

## HOW “COLLECTIVE” IS UNION CITIZENSHIP BEHAVIOR? ASSESSING INDIVIDUAL AND COWORKER ANTECEDENTS

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### Abstract

<AB>Contributing to an emerging literature on solidarity or group norms effects on union participation, this paper article examines the extent to which union citizenship behavior (UCB) can be characterized as a collective phenomenon. Findings from studies of UK local government workers and teachers suggest that, for organization-focused behaviors, it is meaningful to think of collective or group-level UCB. Furthermore, group-level UCB had a significant positive association with individual-level UCB. ~~However, there was~~ There was n ~~No evidence, however,~~ indicates that a greater consistency of citizenship within a unit was associated with a stronger relationship between collective and individual citizenship behaviors. These findings suggest that it is worthwhile to analyseanalyze UCB as a collective phenomenon, and the authors call for more work on the contextual antecedents of union citizenship and participation.

Unions are essentially voluntary organizations and, given their typically low levels of income from members' dues, they are heavily dependent on the voluntary participation of

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members in conducting their ~~day-to-day-to-~~day functions (Willman 2001). Accounts of union “renewal” have typically emphasized the need for ~~the~~ active ~~member~~ involvement of ~~of~~ members (e.g., Fairbrother 2000; Fiorito 2004), with the way forward seen in terms of more participative unionism (Waddington and Kerr 1999), perhaps involving an “organizing model” (Fiorito 2004). ~~Nevertheless, even though~~~~However, whilst~~ member activism is seen as having a key role to play in the future of the union movement, the fact remains that only a minority of members volunteer for active roles in their unions, suggesting the existence of an activism problem (Fiorito et al. 2011). Under these circumstances, ~~it is important to develop~~ing our understanding of the factors that may motivate participation is important, if unions are to better develop their organizing and renewal strategies (Gall and Fiorito 2012).

In approaching this question, the literature has to date focused mainly on individual-level attitudes. Thus, based on their meta-analysis of prior studies, Bamberger, Kluger, and Suchard (1999) identified union instrumentality, pro-union attitudes, organizational commitment, and job satisfaction as key antecedents of individual members’ union commitment and participation. ~~Whilst~~~~Although~~ individual attitudinal antecedents of union commitment and participation appear to be important, we should not lose sight of the fact that unions are collective organizations, with union participation being a form of collective action. Consistent with this, Martinez, Fiorito, and Ferris (2011) ~~have~~ argued that there is a need to consider the role of work-group solidarity because, ~~since~~ pro-union behaviors may be motivated by normative social pressures in addition to individual self-interest. In this paper/article, we take this further, examining the extent to which union participation is a collective phenomenon, and whether individual members’ union

participation is influenced by the general level of participation in the work group, reflecting a “solidarity” or “group norms” effect.

Like Similar to other recent studies on union participation, we focus here on “union citizenship behavior” (UCB), conceptualized as discretionary member behaviors that benefit the union and/or fellow members (Fullagar, McLean Parks, Clark, and Gallagher 1995; Skarlicki and Latham 1996; Tan and Aryee 2002). Consistent with the approach initially taken in the organizational citizenship behavior (OCB) literature, where antecedents such as personality, job satisfaction, trust, perceived organizational support, and justice were emphasized (Organ, Podsakoff, and MacKenzie 2006), the work on UCB has been concerned primarily with individual, mainly attitudinal, antecedents and with the analysis of individual UCB (Fullagar et al. 1995; Skarlicki and Latham 1996; Tan and Aryee 2002). However, In addition, the OCB literature has begun to examine group-level OCB (Podsakoff and MacKenzie 1994; Podsakoff, Ahearne, and MacKenzie 1997), and findings suggest that coworkers’ OCB is an antecedent of individual group members’ OCB (Bommer, Miles, and Grover 2003).

In this paper, we examine the extent to which UCB can be characterized as an essentially collective phenomenon. First, we evaluate whether it is meaningful to think of collective or “group-level” UCB, whereby in which there is a degree of within-group consistency and between-group variability is observable at the level of the work unit. Whilst, Although there is some research has examined organizational citizenship in terms of the group-level characteristics of organizational citizenship (Podsakoff and MacKenzie 1994; Podsakoff et al. 1997), to date, union citizenship has been conceptualized solely at the individual level of analysis. This is surprising, given the long-

standing and traditional notion that union participation is a collective act of solidarity with one's fellow workers (e.g., Rose 1952; Kelly 1998). Second, we examine the relationship between ~~the individuals'~~UCB ~~of individuals~~ and ~~that the UCB~~ of their work group. We anticipate that group-level UCB will explain ~~additional~~~~any additional~~ variance in individual ~~level~~ UCB, beyond that explained by the individual-level antecedents identified in the union participation and citizenship literature (Bamberger et al. 1999). Finally, we suggest that the extent to which members of a work unit are consistent in their level of UCB will moderate the relationship between group and individual UCB. The argument here is that, when ~~re~~ group members are highly consistent in their behaviors, this sends a stronger signal to individuals about the "appropriate" way to behave (Bommer et al. 2003).

~~In the next two sections, Before describing our methodology and our two samples,~~ we provide the necessary background and rationale for our hypotheses, ~~before describing our methodology and our two samples.~~ We then describe the results ~~and, concluding the paper with a~~ discussion of their significance and implications.

### <H1>Individual-Level Antecedents

Based on their meta-analysis of the union participation research, Bamberger et al. (1999) developed a model of the antecedents of union ~~commitment and~~ participation ~~(with antecedents: organizational commitment, job satisfaction, pro-union attitudes, and union instrumentality as antecedents) as antecedents of union commitment and participation.~~ Their evidence suggests ~~eds~~ that the effects of job satisfaction and union instrumentality on union commitment are partially mediated by organizational commitment and pro-union attitudes ~~respectively~~, and ~~that~~ union commitment ~~was assumed to~~ mediate the

relationships between these attitudes and participation. According to their findings, all the associations are positive, with the exception of a negative direct effect of job satisfaction on union commitment (Bamberger et al. 1999: 311).

The suggestion is that union attitudes precede participation, providing the motivation to participate (Bamberger et al. 1999). Consistent with this, longitudinal studies of the association between union commitment and participation suggested that the causal link runs from the former to the latter. Thus, Fullagar and Barling (1989) estimated cross-lagged regressions for black and white members of a South African union, with self-rated union loyalty and participation at time 1 and at time 2 (eight months later). The analyses for the samples of both the black and the white workers samples suggested a unidirectional causal link from union loyalty to union participation, with no evidence of reverse causation. Fullagar, Gallagher, Clarke, and Carroll (2004) studied 134 members of the U.S. letter carriers' union over 10 years. Once again, the cross-lagged regressions were consistent with a causal link from self-rated union commitment to participation in union activities. The two studies used rather different measures of participation, with Fullagar and Barling (1989) examining "formal participation," such as participation in union meetings and elections, and serving as a union officer, whilst and Fullagar et al. examined "informal participation," defined as "unscheduled, extra-role acts that are supportive of the union" (Fullagar et al. 2004: 732). The suggestion here is that the causal link from commitment to participation may apply to both formal and informal activities.

Given that active union participation is essentially voluntary, recent some studies have conceptualized participation as a form of discretionary "union citizenship behavior" (UCB; Fullagar et al. 1995; Skarlicki and Latham 1996; Tan and Aryee 2002). We follow

this approach [here](#), and we distinguish between behaviors likely to benefit the union as a whole (such as speaking well of the union to others, distributing union information, serving on union committees, attending union meetings, and volunteering for union-related activities), referred to as UCB-organizational (UCB-O), and behaviors ~~focused on~~ [likely to helping](#) fellow members (such as helping others with problems, assisting them with their duties, and helping new members “learn the ropes” at work and in the union), ~~labeled~~ [referred to](#) as UCB-individual (UCB-I). One advantage of this conceptualization is that both [the](#) formal and [the](#) informal aspects of participation are included (Skarlicki and Latham 1996), avoiding the criticism [made](#) of some measures of participation [that they](#) ~~for~~ [concentrate](#) mainly on “administrative” and “formal” aspects (Fullagar ~~et al., McLean Parks, Clark, and Gallagher~~ 1995).

Studies of UCB have hitherto focused primarily on individual attitudinal antecedents. For example, Aryee and Chay (2002) ~~found~~ [found](#) that union instrumentality and perceptions of union support were associated with both UCB-O and UCB-I, ~~and Also~~. Tan and Aryee (2002) tested the Bamberger et al. (1999) model (~~including with~~ union socialization as an additional antecedent) using UCB as the participation measure. They found ~~similar~~ results [similar to those of](#) Bamberger et al., with all antecedents positively associated with union commitment, although, unlike ~~in~~ Bamberger et al., ~~they found there~~ [was](#) no significant direct path from job satisfaction to union commitment.

Based on ~~the prior previous~~ literature on union commitment and participation (Bamberger et al. 1999; Monnot, Wagner, and Beehr 2011), our model ~~includes~~ [incorporates](#) organizational commitment, job satisfaction, pro-union attitudes, union instrumentality, and union commitment as [the](#) antecedents of UCB. This provides a

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baseline model for our analysis of the effects of collective or group-level UCB on individual UCB.

### <H1>Collective Influences on ~~UCB~~ion-Citizenship Behavior

~~There has been~~ Considerable research has been done on how the group may influence individual attitudes and behavior at work. For example, research on group-level “absence cultures” shows how that social influence processes give rise to notions of “appropriate” levels of absence that, depending on group norms and customs (~~Johns and Nicholson, 1982;~~ Hausknecht, Hiller, and Vance et al. 2008). Similarly, Ehrhart and Naumann (2004) develop a “group-norms” approach to organizational citizenship behaviorOCB. They suggested that groups have norms concerning the performance ofOCB that, which are developed and maintained in a cyclical process, with group- and individual-level norms combining to determine individual OCB, which then reinforces the group norms. These effects are likely to accumulate over time, and attraction-selection-attrition theory also suggests that personalities, values, and OCB norms will become more alike within a group as time passes, in part through changes in group membership (Schneider, Goldstein, and Smith 1995).

Bommer et al., Miles, and Grover (2003) draw drew on social learning (Bandura 1977) and social information-processing theory (Salancik and Pfeffer 1978) to argue that coworkers’ OCB levels will have an effect on individuals’ OCB because, as individuals respond to the role models provided by their group and to social cues about their group’s values and beliefs. In other words, individuals are influenced in their displays of OCB by those the displays of their fellow group members. In support of these arguments, they

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[Bommer et al.](#) found that the “collective” or average OCB in an individual’s work group was positively associated with the individual’s own OCB. Furthermore, they found that this relationship was moderated by the “consistency” of OCB amongst group members, so that groups [where-in which](#) employees tended to perform OCB in a consistent manner (i.e., with a low standard deviation across OCB ratings for the group members) showed a stronger relationship between collective OCB and individual OCB. The suggestion here is that greater consistency in the behaviors of group members provides [a](#) clearer and more consistent role models and sends a clearer message to [individual](#) members about group values and beliefs, thus strengthening the social processes envisaged by social learning and social information-processing theories.

We suggest that such processes are also likely to operate [for in the case of union citizenship behavior](#) UCB. UCB is essentially a form of collective action and occurs in a social context, with members discussing union issues in the workplace, and with UCBs such as speaking to colleagues about the union, distributing union information, attending union meetings, and helping colleagues with work-related problems having a high degree of visibility amongst work colleagues. This suggests that UCB may be especially subject to social learning [because, as](#) individuals observe their work colleagues’ behaviors and learn that certain patterns of behavior are acceptable and appropriate (Bandura 1977). The industrial relations literature has long recognized that workplaces differ in their degree of union activism and militancy (e.g., Kelly and Nicholson 1980), and we suggest that such between-workplace variance in union activism [will be](#) underpinned by group processes. The implication is that group behaviors are transmitted to individuals, particularly through social learning effects, so that in workplaces with generally high levels of UCB,

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individuals will come to accept such behavior as normal and appropriate, and will themselves show high levels of pro-union behavior.

The literature on pro-union behaviors has addressed the notion of group solidarity effects. For example, going beyond the traditional economic explanations ~~of for~~ union voting behavior, Blader's (2007) findings suggested ed that individuals' identification with the union-organizing group was significantly associated with support for union certification and the vote cast in the union election. Looking specifically at group-level effects, Martinez ~~et al., Fiorito and Ferris~~ (2011) argued d that individual workers go beyond self-interest and want to show solidarity with their co-workers, based on a need to belong. Drawing on the theory of reasoned action, they suggested ed that normative or social pressures, as well as individual attitudes, ~~will~~ predict voting behavior in a union certification election. They provided d evidence ~~of for~~ this, ~~showing that with~~ voting behavior is significantly predicted by group-level attitudes towards unions, ~~and~~ accounting for variance in behavior beyond that explained by individual-level union attitudes. In a study of a faculty union in a large U.S. public university, Fiorito ~~et al., Tope, Steinberg, Padavic, and Murphy~~ (2011) found that the "activism context", a departmental average of per member activism, was positively associated with individuals' past and intended future activism. They interpreted this as evidence for the importance of department-level group effects, and, particularly, of the role of social networks in promoting active union participation. Interestingly, in their multivariate models they found no significant association between department union density and individuals' past and intended future activism. This suggests that contact with other activists, rather than with union members

generally, is important in motivating individuals to become active in their union; ~~since~~ high union density is not by itself an indicator of an activist department culture.

We hypothesize a work unit ~~level~~ solidarity or group ~~norms~~ effect. ~~as follows:~~

**Hypothesis 1:** Group-level UCB is positively associated with individual ~~level~~ UCB, and explains additional variance over and above that explained by individual attitudes.

~~There is~~ ~~Studies have~~ also ~~the~~ ~~suggested~~ ~~tion~~ that in work groups where members have very similar levels of UCB, social learning and social information processing will be more potent ~~because, as~~ messages and role models concerning appropriate behaviors are less ambiguous and more compelling (Bommer et al. 2003). ~~There are~~ ~~This~~ parallels ~~here~~ ~~with~~ the literature on organizational climates, which ~~has~~ defined *climate strength* as the degree of group agreement or consensus on individual ratings of climate ~~as~~ ~~“climate strength”~~ (Schneider, Salvaggio, and Subirats 2002). The argument is that consensual climates are characterized by ~~“situational strength”~~, which leads people to construe events similarly, to have similar expectations about appropriate behavior, and to be motivated to perform such behavior (Mischel 1976). This suggests that in groups ~~where there is~~ ~~that~~ ~~have~~ a higher degree of agreement on climate, individuals have a stronger tendency to think and behave in accordance with that climate; ~~in~~ other words, the degree of consistency moderates the relationship between climate and individual attitudes and behavior (Schneider et al. 2002). In line with such views, we hypothesize a moderating effect for the within-group consistency of UCB. ~~;~~

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**Hypothesis 2:** The degree of consistency of UCB within a work group moderates the relationship between group-level [UCB](#) and individual-[level](#) UCB. This relationship is stronger when the degree of consistency is high.

### <H1>Method

We tested our hypotheses ~~in-using~~ studies of UK local government workers and school teachers. We used two samples ~~in-order~~ to assess the generalizability of the findings, using identical research methods and measures ~~aeross-in~~ the two samples.

### <H2>Sample 1

Our first sample was drawn from UK local governments, specifically local authorities in Wales. These organizations are multipurpose authorities providing education, social care, regulatory services (such as planning), housing, welfare benefits, [and](#) leisure and cultural services. The research is based on a sub-sample of union members from the Local Government Workplace Survey in Wales (LGWSW), which was conducted in 2006 ~~to -~~ [2007](#). The full population of 22 unitary local government authorities in Wales were invited to participate in the study. Six of the authorities were unable to take part due to restructuring programmes (~~e.g. for example~~, service departments merging) ~~and/or~~ resource constraints.

In the broader LGWSW survey, a total of 6,625 employee questionnaires were distributed ~~aeross-in~~ 119 service departments in Wales with 1,755 responses received, providing an overall response rate of 27%. The survey was based on a sample of local government workers employed in eight service departments: Leisure [Services](#), [Human](#)

[Resources \(HR\)](#), Waste Management, Planning, Housing Management, Social Services (children's services), Education (excluding schools), and Revenue and Benefits. The departments were chosen to cover the typical range of occupational types in local government work, including manual work (Waste Management), clerical [and](#) ~~/~~administrative work (HR), professional work (Social Services), and non-professional work (Leisure Services). These departments provide most aspects of the local government service provision, with the nature of [the](#) service delivery varying between highly personalized services (e.g., children's social services) to physical resources (e.g., refuse collection and waste management). In only five authorities did fewer than eight service departments take part in the study, which was due to the ~~non-non~~compliance of individual heads of service. Nevertheless, responses were obtained from 119 of the potential 128 service departments.

A survey facilitator was nominated by the HR director in each of the participating authorities. The facilitators and their teams were given instructions on how to randomly distribute the questionnaires across the eight service departments [so that, in which](#) every  $n$ th person was given a questionnaire, [with](#)—  $n$  ~~being~~ calculated to provide a departmental sample of 60 employees. In all cases, the service departments received a maximum of 60 questionnaires. ~~Where~~[If](#) the service department consisted of fewer than 60 staff [members](#), ~~then~~ all staff [members](#) received a questionnaire. Completed questionnaires were returned individually to the university in sealed, pre-paid envelopes. Of the total number of responses received, 1,118 (64%) were union members, with UNISON ( $n = 841$ ) and the GMB ( $n = 142$ ) [as](#) the two largest unions. This figure is in line with average union density for the UK public sector as a whole ([Trades Union CongressTUC](#) 2003).

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We restricted our analysis to members of the main union, UNISON. Although including all unions might have increased the level of variance in UCB, but we were concerned that differences in UCB across unions mightay reflect union characteristics and policies as much as the individual attitudinal and group characteristics being examined in our model. We eliminated all departments with fewer than six6 UNISON respondents, in order to ensure an adequate group size for our analysis (see below). Along with the listwise deletion of missing values, this provided a sample of 583 members in 59 departments. Within this sample, the average local government tenure was 14.87 years, departmental tenure was 9.74 years, union tenure was 13.67 years, and average age was 41.56. Females accounted for 60.7% percent of the sample, and 72.5% percent were married or living as married. With regard to jobs, 41.3% percent were in clerical jobs, 6.4% percent were in associate professional jobs, and 42.0% percent were in professional jobs. Just 1.9% percent were in manual jobs, and 8.3% percent were in “other” job categories. Only 13.3% percent worked part-time, and 5.9% percent were on temporary contracts. Messersmith, Patel, and Lepak (2011: ~~1110~~) provided evidence of the representativeness of the overall sample survey.

## <H2>Sample 2

Our second sample consisted of members of the UK's National Union of Teachers (NUT) working as secondary-school teachers. During 2009, we sampled the largest 128 secondary schools with at least 20 NUT members, using the union's mailing list to distribute questionnaires to 6,420 members at their home addresses. We received 1,329 responses, an overall response rate of 21% percent, which includeding teachers from all the

schools sampled. We eliminated all schools with fewer than ~~six~~6 respondents, ~~in order~~ to ensure an adequate group size for our analysis (~~see below~~). This provided a sample of 1,242 members in 117 schools. Within this sample, average ~~time spent in~~teaching ~~experience~~ was 15.67 years, school tenure was 10.04 years, union tenure was 13.29 years, and average age was 42.49. ~~In the sample, 70%~~Seventy percent were female, and 71.1% ~~percent~~ were married or living as married. Only 16.8% ~~percent~~ worked part-time ~~or~~ /on supply, and 4.3% ~~percent~~ had temporary contracts. ~~We had~~A breakdown of the union's total membership by gender ~~showed that, with~~ females accounting ~~ing~~ for 68.50% ~~percent~~ of members working in secondary schools. This ~~was is~~ not significantly different from the 70.04% ~~percent~~ female ~~members~~ in our sample.

## <H2>Measurement

Unless otherwise mentioned, responses were on a seven-point scale from “Strongly disagree” (= 1) to “Strongly agree” (= 7). We measured Job satisfaction ~~with using~~ a three-item measure from the Michigan Organizational Assessment Questionnaire (Spector, 1997), and ~~measured~~ organizational commitment ~~with using~~ Meyer and Allen's (1997) six-item affective commitment scale. ~~We measured~~ Union instrumentality ~~was measured~~ using Sverke and Kuruvilla's (1995) “instrumental rationality-based commitment” scale. This ~~scale~~ includes ~~ed~~ seven indicators, formed by taking the square root of the product of a ~~question-survey item~~ of the form “The union's chances of improving my pay are great” and a corresponding ~~question-survey item~~ “To get higher pay is \_\_\_.”. Responses for the ~~former first~~ set of ~~questions-items~~ were on a ~~7seven~~-point scale from “Strongly disagree” (= 1) to “Strongly agree” (= 7); ~~responses, and~~ for the ~~latter second~~ set were on a ~~7seven~~-

point scale from “Very unimportant to me” (1) ~~= very unimportant to me~~ to “Very important to me” (7) ~~= very important to me~~. This scale provides an assessment of the extent to which the union is seen as able to satisfy salient personal goals, in that the extent to which the union is seen as being capable of achieving a specific outcome is weighted by the importance attached to that outcome. ~~with~~ The square root ~~being is~~ taken ~~in order~~ to keep the scale the same as other constructs. We replaced one set of questions, referring to the union’s chances of bringing a general improvement in “my work situation”; with a more specific question referring to the provision of union membership benefits. We measured general Pro-union attitudes ~~(refer to attitudes towards unions in general;~~ (McShane 1986), ~~measured with using~~ six survey items, for example: “Unions are a positive force in this country”;

Union commitment was measured ~~with using~~ six items based on Meyer and Allen’s (1987) affective organizational commitment scale, adjusted to focus on the union rather than the organization. ~~It has been common in the multiple commitments literature to~~ Adjusting the focus of Meyer and Allen’s affective commitment construct to different foci, to produce scales measuring commitments to the occupation, supervisor, work\_group, organizational change, and ~~to the union is common in the multiple commitments literature~~ (Meyer, Allen, and Smith 1993; Clugston, Howell, and Dorfman 2000; Herscovitch and Meyer 2002; Redman and Snape 2005). We used this in preference to the Gordon et al. (1980) union commitment scale, because many of the survey items in Gordon et. al. ~~items~~ appeared to us to be suited primarily to a U.S. context, with some of the language less meaningful to UK respondents.

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~~Union citizenship behavior (UCB)~~ was measured using Skarlicki and Latham's (1996) eight-item scale. Five items measured behaviors likely to benefit the union as a whole (UCB-O; e.g., "Speak well of the union to others") and three items focused on helping fellow union members (UCB-I; e.g., "Give up time to help others who have union- or non-union-related problems"). ~~The former was labelled as UCB Organizational (UCB-O) and the latter as UCB Individual (UCB-I)~~ Responses were on a five-point scale, from 1 = "Not at all" (1) to 5 = "At every available opportunity" (5).

~~Recall that~~ the distinction between UCB-O and UCB-I is ~~based on the~~ whether the primary beneficiary or focus of the UCB is ~~likely to be co-workers or~~ the union as an organization ~~or individual coworkers~~. ~~Note that~~ this is a different ~~question to from~~ the level of analysis (group level or individual level), which can be applied to both UCB-O and UCB-I. ~~Thus,~~ Group-level UCB is measured by averaging the individual-level UCB ratings within each department (for local government workers) or school (for teachers), and this is done for UCB-O and UCB-I separately. These group-level averages are based on individuals' assessments of their own UCB and reflect a "direct consensus" model, whereby the group-level construct is based on a summation of individual assessments. The definition of this group-level construct assumes some degree of within-group similarity in individual ratings (Chan 1998).

Finally, we calculated an indicator of the degree of consistency of UCB for each unit. This involved taking the standard deviation (SD) of member ratings of UCB within each unit. Schneider et al. (2002) argued that this is an intuitively appealing measure of disagreement, preferable to within-group interrater reliability,  $R_{wg}$ , which can occasionally exceed 1.0. To provide our measure of group-level UCB consistency, we reversed the

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~~measure this (using 1 -- standard deviationSD)~~, so that higher scores represented greater within-group consistency.

## <H2>Analysis

We evaluated the measurement model, based on seven latent constructs: Job satisfaction, Organizational commitment, Union instrumentality, Pro-union attitudes, Union commitment, ~~and~~ UCB-O, and UCB-I. This was estimated using three-item parcels per latent construct, with ~~the~~ items ~~parcelled~~ ~~parceled~~ at random (except for UCB-I, which was based on the three available items only). We then assessed the appropriateness of aggregating individual employee ratings of both UCB-O and UCB-I to the unit (department or school) level. For each of these constructs, we calculated ~~the~~ within-group inter-rater reliability,  $r_{wg}$ , for each unit (James, Demaree, and Wolf 1984; 1993), along with intra-class correlation coefficients, ICC(1) and ICC(2) (Bliese and Halverson 1998). Following Martinez ~~et al.~~, Fiorito, and Ferris (2011), who ~~analysed~~ ~~analyzed~~ group-level effects on individual union voting, we used hierarchical linear modelling (HLM) rather than ordinary least squares (OLS) regression to test our hypotheses. This is important because individuals were nested in departments or schools and so were not independent. ~~(This violates a basic assumption of OLS and, which as a result, would produces biased estimates of standard errors.)~~ Level 1 variables were grand mean-centered in the HLM analysis.

Our independent variable UCB and group-level UCB are same-source measures. To avoid common-source bias in our HLM analysis, we used the split-sample approach suggested by Schneider et al. (2005) and Ostroff, Kinicki, and Clark (2002). We randomly

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split each of our samples into two equal sub-samples, each with at least three members per unit. We then aggregated UCB for the first sub-sample, to provide a group-level data file ( $n = 59$  departments for local government workers and  $n = 117$  schools for teachers), whilst and used the second sub-sample to provide the individual-level file for the multi-level analysis ( $n = 292$  individuals for local government workers and  $n = 621$  individuals for teachers). As noted earlier, we excluded all units with fewer than six respondents, so that we had at least three respondents per unit providing the group-level UCB ratings, and at least three providing the individual-level variables, as recommended by Schneider et al. (2005: 1021).

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## <H1>Results

### <H2>Measurement Model

The measurement model, including with all seven latent constructs (Job satisfaction, Organizational commitment, general Pro-union attitudes, Union instrumentality, Union commitment, UCB-O, and UCB-I), provided a good fit for both the local government workers and for the teachers (see Table 1). In both samples, all indicators loaded significantly ( $p < 0.001$ ) on their respective latent variables. We compared this to the null model, to a single-factor model, and to a six-factor model (the latter last combining UCB-O and UCB-I to assess the discriminant validity of the two UCB dimensions). The null and single-factor models achieved a poor fit for both samples, and the model fit improved as we moved through the sequence from the null to the hypothesized seven-factor model, with significant improvements in chi-square and other fit indices. The improvement in model fit for the seven-factor model compared to the six-factor model provided support

for the discriminant validity of the two dimensions of UCB. Overall, this analysis provided support for the hypothesized ~~7~~seven-factor measurement model. Individual-level means, ~~standard deviation~~SDs, correlations, and alphas (all exceeding 0.8) are shown in Table 2, for both samples.

**{{Place Tables 1 and 2 about here}}**

## <H2>Aggregation of UCB

~~There was~~We found support for the aggregation of UCB-O to the unit level in both samples. There was strong evidence of within-unit agreement, with a median  $r_{wg}$  of 0.86 for local government workers and 0.75 for teachers. For local government workers, ICC(1) was 0.08 and ICC(2) was 0.45, with ~~figures-values~~ of 0.07 and 0.44, respectively, for teachers. These ICCs were lower than Schneider et al.'s (1998) ~~figures-values~~ of a median ICC(1) of 0.12 in the literature and suggested ICC(2) cut-off of 0.6, but ~~there was~~ significant between-department variance was present in both samples (local government workers:  $F$  statistic = 1.816,  $p < 0.01$ ; teachers:  $F$  statistic = 1.790,  $p < 0.01$ ). Furthermore, our ICCs for UCB-O were comparable to those ~~seen-found~~ in several studies (e.g., Schneider et al. 1998; Hofmann and Jones 2005), and it ~~is~~has been suggested that, when ~~re~~ ~~there is~~ a theoretical rationale for aggregation, a high  $r_{wg}$ , and significant between-group variance are present, ~~then~~ a relatively modest ICC(2) should not deter aggregation (Liao and Chuang 2007). ~~However,~~However, But, because this implies that the unit means have a higher degree of unreliability, which may lead to an attenuation of the correlations, ~~so~~ ~~that~~ in both samples our hypothesis tests involving group-level UCB-O ~~will~~ tend to be conservative (Hofmann and Jones 2005).

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In the case of UCB-I, ~~the~~ median  $r_{wg}$  was 0.44 for local government workers and 0.51 for teachers, suggesting very limited inter-rater agreement within departments ~~or~~ and schools. The ICC(1)s were 0.03 and 0.04 in the two samples, although the between-unit variance was significant for local government workers ( $F$  statistic = 1.325,  $p < 0.10$ ); and for teachers ( $F$  statistic = 1.440,  $p < 0.01$ ). The ICC(2)s were 0.25 and 0.30. It is perhaps understandable that the empirical justification for aggregation was weaker for UCB-I than for UCB-O ~~because, since~~ this is behavior aimed at specific co-workers and so may be more likely to reflect individual relationships and attitudes. In light of these findings, and particularly the lack of within-unit agreement in both samples, we concluded that it was not appropriate to aggregate UCB-I, and we did not proceed with the analysis of this construct as a ~~unit/department or school~~ unit-level variable.

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## <H2>Hypothesis Testing

The HLM results for local government workers and teachers are shown in Tables 3 and 4, respectively. We used ~~the results from~~ Bamberger et al. (1999) ~~results~~ as the basis of our individual-level analysis, with organizational commitment, job satisfaction, pro-union attitudes, union instrumentality, and union commitment as ~~the~~ antecedents of UCB-O. In effect, we controlled for these individual-level predictors and assessed the influence of group-level UCB-O.

**{{Place Tables 3 and 4 about here}}**

~~Looking at~~ As we can see in Table 3, Model 1 evaluated the relationship between individual-level UCB-O and the individual-level predictors (~~Job~~ Job satisfaction, Organizational commitment, Pro-union attitudes, Union instrumentality, and Union

commitment). For local government workers, these variables together explained 53% percent of the within-department variance in the dependent variable. Pro-union attitudes ( $\gamma = 0.16, p < 0.01$ ) and Union commitment ( $\gamma = 0.24, p < 0.01$ ) were positively associated with UCB-O, but neither Organizational commitment ( $\gamma = -0.06, p > 0.10$ ), Job satisfaction ( $\gamma = 0.01, p > 0.10$ ), nor Union instrumentality ( $\gamma = 0.06, p > 0.10$ ) were significant. For teachers (Table 4, Model 1), 44% percent of the within-school variance in UCB-O was explained by the individual-level predictors. Again, Pro-union attitudes ( $\gamma = 0.18, p < 0.01$ ) and Union commitment ( $\gamma = 0.31, p < 0.01$ ) were positively associated with UCB-O, whilst but Organizational commitment ( $\gamma = -0.03, p > 0.10$ ), Job satisfaction ( $\gamma = -0.02, p > 0.10$ ), and Union instrumentality ( $\gamma = 0.00, p > 0.10$ ) were not significant.

Our Hypothesis 1 suggest~~ed~~ that group-level UCB-O ~~would be~~is positively associated with individual-level UCB-O. Model 2 tested this by including group-level UCB-O as a level 2 predictor. The pseudo- $R^2$  suggested that this accounted for 28% percent of the between-unit variance in individual-level UCB-O for local government workers (Table 3), and 48% percent of the variance for teachers (Table 4). Group-level UCB had a significant positive association with individual-level UCB-O for both local governments workers ( $\gamma = 0.17, p < 0.05$ ) and teachers ( $\gamma = 0.23, p < 0.01$ ). ~~There was~~ Therefore, ~~both samples provide~~ support ~~for~~ Hypothesis 1 ~~in both samples~~, suggesting a group influence on individuals<sup>2</sup>-level UCB-O.

Hypothesis 2 suggest~~ed~~ that a greater degree of consistency of UCB-O within a unit ~~would be~~is associated with a stronger relationship between group-level UCB-O and individual-level citizenship behavior. We tested this by including group-level UCB-O, UCB-O consistency, and the interaction term between the two as group-level variables.

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Recent Discussions [in the literature](#) have suggested that ~~the~~ centering ~~of~~ variables when analyzing interaction terms does not alleviate problems of collinearity (Echambadi and Hess, 2007), so the results presented here do not involve centering ~~of~~ these variables. (~~Although~~ In fact, the results with centering led to identical conclusions ~~on~~ [in](#) our hypothesis tests.) The results are shown as Model 3 in Tables 3 and 4. For local government workers, group-level consistency ( $\gamma = -0.01, p > 0.10$ ) and the interaction term ( $\gamma = -0.03, p > 0.10$ ) were not significant. For teachers, again, group-level UCB-O consistency ( $\gamma = 0.18, p > 0.10$ ) and the interaction term ( $\gamma = 0.02, p > 0.10$ ) were ~~also~~ not significant. This provides no support for Hypothesis 2 and no evidence of moderation in either sample.

As explained earlier, ~~the above~~ [our](#) analysis involved a split-sample approach, with half the workforce in each group providing the rating of group-level UCB-O and the other half providing [ratings of](#) individual UCB-O ~~ratings~~. ~~Whilst~~ ~~Although~~ this counteracts common method variance problems, it resulted ~~in~~ ~~a~~ ~~the~~ halving of the level-1 sample size. To assess the effect of this, we repeated our hypothesis tests without splitting the samples, ~~providing~~ ~~using~~ level 1 sample sizes of 583 and 1,242 for the local government worker and teacher samples, respectively. ~~In fact~~ The conclusions were unchanged compared to the split-sample results shown in Tables 3 and 4. For local government workers, group-level UCB again had a significant positive association with individual-level UCB-O ( $\gamma = 0.74, p < 0.01$ ), and when group-level consistency ( $\gamma = -0.07, p > 0.10$ ) and the interaction term ( $\gamma = -0.06, p > 0.10$ ) were added, they were not significant. Similar findings emerged for teachers, with group-level UCB positively associated with individual-level UCB-O ( $\gamma =$

0.35,  $p < 0.01$ ) ~~and~~, with group-level consistency ( $\gamma = 0.37, p > 0.10$ ) and the interaction term ( $\gamma = -0.16, p > 0.10$ ) not significant.

Finally, we repeated the analysis for the pooled sample, combining local government workers and teachers, but retaining the split-sample approach. This provided a larger number of units at level 2, with a combined sample size of 176 units and 913 individuals. Again, the results were similar: group-level UCB had a significant positive association with individual-level UCB-O ( $\gamma = 0.28, p < 0.01$ ), but consistency ( $\gamma = -0.21, p > 0.10$ ) and the interaction term ( $\gamma = 0.13, p > 0.10$ ) were not significant. Overall, these findings suggest that our conclusions were not influenced by ~~such~~ sample size considerations.

## <H1>Discussion

~~A key~~ One aim of ~~the paper~~ this article is ~~was~~ to explore the “group” characteristics of UCB. Our aggregation analysis, using primary data drawn from departments in local authorities in Wales and secondary schools in England, provided support for the treatment of ~~organization focused UCB (UCB-O)~~ as a group-level variable. In contrast ~~However~~, ~~individually focused UCB (UCB-I)~~ showed little evidence of group-level properties. Recall that UCB-O includes such activities as speaking well of the union to others, distributing union information, serving on union committees, attending union meetings, and volunteering for union-related activities, ~~whilst~~ whereas UCB-I consists of helping other individuals with work- or union-related issues (Skarlicki and Latham 1996). It is perhaps understandable that ~~the former~~ UCB-O are more likely to be influenced by group-

level effects than are ~~the latter~~UCB-I, which ~~may beare~~ motivated more by individual characteristics and dyadic or very small-group relationships among~~st~~ co-workers.

A ~~key-second~~ aim of ~~the paper~~this article ~~is-was~~ to assess the possibility of a “solidarity” or “group-norms” effect for ~~union citizenship behavior~~UCB (Ehrhart and Naumann 2004; Martinez et al. 2011;). ~~(The-Our~~ aggregation findings suggested that it was appropriate to proceed with ~~the~~testing ~~of-our~~ group-level hypotheses for UCB-O only, so we did not proceed with the analysis of antecedents for UCB-I.)~~—~~Consistent with ~~our~~ Hypothesis 1, group-level UCB-O had a significant positive association with individual-level UCB-O for both local government workers and teachers. The finding of a significant association between group-level ~~UCB-O~~ and individual UCB-O is consistent with the view that UCB is, in part, a response to the role models and social cues provided by the work group; and is subject to social learning effects, whereby individuals observe their work colleagues’ behaviors and learn that certain patterns of behavior are appropriate (Bandura 1977). These findings are also consistent with earlier studies suggesting ~~that~~ group-level and solidarity effects ~~as-an~~influence ~~on~~pro-union behavior (Fiorito et al. 2011; Martinez et al. 2011).

The industrial relations literature provides another explanation for such contextual effects. Based on her longitudinal case-study research, Fosh (1993) argued~~s~~ that local union leadership may play a key role in building active member participation at ~~the~~ workplace level. She identified~~s~~ a participatory style of leadership, which avoids a “leave it to me” approach and, instead, seeks to involve members in discussing grievances and encourages them to appreciate the collective implications of issues. Her argument ~~is-was~~ that such a local leader is better able to build sustained member participation in response to



the surges of member interest that may accompany specific grievances. This suggests that differences in union participation and citizenship across workplaces may be explained in terms of differences in local union leadership, and [in terms of](#) the opportunities and motivations they provide for active participation by members. Of course, this account does not necessarily exclude the kinds of group-level effects [previously](#) discussed ~~above~~. Further research on these potentially complementary perspectives ~~would~~ [will](#) be worthwhile in providing a fuller account of how differences in workplace activism are initiated and sustained.

We found no evidence that greater consistency of citizenship within a unit was associated with a stronger relationship between group-level [UCB-O](#) and individual-level UCB-O. This was unexpected. ~~One possibility~~ [Possibly is that](#) this is attributable to a lack of statistical power ~~because, since~~ our sample sizes are not very large, especially when ~~using our~~ [we used the](#) split-sample approach. ~~However,~~ As we have seen, [however,](#) the results presented in Tables 3 and 4 ~~do~~ not differ significantly from those derived from [an analysis that does not not using a non-split the sample approach for local government workers and teachers, n, n](#) or from an analysis based on a single pooled sample. This suggests that sample size may not be the issue here. Instead, ~~it is possible that the~~ “situational strength” ~~argument is~~ [may simply](#) not [be](#) significant in the union case. For example, the presence of one or more strongly pro-union role models in a group may be sufficient to motivate others to be active ([as](#) reflected in the significance of mean group-level UCB-O), independent of the degree of uniformity of participation in the group (and hence no significant interaction for the consistency of UCB-O).

~~We should recognize~~ Note that our findings by no means rule out a role for individual-level attitudes as antecedents of UCB. The between-group variance in UCB-O, ~~whilst-although~~ significant, accounts for a relatively small proportion of ~~the~~ total variance, and individual attitudes explain a significant proportion of the individual-level variance in UCB-O. ~~What~~ Our study ~~has done~~ does, however, ~~is to~~ confirm the role of group-level UCB-O as an influence on individuals' UCB-O, which is consistent with a growing body of evidence on the role of group solidarity and individual attitudes as complementary perspectives in explaining union member activism (e.g., Fiorito et al. 2011; Martinez et al. 2011).

Our findings have implications for unions. We began by noting that, although ~~whilst~~ member activism has been seen as central to union renewal (Fairbrother 2000; Fiorito 2004), ~~there is evidence of~~ an activism problem is evident, with only a small minority of union members actively participating in their union (Gall and Fiorito 2012). Based on our finding of a positive association between the group level of UCB-O ~~in the group~~ and the individual group members' level of UCB-O, unions seeking to encourage the activism of their members would be advised to recognize the importance of group-level influences. Individual attitudes, including the perceived instrumentality of the union, are important and should not be ignored in union organizing, but ~~in when~~ when planning organizing campaigns, social processes should also be considered. This might, for example, involve designing participative structures ~~so as~~ to increase the opportunities for lay members to display their pro-union behaviors to co-workers and to interact ~~with~~ within and perhaps beyond the workplace, so that pro-union role modeling, social learning, and information processing are maximized. As we have seen, Fosh (1993) pointed to the role of local

leadership in encouraging member activism, and our findings suggest that encouraging local union leaders to empower members may help create a virtuous cycle of activism in that, as increased levels of participation in a group are likely to further encourage individuals to participate.

Our findings should, of course, be interpreted in light of the limitations of the study. First, common-method bias is often a concern with questionnaire-based studies. However, Our assessment of the measurement model, however, suggests that we are dealing with independent constructs. Furthermore, although we used a single survey, in testing our hypotheses we used a split-sample approach, whereby in which half the sample provided the assessment of group-level UCB-O and, with the other half provided eding the individual-level outcome measure of UCB-O. This suggests that our findings on the influence of group-level UCB are not attributable simply to common-method bias. Indeed, since because we assessed the influence of the non-common-source group-level UCB rating after controlling for common-source individual-level attitudes, it is likely that our findings probably provide a rather conservative estimate of the impact of group-level UCB. Second, in our two samples, we examined group effects only at the level of the in local government departments s and schools s. These were the primary work units of the employees concerned, with a degree of union activity focused at that level. However, We are aware that alternative definitions of “group” are possible, for example the particular local authority in the case of local government workers, and future studies might usefully evaluate alternative units of analysis when assessing solidarity and group-norms effects. Finally Third, we welcome Gall and Fiorito’s (2012) call for an integration of the union commitment and renewal literatures, and our findings underline the need to link this to

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contextual factors, analyzed in a multi-level context. ~~However, However, But~~ we recognize that we have examined [here](#) just one group-level factor and that ~~there is a need for~~ more research [is needed](#) on other contextual factors including, for example, workplace and union characteristics and climate, including local union leadership.

Our findings provide some evidence that the level of UCB in a group is positively associated with ~~the individuals'~~ [UCB of individuals](#). This finding contributes to an emerging stream of research emphasizing the importance of group-level and solidarity effects in union participation, and [it](#) suggests that ~~it is worthwhile to it is worthwhile to analyse~~ [analyzing](#) union participation and activism as a collective phenomenon ~~will be worthwhile.~~

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Table 1. Confirmatory Factor Analysis: Nested Measurement Models

<i>Model</i>	$\chi^2$	<i>Df</i>	<i>Change in <math>\chi^2</math></i>	<i>GFI</i>	<i>CFI</i>	<i>RMSEA</i>
Local government workers						
Null-model	7581.521	210	0.320	0.000	0.246	
1-factor	4718.051	189	2863.470***	0.494	0.386	0.203
6-factor	863.852	174	3854.199***	0.871	0.906	0.083
7-factor	630.665	168	233.187***	0.907	0.937	0.069
Teachers						
Null-model	16805.665	210	0.322	0.000	0.252	
1-factor	10911.414	189	5894.251***	0.482	0.354	0.214
6-factor	1388.187	174	9523.227***	0.894	0.927	0.075
7-factor	817.324	168	570.863***	0.940	0.961	0.056

Notes: CFI<sub>c</sub> = comparative fit index; df, degrees of freedom; GFI<sub>c</sub> = goodness of fit index;

RMSEA<sub>c</sub> = root mean square error of approximation.

\* indicates statistically significant at the 0.10 level; \*\* indicates statistically significant at the 0.05 level; \*\*\* indicates statistically significant at the 0.01 level.

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Table 2. Means, Standard Deviations, Correlations and Reliabilities, Means, and Standard Deviations.

	1	2	3	4	5	6	7
1. Union instrumentality	<b>0.84/0.89</b>	0.35***	0.11***	0.09**	0.45***	0.27***	0.12***
2. Pro-union attitudes	0.40***	<b>0.84/0.86</b>	0.06	0.01	0.49***	0.42***	0.24***
3. Organizational commitment	0.06	0.02	<b>0.80/0.81</b>	0.61***	0.12***	-0.01	0.03
4. Job satisfaction	0.15**	0.16***	0.57***	<b>0.88/0.93</b>	0.01	-0.06	-0.05
5. Union commitment	0.49***	0.52***	0.05	0.09	<b>0.84/0.88</b>	0.57***	0.32***
6. UCB-O <sup>a</sup>	0.33***	0.44***	-0.06	0.02	0.55***	<b>0.83/0.82</b>	0.59***
7. UCB-I <sup>b</sup>	0.20***	0.20***	0.02	0.08	0.31***	0.62***	<b>0.80/0.84</b>
Mean <sup>a</sup>	4.27/4.51	5.05/5.76	4.38/4.63	5.46/5.21	3.55/4.02	1.80/2.30	2.07/2.37
Standard deviation <sup>a</sup>	0.76/0.89	1.06/1.01	1.25/1.34	1.22/1.50	1.14/1.30	0.80/0.88	1.06/1.10

Notes: Values for local government workers are shown first and below the diagonal;  $N = 292$ . Values for teachers are shown second and above the diagonal;  $N = 621$ . Reliability coefficients are shown on the diagonal (boldface; local government workers first, teachers second). UCB-I, individual-focused union citizenship behavior; UCB-O, organization-focused union citizenship behavior.

<sup>a</sup> Values for local government workers first; values for teachers second.

<sup>a</sup> UCB-O = organization-focused union citizenship behavior, <sup>b</sup> UCB-I = individual-focused union citizenship behavior.

\* indicates statistically significant at the 0.10 level; \*\* indicates statistically significant at the 0.05 level; \*\*\* indicates statistically significant at the 0.01 level (two-tailed tests).

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Table 3. [Hierarchical Linear Modeling \(HLM\)](#) Analysis for Union Citizenship Behavior: Local Government Worker Sample

<i>Independent variable</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
Level 1 <sup>a</sup>			
Constant	1.76 (0.04)***	1.45 (0.15)***	1.51 (0.27)***
Organizational commitment	<u>-0.06</u> (0.04)	<u>-0.06</u> (0.04)	<u>-0.06</u> (0.04)
Job satisfaction	0.01 (0.04)	0.01 (0.04)	0.01 (0.04)
Pro-union attitudes	0.16 (0.05)***	0.15 (0.05)***	0.15 (0.05)***
Union instrumentality	0.06 (0.06)	0.06 (0.06)	0.06 (0.06)
Union commitment	0.24 (0.05)***	0.24 (0.05)***	0.24 (0.05)***
Level 2 <sup>b</sup>			
Group-level UCB-O		0.17 (0.08)**	0.14 (0.12)
Group-level UCB-O consistency			<u>-0.01</u> (0.46)
Group-level UCB-O $\times$ consistency			<u>-0.03</u> (0.20)
$R^2$ level 1 model	0.53		
$R^2$ level 2 intercept model		0.28	0.33

Notes: [Unstandardized coefficients](#). [Values in parentheses are unstandardized coefficients with standard errors in parentheses](#). [UCB-O, organization-focused union citizenship behavior](#).

<sup>a</sup> [N = 292 for level 1](#).

<sup>b</sup> [N = 59 for level 2](#).

\* [indicates statistically significant at the 0.10 level](#); \*\* [indicates statistically significant at the 0.05 level](#); \*\*\* [indicates statistically significant at the 0.01 level \(two-tailed tests\)](#).

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Table 4. Hierarchical Linear ModelingHLM Analysis for Union Citizenship Behavior: Teacher Sample

<i>Independent variable</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
Level 1 <sup>a</sup>			
Constant	2.28 (0.03)***	1.73 (0.14)***	1.53 (0.25)***
Organizational commitment	-0.03 (0.02)	-0.03 (0.02)	-0.03 (0.02)
Job satisfaction	-0.02 (0.02)	-0.01 (0.02)	-0.01 (0.02)
Pro-union attitudes	0.18 (0.03)***	0.18 (0.03)***	0.18 (0.04)***
Union instrumentality	0.00 (0.04)	0.00 (0.04)	0.00 (0.04)
Union commitment	0.31 (0.02)***	0.31 (0.02)***	0.31 (0.02)***
Level 2 <sup>b</sup>			
Group-level UCB-O		0.23 (0.06)***	0.29 (0.10)***
Group-level UCB-O consistency			0.18 (0.41)
Group-level UCB-O <u>✕</u> consistency			0.02 (0.16)
R <sup>2</sup> level 1 model	0.44		
R <sup>2</sup> level 2 intercept model		0.48	0.71

Notes:  $N = 621$  for level 1.  $N = 117$  for level 2. Unstandardized coefficients. Values in parentheses are with standard errors. in parentheses.

<sup>a</sup>  $N = 621$ .

<sup>b</sup>  $N = 117$ .

\* indicates statistically significant at the 0.10 level; \*\* indicates statistically significant at the 0.05 level; \*\*\* indicates statistically significant at the 0.01 level (two-tailed tests).

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