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National Culture and Union Membership
A Cultural-Cognitive Perspective

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Article abstract

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Moving beyond the normative and regulative perspectives of neo-institutional theory, this study adopted a cultural-cognitive perspective to study the influence of multiple dimensions of national culture on union membership. Cultural frameworks were compared using data from the World Values Survey that were matched to GLOBE and Hofstede national culture scores (n = 43,867 employees, 32 countries). Contrasts between GLOBE and Hofstede scores revealed that GLOBE culture constructs were better predictors and they also enabled an improved understanding of the relationships between national culture and union membership. This resolved the paradoxical lack of a significant relationship between collectivism and union membership in prior research. Specifically, union membership was positively related to institutional collectivism but not to in-group collectivism. Also, that fact that GLOBE Performance Orientation was negatively related to union membership explained why Hofstede's Masculinity was negatively related to union membership in prior research. Moreover, prior research on union membership tended to use either individual level (i.e., employees) variables, or macro level (i.e., country) variables to explain union membership. Recently developed statistical techniques enabled the analysis of both individual and country level variables in a hierarchical model. Results show that union membership was positively related to sex (female), education, and institutional collectivism, and negatively related to occupation (supervisors and professionals) and performance orientation. There were curvilinear relationships between union membership and age and uncertainty avoidance. Younger and older people were less likely to be union members. Low or high uncertainty avoidance increased union membership. The juxtaposition of the influences of Age and Uncertainty Avoidance on union membership revealed an interesting phenomenon. Opposing curvilinear relationships (concave vs. convex), suggested a complex yet interrelated relationship between age and uncertainty avoidance that is worthy of future research. At different ages people may use uncertainty avoidance differently to evaluate the risks and benefits of union membership.

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Comparing Hofstede and GLOBE deepens our understanding of the influence of different measures and dimensions of national culture on union membership. Data from the World Values Survey were matched to GLOBE and Hofstede country culture scores (n = 43,867 employees, 32 countries). Union membership was positively related to GLOBE's Institutional Collectivism, but not Hofstede's Individualism; and was negatively related to both Performance Orientation (GLOBE) and Masculinity (Hofstede), suggesting that differences in culture measures may account for prior inconsistent findings. Curvilinear relationships between union membership and Age (inverted U-shaped) and Uncertainty Avoidance (U-shaped) suggest that Uncertainty Avoidance may explain why younger and older people were less likely to be union members.

KEYWORDS: **Unions, collectivism, performance orientation**

Overview

Institutions are resilient social structures that grow because of their perceived legitimacy (Scott, 2001). Labour unions are institutions that may flourish when they are perceived as legitimate (Bronfenbrenner, 1997; Hurd, Milkman and Turner, 2003). This study extends prior research on union membership in several ways. First, extant research has focused on legitimacy derived from regulative and normative foundations. Because those foundations have provided only partial and mixed results in explaining union membership across countries (Calmfors et al., 2001; Kuruvilla, Gallagher and Wetzel, 1993), this study offers a behavioural perspective that is based on a cultural-cognitive foundation (Scott, 2001; Lewin and Feuille, 1983). Second, much of the prior research on union membership has focused on the U.S. and other western countries (Cregan, 2005). Studies from the U.S. cannot explain the persistent and widely varying levels of union membership across countries or cultures (Lansbury and Baird, 2004). This study uses national culture to explain these differences. Third, prior research has focused on either micro-level individual factors or on macro-level factors, such as economic trends or country cultures (Black, 2001; Clark and Oswald, 1993; Premack and Hunter, 1988; Singh, 2001). Using recently developed multilevel analytical techniques that enable research to cross levels of analysis (Raudenbush and Bryk, 2002; Singer, 1998), this study integrates micro- and macro-level streams of research through a cultural-cognitive theoretical framework (Scott, 2001). This study explains why prior research did not find

a significant relationship between collectivism and union membership. This study also deepens our understanding of the curvilinear relationships between union membership on one hand, and age and uncertainty avoidance on the other. Finally, this study enhances understanding of national culture by comparing Hofstede (2001) and GLOBE project measures (House et al., 2004).

Institutional Pillars

Neo-institutional theory identifies three pillars or foundations for conducting research related to organizations: regulative, normative, and cultural-cognitive. The first two pillars correspond to prior theories that have been applied to the study of union membership.

The regulative pillar emphasizes how institutions establish rules and regulations and enforce sanctions to constrain and influence behaviour (North, 1989). The regulative pillar corresponds to theories about inducing people to become union members through regulatory pressures so as to avoid free riders. Regulatory factors related to union membership have included union dues, laws related to union membership, works councils, union shop clauses, and so on (Calmfors *et al.*, 2001; Olson, 1971; Ullman, 1975). These forces suggest that even rational employees might not be motivated by their own self interest to voluntarily choose to become union members because they could act as free riders benefiting from the collective action of the group (Olson, 1971).

The normative pillar emphasizes the influence of social obligations that create a stable social order (Stinchcombe, 1997). The normative pillar corresponds to prior research related to social customs and social norms influencing choices to become union members (Clark *et al.*, 1993; Fullager *et al.*, 1995). Union membership studies that are normative have focused on how values and beliefs about unions influence individuals' choices about whether to join a union (Youngblood *et al.*, 1984).

The cultural-cognitive pillar emphasizes the influence of culture as the context that shapes cognitions related to institutions. Because the environment within which institutions operate can significantly influence how they are perceived (Meyer and Rowan, 1977), and because institutions operate within different contexts in countries with different national cultures, national culture can influence how individuals react to and perceive institutions such as labour unions. Different cultures can provide more or less support for the perceived legitimacy of organizations (Meyer and Rowan, 1977; Scott, 2001).

This cultural cognitive pillar is proposed as a new and different way of studying differences in union membership. Numerous studies have shown that national culture significantly influences perceptions, cognitions, and behaviours (Hofstede, 2001; House *et al.*, 2004). The impact of culture is thought to derive from its influence on the collective programming of minds of individuals within different cultures (Hofstede, 2001). Because people in some cultures think differently than those in other cultures, it is logical to expect that their choices and behaviours will also be different. This study proposes specific hypotheses about how the collective programming of individuals in different cultures is likely to influence their choices to become union members.

Individual-Level Demographic Differences

Prior work has shown that individual differences are important in predicting union membership (Premack and Hunter, 1988; Schnabel and Wagner, 2007). Thus, this study measures the effects of these differences on union membership at the individual level. Cultural effects are assessed after controlling for the hypothesized individual-level differences.

Sex. Women are often more positively disposed towards unions than men (Newton and Shore, 1992), and it is only because women tend to hold jobs that are less likely to be unionized that union membership rates appear higher among men (Price and Bain, 1983; Freeman and Medoff, 1984; Voos, 1983). However, a desire for social support can more strongly influence women than men to be union members, and these social influences often influence voting for union representation (Youngblood *et al.*, 1984). Unions provide a type of legitimate institutionalized social support regarding work matters that women desire for issues such as gender discrimination and participation in decisions (Schur and Kruse, 1992). Therefore,

HYPOTHESIS 1: After controlling for occupational differences, women are more likely than men to be union members.

Education. Cross-cultural research on the influence of education on union membership has had mixed results. Education was not related to union membership in India, but it was negatively related to union membership in the U.S. (Deshpande and Joseph, 1997) and among firefighters in Hong Kong (Snape and Chan, 2000). Still, other studies show that, controlling for occupation, education increases the desire to join unions (Hundley, 1988, 1989; van den Berg and Groot, 1992). A rationale for the combined effects of occupation and education can be derived from the influence of education on earning capacity and job mobility. Job-specific education is positively correlated with union membership, whereas overall general education is negatively correlated with union membership (Hundley, 1989). Job-specific training enhances the value of union membership in terms of increased wages gained through collective bargaining, whereas general education increases job mobility (Baron, Davis-Blake and Bielby, 1986; Hundley, 1989). Thus, controlling for occupational differences, more highly educated individuals were more likely to be union members (Hundley, 1988). Therefore,

HYPOTHESIS 2: After controlling for occupation, education will be positively related to union membership.

Occupation. In the U.S., blue-collar workers are more likely to vote in favour of union representation than are white-collar workers such as supervisors and professionals (Youngblood *et al.*, 1984). However, international research has not resolved the question of whether there are occupational differences in union membership across cultures. One study found very few occupational differences were significant predictors of union membership in the Netherlands (van den Berg and Groot, 1992). Nevertheless, it is expected that supervisors are generally less likely to be union members because they will identify with management, and their loyalty to the firm is more important than loyalty to a union (Duncan and Stafford, 1980). Professionals are less likely to be union members because they benefit from their professional status

through job movement instead of collective action (Hundley, 1988, 1989; Strauss, 1964). They also tend to work for smaller employers, where smaller numbers of employees hinder unionization (Price and Bain, 1983; van den Berg and Groot, 1992). Therefore,

HYPOTHESIS 3:   Supervisors and Professional Employees are less likely to be union members than are other workers.

Age. The influence of age on union membership is more complex than a simple unidirectional relationship. Blanchflower (2007) observed an inverted U-shaped relationship between worker age and union membership. He found evidence that this relationship holds even after controlling for cohort effects (i.e. decade of birth). Waddington and Whitston (1997) found that younger workers' reasons for joining unions (e.g., desire for training) were significantly different from those of older workers (e.g., job security). Moreover, a curvilinear relationship between job tenure and unionization has been shown in the Netherlands, where workers with lower and higher years of job tenure are less likely to be union members (van den Berg and Groot, 1992). Data from India show a similar curvilinear relationship between age and union membership (Gani, 1996).

This convex curvilinear relationship may be explained by the risk-reward trade-off inherent in the decision to join a union (Bryson *et al.*, 2005). Unions present possible rewards in terms of increased wages and benefits, which could be offset by employer resistance to the cost of unionization that could take the form of retribution from employers and work disruptions (e.g., strikes) that could put wages in jeopardy (Allen, 1995; Dickens, 1983). Moreover, younger workers tend to be less attached to their employers and for younger workers, the benefits of unionization in terms of higher earnings are often too far in the future to be deemed of value (Linz, 2004). For middle-aged workers, the potential rewards from unionization are greater, since these workers are more attached to their employers and have more years remaining before retirement to reap the benefits. For middle-aged workers, the reward-to-risk ratio favours the reward, increasing union membership. Older workers have fewer years to reap the benefits of unionization because they are closer to retirement. For older workers, the reward-to-risk ratio does not favour union membership (Brockerman, 2004). This expected curvilinear relationship is illustrated in Figure 1. Therefore,

HYPOTHESIS 4:   Age will have a convex curvilinear relationship with union membership, with younger and older workers less likely to be union members.

National Culture as a Contextual Influence on Union Membership

Prior research has indicated that employees' attitudes toward unions in different countries can influence the likelihood of union membership (Schnabel and Wagner, 2007). However, very little research has used national cultural attitudes as predictors of union membership. This is unfortunate since national culture has proven to predict many other work-related outcomes, and is therefore a likely predictor of union membership.

FIGURE 1
Expected Relationship between Union Membership, Age, and Uncertainty Avoidance
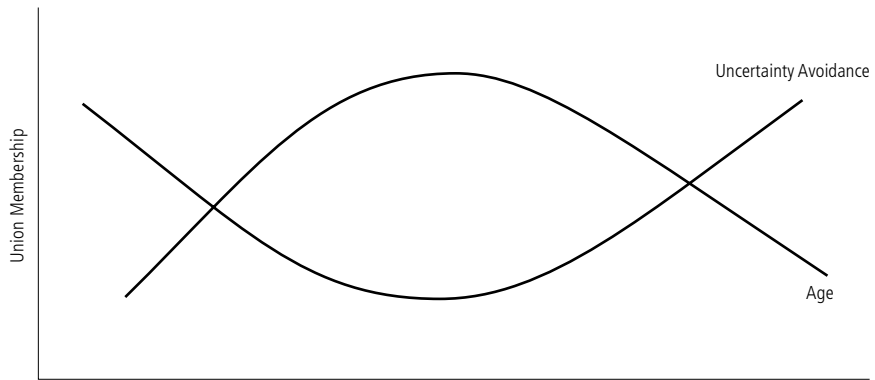
National culture has been referred to as programming of the minds of individuals within a culture that produces a system of relatively permanent and transferrable tendencies (Hofstede, 2001). As such, it is likely to influence how people evaluate organizations such as labour unions and their decisions about whether to become members thereof. Since countries have different cultures, it is expected that the way people evaluate union membership will differ across countries, and this will result in differing rates of union membership.

Two prior studies examined the relationship between Hofstede culture dimensions and union density, with mixed results. Black (2001) matched Hofstede culture scores to union density figures for 19 countries in four different years between 1970 and 1995 and found that the Uncertainty Avoidance dimension was negatively related to union density and that the Power Distance and Individualism dimensions were not significantly related to union density. Singh (2001) matched Hofstede culture dimensions to union density figures for 33 countries in 1985 and 1995 and found that the Masculinity and Power Distance dimensions were negatively related to union density, while Uncertainty Avoidance and Individualism were not significantly related to union density. The lack of a significant relationship between Individualism and union density in both studies is surprising, since Individualism is the opposite of Collectivism, a cultural dimension that one would expect to increase union density. Notably, however, neither of these studies controlled for individual differences in sex, age, education, or occupation, even though these factors are likely to predict union membership.

Comparing Cultural Frameworks

To further examine the relationships between national culture and union membership, this study uses two different conceptualizations of culture: the Hofstede (2001) framework—which, although popular, has been criticized by some (McSweeney, 2002)—and the Global Leadership and Organizational Behaviour Effectiveness (GLOBE) measures (House *et al.*, 2004). The GLOBE measures overlap with, but are

both conceptually and empirically distinguishable from, the Hofstede measures (Hofstede, 2001). The culture dimensions described below are used to test the influence of culture on union membership.

Performance Orientation. GLOBE conceptualizes Performance Orientation as the degree to which a society encourages the improvement of performance and achievement (House *et al.*, 2004). Cultures with higher levels of Performance Orientation tend to confer status based on individual accomplishments instead of seniority, social connections, and so forth (Schneider and Barsoux, 1997). Workers who are satisfied with job characteristics such as the possibility of achievement through advancement opportunities are less likely to vote for a labour union (Jarley and Fiorito, 1991). Thus, where achievement is valued, an orientation towards acquiring job rewards through performance is more likely, and an orientation towards achieving job rewards through ascribed status obtained through factors often promoted by labour unions (e.g., seniority) is diminished.

Hofstede (2001) did not conceptualize or measure performance orientation as a separate dimension of national culture. Rather, it can be seen that it was part of Hofstede's Masculinity dimension of national culture. Therefore, it is expected that the GLOBE Performance Orientation measure will be negatively related to union membership. However, since performance orientation is also embedded within Hofstede's Masculinity, it is likely that union membership will also be negatively related to Masculinity. Therefore

HYPOTHESIS 5: Performance Orientation will be negatively related to union membership.

Institutional and In-Group Collectivism. Collectivism is the degree to which people view themselves as integrated with others through social interactions and sublimate their personal desires to those of the group (Triandis, 1994). The opposite of Collectivism is Individualism, which is the degree to which individuals act independently based on their own personal interests. Hofstede studied this as a unitary construct (Hofstede, 2001). The two societal-level studies of the relationship between union membership and Hofstede's Individualism failed to find a significant relationship (Black, 2001; Singh, 2001). This is surprising because collective action is at the heart of what unions do (Freeman and Medoff, 1984). Unions advocate that workers deal with the employer as a collective, thereby enhancing their bargaining power (Freeman and Medoff, 1984). Therefore, Collectivism should be positively related to union membership.

Unlike Hofstede's unidimensional measure focused on Individualism, the GLOBE project focused on the opposite pole, collectivism, and divided it into two constructs: Institutional and In-group Collectivism. Institutional Collectivism is the degree to which a society engages and rewards collective efforts such as group cohesion, collective interests, group goals, laws, social programs, and so on (House et al., 2004). In-Group Collectivism is the degree to which societies rely on interdependence within families or organizations (House et al., 2004).

Institutional Collectivism is high in cultures that emphasize civic virtue and collective interests. In those cultures, unions are more likely to be seen as legitimate

institutions, and union membership will be higher (Cregan, 2005; Newton and Shore, 1992). Therefore, Institutional Collectivism should be positively related to union membership. When unions are viewed as legitimate institutions (e.g., using internal democracy), workers are more likely to vote in favour of union representation (Bronfenbrenner, 1997). Thus, the legitimacy of the institutional collective can increase union membership. Further, cultures that emphasize the importance of citizenship in society (i.e., civic virtue) have higher levels of union membership (Beaumont and Harris, 1998). In some countries, this may be a function of the legacy of Communist governments (Blanchflower and Freeman, 1997).

In contrast, In-Group Collectivism is the degree to which families and work groups are valued and important (House *et al.*, 2004). Social identity and self-categorization theories posit that individuals classify themselves into categories or groups (Tajfel and Turner, 1986) and enhance their self-esteem through repeated positive evaluations of groups to which they belong, or "in-groups," compared to other groups, or "out-groups." In cultures where families and work groups are more highly valued, other groups such as labour unions will be perceived more negatively, and the result of group comparison processes will have a negative impact on union membership. Therefore,

HYPOTHESIS 6: Institutional Collectivism will be positively related to union membership, and In-group Collectivism will be negatively related to union membership.

Power Distance. Power Distance is the degree to which a society accepts that people have unequal levels of power, status, and authority (House et al., 2004). Since unions strive to influence employers' decisions, they are attempting to reduce the power differential—or Power Distance—between the management and workers. Unions would seek to reduce this Power Distance through gaining more members. In countries where their union membership efforts have been less successful, it may be due to the acceptance of employees of higher Power Distance. Thus, countries with a higher Power Distance dimension would be expected to have lower levels of union membership because workers in those countries are more willing to let their employers take the power to make decisions. Therefore,

HYPOTHESIS 7: Power Distance will be negatively related to union membership.

Humane Orientation. Humane Orientation is the extent to which a society supports and promotes fairness, friendliness, generosity, caring and kindness towards others (House et al., 2004). Hofstede's Masculinity (MAS) index captures some aspects of Humane Orientation. However, with Hofstede, a humane orientation is partially conceptualized as femininity, indicating low levels of MAS. Thus, low MAS suggests a more humane orientation within a culture.

Even though employees within a culture may be willing to accept higher Power Distance in decision making, they may nevertheless expect that employees be treated humanely by those with power. This is exemplified in Hispanic cultures where the boss is sometimes called "el patrón" in Spanish meaning that he is the accepted authority figure. With the acceptance of his role as the authority, there is also a concomitant

expectation that the authority figure will take care of the people under his authority (Howell *et al.*, 2007). Thus, there is no contradiction in predicting a negative relationship between Power Distance and Union Membership and, at the same time, a positive relationship between Humane Orientation and Union Membership. Singh (2001) found a negative relationship between MAS and union density and suggested that this was caused by unions' emphasis on caring for others and quality of life factors that reflect a humane orientation (Singh, 2001). Therefore,

HYPOTHESIS 8:   Humane Orientation will be positively related to union membership.

Uncertainty Avoidance. Uncertainty Avoidance indicates that rules and consistency are more important than a tolerance for ambiguity (House *et al.*, 2004). Research on the influence of Uncertainty Avoidance on union membership has produced inconsistent results: Black (2001) found that Hofstede's Uncertainty Avoidance Index (UAI) was negatively related to union density, while Singh (2001) found that Hofstede's UAI was not significantly related to union density. However, workers seek union representation to reduce the uncertainty about what might happen if they have a problem at work (Waddington and Whitston, 1997), and unions do actually increase job security in Great Britain (Bender and Sloane, 1999).

However, a curvilinear relationship between Uncertainty Avoidance and union membership could account for the inconsistent findings of prior cross-cultural research. Bender and Sloane (1999) found that, for non-union workers, there is a curvilinear relationship between job tenure and job security: those with low or high levels of job tenure had lower levels of perceived job security than those with moderate levels of job tenure. However, for union members, job security increased linearly with increased job tenure.

Moreover, a U-shaped curvilinear relationship between Uncertainty Avoidance and union membership may also help to explain the inverted U-shaped relationship between age and union membership. Some evidence suggests an inverted U-shaped relationship between age and a sense of wellbeing and happiness (Blanchflower and Oswald, 2006). Thus, as middle-aged workers become less satisfied with their lives, they seek the possible help that union membership could provide to them in terms of increased wages, benefits, and job security. Moreover, since they are less concerned with avoiding uncertainty during this middle-aged period of their lives, they are more willing to accept the risks linked to union membership such as strikes, employer retribution, the uncertain outcome of collective bargaining negotiations, etc. For middle-aged workers, the risk to reward trade off induces them to be more favourably disposed toward union membership.

The hypothesized curvilinear relationship between Uncertainty Avoidance and union membership is illustrated in Figure 1. This relationship is supported by the curvilinear subjective value function discussed in Prospect Theory (Tversky and Kahneman, 1981), where the concept of Uncertainty Avoidance is similar to Prospect Theory's concept of risk avoidance. Prospect Theory postulates a concave, curvilinear relationship between levels of loss and subjective perceived value. At lower and higher levels of Uncertainty Avoidance, changes in the perceived value of union representation will be relatively greater than at moderate levels of Uncertainty Avoidance. For those

cultures with low or high levels of Uncertainty Avoidance, then, the potential incremental benefits of union representation will be perceived as greater than for those in cultures with moderate levels of uncertainty avoidance. Therefore,

HYPOTHESIS 9: Uncertainty Avoidance will have a concave curvilinear relationship with union membership such that, at low and high levels of Uncertainty Avoidance, Union Membership will be greater than at moderate levels of Uncertainty Avoidance.

Methods

This study used data from three different sources, the World Values Survey (WVS), the GLOBE Project, and Hofstede (Hofstede, 2001; House *et al.*, 2004; Inglehart *et al.*, 2004). Individual survey responses from the WVS from different countries were matched with country-level culture scores, and this mixed level of analysis was used to capture both individual-level and culture-level factors (Smith and Schwartz, 1997).

WVS data included sex, age, education, occupation, and whether individuals were union members (Inglehart *et al.*, 2004). Data were collected in many countries between 1999 and, 2002 using personal interviews conducted in the respondents' native languages. Respondents were shown a list of organizations and asked which ones they belonged to. Responses to the item "labour union" were coded as: 1 = Belong, 0 = Not Mentioned.

Country-level culture scores from the GLOBE project measured national culture on several dimensions (House *et al.*, 2004): Performance Orientation indicates that rewards for improvement are valued; Future Orientation values the importance of planning for the future as opposed to accepting the current state or condition; Gender Egalitarianism values equal roles for men and women (House *et al.*, 2004); Assertiveness values toughness and dominance as opposed to tenderness; Institutional Collectivism values the importance of societal and organizational level loyalties as opposed to individual interests; In-group Collectivism values smaller work groups, families, etc. as opposed to individual interests; Power Distance values deference to leaders and more concentration of power at higher levels; Humane Orientation values sensitivity towards and concern for other people; and Uncertainty Avoidance values orderliness, structure, and formal procedures as opposed to ambiguity. GLOBE provides two sets of these culture dimensions: one for society practices (i.e., how things are) and one for society values (i.e., how things should be). The Society Practices scores were used because these scores use respondents as key informants about their cultures, a method that can reduce the likelihood of responses being swayed by social desirability (Aycan, Kanungo, and Sinha, 1999). All nine GLOBE dimensions of culture were included in the multivariate analysis to perform a robust analysis.

Data from the WVS and GLOBE were merged, using country as the matching variable. Persons were selected for inclusion in this study if they reported that they were full-time employees, and each individual who responded to the WVS was assigned the country-level culture scores from their country, resulting in multiple individual-level responses within a country.

The Hofstede national culture scores were derived from managers working for IBM in various countries between 1967 and 1973 and were supplemented by estimates of country culture scores from subsequent studies (Hofstede, 2001). In the Hofstede national culture scores, Power Distance indicates greater fear of and deference to bosses; Uncertainty Avoidance indicates a desire to evade insecurity by following rules, continuing employment, and reducing stress; Individualism indicates higher preference for work that includes personal challenges, discretion, and free time; and Masculinity indicates higher preference for social interactions, with higher stress and an ego-centered focus on recognition and advancement, as opposed to maintaining relationships. As with GLOBE culture scores, Hofstede country culture scores were matched to individual responses.

Table 1 presents descriptive statistics and bivariate correlations between the study variables. Data on the number of responses from each country in the WVS, and the countries to which individuals were matched for GLOBE and Hofstede culture scores, are available from the author on request. The correlations between culture measures are at the country level. Also available will be the country level percentages of respondents who indicated that they belong to a union, with the frequency of union membership ranging from a low of 0.8% in Morocco to a high of 63.9% in Sweden. For comparison purposes, adjusted union density rates estimated by Visser (2006) were matched with the individual union membership reports from the 15 countries used in this study. Visser's estimates of union density, which are adjusted estimates based on government figures and union membership reports, are generally higher than estimates of union membership based on the WVS, so the estimates of union membership in this study are more conservative. Estimates of union density can vary both over time and by method of measurement (Blanchflower and Freeman, 1992; Cohen *et al.*, 2003). However, the pattern of union membership across countries is similar, and there is a significant and positive correlation between the country union density estimates based on the WVS and those reported by Visser (Kendall τ_b = .54, p < .01; Pearson bivariate r = .88, p < .01; Spearman ρ = .71, p < .01). Thus, the cross-country comparisons in this study are appropriate, given that the focus here is on capturing the influence of culture, rather than on administrative reports of union membership. Further, using estimates from the WVS employed a consistent data collection method and enabled tests of both individual-level variables and country-culture scores from a wide range of cultures.

However, this study does not measure nor is intended to measure union density (membership as a proportion of wage and salary earners). Union density is often seen as one indicator of union strength (Blaschke, 2000). By contrast, this is a study focused on individuals and their union membership. That is why this study uses data from individuals reporting for themselves whether they report that they are union members. It is not surprising that there are differences between self-reports of union membership status and official records of union density, since the methods by which the union density figures are collected vary widely across countries because of the different meanings of being covered by union contract or being a union member that diverge significantly across countries and cultures. In fact, one strength of this study is that it does not use union density, but rather individual reports of union membership

TABLE 1
Descriptive Statistics and Correlations Belonging to a Union and GLOBE Society Practices and Hofstede Culture Scores

	N	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. *Belong to Union*	43,867	.11	.32																			
2. G: Performance	43,867	4.05	.42	-.04																		
3. G: Future	43,867	3.84	.53	.10	.75																	
4. G: Gender	43,867	3.43	.39	.15	-.30	-.16																
5. G: Assertiveness	43,867	4.17	.36	-.17	.15	-.03	-.23															
6. G: Institutional	43,867	4.31	.46	.16	.54	.58	-.01	-.40														
7. G: In-Group	43,867	5.12	.71	-.23	-.07	-.41	-.18	.08	-.21													
8. G: Power	43,867	5.22	.38	-.24	-.43	-.63	-.31	.06	-.44	.68												
9. G: Humane	43,867	3.96	.45	.06	.33	.23	-.04	-.38	.35	.18	-.17											
10. G: Uncertainty	43,867	4.12	.63	.15	.65	.81	-.07	-.10	.42	-.50	-.70	.13										
11. H: Power	40,864	57.4	20.9	-.17	-.20	-.43	.12	-.19	-.06	.75	.56	.11	-.54									
12. H: Uncertainty	40,864	65.7	25.7	-.12	-.65	-.73	.02	.15	-.51	.28	.53	-.38	-.71	.25								
13. H: Individualism	40,864	52.9	21.3	.13	.06	.14	.17	.07	-.10	-.75	-.43	-.09	.24	-.66	-.23							
14. H: Masculinity	40,864	53.9	19.3	-.24	.06	-.08	-.16	.33	-.19	.27	.29	.04	-.20	.03	.11	-.03						
15. H: Long Term	16,337	48.6	26.1	-.10	.09	-.16	-.64	-.24	.35	.34	.23	-.05	-.01	.34	.14	-.59	.23					
16. *Sex*	43,867	1.53	.50	-.06	-.02	-.01	.04	-.01	-.01	-.02	-.01	-.01	-.01	-.02	.03	.01	.01	-.04				
17. *Age*	43,867	42.1	16.6	.01	-.04	-.04	.10	-.10	.01	-.11	-.07	-.02	-.01	-.10	.07	.14	-.02	-.05	.02			
18. *Education*	43,867	4.24	2.24	.10	-.04	-.01	.08	-.07	.09	-.08	-.07	.04	-.08	.01	.08	-.01	-.02	-.04	-.05	-.24		
19. *Professionals*	43,867	.09	.29	.06	-.01	.04	.03	.03	-.04	-.03	.02	-.02	-.02	.01	-.01	.04	-.01	-.07	-.01	.01	.34	
20. *Supervisors*	43,867	.06	.24	.07	.02	-.07	.03	-.01	.03	-.07	-.08	.01	.03	-.06	-.03	.06	.01	-.04	-.08	.02	.09	-.08

Individual Level Variable Labels are *italicized*.

N = number of individuals, M = Mean, SD = Standard Deviation, G = Globe, H = Hofstede; correlations > .01 significant at p < .01.

status that tapped into divergent groups of employees with varying levels of union density and thereby enhanced the generalizability of the findings. Therefore, there is a greater degree of confidence that the relationships found in this study are not bound or limited to the methods that official agencies use to calculate union density for a country. Moreover, this study adds to our understanding of the union membership literature because it uses one consistent question format to ask individuals in different countries whether or not they are union members. The focus here is on individual cultural cognitions about membership status, because these are likely to be influenced by national culture. Other published reports of union density are likely to be more accurate measures of national level union density (e.g., Blaschke, 2000; Visser, 2006).

Measures

Demographic data were coded as: Sex (Male = 1, Female = 2), Age (in years), Education (on a 1–to–7 scale with 1 = incomplete elementary education and 7 = completed university degree). Supervisors and Professionals were each coded as 1, and other occupations were coded with 0.

Because of the mixed levels of analysis (individual-level and country-level data), the SAS Generalized Linear Mixed Model (GLIMMIX) was used (SAS Institute, 2005). Using fixed and random effects and slightly different terminology than Hierarchical Linear Modeling software (HLM), the SAS software also estimates a two-level model and provides similar results to other multi-level software such as HLM (Raudenbush and Bryk, 2002; Singer, 1998; McClean, Sanders and Stroup, 1991). This analysis uses unweighted data and includes observations where there are available country level scores. If a country level score is not available, that country is excluded from the multi-level analysis. This method addresses concerns with using aggregate level and individual characteristics data in the same model by partialling out the effects at different levels (Garcia, Posthuma, and Roehling, In Press; Moulton, 1990; SAS Institute, 2005). The GLIMMIX procedure is a generalization of the SAS MIXED procedure. That procedure enables the modeling of non-normally distributed outcomes. GLIMMIX models conditional or subject-specific effects, as well as marginal or population-averaged effects, without the need to create separate data files for the two different levels of analysis, as was required by some earlier versions of HLM.

Like some other recently updated statistical software packages, GLIMMIX can analyze data from a single data set and data in which the response variable is not normally distributed (Raudenbush and Bryk, 2002; SAS Institute, 2005; Singer, 1998). It does so by incorporating random effects in the model, thereby permitting subject-specific effects (conditional) as well as population averaged (marginal) inferences. This is accomplished by fitting a generalized mixed model based on linearizations and using a restricted pseudo-likelihood method (Wolfinger and O'Connell, 1993). The GLIMIX procedure assumes that $E[Y|\gamma] = g^{-1}(X\beta + Z\gamma)$ in which $g(\cdot)$ is a differentiable link function that is monotonic. Matrix X (n x p) has rank k and the design matrix for random effects is Z (n x r). The inverse link function contains the linear mixed model and the model component is called the linear predictor: $\eta = X\beta + Z\gamma$. The A matrix contains the variance functions of the model and is diagonal, while the variance of observations is $var[Y|\gamma] = A^{1/2} R A^{1/2}$ (SAS Institute, 2005).

Results

Table 2 shows the results of the generalized linear mixed model using individual-level demographic variables from the WVS, and GLOBE culture scores to predict union membership. The intra-class correlation coefficient (Country ICC) represents the amount of variance between countries, calculated as:

$$\frac{\text{Intercept covariance parameter estimate}}{\text{Intercept covariance parameter estimate + Residual covariance parameter estimate}}$$

(Bleise, 2000; Singer, 1998). Since the initial estimate for the intercept-only model indicated a significant amount of clustering within countries, an ordinary least-squares regression analysis of these data could yield misleading results (Singer, 1998). Thus, a mixed level of analysis was appropriate and needed.

TABLE 2

Hierarchical Generalized Linear Mixed Model Predicting Union Membership from Individual Difference Variables and GLOBE Society Practices Culture Scores

	Model 1 Intercept Only		Model 2 Main Effects		Model 3 Full Model	
	Std B	SE	Std B	SE	Std B	SE
Intercept	.12**	.03	.11**	.14	.11**	.01
Sex	-	-	3.36**	.29	3.45**	.29
Age	-	-	-1.05**	.32	38.63**	1.55
Education	-	-	2.47**	.36	2.37**	.35
Supervisors	-	-	-3.53**	.30	-2.86**	.29
Professionals	-	-	-3.97**	.32	-3.31**	.32
Performance Orientation	-	-	-21.56**	6.04	-14.18*	5.97
Future Orientation	-	-	-5.00	6.01	-4.14	5.30
Gender Egalitarianism	-	-	1.93	3.76	-.28	3.46
Assertiveness	-	-	3.63	4.65	.94	4.21
Institutional Collectivism	-	-	14.79**	4.86	7.92	4.86
In-Group Collectivism	-	-	-5.62	4.80	-8.67	4.38
Power Distance	-	-	-6.48	5.76	-5.71	5.09
Humane Orientation	-	-	5.50	3.89	7.28*	3.51
Uncertainty Avoidance	-	-	15.83*	6.09	-96.61*	42.21
Age^2	-	-	-	-	-40.36**	1.54
Uncertainty Avoidance^2	-	-	-	-	107.79*	40.25
Model:						
Generalized X^2	3,692.0		3,615.2		3,579.9	
-2 Restricted Log Likelihood	16,108.4		15,251.2		14,839.7	
Δ df	-		14		2	
Δ X^2	-		76.8**		35.3**	
Country ICC	.19		-		-	

Individual Level Variable Labels are Italicized. N = 43,867. ** p < .01. * p < .05. Std B = standardized coefficients. Age^2 = age squared. Uncertainty Avoidance^2 = Uncertainty Avoidance squared. Δ df = change in degrees of freedom. Δ X^2 = change in generalized X^2.

To compare GLOBE to Hofstede, a separate GLIMMIX analysis was performed and is reported in Table 3. Parameter estimates in Table 2 and 3 were used to test

the hypotheses. The data supported hypotheses 1, 2, and 3. Women were more likely than men to be union members. Controlling for occupations, those with higher education were more likely to be union members. Professionals and supervisors were less likely to be union members.

TABLE 3

Hierarchical Generalized Linear Mixed Model Predicting Union Membership from Individual Difference Variables and HOFSTEDE Culture Scores

	Model 1 Intercept Only		Model 2 Main Effects		Model 3 Full Model	
	Std B	SE	Std B	SE	Std B	SE
Intercept	.12**	.03	-2.53**	.16	.12**	.02
Sex	-	-	41.20**	3.52	3.39**	.29
Age	-	-	-10.02**	3.78	37.22**	1.54
Education	-	-	34.99**	4.32	2.38**	.35
Supervisors	-	-	-30.25**	2.90	-2.74**	.29
Professionals	-	-	-35.20**	3.32	-3.10**	.32
Power Distance	-	-	-81.01	45.06	-10.76*	5.17
Uncertainty Avoidance	-	-	-42.17	33.42	-12.52	18.99
Individualism	-	-	27.70	42.82	1.27	5.20
Masculinity	-	-	-78.07*	30.67	-14.29**	3.59
Age^2	-	-	-	-	-38.72**	1.54
Uncertainty Avoidance^2	-	-	-	-	7.74	19.19
Model:						
Generalized X^2	3,434.5		3,383.3		3,331.5	
-2 Restricted Log Likelihood	14,947.6		14,416.8		13,828.0	
Δ df	-		10		2	
Δ X^2	-		51.2**		51.8**	
Country ICC	.21					

Individual Level Variable Labels are Italicized. N = 40,864. ** p < .01. * p < .05. Std B = standardized coefficients. Age^2 = age squared, Uncertainty Avoidance^2 = Uncertainty Avoidance squared. Δ df = change in degrees of freedom. Δ X^2 = change in generalized X^2.

The data supported hypothesis 4. Age had a convex curvilinear relationship with union membership, with younger and older workers less likely to be union members. As shown in Tables 2 and 3, the significant main effect for age, combined with the significant effect for Age^2, indicates the presence of a significant curvilinear relationship. The nature of this relationship is illustrated in Figure 2: middle-aged persons were the most likely to be union members. Union membership among 15–29 year-olds = 9%, 30–49 year-olds = 16%, and 50 years and up = 10%.

As shown in Table 2, the data supported hypotheses 5 and 6. Performance Orientation was negatively related to union membership. There was a positive and significant relationship between Institutional Collectivism and union membership in model 2. Although the relationship between In-group Collectivism and union membership was not significant, the sign was negative, as expected. The relationship between Hofstede's Individualism measure and union membership was not significant (Table 3).

FIGURE 2
Percent Union Members by Age and Level of Uncertainty Avoidance (GLOBE)
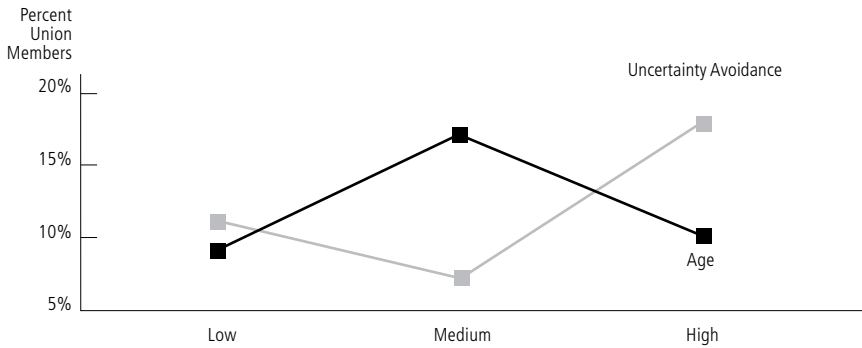
There was mixed support for hypothesis 7. The GLOBE measure of Power Distance was not significantly related to union membership (Table 2). However, the Hofstede measure of Power Distance was negatively related to union membership, as expected (Table 3).

As shown in Table 2, the data supported hypotheses 8 and 9. The relationship between Humane Orientation and union membership was positive and significant (Model 3). The significant main effects for Uncertainty Avoidance and Uncertainty Avoidance squared indicated the presence of a curvilinear relationship between Uncertainty Avoidance and union membership. The nature of this relationship is illustrated in Figure 2. At low and high levels of Uncertainty Avoidance, union membership was higher than at moderate levels, although Uncertainty Avoidance and Uncertainty Avoidance squared using Hofstede's measures were not significant (Table 3).

Conclusion and Discussion

This study extends prior research by integrating data from both individual (micro) and country (macro) levels of analysis by using a cultural-cognitive perspective. This opened the door to a deeper understanding of the relationships between national culture and union membership.

Collectivism. The data show that the Hofstede measure of Individualism/Collectivism was not related to union membership, whereas the GLOBE measure of Institutional Collectivism was positively related to union membership. This suggests that it is the Institutional aspect of Collectivism that drives union membership and not the In-group aspect of Collectivism.

Comparing the findings from the country culture measures from GLOBE and Hofstede provides some insight into the meaning and construct validity of these competing culture measures. Institutional Collectivism is the primary driver of higher levels of union membership, while In-Group Collectivism was not significant but had the opposite sign. Hofstede's unidimensional measure of Individualism taps into both institutional and in-group facets of collectivism (Hofstede, 2001). Thus, the influence of

these two different dimensions on union membership is confounded, explaining the lack of a significant relationship between Hofstede's Individualism and union density reported in prior studies.

Performance Orientation. By showing that the broadly defined measure of Masculinity used by Hofstede that includes many different facets, and also the Performance Orientation measure of GLOBE that is more narrowly focused, are both negatively related to union membership, we can surmise that the relationship between Masculinity and union membership may be primarily driven by Performance Orientation. The similarity of the negative relationships between union membership and both GLOBE Performance Orientation and Hofstede Masculinity may help to explain why union membership is lower in countries with higher Masculinity. The achievement facet of Masculinity is probably driving people to avoid unions and to seek to achieve individual performance without a union.

Age and Uncertainty Avoidance. By matching the inverted U-shaped relationship between union membership and age along with the U-shaped relationship between Uncertainty Avoidance and union membership, we can surmise that it may be uncertainty avoidance that is a possible explanation for the relationship between age and union membership. There was a difference between the GLOBE and Hofstede measures of Uncertainty Avoidance and their impact on union membership. The inclusion of other dimensions in the Hofstede measure of Uncertainty Avoidance (e.g., value orientations, expected future outcomes) may have confounded the relationship between union membership and Uncertainty Avoidance to the degree that it was no longer significant.

In addition there was some evidence suggested that Power Distance was negatively related to union membership. Humane Orientation also had a positive relationship with union membership.

In general, the GLOBE culture scores were better predictors of union membership than were the Hofstede scores. This may have occurred because of differences in the conceptualization and measurement between GLOBE and Hofstede (McSweeney, 2002). Alternatively, since the GLOBE scores were collected at a point closer in time to the collection of WVS survey data, changes in culture over time may have reduced the ability of Hofstede measures to predict the relatively more recent union membership data. Although this study used WVS data that was collected in the native languages in different countries, it must still be recognized that the meaning of union membership may be different in different countries. The estimates of union membership presented here are conservative and unlikely to recognize the higher rates of union coverage in some countries (Visser, 2006; Voos, 1983).

The comparison of GLOBE with Hofstede enhances our understanding of similarity and differences of these measures, although, by relying on the data of others, this method did not permit direct measures of culture. This study suggests that unions seeking members, and employers seeking to avoid unionization should consider the significant cultural correlates of union membership. It also suggests that, since culture drives union membership, employers may use this knowledge to design appropriate

labour relations policies and conflict resolution practices that will be perceived as institutionally and collectively legitimate.

Future research should explore other variables that may moderate the relationships between culture and union membership reported in this study. For example, since there is evidence that the presence of union managed employment insurance is correlated with union density, future research may consider whether this is a cause or effect of union membership (Blasche, 2000; Western, 1997). However, this will require the availability of data from non-western and non-European countries on the availability of these Ghent systems. There is also evidence that public sector employment status influences union membership. Future studies that have access to individual reports of union membership and public sector employment status could explore this possibility.

Finally, it is important to remember that the meaning of belonging to a union is likely to vary significantly across countries. In some countries, it may be a matter of free choice, whereas in other countries there may be significant pressures from employers or political institutions that constrain the choice of individuals and induce them to become union members (Olson, 1971). The differences across countries in these contextual pressures are an important topic for future research.

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SUMMARY

National Culture and Union Membership: A Cultural-Cognitive Perspective

Moving beyond the normative and regulative perspectives of neo-institutional theory, this study adopted a cultural-cognitive perspective to study the influence of multiple dimensions of national culture on union membership. Cultural frameworks were compared using data from the World Values Survey that were matched to GLOBE and Hofstede national culture scores (n = 43,867 employees, 32 countries). Contrasts between GLOBE and Hofstede scores revealed that GLOBE culture constructs were better predictors and they also enabled an improved understanding of the relationships between national culture and union membership. This resolved the paradoxical lack of a significant relationship between collectivism and union membership in prior research. Specifically, union membership was positively related to institutional collectivism but not to in-group collectivism. Also, that fact that GLOBE Performance Orientation was negatively related to union membership explained why Hofstede's Masculinity was negatively related to union membership in prior research. Moreover, prior research on union membership tended to use either individual level (i.e., employees) variables, or macro level (i.e., country) variables to explain union membership. Recently developed statistical techniques enabled the analysis of both individual and country level variables in a hierarchical model. Results show that union membership was positively related to sex (female), education, and institutional collectivism, and negatively related to occupation (supervisors and professionals) and performance orientation. There were curvilinear relationships between union membership and age and uncertainty avoidance. Younger and older people were less likely to be union members. Low or high uncertainty avoidance increased union membership. The juxtaposition of the influences of Age and Uncertainty Avoidance on union membership revealed an interesting phenomenon. Opposing curvilinear relationships (concave vs. convex), suggested a complex yet interrelated relationship between age and uncertainty avoidance that is worthy of future research. At different ages people may use uncertainty avoidance differently to evaluate the risks and benefits of union membership.

KEYWORDS: Unions, collectivism, performance orientation

RÉSUMÉ

La culture nationale et la syndicalisation : une approche culturelle et cognitive

Voulant aller au-delà des perspectives normatives et régulatrices de la théorie néo-institutionnelle, cette étude se sert d'une perspective culturelle et cognitive pour étudier l'influence portée par les dimensions multiples d'une culture nationale sur la syndicalisation. Dans ce but, les structures culturelles ont été comparées en utilisant des données du World Values Survey qui ont été associés aux résultats de GLOBE et Hofstede sur la culture nationale (n = 43 867 employées, 32 pays). Des contrastes entre les résultats de GLOBE et de Hofstede ont démontré que ceux de GLOBE fournissaient de meilleurs indices et qu'ils offraient une meilleure compréhension de la relation entre

la culture nationale et la syndicalisation. Ceci a résolu le paradoxe concernant l'absence d'un rapport important entre le collectivisme et la syndicalisation dans les recherches précédentes.

Plus précisément, la syndicalisation a été associée de manière positive au collectivisme institutionnel, mais non pas au collectivisme en groupe. De plus, le fait que l'orientation de performance de GLOBE ait été associée de manière négative à la syndicalisation explique le rapport négatif entre la masculinité et la syndicalisation chez Hofstede dans les recherches précédentes.

Par ailleurs, les recherches précédentes sur la syndicalisation ont utilisé en général soit des variables au niveau individuel (c'est-à-dire des employés), soit des variables au niveau macro (c'est-à-dire du pays) pour expliquer la syndicalisation. Des techniques statistiques développées récemment ont permis l'analyse à la fois des variables individuelles et nationales dans un modèle hiérarchique. Les résultats ont démontré que la syndicalisation était associée de manière positive au sexe (féminin), au niveau de scolarité et au collectivisme institutionnel; la syndicalisation était aussi associée, de manière négative, au travail (superviseurs et professionnels) et à l'orientation vers la performance.

Nous avons aussi observé des rapports curvilignes entre la syndicalisation et l'âge et le désir d'éviter l'incertitude. Il est moins probable que les personnes plus jeunes et les plus âgées deviennent membres d'un syndicat. Un désir exceptionnellement bas ou haut d'éviter l'incertitude augmenterait la syndicalisation. La juxtaposition des influences de l'âge et du désir d'éviter l'incertitude sur la syndicalisation révèle un phénomène intéressant. Des rapports curvilignes opposés (concave et convexe) suggèrent un rapport complexe mais étroitement lié entre l'âge et le désir d'éviter l'incertitude qui mérite d'être approfondi dans des recherches ultérieures. Il est possible que les gens d'âges différents se servent différemment du désir d'éviter l'incertitude pour évaluer les risques et les avantages de la syndicalisation.

MOTS CLÉS : syndicats, collectivisme, orientation de performance

RESUMEN

La cultura nacional y el sindicalismo: una perspectiva cognoscitiva-cultural

Este estudio ha ido más allá de las perspectivas normativas y regulatorias de la teoría neo-institucional, al adoptar una perspectiva cognoscitiva-cultural para estudiar la influencia que las dimensiones múltiples de la cultura nacional tienen sobre el Sindicalismo. Se compararon los marcos culturales usando información de la Encuesta Mundial de Valores y los índices nacionales de cultura de GLOBE y Hofstede (n = 43,867 empleados, 32 países). El contraste entre los índices de GLOBE y Hofstede reveló que las construcciones culturales de GLOBE eran mejores pronósticos y pudieron brindar un entendimiento mejorado de las relaciones entre la cultura nacional y el Sindicalismo. Esto solucionó la paradójica falta de una relación importante entre el colectivismo y el Sindicalismo en estudios previos. De manera específica, el Sindicalismo se relacionó positivamente con el colectivismo institucional, pero no con el colectivismo grupal. Asimismo, el hecho de que la Orientación de Desempeño de GLOBE se relacionara

negativamente con el Sindicalismo, explicó la razón por la que la Masculinidad de Hofstede fue relacionada de la misma manera, en investigaciones anteriores. Aún más, las investigaciones previas sobre el Sindicalismo tuvieron la tendencia a usar ya sea las variables de nivel individual (por ejemplo, los empleados) o las de nivel macro (por ejemplo, el país) para explicar la misma. Las técnicas estadísticas desarrolladas recientemente hicieron posible el análisis tanto de las variables a nivel individual como de las nacionales, en un modelo jerárquico. Los resultados demostraron que el Sindicalismo estaba relacionado de manera positiva con el sexo (femenino), educación y colectivismo institucional y se relacionaba de manera negativa con la ocupación (supervisores y profesionales) y la orientación del desempeño. Se percibe una relación curvilínea entre el Sindicalismo y la edad y la tendencia a eludir situaciones de incertidumbre. Era menos probable que las personas más jóvenes o de mayor edad, pertenecieran a un sindicato. Una mayor o menor tendencia a eludir situaciones de incertidumbre aumentaba el Sindicalismo. La yuxtaposición de la influencia de la edad y la tendencia a eludir situaciones de incertidumbre sobre el Sindicalismo reveló un fenómeno interesante. Las relaciones curvilíneas opuestas (cóncavas contra convexas), sugirieron una relación compleja, aunque interrelacionada, entre la edad y la tendencia a eludir situaciones de incertidumbre, que vale la pena investigar a futuro. A diferente edad, las personas pueden utilizar de diferente manera la tendencia a eludir situaciones de incertidumbre con el fin de evaluar los riesgos y beneficios del Sindicalismo.

PALABRAS CLAVES: sindicatos, colectivismo, orientación de rendimiento