultures, the vocation becomes an important component of one's life (Rauner, 2006). All the above suggests that in many European countries occupational commitment might be as important as organizational commitment.

Moreover, in Japan, the notion of the team, the workgroup, and team spirit, is very strong and suggests the workgroup as a focus of commitment of equal or greater importance than the organization and/or the occupation. In short, in cultures other than those of North America, concentrating on organizational commitment as the main focus of commitment might present an inaccurate picture of commitment in the workplace.

Second, there have been significant changes in important characteristics of the workforce that underscore the importance of commitment forms other than the organization. A large portion of today's workforce includes highly educated employees who rely on their qualifications and education as the main factors that promote their life and career goals (Cohen, 2003). They are less dependent upon their employer and organization and are more willing to change employers when their personal and professional expectations are not met. For such employees, it is their commitment to their occupation, career, and/or profession that will affect their behavior rather than their commitment to the organization.

All the above suggests that there is a growing need to study not only employees' commitment to the organization but also their commitment to other foci. Therefore, it is important to understand how commitment forms in the workplace in general and how commitment to the occupation and the organization in particular mutually affect one's attitudes and behavior in today's organizations and workforce. This paper will review the development of the concepts of commitment to the organization and the occupation with a strong emphasis on the relationship between the two commitments. In other words, this paper will argue that throughout the development of thinking on commitment in the workplace, there has been a strong interdependency between the two concepts with regard to how they have been conceptualized and measured. Indeed, researchers have demonstrated this interdependence by acknowledging that employees' behaviors and attitudes are affected by both of them rather than by just one of them (Morrow, 1993; Cohen, 2003). Therefore, there is a growing need to study and understand both of them simultaneously.

Another goal of this paper is to emphasize the importance of the two concepts in different cultures and work settings. Most of the literature on commitment has focused on the potential contribution of the concept to a better understanding of attitudes and behaviors of employees in North American working environments. In fact, the leading approaches to commitment were all developed in North America. Very few studies have examined the potential contribution of this concept to different working environments. For example, very little research on commitment has been performed in cultures where apprenticeships are a common practice for training employees. The mainstream commitment literature has not examined questions such as the effect of apprenticeship programs on employees' occupational and organizational commitment. Do apprenticeship and vocational training programs produce more committed employees? Are employees who acquired their skills from apprenticeship programs more committed and effective than those who entered the workforce from regular academic and non-academic educational institutions? What is the balance between organizational and occupational commitment for employees who were trained in apprenticeship programs in comparison to those who acquired their skills in educational institutions? What is the effect of the two commitment forms on employees' effectiveness in the workplace for each of the groups described above? These questions have rarely been examined in the dominant North American commitment literature and will be proposed here as an important research agenda for further commitment research.

2. Conceptual approaches to organizational and occupational commitment: a review of the development of the concepts

One of the earliest typologies for occupational commitment was advanced by Becker and Carper (1956). It is based on the concept of professionalism (see scale 1 in the Appendix), namely the extent to which individual members identify with their profession and endorse its values. From data they collected by interviewing students in different disciplines, they isolated four elements for identification with an occupation: (1) Occupational title, and associated ideology; (2) Commitment to task; (3) Commitment to particular organizations or institutional positions; (4) Significance for one's position in the larger society. As for the process of developing commitment, the first era is based on Howard Becker's (1960) conceptualization that defined commitment by using what is known as the *side-bet* theory (Cohen & Lowenberg, 1990). This theory is considered more related to organizational commitment but it actually was advanced for the two foci, the organization and the occupation.

According to this theory, committed employees are committed because they have hidden or less hidden investments, "side-bets," they have made by remaining in a given organization/or occupation. The term "side-bets" was used by Becker (1960) to refer to the accumulation of investments valued by the individual that would be lost if he or she was to leave the organization. Becker (1960) argued that over a period of time certain costs accrue that make it more difficult for the person to disengage from a consistent pattern of activity, namely maintaining membership in the organization. The threat of losing these investments, along with a perceived lack of alternatives to replace or make up for the loss of them, commits the person to the organization. Becker himself phrased his argument as follows: "...*The man who hesitates to take a new job may be deterred by a complex of side-bets: the financial costs connected with a pension fund he would lose if he moved; the loss of seniority and 'connections' in his present firm, which promise quick advance if he stays; the loss of ease in doing his work because of his success in adjusting to the particular conditions of his present job; the loss of ease in domestic living consequent on having to move his household, and so on ...*" (Becker, 1960, p. 38-39).

Becker's (1960) side-bet theory, which was generally applied to the concept of organizational commitment, was also presented as the theoretical basis for occupational/professional commitment because he originally conceptualized the side-bet model as applying to both occupational and organizational commitment (Wallace, 1997). The scales developed later based on Becker's theory also exemplified this contention. Only one factor, the cost of leaving the organization, was included in them. The scale as presented by Alutto et al. (1973) (see scale 2 in the Appendix) attempts to evaluate the respondents' costs of leaving the occupation (occupational commitment) or the organization (organizational commitment). Several studies have tested occupational and organizational commitment using Becker's theory and these scales. The studies attempted to assess the validity of this theory for both organizational and occupational commitment (Alutto et al. 1973; Aranya & Jacobson, 1975; Aranya et al. 1981; Ritzer & Trice, 1969).

However, the findings based on the side-bet approach were disappointing in terms of the relationship between commitment and behavioral outcomes in the workplace, and in terms of their relationship to determinants (Cohen & Lowenberg, 1990). The problem lay in the scales that measured the two commitments. These scales were later

criticized as being too simplistic and not really measuring Becker's theory (Meyer & Allen, 1984). Therefore, researchers suggested other theories for commitment that were based on the idea of psychological attachment, like a psychological contract between the individual and the organization or the occupation. The psychological approach began with a scale, the Organizational Commitment Questionnaire (OCQ) (see scale 3 in the Appendix), advanced by Porter and Smith (1970) and Porter and his colleagues (1974), and was later summarized in a book by Mowday et al. (1982).

This approach defines and conceptualizes commitment as a psychological attachment to and identification with the organization/occupation: "...*attachment to an individual, object or organization results from identification with the attitudes, values, or goals of the model: that is, some of the attributes, motives, or characteristics of the model are accepted by the individual and become incorporated into the cognitive response set of the individual*" (Kagan, 1958). A definition of Mowday et al. (1979) is also relevant to the notion of affective commitment as "...*the relative strength of an individual's identification with and involvement in a particular organization...*" (1979, p. 226). The psychological approach has an entirely different perspective on commitment. Instead of focusing on measuring the perceived costs of leaving the organization/occupation from the individual's point of view, it focuses on the psychological attachment that employees develop to the organization or the occupation based on an exchange process with the relevant object of commitment.

The psychological approach as advanced by Porter and colleagues dominated the research on commitment for about 10 years. It also affected the development of similar psychological approaches for occupational commitment. In some cases, occupational commitment was measured by using the OCQ, simply replacing the term "organization" with the term "occupation" (Cohen, 2003). Another approach, indeed one of the more common ones, was developed by Blau (1985, 1988), who defined career commitment as one's attitude to one's profession or vocation (see scale 4 in the Appendix). Blau's (1985, 1988, 1989, 1999) findings showed encouraging results in the psychometric properties of his scale, particularly in the scale's discriminant validity. In a later study, Blau, Paul and St. John (1993) developed a revised occupational commitment scale intended to fit better with the other scales of commitment forms (see scale 5 in the Appendix). In this scale, occupational commitment was defined as "*one's attitude, including affect, belief, and behavioral intention, toward his/her occupation*" (p. 311). Carson and Bedeian (1994) proposed a conceptualization and measurement based on Hall's definition of career commitment as one's motivation to work in a chosen vocation (see scale 6 in the Appendix). Based on London's (1983, 1985) work, they also argued that it could be deemed a multidimensional construct of three components. The three components were career identity, establishing a close emotional association with one's career; career planning, determining one's developmental needs and setting career goals; and career resilience, resisting career disruption in the face of adversity.

However, criticism has been leveled against the psychological approach, particularly as it pertains to organizational commitment and to the use of the OCQ to measure it. Critics have argued that there is an overlap between some of the items of the OCQ scale and constructs that are considered outcomes of commitment, such as turnover behavior and performance (Cohen, 2003; O'Reilly & Chapman, 1986). This conceptual and methodological overlap caused researchers to rely on revised shorter versions of the OCQ that included 9 or 12 items. The shorter versions attempted to omit the problematic behavioral items from the OCQ. Later, the overlap problem caused the

abandonment of the OCQ. The search for a replacement with another psychological approach currently dominates research on organizational commitment and appears to be affecting research in occupational commitment as well (Cohen, 1996).

The current favorite contender is known as the three-component approach of commitment advanced by Meyer and Allen (1984, 1991). Using the argument that organizational commitment (OC) can be better understood as a multidimensional concept, Allen and Meyer (1990) proposed a three-dimensional measure of OC. The first dimension was termed *affective commitment* (see scale 8 in the Appendix), and was defined as “*positive feelings of identification with, attachment to, and involvement in the work organization*” (Meyer & Allen, 1984, p. 375). The second dimension of OC was termed *continuance commitment* (see scale 9 in the Appendix) and was defined as “*the extent to which employees feel committed to their organizations by virtue of the costs that they feel are associated with leaving (e.g., investments or lack of attractive alternatives)*” (Meyer & Allen, 1984, p. 375). The third dimension was termed *normative commitment* (see scale 10 in the Appendix), and was defined as the employees’ feelings of obligation to remain with the organization. The development of affective commitment is based on the exchange principle. The employees commit themselves to the organization in return for the rewards received or the punishments avoided. Normative commitment develops as a result of beliefs that are internalized through socialization processes, both familial and cultural, that occur both before and after entry into the organization. Continuance commitment is expected to be related to anything that increases the cost associated with leaving the organization (Meyer & Allen, 1997).

This three-component approach to commitment is considered the dominant method of conceptualizing organizational commitment (Cohen, 1996). The large amount of research that has applied this approach is evident in Meyer and Allen’s 1997 book that summarized the theory and findings of this model and by a meta-analysis (Meyer et al., 2002) that summarized the main empirical findings based on this approach. It is not surprising, then, that this approach has also been applied to conceptualizing and measuring occupational commitment. Meyer et al. (1993) applied the three dimensions of affective commitment (see scale 10), continuance commitment (see scale 11), and normative commitment (see scale 12) to occupational commitment, as have other researchers (Irving, Coleman, & Cooper, 1997; Stinglhamber, Benstein, & Vandenberghe, 2002). The use of definitions and scales originally devised for the study of organizational commitment in the study of occupational commitment attests to the similarity between the two concepts.

3. Typologies of the relationship between organizational commitment and occupational commitment

While the conceptual and operational definitions of organizational and occupational commitment have developed in a similar way, an important question is how they are related conceptually. In other words, what are the leading theories developed by commitment scholars to portray the relationship between occupational and organizational commitment? One of the foremost typologies used to characterize this relationship was advanced years ago by Gouldner (1957, 1958) and is called the “local versus cosmopolitan” typology.

Gouldner's basic idea was a single cosmopolitan-local continuum of role orientations. He identified three variables that determine a person's position on this continuum: commitment to professional skills and values, organizational loyalty, and reference group orientation. According to this typology, *locals* are individuals who are primarily identified with and committed to the institution in which they work. They have a strong loyalty to their employing organization and a weak identification with their profession. They use internal organizational groups as their reference, so they are more committed to their employing company. By contrast, *cosmopolitans* are committed to maintaining the skills and values of the profession to which they belong, and have a strong identification with their professional qualifications. They tend to use external groups as their reference, so they are more committed to their profession or occupational specialization.

A wide diversity exists in the conceptualization and measurement of this concept. One approach is to develop specific scales for the cosmopolitan-local concept, following Gouldner (1957, 1958). Another is to examine the occupational versus organizational commitment of employees. Several studies have attempted to conceptualize and operationalize the cosmopolitan-local construct using ideas about manifest roles and latent roles that were part of Gouldner's theory. Manifest roles are the expectations of the group, which are universally shared and relevant to a given context. Latent roles are the internalized shared expectations, which, although not always considered, are predicted to affect an individual's attitudes and behavior. Efforts to define latent roles and to determine their applicability resulted in ambiguous and inconsistent conclusions about the dimensionality (e.g., uni-polar versus bi-polar) of the cosmopolitan and local latent role constructs (Larwood et al., 1998). These studies did not use the concept of commitment but concentrated on developing specific scales for cosmopolitans and locals (Abrahamson, 1965; Ben David, 1958; Blau & Scott, 1962; Goldberg, Baker & Rubenstein, 1965; Raelin, 1989; Ritti, 1968).

The more common elaboration of Gouldner's original scheme is a two-dimensional model (Cohen, 2003). One dimension refers to occupational/professional commitment, representing the cosmopolitan orientation, and the other refers to organizational commitment, representing the local orientation. Early literature based on this approach assumed an inherent conflict between professional and organizational goals (Sheldon, 1971). The traditional professional-bureaucratic conflict argument assumed that the structural characteristics of the non-professional workplace were responsible for the professional-bureaucratic conflict and were critical in affecting professionals' commitment to their chosen occupation (Wallace, 1993; 1995a, 1995b). Accordingly, professional commitment should have a negative association with organizational commitment, because the professional value system was believed to emphasize values such as professional autonomy, conformity to professional standards and ethics, collegial authority, and client orientation and loyalty (Tuma & Grimes, 1981). By contrast, the bureaucratic value system was said to emphasize hierarchical authority and control, and organizational loyalty.

An alternative argument (Hall, 1968) is that conflict occurs within a professional group or within an organization only to the degree that specific aspects of bureaucratization or professionalization vary enough to be at odds with other specific aspects. The implication is that in some cases equilibrium may exist between the levels of professionalization and bureaucratization in the sense that a particular level of

professionalization may require a certain level of bureaucratization to maintain social control. Hall concluded that the assumption of an inherent conflict between the professional group and the employing organization appears to be unwarranted. Thornton (1970) also argued that professional and organizational commitment could be compatible under certain conditions. Generally, the extent to which the professional experiences and perceives the organization as reaffirming and exemplifying certain principles of professionalism determines the compatibility of the two commitments.

As for research findings, several quantitative summaries of research that examined the relationship between organizational and occupational commitment revealed quite similar findings. Wallace (1993) found a corrected average correlation of .452 in 25 samples. Moderator analysis of this relationship revealed that the relationship was stronger for managers and supervisors (corrected $r = .469$ in five samples) than for professional staff (corrected $r = .287$ in three samples). It also revealed a stronger relationship for occupations defined as high in their level of professionalization, such as accountants, nurses, etc. (corrected $r = .505$ in 16 samples), than for those with a weaker degree of professionalization (corrected $r = .321$ in nine samples). In another meta-analysis, Lee et al. (2000) found a corrected correlation of .45 between occupational commitment and affective organizational commitment in 49 samples. In their moderator analysis, Lee et al. found that the corrected correlation for professionals working in professional organizations was .484 in 21 samples, for professionals working in bureaucratic organizations it was .202 (four samples) and for non-professionals it was .448 (ten samples).

In addition to being the dominant approaches to organizational and occupational commitment, these approaches were all developed in North America strongly influenced by the industrial psychology school of thought. They are also based on findings accumulated for the most part using quantitative survey studies. How applicable are these theories and findings to other cultures? Can they characterize commitment in the workplace of employees working in countries and organizations with cultures and values different from the U.S.? Since the models and approaches of the North American tradition rarely have been applied in other countries, such questions have no definite answers. This creates two problems. First, the generalizability of the dominant approaches cannot be validated without testing them in other and different cultural settings. Second, working environments and cultures that are not familiar with the North American approach might be overlooking an important tool for a better understanding of their employees' attitudes and behaviors. What follows are some suggestions and recommendations for future research that addresses these issues.

4. Organizational and occupational commitment typologies for understanding behaviors and attitudes in the workplace in different cultural settings

Most research on these two forms of commitment has focused on their individual effect on work outcomes. Fewer studies have examined their mutual effects on attitudes and behaviors in the workplace. Even fewer studies have examined the effect of these commitments in non-US work settings (Cohen, 1999; Cohen, 2006; Cohen, in press). This leaves some unresolved conceptual questions regarding the importance and effects of organizational versus occupational commitment. For example, the dominant North

American literature assumes that an employee's career starts after the employee has completed his/her educational training in the formal education system and that organizational commitment develops subsequently after one's entry into the organization. In other words, the sharp differentiation between formal education and vocational training in the North American systems has strongly affected the way these two commitments have been examined in empirical research. In most cases, both forms of commitment have been examined following one's entry into the organization with the assumption that the organizational career is the focus of attention.

Such an approach, while typical for North American work environments, may not fully explain the formation of organizational and occupational commitments in work environments that have a stronger and more widespread tradition of apprenticeship programs. Countries such as Germany, Austria, Switzerland, and Australia have a long tradition of dual vocational training (on-the-job training and vocational schools) (Ertl, 2002; Ertl & Sloane, 2003; Rauner, 2004). However, the relationship between organizational and occupational commitment cannot be examined easily in these countries applying the North American conceptualization and operationalisations of commitment. The European literature on the relationship between vocational education and training and organizational and occupational commitment is quite unknown among North American scholars, while the North American conceptualization of commitment is not widespread outside of the U.S. Much of the European research has examined commitment and identification in the workplace using qualitative methods, while the quantitative approach has been applied mostly to very specific work settings that characterize the North American work culture.

This situation raises new questions regarding the development and effects of organizational and occupational commitments on employees' behavior in the workplace. Examining these questions might significantly increase our understanding of both forms of commitment. For example, one important assumption in the German vocational training system is that young people completing their apprenticeship develop strong vocational ties and form an identity associated with these ties (Haasler, 2007). This bond should lead to strong occupational and organizational identification. Such a statement stresses occupational commitment as the main trigger for a better integration of young apprentices into their workplace as well as for increasing their occupational identification and overall quality of work and performance. It would be interesting to examine whether these statements are validated when using the occupational and organizational commitment frameworks outlined by the three-component model of commitment of Meyer and Allen (1997).

For example, a crucial question is whether the level of organizational commitment of German employees who trained within an apprenticeship scheme is higher than of those who trained in a school-based vocational system in another country. Or, respectively, whether the occupational commitment formed through a dual apprenticeship program is stronger than that of employees who obtained their vocational skills exclusively in vocational schools. Another interesting research question might be whether the emphasis on vocational training as dominant in many European countries leads to increased levels of organizational *and* occupational commitment in comparison to North American employees who focus on school-based education and on the organization as the basic unit of vocational socialization. Another relevant question relates to the effect of organizational and occupational commitment on work

outcomes. For example, can organizational and occupational commitment more strongly develop in systems that favor on-the-job vocational training school-based vocational education, i.e. is the effect of the two commitments on employees' work performance stronger in cultures that emphasize the vocation than in work cultures that emphasize the organization? Then, the hypothesis would be that in training systems similar to the ones of Switzerland, Austria and Germany occupational commitment affects work outcomes more strongly than organizational commitment, while in the U.S. we would expect the opposite to be true.

All the above questions can be further elaborated because the dominant approach to organizational and occupational commitment is multidimensional. For example, in the German context it might be interesting to identify the most influential commitment dimension in the work setting. Are German employees more committed to their occupation and/or organization because the cost of leaving is too high (continuance commitment) or because through the apprenticeship program they have developed a strong psychological attachment to their occupation and/or organization (affective commitment)? This question can also take a comparative dimension: What kind of vocational training enhances which form of commitment? Does the North American vocational training approach lead to stronger affective commitment than a vocational education and training system that emphasizes apprenticeships? Does the relative employment stability in Switzerland, Austria, and Germany strengthen the continuance commitment of employees in comparison to liberal market economies that encourage career and organizational mobility?

Another focus concerns the process of the development of occupational and organizational commitment. A longitudinal research design would be appropriate to examine the development of the two forms of commitment among apprentices while they undergo their training program, i.e. to compare their levels of commitment in the beginning of the program, after six months, a year, two years, and upon completion of their training. One could further investigate the mutual effects between both forms of commitment, i.e. which one affects the other and how are they related to the performance of the apprentices in a longitudinal perspective, and in comparison to a control group that takes another route of vocational training such as a school-based route. One could ask, for example, which group develops stronger forms of commitment, and what are the effects of these two commitments on performance and turnover when comparing the different groups. Such research questions have rarely been explored independently in European work environments or in comparison to work cultures that are not characterized by the U.S. model.

Finally, all those research questions could be advanced by exploring the effect of other forms of commitment, i.e. different from the organization and occupation as the central foci. In some cultures, for example the Japanese one, the workgroup is the key source of commitment. Teamwork is an important component not only in production organizations but also in the public and non-profit sector. Therefore, the effect of team commitment on work outcomes together with the effect of organizational and occupational commitment could also be explored. Only a few studies have examined the effect of group commitment on outcomes together with the effects of organizational and occupational commitment (Cohen, 2000; Cohen, 2006). An interesting question in that regard is the effect of apprenticeship programs on the

development of team commitment in comparison to other systems of vocational education and training.

5. Conclusion

This paper described the major developments in the study of commitment in the North American academic tradition. This approach is strongly affected by the industrial psychology discipline and is strongly quantitative in orientation. The contribution of this stream of research to understanding the concept of commitment is important as it represents the dominant approach. Findings based on this approach have made important contributions to the understanding of commitment concepts in the workplace, their determinants and effects on work outcomes. However, despite the relevance of the contributions of the North American school, this approach also has its limitations. These stem from the fact that the research findings all might only be relevant to the North American work culture. Thus, the conceptual framework as well as the operationalisation of commitment might be understood differently or might yield different results in other cultures and contexts. For example, work settings that emphasize apprenticeships and employment and organizational stability (such as in Switzerland, Germany, and Austria) might perceive commitment differently. This does not mean that the North American conceptualization and operationalisation is not valid in these cultures. It simply means that to establish its validity and generalizability it needs to be tested in other cultural settings.

The European approach to commitment and identification with work developed independently of the North American research tradition. It emphasizes a qualitative and descriptive approach (Kirpal, 2004). It has made important contributions by providing in-depth analysis of the meaning of commitment, its development, and impact on employees in the workplace. Such a thorough and detailed analysis could complement and improve the understanding of the concept of commitment in the North American setting. However, the European approach, particularly in non-English speaking countries, might also have its limitations. Given its qualitative orientation, it might be limited in its ability to generalize findings beyond the specific settings it has examined. It also might have difficulties in demonstrating its predictive validity.

Combining the two approaches in a new research agenda could significantly contribute towards a better understanding of commitment in the workplace. The North American approach needs to be enriched by descriptive and qualitative studies that can define how commitment is understood and perceived by employees more precisely and thoroughly. More research with stronger generalization power and stronger predictive validity could contribute to a better understanding of commitment in the workplace in some European contexts. More specifically, the knowledge about commitment in European work settings such as Germany, Switzerland, and Austria would benefit from applying the concepts and measures of the dominant approach of organizational and occupational commitment advanced by Meyer and Allen (1997). Such research would add and contribute to the knowledge about commitment accumulated so far.

Appendix

Commitment scales

Scale 1

Items of the scale for professionalism based on Snizek (1972) and Morrow & Goetz (1988)

1. Professional organizations do little for members
2. Other professions are more vital than nursing
3. My peers are competent
4. I have a sense of calling for work in nursing
5. A nurse makes her own decisions
6. Nursing is accounted an essential service
7. No nursing knowledge of other hospital workers.
8. I feel dedication gratifying.
9. I have professional judgment opportunities.
10. Nursing importance is overstressed.
11. No tools for professional judgment.
12. Idealism maintained in nursing.
13. My professional decisions are considered
14. Nursing is accounted indispensable.
15. Nursing is based on professional knowledge
16. I will work as a nurse even with a low income
17. My professional decisions are reviewed by other professionals
18. Other occupations are important
19. There is opportunity for professional judgment
20. Few nurses don't believe in work importance
21. As a health-team member my views are considered
22. I read professional journals
23. I attend professional meetings
24. I attend nursing department nursing meetings.

Scale 2

Organizational and occupational commitment of Alutto et al. (1973)

Occupational commitment

A. Assume that you were offered a job in nursing (teaching). Would you leave nursing (teaching) under any of the following conditions?

1. With no increase in pay
2. With a slight increase in pay
3. With a large increase in pay
4. With no additional status
5. With a slight increase in status
6. With a large increase in status

Etc. for increased freedom, and for friendlier co-workers

Organizational commitment

B. Assume that you were offered a job in nursing (teaching) but in another hospital (school district). Would you leave your current employer under any of the following conditions? (Questions were repeated as in A above).

(The scale for each of the questions is: yes definitely, uncertain, no definitely not).

Scale 3

Organizational commitment of Porter et al. (1974)

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization to be successful.
2. I talk up this organization to my friends as a great organization to work for.
3. I feel very little loyalty to this organization (R).
4. I would accept almost any type of job assignment in order to keep working for this organization.
5. I find that my values and the organization's values are very similar.
6. I am glad to tell others that I am part of this organization.
7. I could just as well be working for a different organization as long as the type of work was similar. (R).
8. The organization really inspires the very best in me in the way of job performance.
9. It would take very little change in my present circumstances to cause me to leave this organization (R).
10. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.
11. There's not too much to be gained by sticking with this organization indefinitely (R).
12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees (R).
13. I really care about the fate of this organization.
14. For me this is the best of all possible organizations for which to work.
15. Deciding to work for this organization was a definite mistake on my part (R).

Scale 4

Career commitment revised measure of Blau (1988)

1. If I could go into a different profession other than the current profession, which paid the same, I would probably take it (R).
2. I definitely want a career for myself in the current profession.
3. If I could do it all over again, I would not choose to work in the current profession (R).
4. If I had all the money I needed without working, I would probably still continue to work in the current vocation.
5. I like this vocation too well to give it up.
6. This is the ideal vocation for a life's work.
7. I am disappointed that I ever entered the profession (R).

Scale 5

Career commitment revised measure of Blau (1993)

1. If could, would go into a different occupation (R).
2. Can see self in occupation for many years.
3. Occupation choice is a good decision.
4. If could, would not choose occupation (R).
5. No money need, still continue in occupation
6. Sometimes dissatisfied with occupation (R).
7. I like occupation too well to give up.
8. Education/training not for occupation (R).
9. Have ideal occupation for life work.
10. Wish chosen different occupation (R).
11. Disappointed that entered occupation (R).

Scale 6

Career commitment measure by Carson and Bedeian (1994)

1. My line of work/career field is an important part of who I am.
2. This line of work/ career field has a great deal of personal meaning to me.
3. I do not feel 'emotionally attached' to this line of work/career field (R).
4. I strongly identify with my chosen line of work/career field.
5. The costs associated with my line of work/career field sometimes seem too great (R).
6. Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it (R).
7. Given the problems in this line of work/career field, I sometimes wonder if the personal burden is worth it (R).
8. The discomforts associated with my line of work/career field sometimes seem too great (R).
9. I do not have a strategy for achieving my goals in this line of work/career field (R).
10. I have created a plan for my development in this line of work/career field.
11. I do not identify specific goals for my development in this line of work/career field (R).
12. I do not often think about my personal development in this line of work/career field (R).

Scale 7

Meyer and Allen (1991) Affective Organizational Commitment Scale

1. I would be very happy to spend the rest of my career with this organization.
2. I enjoy discussing my organization with people outside it.
3. I really feel as if this organization's problems are my own.
4. I think that I could easily become as attached to another organization as I am to this one (R).
5. I do not feel like 'part of the family' in my organization.
6. I do not feel 'emotionally attached' to this organization (R).
7. This organization has a great deal of personal meaning for me.
8. I do not feel a strong sense of belonging to my organization (R).

Scale 8

Meyer and Allen (1991) Continuance Organizational Commitment Scale

1. I am not afraid of what might happen if I quit my job without having another one lined up (R).
2. It would be very hard for me to leave my organization right now, even if I wanted to.
3. Too much in my life would be disrupted if I decided I wanted to leave my organization now.
4. It wouldn't be too costly for me to leave my organization now (R).
5. Right now, staying with my organization is a matter of necessity as much as desire.
6. I feel I have too few options to consider leaving this organization.
7. One of the few serious consequences of leaving this organization would be the scarcity of available alternatives.
8. One of the major reasons I continue to work for this organization is that leaving would require considerable sacrifice. Another organization may not match the overall benefits I have here.

Scale 9

Meyer and Allen (1991) Normative Organizational Commitment Scale

1. I think that people these days move from company to company too often.
2. I do not believe that a person must always be loyal to his or her organization (R).
3. Jumping from organization to organization does not seem at all unethical to me (R).
4. One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain.
5. If I got another offer for a better job elsewhere, I would not feel it was right to leave my organization.
6. I was taught to believe in the value of remaining loyal to one organization.
7. Things were better in the days when people stayed with one organization for most of their career (R).
8. I do not think that wanting to be a 'company man' or 'company woman' is sensible anymore (R).

Scale 10

Meyer et al. (1993) affective occupational commitment scale

1. Nursing is important to my self-image.
2. I regret having entered the nursing profession ®.
3. I am proud to be in the nursing profession.
4. I dislike being a nurse ®.
5. I do not identify with the nursing profession.
6. I am enthusiastic about nursing.

Scale 11

Meyer et al. (1993) continuance occupational commitment scale

1. I have put too much into the nursing profession to consider changing now.
2. Changing professions now would be difficult for me to do.
3. Too much of my life would be disrupted if I were to change my profession now.
4. It would be costly for me to change my profession now.
5. There are no pressures to keep me from changing professions ®.
6. Changing professions now would require considerable personal sacrifices.

Scale 12

Meyer et al. (1993) normative occupational commitment scale

1. I believe people who have been trained in a profession have a responsibility to stay in that profession for a reasonable period of time.
2. I do not feel any obligation to remain in the nursing profession ®
3. I feel a responsibility to the nursing profession to continue in it.
4. Even if it were to my advantage, I do not feel that it would be right to leave nursing now.
5. I would feel guilty if I left nursing.
6. I am in nursing because of a sense of loyalty to it.

References

- Abrahamson, M. (1965). Cosmopolitanism, dependence-identification and geographical mobility. Administrative Science Quarterly, 10, 98-106.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. Journal of Occupational Psychology, 63, 1-18.
- Alutto, J. A., Hrebiniak, L. G., & Alonso, R. C. (1973). On operationalizing the concept of commitment. Social Forces, 51, 448-454.
- Aranya, N., & Jacobson, D. (1975). An empirical study of theories of organizational and occupational commitment. Journal of Social Psychology, 97, 15-22.
- Aranya, N., Pollock, J., & Amernic, J. (1981). An examination of professional commitment in public accounting. Accounting, Organizations and Society, 6, 271-280.
- Becker, H. S. (1960). Notes on the concept of commitment. American Journal of Sociology, 66, 32-40.
- Becker, H. S., & Carper, J. W. (1956). The development of identification with an occupation. American Sociological Review, 32, 341-347.
- Ben David, J. (1958). The professional role of the physician in bureaucratized medicine: A study in role conflict. Human Relations, 11, 255-274.
- Blau, G. J. (1985). The measurement and prediction of career commitment. Journal of Occupational Psychology, 58, 277-288.
- Blau, G. J. (1988). Further exploring the meaning and measurement of career commitment. Journal of Vocational Behavior, 32, 284-297.
- Blau, G. J. (1989). Testing the generalizability of a career commitment measure and its impact on employee turnover. Journal of Vocational Behavior, 35, 88-103.
- Blau, G. J. (1999). Early-career job factors influencing the professional commitment of medical technologists. Academy of Management Journal, 42, 687-695.
- Blau, G., Paul, A. & St. John, N. (1993). On developing a general index of work commitment. Journal of Vocational Behavior, 42, 298-314.
- Blau, P. M., & Scott, W.R. (1962). Formal organizations. San Francisco: Chandler.
- Carson, K.D., & Bedeian, A.G. (1994). Career commitment: Construction of a measure and examination of its psychometric properties. Journal of Vocational Behavior, 44, 237-262.
- Cohen, A. (1993a). Organizational commitment and turnover: A meta-Analysis. Academy of Management Journal, 36, 1140-1157.
- Cohen, A. (1993b). Work commitment in relations to withdrawal intentions and union effectiveness. Journal of Business Research, 26, 75-90.

- Cohen, A. (1996). On the discriminant validity of the Meyer and Allen (1984) measure of organizational commitment: How does it fit with the work commitment construct? Educational and Psychological Measurement, *56*, 494-503
- Cohen, A. (1999). The relation between commitment forms and work outcomes in Jewish and Arab culture. Journal of Vocational Behavior, *54*, 371-391
- Cohen, A. (2000). The relationship between commitment forms and work outcomes: A comparison of three models. Human Relations, 2000, *53*, 387-418
- Cohen, A. (2003). Multiple commitments in the workplace: An integrative approach. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cohen, A. (2006). The relationship between multiple commitments and organizational citizenship behavior in Arab and Jewish culture. Journal of Vocational Behavior, *69*, 105-118.
- Cohen, A. (in press). An examination of the relationship between commitments and culture among five cultural groups of Israeli teachers. Journal of Cross-Cultural Psychology.
- Ertl, H. (2000). Modularisation of vocational education in Europe: NVQs and GNVQs as a model for the reform of initial training provisions in Germany. Wallingford: Symposium Books.
- Ertl, H. (2002). The role of European Union programmes and approaches to modularisation in vocational education: Fragmentation or integration? Munich: Utz.
- Ertl, H., & Sloane, P. F. E. (2003). Crisis and reform in German vocational education and training: The Lernfeldkonzept. Learning and Skills Research, *6* (4), 25-27.
- Goldberg, L.C., Baker, F., & Rubenstein, A.H. (1965). Local-cosmopolitan: Unidimensional or multidimensional? American Journal of Sociology, *70*, 704-710.
- Gouldner, A. W. (1957). Cosmopolitans and locals: Toward an analysis of latent social roles. Administrative Science Quarterly, *2*, 281-306.
- Gouldner, A. W. (1958). Cosmopolitans and locals: Toward an analysis of latent social identity. Administrative Science Quarterly, *3*, 444-480.
- Haasler, B. (2007). Apprentices' Experiences of Occupational and Organisational Commitment: An Empirical Investigation in a German Automobile Company. In A. Brown, S. Kirpal & F. Rauner: *Identities at Work* (pp. 261-284). Dordrecht: Springer.
- Hall, R. H. (1968). Professionalism and bureaucratization. American Sociological Review, *33*, 92-104.
- Irving, P., Coleman, D., & Cooper, C. (1997). Further assessments of a three-component model of occupational commitment: Generalizability and differences across occupations. Journal of Applied Psychology, *82*, 444-452.
- Kagan, J. The concept of identification. Psychological Review, *65*, 296-305.

- Kirpal, S. (2004). Researching work identities in a European context. Career Development International, 9, 199-221
- Larwood, L., Wright, T. A., Desrochers, S., & Dahir, V. (1998). Extending latent role and psychological contract theories to predict intent to turnover and politics in business organizations. Group & Organization Management, 23 (2), 100-123.
- Lee, K., Carswell, J.J., & Allen, N.J. (2000). A meta-analytic review of occupational commitment: Relations with person-and work-related variable. Journal of Applied Psychology, 85, 799-811.
- London, M. (1983). Toward a theory of career motivation. Academy of Management Review, 8, 620-630.
- London, M. (1985). *Developing managers: A guide to motivation and preparing people for successful managerial careers*. San Francisco: Jossey- Bass.
- Meyer, P. J. & Allen, J. N. (1984). Testing the side bet theory of organizational commitment: Some methodological considerations. Journal of Applied Psychology, 69, 372-378.
- Meyer, P.J., & Allen, N.J. (1991). A three-component conceptualization of organizational commitment. Human Resource Management Review, 1, 61-89.
- Meyer, P. J. & Allen, J. N. (1997). Commitment in the workplace: Theory, research, and application. Thousand Oaks, CA: Sage.
- Meyer, P. J., Allen, J. N., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. Journal of Applied Psychology, 78, 538-551.
- Meyer, P. J., Stanley, D. J., Herscovitch, L. & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. Journal of Vocational Behavior, 61, 20-52.
- Morrow, P. C. (1983). Concept redundancy in organizational research: The case of work commitment. Academy of Management Review, 8, 486-500.
- Morrow, P. C., & Goetz, J. F. (1988). Professionalism as a form of work commitment. Journal of Vocational Behavior, 32, 92-111.
- Mowday, R. T., Porter, L. M. & Steers, R. M. (1982). Employee-organizational linkage. New York: Academic Press.
- Mowday, R. T., Steers, R. M., & Porter, L. M. (1979). The measurement of organizational commitment. Journal of Vocational Behavior, 14, 224-247.
- O'Reilly, C. A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification and internalization on prosocial behavior. Journal of Applied Psychology, 71, 492-499.
- Porter, L. W., & Smith, F. J. (1970). The etiology of organizational commitment. Unpublished paper, University of California, Irvine.

- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction and turnover among psychiatric technicians. Journal of Applied Psychology, *59*, 603-609.
- Raelin, J. A. (1989). Professional and business ethics: Bridging the gap. Management Review, *78*, 39-42.
- Rauner, F. (2004). Vocational education and innovation: Modernizing apprenticeship. Paper presented at the International Conference on Vocational Skill Education and Training, Tianjing, China.
- Rauner F. (2007). Vocational Education and Training – A European Perspective. In A. Brown, S. Kirpal & F. Rauner: Identities at Work (pp. 115-144). Dordrecht: Springer.
- Rauner, F. & McLean, R. (forthcoming). Handbook of Vocational Education Research, Springer Publishers, Dordrecht, The Netherlands.
- Ritti, R. R. (1968). Work goals of scientists and engineers. Industrial Relations, *7*, 118-131.
- Ritzer, G., & Trice, H. M. (1969). An empirical study of Howard Becker's side bet theory. Social Forces, *47*, 475-479.
- Sheldon, M. E. (1971). Investment and involvement as mechanisms producing commitment to the organization. Administrative Science Quarterly, *16*, 143-150.
- Snizek, W. E. (1972). Hall's professionalism scale: An empirical assessment. American Sociological Review, *37*, 109-114).
- Stinglhamber, F., Benstein, K., & Vandenberghe, C. (2002). Extension of the three-component model of commitment to five foci: Development and measures and substantive test. European Journal of Psychological Assessment, *18*, 123-138.
- Thornton, R. (1970). Organizational involvement and commitment to organization and profession. Administrative Science Quarterly, *15*, 417-426.
- Tuma, N. B., & Grimes A. J., (1981). A comparison of models of professionals in a research-oriented university. Administrative Science Quarterly, *26*, 187-206.
- Wallace, J.E. (1993). Professional and organizational commitment: Compatible or incompatible? Journal of Vocational Behavior, *42*, 333-349.
- Wallace, J. E. (1995a). Corporatist control and organizational commitment among professionals: The case of lawyers working in law firms. Social Forces, *73*, 811-839.
- Wallace, J. E. (1995b). Organizational and professional commitment in professional and nonprofessional organizations. Administrative Science Quarterly, *40*, 228-255.

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