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# Institutional Pressures And Employee Willingness To Conform To Newly-Designed, IT-Enabled Work Roles: The Impact Of Employee Perceptions Of Work Process Variability And Analyzability

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## Introduction

Many organizations have responded to an increasingly competitive business environment by redesigning their work activities via IT-enabled business processes. These reengineered business processes often require employees to use new IT-based platforms to accomplish their work. Employees, however, are often unwilling to use computer technology that, if used, would result in significant performance gains (Davis, Bagozzi & Warshaw, 1989). A major issue, therefore, is the employees' willingness to conform to their newly-designed work roles as reflected by their use of these IT-based platforms.

Scott (1995: 43) states that "Institutional frameworks define the ends and shape the means by which interests are determined and pursued." This paper examines and contrasts the relative importance of the "three institutional pillars" (Scott, 1995) -- regulative, normative, and cognitive institutional pressures -- in influencing an employee's willingness to conform to a newly-designed, IT-enabled work process. Using Perrow's (1967) concepts of task variability and task analyzability, it is proposed that an employee's *perception* of the variability and analyzability of the new, IT-enabled work process, *relative to the old work process*, will influence which set of institutional pressures has the most impact on the employee's willingness to conform.

## Employee Perceptions Of New Work Process

Perrow (1967) states that organizational tasks can be characterized by two dimensions: task variability and task analyzability. Task variability is defined as the "degree to which stimuli are perceived as familiar or unfamiliar" (:195). A task that is perceived by an employee as familiar is high in variability, and a task that is perceived as unfamiliar is low in variability. Here, the task is the new work process relative to the old work process. Task analyzability refers to the nature of the problem undertaken by the employee when task variability occurs (Perrow, 1967). The task problem may be well understood; in this case there is a high level of task analyzability. Or, at the other end of the continuum, the task problem may be "so vague and poorly conceptualized as to make it virtually unanalyzable" (Perrow, 1967:196). In this case the employee's task problem is determining what switching behaviors are involved in moving from the old process to the new process. By dichotomizing the two dimensions of perceived new work process variability and analyzability, a 2x2 matrix can be formed (see Figure 1, adapted from Perrow, 1967).

low ↑ new work process Analyzability* ↓ high	<b>Semi-Routine</b> New work process is perceived as being familiar, but it is not clear to the employee what switching behaviors are involved in moving from the old process to the new process.	<b>Non-Routine</b> New work process is perceived as being unfamiliar, and it is not clear to the employee what switching behaviors are involved in moving from the old process to the new process.
	<b>Routine</b> New work process is perceived as being familiar, and the behavior required to switch from the old process to the new process is clearly understood by the employee.	<b>Semi-Routine</b> New work process is perceived as being unfamiliar even though the behavior required to switch from the old process to the new process is clearly understood by the employee.
	low ←	→ high
	new work process variability*	

Figure 1 Adapted from Perrow (1967) \*as perceived by the employee relative to the old work process

Previous research, using various intention models (e.g., Fishbein's & Ajzen's theory of reasoned action and Davis' technology acceptance model), has shown that internal beliefs and attitudes impact behavior (Davis, et al, 1989). Therefore, an employee's perception or belief about how routine the new work process is, relative to the old work process, will impact that employee's individual interests regarding their willingness to conform to a newly-designed, IT-based work process. Institutions, as primary vehicles for shared meanings and regulative processes (Scott, 1995), exist as the context within which those interests operate (Goodrick & Salancik, 1996).

### **Institutional Pressures**

Scott (1995: 33) defines institutions as "cognitive, normative, and regulative structures and activities that provide stability and meaning to social behavior." Goodrick and Salancik (1996) suggest that uncertainty and risk are major determinants in how institutional pressures influence the behaviors of organizational actors and that within an organizational context a core set of institutional standards exists for which there is strong agreement and certainty. Cognitive institutional pressures are those "taken for granted" shared meanings that define the social reality within an organization. As a result, cognitive institutional pressures are strongest when employee behaviors and actions are "the enactment of broad institutional scripts rather than a matter of internally generated and autonomous choice, motivation and purpose" (Meyer, Boli & Thomas, 1987:13). Core institutional standards, for which there is strong agreement and certainty, I argue, will exist through the "capturing" of these broad institutional scripts; hence, the "taken for granted" aspects that drive employee behaviors will be the basis of these cognitive institutional standards.

Regulative institutional pressures consist of explicit rules, laws, and formal sanctions that are legally sanctioned within the organization (Scott, 1995). Due to the explicit nature of regulative institutional pressures, I argue that core institutional standards, for which there is strong agreement and certainty, will also exist through long-term acknowledgment of these rule systems. It is important to note that employees can acknowledge and agree with the *validity* of these rule systems without necessarily viewing the rule systems as fair or justified (Scott, 1995). In short, core institutional standards for which there is strong agreement exist through cognitive and regulative institutional pressures. Hence, in situations of certainty where there exist core institutional standards to guide behavior, cognitive or regulative institutional pressures will exert the strongest influence on resulting behaviors.

Alternatively, in situations where the institutional standards that exist are at the margins of uncertainty and there is not strong agreement, I argue that normative institutional pressures will most strongly influence behaviors. In these situations the resulting uncertainty gives rise to discretion, and employees may use their own interests to guide their behavior (Goodrick & Salancik). These interests, however, are still bounded by institutional pressures within the organization (Goodrick & Salancik, 1996; Scott, 1995). Normative institutional pressures are prescriptive in that they are based upon values and norms and provide employees with normative expectations about what they are supposed to do. Employees perceive themselves as having roles -- "conceptions of appropriate action for particular individuals or specified social positions," (Scott, 1995: 38). And, in times of uncertainty, they rely on these roles to guide their behaviors. Without the existence of institutional standards for which there is strong agreement, I argue that employees, *still bound by institutional pressures within the organization* (Goodrick & Salancik, 1996), will make choices structured by institutional values and norms because of social expectations and feelings of obligation based upon their roles. Hence, normative institutional pressures will have the strongest influence in situations of perceived uncertainty where there do not exist core institutional standards for which there is strong agreement.

Table 1 below gives the key characteristics associated with low and high work process variability and analyzability as well as the level of uncertainty and risk associated with each.

An employee's overall perception that a new work process is routine leads to employee perceptions of low uncertainty and risk in conforming to the new work process. This places routine work processes at the lowest end of the risk spectrum. Goodrick and Salancik (1996)

Table 1 (\* as perceived by the employee)

<b>new work process relative to old work process*</b>	<b>uncertainty / risk*</b>	<b>key characteristic*</b>
low variability	low	familiar
high variability	high	unfamiliar
low analyzability	high	not well understood
high analyzability	low	clearly understood

An employee's overall perception that a new work process is routine leads to employee perceptions of low uncertainty and risk in conforming to the new work process. This places routine work processes at the lowest end of the risk spectrum. Goodrick and Salancik (1996) suggest that core institutional standards for which there is strong agreement exist at both the highest and lowest levels of risk. Hence, either cognitive or regulative institutional pressures will have the strongest influence on employee behavior. Vandenbosch and Higgins (1996) report that when people encounter a problem that is similar to ones that have been solved in the past, they typically apply previously successful strategies to solve the problem. Therefore, an employee who perceives their new work process as being routine is likely to rely on their stored procedural memories which can be automatically triggered as substantial chunks of behavior (Cohen & Bacdayan, 1994). The employee is unlikely to take time to seek out explicit rules to guide their behavior; therefore regulative institutional pressures will not have a strong influence. Thus,

*P1: Cognitive institutional pressures have a stronger influence on an employee's willingness to conform to a newly-designed work process than regulative institutional pressures the greater the extent the employee's overall perception of the new work process, relative to the old work process, is routine.*

An employee's overall perception that a new work process is non-routine leads to employee perceptions of high uncertainty and risk in conforming to the new work process; this places the work process at the highest end of the risk spectrum. Again, either cognitive or regulative institutional pressures will have the strongest influence on employee behavior. It is unlikely that the employee will automatically rely on their stored procedural memories in this situation. Instead, the employee is likely to engage in a problem solving process involving a search for new rules to solve the unfamiliar problem (Vandenbosch and Higgins, 1996) which is not well understood. The employee can use these rules to guide their work activities without fully understanding the new work process (Connor and Prahalad, 1996). Thus,

*P2: Regulative institutional pressures have a stronger influence on an employee's willingness to conform to a newly-designed work process than cognitive institutional pressures the greater the extent the employee's overall perception of the new work process, relative to the old work process, is non-routine.*

When an employee's overall perception is that a new work process is semi-routine, one of two possible variability-analyzability combinations has been perceived by the employee. In both cases, one of the factors leads to employee perceptions of high uncertainty and risk in conforming to the new work process while the other factor leads to employee perceptions of low uncertainty and risk. This high-low mixture places the employee's perception of risk within the intermediate range of the risk spectrum. Goodrick and Salancik (1996) state that particularistic interests will have the most effect at intermediate levels of risk because uncertainty about institutional standards is most present. As discussed previously, however, these interests will be influenced by normative institutional pressures where the choices and behaviors of the employee will be structured by institutional norms and values. Therefore, normative institutional pressures will have a strong influence on employee behavior. It is unlikely that cognitive institutional pressures will have a strong influence because either unfamiliarity with the work process or not clearly understanding switching behaviors would make automatically relying on stored procedural memories ineffective. It is also unlikely

that regulative institutional pressures will have strong influence because being familiar with the problem or clearly understanding switching behaviors would make an intense search for new rules inefficient. Thus,

*P3: Normative institutional pressures have a stronger influence on an employee's willingness to conform to a newly-designed work process than cognitive institutional pressures the greater the extent the employee's overall perception of the new work process, relative to the old work process, is semi-routine.*

*P4: Normative institutional pressures have a stronger influence on an employee's willingness to conform to a newly-designed work process than regulative institutional pressures the greater the extent the employee's overall perception of the new work process, relative to the old work process, is semi-routine.*

Institutional influences are based upon each employee's individual *perceptions*. For researchers, this basis of employee perceptions points out the importance of longitudinal studies using interpretivistic approaches. For managers, they must not only recognize the potential influence of institutional pressures on their employees' conformance to newly-designed work processes, but they must also realize that different sets of institutional pressures may have stronger influence on conformance for different employees. The importance of institutional pressures is often unrecognized in an organization's efforts to redesign and restructure their work activities. This paper has suggested that ignoring the existence of cognitive, regulative, and normative pressures may end in unexpected results since these institutional pressures strongly influence employees' conformance to their newly-designed work roles as reflected by their use of their new IT-based work processes.

**References available upon request from author**