

**A CARTOGRAPHIC EXPLORATION OF EXTERNAL PRESSURES,
ORGANIZATIONAL CULTURAL VALUES AND WORK OUTCOMES: BRINGING
THE INDIVIDUAL BACK INTO INSTITUTIONAL THEORY**

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A CARTOGRAPHIC EXPLORATION OF EXTERNAL PRESSURES, ORGANIZATIONAL CULTURAL VALUES AND WORK OUTCOMES: BRINGING THE INDIVIDUAL BACK INTO INSTITUTIONAL THEORY

This paper addresses gaps in the Institutional Theory literature by proposing a theorization process model depicting how external institutional (e.g. union/non-union), and internal organizational cultural pressures are internalized by individuals and affect both positive (creativity) and negative (conflict) work outcomes. We use a multi-level cartographic analysis and the construction industry in the state of Michigan as our organizational field. Our results suggest that, with respect to Level One (Compete), an individual's organizational culture value congruence has greater predictive efficacy on both creativity and conflict than their internalized institutional pressures from unions. At Level Two (Converge), the individual's internalized pressure from unions however directly influences their organizational value congruence. Finally, at Level Three (Commingle), both internalized pressures and value congruence influence both positive and negative work outcomes in both direct and indirect ways.

From where do institutional values in organizations come and toward what outcomes do they lead? Both of these questions have received a great deal of attention from Institutional Theory (IT) scholars. These researchers have traditionally emphasized external institutional pressures and the isomorphic mechanisms through which organizations conform to these pressures (DiMaggio & Powell, 1983; Di Maggio & Powell, 1991; Meyer & Rowan, 1977; Meyer & Scott, 1992). More recently, IT scholars have begun to examine how taken for granted social structures initiate, facilitate or constrain organizational change (e.g. Dacin, Goodstein, & Scott, 2002; Greenwood & Hinings, 1993; Greenwood, Suddaby, & Hinings, 2002), and the available strategic choices that firms use to respond to external institutional pressures (Goodstein, 1994; Ingram & Simons, 1995; Oliver, 1991).

Current IT research has faced criticism in that while it rightly emphasizes the interplay of external loci of legitimacy considerations with the internal strategic choices of organizations, it pays short shrift to the individual values, meanings and interpretations that underlie institutionalization processes in organizations (Stinchcombe, 1997). Thus, the recent thrust in institutional theory can be greatly enriched by the recognition and reincorporation of individual values and cognitions, traditionally long at the center of IT (DiMaggio & Powell, 1991; Selznick, 1946).

Thus, this paper explores the complex relationships between individual alternative workplace values resulting from internalization of external institutional pressures, internal organizational culture pressures and their resultant work outcomes implications. Our conceptual framework suggests that individuals in the work place face both external institutional and organizational culture pressures (Greenwood & Hinings, 1996). These two broad alternative institutional values can be viewed as potentially a battle of "competitive commitments" because they represent alternative narratives and offer potentially different value sets through which the individual makes sense of organizational form and function (Greenwood & Hinings, 1996). Our model conceptualizes individuals as going through an individual-level theorization process (Greenwood, et al., 2002) during which they justify and make *meaning* of both external institutional pressures and internal organizational culture values (Zilber, 2002). Empirically, we explore the section of our model on how the individual's internalization of external institutional pressures (IP) and their organizational cultural value congruence (OVC) separately and

interactively influence both positive and negative organizational outcomes (see Figure 1). We examine our model using data from the construction industry in the state of Michigan in the early 1990s. The construction industry's well-defined nature and established union institutions make it a particularly appropriate representative organizational field to examine the workplace implications of external institutional and organizational cultural pressures (e.g. Eccles, 1981; Maloney & McFillen, 1984, 1985).

Thus, we extend the IT literature by addressing the interplay of external institutional pressures, organizational context and individual cognition and thus, help to unpack key components in the ideational dynamics associated with meaning, culture and values in organizations. Further, as the relationships between IP and OCV and their concomitant effects on both positive and negative organizational outcomes are likely to be complex (Ofori-Dankwa & Julian, 2002, 2004; Seo & Creed, 2002), we adopt a cartographic approach to explore the complex relationships between external institutional values, organizational cultural and both positive and negative outcomes (Julian & Ofori-Dankwa, 2008; Ofori-Dankwa & Julian, 2001).

THEORY

Institutional Theory has traditionally emphasized the need of organizations for legitimacy which they garner by conforming themselves in form and function to institutional pressures from the external environment (Dimaggio & Powell, 1983; Meyer & Rowan, 1977). Further development of IT led to the new institutionalism strand, with researchers emphasizing to a much greater extent the range of responses available to organizations in the face of institutional pressures to conform (e.g., Ingram & Simons, 1995; Goodstein, 1994; Greening & Gray, 1994; Oliver, 1991). Thus, organizations are pictured in the new institutionalism as having the capacity to resist such pressures, stressing an interplay between the values emanating from the external institutional environment, and those leading to a range of responses from acquiescence to defiance (Greening & Gray, 1994; Oliver, 1991).

Yet, amidst the new focus, an emphasis on individual cognition, sense-making processes and internal values, together the driving force of most individual work-related organizational activity, has been lacking (Zilber, 2002). Missing also has been an emphasis on the nature of individual cognitive responsiveness *vis a vis* institutional pressures (Seo & Creed, 2002). The new institutionalism may thus fail to adequately capture how organizational institutionalization occurs. In essence, the institutionalization process represents individual internalization and value acceptance of these organizational forms and functions (Stinchcombe, 1997). As Zilber (2002: 236) pointed out, individuals are important carriers of institutional meaning and, as such, form an important link in the steps from idea to legitimacy. Both external and organizational institutional pressures are meaningful only to the extent that individuals internalize the values associated with them, and make cognitive commitments to use them as the normative sources of praxiological information (Greenwood & Hinings, 1996; Karnoe, 1997; Weick, 1995). Thus, while IT currently places the examination of institutionalization at the organizational level of analysis (e.g. Greenwood, et al., 2002), the fundamental role of individuals in this process necessitates examining it at the individual level (Suddaby, et al., 2007; Zilber, 2002).

Individual Value Ideation Dynamics

Employees in the work environment abide at the vortex of external institutional and organizational culture pressures. Externally, the individual is exposed to pressures from powerful socio-cultural, technological, political and economic institutional forces. For example, individual

are the target of external pressures from institutionalized professional associations (Greenwood, et al., 2002) and trade unions (Erlich & Grabelsky, 2005; Gordon & Ladd, 1990; Hirsch & Macpherson, 2003). Internally, individuals also get influenced by institutional pressures from organizations in which they work, typically through the organization's culture (Chatman & Flynn, 2001). Yet how individuals internalize these external institutional and internal organizational pressures and the result of this internalization on work related outcomes has not been fully explicated in the IT literature.

Individual theorizing. While presented initially and primarily at the external environmental – organizational interface, the process of theorizing presents a potentially useful avenue to understand how individuals internalize pressures from both the external institutional environment and the internal organizational culture (Greenwood & Hinings, 1996; Greenwood, et al., 2002). As individuals face various pressures to conform from external institutions and their organization's culture, they “theorize,” making an assessment of the legitimacy and justification of these external and internal pressures (Greenwood, et al., 2002: 72). It is likely that several factors (some deliberative, some subconscious) will go into this theorizing process. For example, the perceived benefits to an individual coming from proposed changes by an external professional regulating agency may influence an individual's justification of them (Greenwood et. al., 2002). Similarly, an individual's family history, background and core values may, sub-consciously influence an individual's perception of the legitimacy or illegitimacy of trade unions (Erlich & Grabelsky, 2005). Thus, the extent to which individuals view external institutions and internal organizational culture as legitimate and congruent with their own values represents a crucial link between the emergence of a practice and its reification and institutionalization into the “way things ought to be.” For our purposes, the theorizing process will result in the extent to which external institutional pressures affecting the workplace are internalized by individuals in the workplace. The theorizing process will also ultimately result in an individual having a sense of the extent to which their values and those of the organization's culture are congruent.

Individual's internalized values and work outcomes. The extent to which individuals accept as legitimate or resist as illegitimate these external institutional and internal cultural pressures will have work outcome implications, some positive and some negative. In this, our model is consistent with of the earliest roots of institutional thinking, given that early scholars (Gouldner, 1954; Meyer & Rowan, 1977; Selznick, 1949) were not only interested in the process by which infusion of value and meaning into organizations occurred, but were also interested in understanding how the created meanings yielded different consequences, not all of them ultimately functional. Incompatibility between individual values and values associated with an institutional pressure may result in individual tensions and conflict and negative work place outcomes while compatibility may result in positive work-related outcomes (Seo & Creed, 2002). Such is consistent with a well-established stream of research suggesting that the extent of congruence of employees with those of their organizational culture could be associated with both positive and negative work outcomes (e.g. Caldwell, Chatman, & O'Reilly, 1990; Chatman & Flynn, 2001).

Research Implications

At the individual level of analysis, and broadly similar to current IT inquiries at the organizational level, the external institutional pressures and organization value congruence can be seen as alternative and potentially competing commitments (Greenwood, et al., 2002). This is consistent with the idea that institutionalization is a contest between different cognitive models (Strauss & Quinn, 1997; Zilber, 2002). To the extent that these two “contestants” can be seen as different institutional influences on the individual in the workplace, this raises the following related set of questions. What is the work-related importance of external institutional pressures and organizational value congruence? Do they each significantly influence important individual work-related outcomes? Do they differentially influence more of the positive or negative work-related outcomes? If they each influence work outcomes, then which of these has a greater effect, and thus should have the greater attention of researchers?

The second set of related research questions flow from the potential relationship between external institutional pressures and organizational value congruence. IT research, primarily at the organizational level of analysis, suggests that the relationship between external institutional pressures and internal organizational forms would range from strongly positive (associated with isomorphism) to a strongly negative (associated with organization defiance) (Ali, et al., 2006; DiMaggio & Powell, 1991; Oliver, 1991). To the extent that external pressures and value congruence mirror the organizational-level IT literature, there are likely to be involved in two alternative archetypical relationships, the complementary, where they are positively related to each other, and the conflicting, where their relationship is negative. Thus, our discussion above raises the following related set of questions. Do external institutional pressures substantially influence organizational value congruence? If this is so, to what extent and what type of relationship (complementary or conflictual) exist between them?

Finally, a third set of research questions stems from the potentially complex relationship between external institutional pressures, organizational value congruence and work related outcomes, especially if these are taken in their entirety. For example, external pressures could affect both value congruence and positive and negative work outcomes even as value congruence concurrently influences them. This raises the following related set of questions. What are the effects between external pressures, value congruence and both positive and negative work outcomes? What insights can be gained from decomposing these effects into their direct and indirect components?

STUDY CONTEXT

We use the construction industry in the State of Michigan in the United States in 1993 as our organizational field. There are several reasons for this choice. First, the construction industry in the state of Michigan has a clearly distinct community of organizations, suppliers and consumers and is highly regulated (Erlich & Grabelsky, 2005). Second, some firms in the construction industry use members from building trades unions while others use non union-workers and this provides us with an opportunity to explore the effects of external institutional values on individuals (Erlich & Grabelsky, 2005; Fine, Grabelsky, & Naro, 2008). Further, most workers have a choice as to whether to be union members or not, thus implying a degree of acceptance or non-acceptance of union values (Maloney & McFillen, 1984, 1985). Indeed, similar to the "regulatory agencies" addressed by Greenwood, et al., (2002: 61), unions form part of the arenas through which different parties (e.g. workers' representation and organizational management) interact. The processes and activities occurring in this arena will lead to

typifications of certain organizational elements, reifying them to institutional, taken-for-granted status.

Finally, unions play an important compliance monitoring role, engaging in both normative and coercive pressures for isomorphism and further establish such practices through training and education. On the other hand, non-union members lack involvement with an externally-based, legitimated institutional entity possessing a strong interest in workplaces norms and values (Erlich & Grabelsky, 2005). Thus, whether or not an employee is a member of a labor union adequately captures variance in the influence from an external institutional pressure. Further the fact that individuals can have dual value commitments to both unions and the organizations they are working in allows for an examination of the relationship and implications of external institutional pressures and organizational value congruence (Gordon & Ladd, 1990).

METHOD

The Cartographic Approach

To explore the potentially complex relationships between external institutional pressures, organizational value congruence, and positive and negative work outcomes, we will use a cartographic approach. This approach has recently been employed to empirically examine the relationship between two distinct but related strategic issue diagnosis frameworks (Julian & Ofori-Dankwa, 2008). While the utility of cartographic approaches has been well recognized in the literature (e.g. Burrell & Morgan, 1979; Lewis & Kelemen, 2002), such investigations have typically been carried out using primarily qualitative analysis (e.g. Hassard, 1993; Martin, 1992). The cartographic approach's quantitative emphasis moves toward a more comprehensive and nuanced exploration of the complex relationships between external institutional pressures, organizational culture, and their interactive effects on individual values and positive and negative organizational outcomes. In particular, by loosening the "methodological strait-jacket" typically associated with studies using quantitative approaches (Bettis, 1991), the cartographic approach provides researchers the scope for both "depth and breadth rigor" (Julian & Ofori-Dankwa, 2008: 111).

We undertake analysis at three levels drawn from Julian and Ofori-Dankwa (2008a). Level One (Compete) evaluates whether external institutional pressures or organizational value congruence has greater predictive efficacy with respect to both positive and negative organizational outcomes. Level Two (Converge) examines the relationship between external pressures and value congruence. Level Three (Commingle) research explores the concurrent direct and indirect relationship between external pressures, value congruence, and both positive and negative outcomes.

Data

We use data gathered from construction workers in three counties in the state of Michigan in 1993. Data collection utilized a modified version of the Michigan Organization Assessment (MOA) package developed at the Institute for Social Research, at the University of Michigan (Maloney & McFillen, 1984, 1985). A cross-sectional survey was conducted with construction employees registered at a regional State of Michigan Employment and Security Office. Using a sampling frame similar to Maloney and McFillen (1984, 1985), a list of 6,150 home addresses of registered employees was obtained. Survey instruments were mailed directly to the workers with pre-paid return postage envelopes. Eight hundred and ninety three surveys were returned (14.5% response rate) and 808 of these questionnaires had complete data. Of these, approximately 50%

(403) were employees in construction firms that only used union labor. The survey instrument consisted of two sections: employee's socio-demographic characteristics and employee perceptions to, and attitudes about, their work environment. The respondents in the survey were predominantly white (95%), male (97%), married (70%) and had an average age of 38 years, similar to Maloney and McFillen (1984) that reported demographics of white (94%), male (97%) and average age of 43 years.

Dependent Variables

Individual's creativity and conflict. The project-based nature of work in construction is different from manufacturing and services (Eccles, 1981; Quinn, 1970), in that it typically involves building a structure/edifice to plan specifications, while involving different crafts (e.g. masons, carpenters, electricians, etc.). This creates a real potential for conflict, with two likely sources being foremen and co-workers. It also makes important the extent to which individuals have autonomy to creatively resolve problems as they arise. We therefore measure the individual's levels of perceived conflict and their flexibility to be creative.

With respect to creativity, we used a three-item, 7-point Likert scale to measure the extent to which the respondents were able to be creative (all study items listed in the Appendix). The composite items tapped into the extent to which the respondents had the discretion and autonomy to creatively use their abilities, judgments and methods at work. The Cronbach reliability coefficient of this scale was .843.

With respect to conflict, we used a six-item, 7-point Likert scale to measure the extent to which the respondents had experienced conflict in their firm. The composite items tapped into the extent to which the respondents had experienced conflict with their supervisors and with their co-workers in the work place. The Cronbach reliability coefficient reliability of this scale was .858.

Independent Variables

Internalized External Institutional Pressures. Trade unionism in the construction industry is a well established institution, particularly in the state of Michigan (Erlich & Grabelsky, 2005; Fine, et al., 2008). Union and non-union firms in the construction industry can be described as having a different "organizational architecture" with different attendant institutional values (Brickley, Smith, & Zimmerman, 2003) because of substantial differences they have with respect to hiring practices, methods of rewarding individuals, hierarchy levels and pay (Eccles, 1981; Erlich & Grabelsky, 2005; Fine et al., 2008; Gordon & Ladd, 1990). Because workers in the construction industry have a choice of whether or not to be union members, we assume that union members, to a significant extent, accept the union's basic institutional values. We therefore measure the individual's internalization of the external institutional pressure from the unions using a dummy variable (non-union = 0; union = 1).

Organizational Culture Value Congruence. The culture of an organization embodies its internal institutions and therefore the culture of an organization is a pressure source that an individual will experience from an organization (Karnoe, 1997; Zilber, 2002). Thus, we measure the extent to which the individual has value congruence with the organization's culture. We measure the extent of organizational culture value congruence using a nine-item 7-point Likert scale. The Cronbach Alpha reliability coefficient for this scale was .913.

Controls

Using dummy variables, we controlled for several socio-demographic (age, gender, ethnicity, marital status, education) and trade classifications as well as overall affective attitude to the trade that an individual has to minimize the extent to which these could affect the key variables we were examining. Further, as respondents were originally classified into 20 craft groups, we aggregated and reclassified these 20 craft groups into six broad trades groups of carpentry, masonry, plumbing, electrical and equipment and miscellaneous, and five of these variables are used in regression models as controls. Finally, to control for an overall attitude that may be specific to the particular trade that an individual has, we used a one-item, 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7) reflecting the “overall satisfaction with working in my trade.”

Data Integrity

While self-report surveys have been long considered an appropriate research methodology, correlations between variables measured with the same method and from the same individual may be inflated due to common method variance (CMV). CMV is more prevalent when both independent and dependent variables are cognitions and when there are few items to measure each construct (Harrison, McLaughlin, and Coalter, 1996). We used a non-cognitive independent variable (external pressures) and multi-item scales (nine for organizational value congruence, six for conflict, and three for creativity). Also, as did Seibert, Kraimer, and Liden (2001), items for independent and dependent variables were placed in entirely different sections of the survey instrument.

Never-the-less, as a *post hoc* test to determine whether CMV was present in our data, we used Harman’s single-factor test, the most widely known approach for assessing CMV in a single-method research design (Podsakoff & Organ, 1986). Employing all perceptual items, the exploratory factor analysis yielded 10 separate factors with an eigenvalue > 1.0 , and the first factor explained only 37 percent of the variance, thus providing evidence that CMV is not prevalent. In addition, we also employed a varimax rotation of the perceptual data related to our multi-item constructs as used by Seibert, et al. (2001). Based on an item-loading cut-off of 0.50, factors emerged that clearly represented organizational value congruence, conflict, and creativity. The average item loadings were 0.75 for organizational value congruence, 0.84 for conflict, and 0.87 for creativity. Given these *post hoc* tests, we conclude that the potential for common method bias is low.

We also examined the measures of creativity, conflict and organizational cultural value congruence using confirmatory factor analysis. Satisfactory validity was shown with significant parameter estimates of measurement items and their variances and covariances at the 0.05 significance level and also high goodness of fit indices of the model, greater than 0.99.

The survey also contained three items tapping into the extent to which respondents who were union members had loyalty to both unions and organizations. This enabled us get a good idea of the extent to which the individuals surveyed had both union and organizational values. These items asked the extent to which respondents were “More loyal to my union than to the organization for which I work; Very little loyalty to the organization for which I work; Very little loyalty to both my organization and union.” We calculated the mean scores for each of the three

items and obtained average scores of 4.40, 2.80, and 1.94 respectively on a Likert 7-point scale, suggesting that both union and organizational values are of importance.

Finally, we ran a multi-collinearity check for a series of multiple regression models in our study. No variance inflation factor exceeded 1.62, and we thus conclude that multicollinearity is not present (Hair, Anderson, Tatham, & Black, 1998). In addition, we ruled out the possibility of interaction and non-linear effects by running these in our regression models and finding no statistical significance.

Statistical Analysis

In keeping with the cartographic approach, we conducted the following statistical approaches. At Level One (Compete), we use hierarchical regression models to examine whether external institutional pressures or organizational cultural congruence better explains variance in each of the positive (creativity) and negative (conflict) outcome variables. We follow the profiling of incremental R-squared method used by Spanos, Zaralis and Lioukas (2004: 158). Specifically, we test for the significance of the external institutional values and organizational cultural congruence measures, each after holding our control variables constant.

At Level Two (Converge), we use a regression model to assess the relationships between our external institutional value measure and organizational cultural congruence measure, while holding our control variables constant.

At Level Three (Commingle), relationships among constructs are considered at the same time and we use a path analytic approach to explore the direct and indirect relationships between external institutional pressures, organizational value congruence and positive (creativity) and negative (conflict) work outcomes.

RESULTS

Descriptive statistics and correlation coefficients are presented in Table 1.

Regarding Level One (Compete), as shown in Table, 2, external institutional pressures are significantly ($p < 0.05$) and negatively associated with conflict, resulting in an incremental R-square increase of 0.7%, though they are not significantly associated with creativity. Organizational value congruence is significantly ($p < 0.001$) and negatively associated with conflict and exhibits an incremental R-square increase of 21.6%. It is also significantly ($p < 0.001$) and positively associated with creativity and exhibits an incremental R-square increase of 18.3%. Contrasting the two, value congruence is clearly superior to external pressures in predicting both positive (creativity) and negative (conflict) work related outcomes.

Regarding Level Two (Converge), our results show a strong positive relationship between external institutional pressures emanating from the unionism and organizational value congruence measures, with a beta coefficient of .37, significant at ($p < 0.001$) (see Table 3).

Regarding Level Three (Commingle), the best fit model for the relationships between external institutional pressures, organizational value congruence, and positive (creativity) and negative (conflict) work-related outcomes is presented in Table 4. Value congruence has significant direct effects on both work-related outcomes, with a positive significant (0.23) effect on creativity and negative significant (-.46) effect on conflict. However, IP has a negative, direct and significant (-.22) effect on creativity, but in contrast with Level One, no direct effect on conflict. There obtained, however, a significant (.47) positive direct relationships between external pressures and value congruence. Finally, conflict is significantly (-.56), directly and

negatively associated with creativity. We further note that the total effect of external pressures on creativity is very small, due to countervailing direct and indirect effects, while their total effect on conflict is negative, due to the mediated effect through value congruence.

DISCUSSION

IT scholars have focused on institutionalization processes primarily using the organization as their unit of analysis (e.g. Ali et al., 2006; Greenwood & Hinings, 1993, 1996; Greenwood, et al., 2002). This study uses a cartographic approach that enables us to get different snap shots of the relationships between an individual's internalization of external institutional pressures (e.g. unions), their congruence to organizational cultural values, and both positive (creativity) and negative (conflict) work outcomes (e.g. Julian and Ofori-Dankwa, 2008; Ofori-Dankwa & Julian, 2001; Osigweh, 1989).

At Level One (Compete) of our cartographical analysis, we found that in the construction industry organizational value congruence has a much greater influence on both positive and negative outcomes than did external institutional pressures, represented by one powerful external institution, unions. If these two can be conceptualized as alternative cognitive frameworks (e.g. Strauss & Quinn, 1997; Zilber, 2002), then this finding suggests that greater attention should be paid to the individual institutionalized values that operate within organization boundaries and that rectifying past omission of this topic is likely to pay significant conceptual and theoretical dividends.

Along these lines, our finding leads to the question of why value congruence had a higher predictive efficacy than external pressures. For an individual in the workplace, organizational factors are more proximal, and hence more salient, than an external pressure source. In a sense this may be analogous to the attitude-behavior literature where specific job-related attitudes are more likely to be related to specific work-related behaviors than general job attitudes (e.g. Ajzen & Fishbein, 1980). Consequently, it is likely that the effects of OVC on work-related outcomes are likely to be more substantial than IP.

At Level Two (Converge) we found that external institutional pressures significantly and positively influence organizational value congruence. This is consistent with IT's general thesis of organizations conforming to external institutional pressures. Though they can be thought of as alternative value commitment narratives, there are two possible relationships between them: complementary or conflicting. A positive relationship between external pressures and value congruence suggests that, in the construction industry, these two are complementary and that individuals with union values had greater value congruence with their organizations. Our results at Level Two suggest that as organizations conform themselves to external institutions to gain legitimacy, this is mirrored at the individual level, and institutionalization at the external and organizational levels ultimately finds its grounding at the individual level of analysis (Strauss & Quinn, 1997; Zilber, 2002).

This raises the question of why the relationship between internalized external institutional pressures and organizational value congruence is complementary instead of conflictual and under what circumstances this relationship would be conflicting. We note that unions are an external institution associated with regulatory pressures, given the legal right they have to exist and bargain on behalf of workers, as well as the statutory sanction under which firms can fall if found in abrogation of a legally negotiated agreement (Breslin, 2003). Unions are thus, through regulatory institutional pressure, likely to result in greater conformity of an organization's culture with union-influenced worker expectations (e.g. Greenwood, et al., 2002). Hence, external

institutions associated with relatively strong regulatory pressures will lead to a positive relationship.

Finally, at Level Three (Commingle), we note that while Levels One and Two addressed the importance of external institutional pressures, in contrast, a more complete accounting for these effects afforded by Level Three suggested that, while such pressures have a variety of direct and indirect relationships with organizational situation, its total effects on work outcomes were somewhat minimal. Analysis at Level Three strongly cautions that relationships evident at simpler levels of cartographic complexity can be substantially altered when allowing for broader consideration and more nuanced modeling. For example, at Level One (Compete) we found that external pressures influenced conflict but not creativity. Yet, at Level Three (Commingle) we found that, once individual values were more fully taken into account through a more complex model, external pressures affected creativity rather than conflict. Given the complexities of the relationships between external institutional influence and the process of internal institutionalization, it may be perilous for researchers to conclude that only external institutions matter a great deal when seeking to consider the fuller scope of institutional terrain. We note here the importance of considering different loci of institutionalization in tandem, both external and internal, to identify the true effect of external institutions on organizational outcomes.

Our findings in their entirety suggest that internalized external institutional pressures had a positive effect on organizational value congruence and that these external pressures had a negative direct effect on creativity but an indirect one (through value congruence) on conflict. Our results may suggest that regulatory pressures also result in lower levels of conflict, because much is spelt out and rules are well delineated. But such pressures are also likely to lead to lower levels of creativity, given the restricted range for autonomous behavior. By the same token, it may be that where external institutions are associated with lower levels of regulatory pressure, and relatively higher levels of normative and cognitive pressures (e.g., Scott, 2001), different viewpoints, understandings and norms will lead to a more conflictual relationship between external pressures and value congruence. In such instances, individuals will have greater leeway and hence the possibility of an increased level of creativity, in part also influenced by the normative and cognitive variety that the pressures that are present generate.

Implications

Our identification of the centrality of individual values in the institutionalization process lends validity to the call for further consideration of “the guts of institutions” in understanding their formation and their effect on organizations (Stinchcombe, 1997; Suddaby, et al., 2007). While a great deal of work has occurred in explaining the effect of institutions, not enough inquiry has occurred regarding the process by which they come into being, particularly the role played by individual values. Our findings suggest useful avenues of further research.

While we examined the effect of only one external institutional pressure source (union/non-union), in reality there may be several other external institutional variables that bear on individuals and the workplace. These we did not deal with here. For example, there is a well-established stream of research suggesting that major external and national socio-demographic institutional shifts have important relational demographic implications at the work place (e.g. Chatman & Flynn, 2001). Consequently, more theorizing and empirical work is needed to further explore the existence and implications of multiple external institutional pressures.

Other features of our study are distinctive and add value to the IT literature, namely that of a focus on work outcomes and the role of individuals in institutionalization. Indeed, the work

outcome implications of institutionalization are important for IT, but they have received little attention in the literature. We are once again reminded after all that the institutionalization process occurs in and through individuals (Zilber, 2002), and it is the values that they hold and the commitments that these values lead them to make that yield not only legitimated organizational form and function, arrangement and activity, but also the work outcomes that translate institutional pressures into results either benefiting or hindering organizational and human thriving.

We also note that our findings demonstrate the value of more fully mapping out the institutional terrain through the cartographic approach applied here (Julian & Ofori-Dankwa, 2008; Ofori-Dankwa & Julian, 2001). The cartographic approach has various merits such as providing a comparison of a standard model with ones more complex. Given that most studies tend to take relatively positivistic approaches, we find value in future studies using a cartographic approach because it provides movement towards more comprehensive and nuanced explanations. These may be particularly helpful in mapping out useful avenues of inquiry at the onset of new research streams, such as the current interest in values and institutions.

Finally, we used the construction industry as our organizational field. The construction industry is in several respects substantially different from others, such as manufacturing and service. Yet, this organizational field captures writ large the team/project approach increasingly employed in both service and manufacturing contexts. For example, construction projects have been described as “quasi-firms” with a quasi-integration between the general contractor and subcontractors typically involving relationships between owners, the general contractor and various special trade contractors, who bring in their trade member specialists (Eccles, 1981). Such increasingly dynamic situations provide additional ideational convolutions in the path from idea to institution, and thus institutional inquiry in the construction industry has the potential to provide results relevant to the institutionalization issues of the future.

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TABLE 1. DESCRIPTIVE STATISTICS AND CORRELATION COEFFICIENTS AMONG VARIABLES

Variable	Age	Gender	Marriage	Ethnicity	Education	Satisfaction	External	Internal	Conflict	Creativity
N	807	795	782	801	775	798	808	804	807	791
Mean	37.892	0.965	0.705	0.953	0.622	6.130	0.499	4.910	2.686	5.450
Std Dev	9.522	0.184	0.457	0.213	0.485	1.266	0.500	1.443	1.224	1.330
<Correlation coefficients>										
Gender	0.045									
Marriage	0.265 ***	0.037								
Ethnicity	-0.016	0.057	0.131 ***							
Education	0.080 *	0.035	0.036	-0.041						
Satisfaction	0.144 ***	-0.047	0.026	-0.061 ^	0.080 *					
External	0.236 ***	-0.014	0.099 **	-0.012	0.018	0.026				
Internal	0.145 ***	-0.073 *	0.002	-0.018	0.006	0.350 ***	0.156 ***			
Conflict	-0.120 ***	0.013	0.019	0.024	0.004	-0.344 ***	-0.117 ***	-0.543 ***		
Creativity	0.104 **	-0.029	0.016	0.022	0.021	0.382 ***	0.021	0.515 ***	-0.644 ***	

*** p<0.001; ** p<0.01; * p<0.05; ^ p<0.10

TABLE 2. LEVEL ONE: HIERARCHICAL REGRESSION OF EACH VALUE INSTITUTIONALIZATION FACTOR ON EACH ORGANIZATIONAL OUTCOME

Parameter	<i>Conflict</i>			<i>Creativity</i>		
	Baseline	External	Internal	Baseline	External	Internal
Intercept	4.912 ***	4.942 ***	5.884 ***	2.869 ***	2.876 ***	1.912 ***
<i><Control variables></i>						
Sociodemographic characteristics						
Age	-0.011 *	-0.008 ^	-0.002	0.007	0.008	-0.001
Gender : Male	0.079	0.065	-0.049	-0.187	-0.191	-0.069
Marital status : Married	0.156	0.166 ^	0.094	-0.023	-0.022	0.042
Ethnicity : White	-0.016	-0.020	0.034	0.306	0.305	0.262
Education : College	0.087	0.086	0.058	-0.028	-0.028	-0.003
Job characteristic						
Job1 : Carpentry	0.075	0.048	-0.017	-0.104	-0.109	-0.015
Job2 : Masonry	-0.092	-0.106	-0.161	-0.048	-0.050	0.027
Job3 : Plumbing	-0.307 *	-0.274 ^	-0.422 **	0.221	0.227	0.325 *
Job4 : Electrical	-0.078	-0.056	-0.167	-0.090	-0.086	0.000
Job5 : Equipment	-0.171	-0.154	-0.196 ^	-0.052	-0.049	-0.038
Individual perception						
Job satisfaction	-0.320 ***	-0.321 ***	-0.159 ***	0.367 ***	0.367 ***	0.207 ***
<i><Diagnostic variables></i>						
External		-0.211 *			-0.039	
Internal			-0.425 ***			0.421 ***
Equation F	10.02 ***	9.71 ***	31.73 ***	10.16 ***	9.31 ***	27.36 ***
DF(1,2)	(11, 715)	(12, 714)	(12, 710)	(11, 700)	(12, 711)	(12, 695)
Incremental F		5.55 *	236.74 ***		0.16	191.58 ***
Model R-Square	0.134	0.140	0.349	0.138	0.138	0.321
Incremental R-square		0.007	0.216		0.000	0.183

*** p<0.001; ** p<0.01; * p<0.05; ^ p<0.10; betas are reported.

**TABLE 3. LEVEL TWO: RELATIONSHIPS BETWEEN
VALUE INSTITUTIONALIZATION FACTORS
AND BETWEEN ORGANIZATIONAL OUTCOMES**

Parameter	<i>External on Internal</i>	
	Baseline	External
Intercept	2.327 ***	2.274 ***
<i><Control variables></i>		
Sociodemographic characteristics		
Age	0.019 ***	0.014 *
Gender : Male	-0.286	-0.260
Marital status : Married	-0.152	-0.166
Ethnicity : White	0.083	0.096
Education : College	-0.081	-0.080
Job characteristic		
Job1 : Carpentry	-0.231	-0.186
Job2 : Masonry	-0.208	-0.183
Job3 : Plumbing	-0.283	-0.343 ^
Job4 : Electrical	-0.226	-0.268
Job5 : Equipment	-0.092	-0.123
Individual perception		
Job satisfaction	0.387 ***	0.389 ***
<i><Diagnostic variable></i>		
External pressure/Conflict		0.369 ***
Equation F	10.28 ***	10.60 ***
DF(1,2)	(11, 722)	(12, 711)
Model R-Square	0.137	0.152
Incremental R-square		0.015

*** p<0.001; ** p<0.01; * p<0.05; ^ p<0.10; betas are reported.

TABLE 4. LEVEL FOUR: DIRECT AND INDIRECT EFFECTS AMONG CONSTRUCTS

Endogenous variables	Total effects			Direct effects			Indirect effects		
	External	Internal	Conflict	External	Internal	Conflict	External	Internal	Conflict
Internal	0.472	0	0	0.472	0	0	0	0	0
Conflict	-0.216	-0.457	0	0	-0.460	0	-0.216	0	0
Creativity	0.014	0.485	-0.562	-0.215	0.229	-0.562	0.229	0.257	0

Fit function=0.0015; GFI=0.9992; AGFI=0.9923; Chi-square=1.2086 (df=1); RMR=0.0075; CFI=0.9997; NNI=0.9984; NFI=0.9984

APPENDIX A: MEASUREMENT SCALES

Construct	Measurement items	N	Mean	Std Dev	Construct validity		Reliability
					Factor1	Factor2	Cronbach Alpha
Internal	I am proud to tell others that I am a part of this organization.	797	5.152	1.864	0.881		0.913
	I am proud to be able to tell people that I am a member of my organization.	798	5.217	1.852	0.832		
	I talk up my company to my friends as a great organization to work for.	799	4.844	1.904	0.811		
	This organization really inspires the very best in me in the way of job performance.	799	4.562	1.922	0.785		
	I am extremely glad I chose this organization to work for over others I was considering at the time I joined.	798	4.721	1.889	0.740		
	I really care about the fate of this organization.	799	5.362	1.818	0.740		
	I find that my values and the organization's values are very similar.	794	4.441	1.983	0.730		
	This is the best of all possible organizations for me to work for.	794	3.980	2.108	0.701		
	I am willing to put in a great deal of effort beyond that normally expected in order to help my company be successful.	799	5.912	1.435	0.531		
Conflict	Foreman's ability to manage	796	3.240	1.835	0.863		0.858
	Treatment by foreman	794	2.904	1.784	0.863		
	Foreman's understanding of the kind of work you do	795	2.794	1.661	0.873		
	Treatment by co-workers	792	2.255	1.251		0.876	
	Unfriendliness of co-workers	803	2.215	1.386		0.794	
	Disrespect you receive from co-workers	798	2.733	1.582		0.795	
Creativity (Autonomy)	Chance to do something that utilizes my abilities	790	5.570	1.387	0.774		0.843
	Freedom to use my own judgment	790	5.399	1.592	0.924		
	Chance to try my own methods to do the job	790	5.382	1.574	0.917		
Job satisfaction	Overall, I am satisfied with working in my trade.	798	6.130	1.266			
Loyalty to union and organization	I am more loyal to my union, than to the organization for which I work.	385	4.400	2.110			
	I feel very little loyalty to the organization for which I work.	385	2.840	1.930			
	I have very little loyalty to both my organization and union.	386	1.940	1.510			

1: Strongly disagree; 2: Moderately disagree; 3: Slightly disagree; 4: Neither agree nor disagree; 5: Slightly agree; 6: Moderately agree; 7: Strongly agree