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Ethics-In-Action: An Application Of Structuration Theory In Professional Service Firms

Jesse F. Dillard
Portland State University

Kristi Jane Yuthas
Portland State University, yuthask@pdx.edu

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In Professional Service Firms

Jesse F. Dillard
KPMG Professor
School of Accounting
University of Central Florida
Orlando, FL 32765
407-823-0596
jesse.dillard@bus.ucf.edu

Kristi Yuthas
Assistant Professor
School of Business Administration
Portland State University
Portland, OR 97207

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Abstract

A theoretical base for studying ethics in action is developed. In previous work, we propose a responsibility ethic, normative stakeholder theory, and discourse ethics as components of ethical decision making within organizational contexts. Here, we argue that structuration theory provides theoretical depth and conceptual integration to the ideas presented in our earlier work. The previous work is briefly discussed and structuration theory is reviewed. Ethically informed action is formulated within the context of structuration theory as a consideration and instantiation of structural features. Ethical action is predicated on the agent's accountability within the context of an ongoing community. Accountability requires the explication of reasons for one's actions and the justification, or legitimation (normative grounds) for the reasons given. The question of expert systems applications within a professional service organization is used as the vehicle for illustrating how the theoretical ideas might be implemented in identifying and addressing ethical dilemmas.

ETHICS-IN-ACTION:
AN APPLICATION OF STRUCTURATION THEORY
IN PROFESSIONAL SERVICE FIRMS

INTRODUCTION

Codes of conduct, codes of ethics, ethics sensitivity and training programs, employee selection criteria, etc. all hold significant potential for enhancing ethical cultures and ultimately behavior within organizations. The critical issue is what changes are actually brought about in the day to day behavior of those acting in, and on behalf of, these organizations. The primary question relative to ethical initiatives is what changes might be anticipated and how to interpret the changes observed. Sophisticated ethics programs in some settings produce little noticeable effect. On the other hand, organizations with seemingly inconsequential formal programs exhibit stellar behavior. What can account for the significant difference, and more importantly how can changes be brought about that will enhance the propensity for more reasoned ethical behavior? We propose structuration theory as a framework for studying organizational behavior by focusing on both the social and organizational structures, how they are enacted, constructed, and reconstructed by the actions of the individuals. The theory provides a representation of the process by which agents give reasons and provide justifications, or grounds, for the reasons for action. Further, the theory suggests that the instantiation of ethical structures by decision makers is central to establishing an ethical organization environment as well as bringing about changes.

Structuration theory has been employed in various aspects of the organizational literature. Ranson, et al. (1980), Pettigrew (1985, 1987), Barley (1986), and Willmott (1987) propose it as a basis for studying organizations. Barley and Tolbert (1997) propose its use as a means for enriching and extending institutional theory. Orlikowski (1992, 2000) and DeSanctis and Poole (1994), and Dillard and Yuthas (1997) employ it to study information systems and their application within organizations. Roberts and Scapins (1985), Macintosh and Scapins (1991, 1992), and Macintosh (1994, 1995) discusses structuration theory and its employment in conjunction with studying accounting systems in organizations. However, little if any work has attempted to use structuration theory to study ethics within organizations.

The purpose of our discussion is to illustrate how structuration theory provides depth to the ethical consideration of advanced information technology (AIT) applications using professional service firms as an example. The following discussion is a continuation of a program of applied ethics research that addresses the ethical structures in business organizations. Specifically we have been concerned with the ethical climate and decision making environment within professional service organizations related to advanced information technology applications. In this paper we apply the integrated conceptualization previously developed (Dillard and Yuthas, 2000) using structuration theory, responsibility ethic, and stakeholder theory in investigating the ethical issues and organizational processes associated with the application of advanced information technology in professional service organizations. We revisit the application of expert systems within such organizations (Dillard and Yuthas, forthcoming-2). The analysis illustrates the organizational dynamics associated with and the context surrounding ethical decision making.

In an application of a responsibility approach to systems development (Yuthas and Dillard, forthcoming), we specify the *what*, *who*, and *how* components of systems development. The responsibility ethic is proposed as the ethical system that addresses the issue of *what* systems to develop and their use. Stakeholder theory identifies the affected groups *who* should be considered participants in system development. Emancipatory systems development methodology provides a methodology of *how* systems development can be conducted as an inclusive, socio-politically informed process. Here, we propose structuration theory as a theory incorporating the dynamic interactions of social structures and

human agency that provide a socio-political description of the organizational context of ethical system development and as such aids in understanding *why* certain actions are taken.

Dillard and Yuthas (forthcoming-2) claim that normative stakeholder theory combined with a responsibility ethic provides breadth to the traditional ethical studies in professional service organizations, and other organizations as well. Dillard and Yuthas, (2000) argue that structuration theory adds depth by integrating the dynamic interaction of social structures and human agency in moments of co-presence as well as the continuation of the resulting social structures across time and space. In the following discussion, we show how structuration theory can enrich the ethical analysis associated with the application of advanced information technology in professional service organizations discussed in Dillard and Yuthas (forthcoming-2). We provide a theoretical framework that situates action within its larger social context.

There are three levels at which the ethical implications of AIT can be analyzed. The first level questions the social, political context that motivates the persistent drive toward economic efficiency and instrumental rationality. The central question being: Is the socio-political system that motivates consideration of an application ethical? An intermediate level, and the one of primary interest here, concerns the ethics of applying AIT within a given context. The central question being: Is the application of the AIT system ethical? The third level addresses the ethical characteristics or ideology imbedded within the AIT system. The central question is: Is the system ethical? Further, there is a sequential consequence of analysis. Taking the perspective of the firm, or more accurately those in decision making positions therein, different stakeholders are the focus of ethical considerations at different stages in the AIT project: the expert at the design/development phase; the user and client at the implementation phase; and the investors and regulators with the results. Each stakeholder-firm dyad can be analyzed with respect to the ethical implications by evaluating previous actions of the actors, accountability criteria, and the action taken, within the context of an ongoing community. For each dyad, some set the material and social characteristics needed for legitimate ethical issues to be considered can be specified. The ethical behavior results from the calling forth these characteristics by the agents acting in circumstances of copresence and thus instantiating social structures through the actions taken.

Building on the example presented in Dillard and Yuthas (forthcoming-2), we construct "ideal types" or scripts (Barley and Tolbert, 1997) of the structural characteristics that, when instantiated by the action of an agent, constitute legitimating structures associated with the design, development, implementation, and application of AIT within professional service firms. The accompanied signification structure characteristics are also discussed. As in the prior work, we will use the example of an audit expert system (AES) applied within a professional services firm.

PREVIOUS RESEARCH

The current study builds on our previous work where the literature is reviewed and the theoretical perspective is developed. In this section, we briefly review the preceding work and related literature.[1] The cognitive decision making models have dominated the ethics literature, at least in accounting (see Louwers, et al., 1997). This perspective is firmly grounded in the positivist tradition both theoretically and methodologically. The cognitive processes are assumed to be those associated with rational decision making and that with the appropriate incentives the individual will make decisions consistent with the desires of the organization. Such a perspective takes an engineering view of organizational change in that ethical "technologies" that have been implemented have failed to bring about the desired "improvements" in ethical decision making. While there is an extensive literature emanating from the rational decision making perspective, there is little consensus as to how to design codes of ethics, incentive systems, or programs that will promote ethical decision making. Further, there is also little understanding as to how the individuals who are exposed to these treatments are affected or what the effect is on the organizations within which they are implemented. Though these programs seem to have some effect, the results evidence little consistency, and there is little in terms of explanation as to why these inconsistent results occur. Structuration theory sees ethical structures (values and norms) as an integral part of the organization context that facilitates social integration. Structuration theory attempts to address one of the paradoxes of structural theories: identical ethical programs can

result in different outcomes.

The consideration of the resolution of ethical dilemmas within professional service firms have traditionally been seen to revolve around ethical codes of conduct or ethics, that ostensibly specified the relationship the professional is to maintain with its specific constituencies as well as society (Preston, et al., 1995). Preston, et al. (1995) and Williams (1992) have noted that the current professional environment has reformulated the dominate norms and values as those consistent with the commodity market dynamics leaving little space for higher level values. As a result, market place norms are the foundation for rules of professional behavior. The more aesthetic considerations for improving the "human condition" or "acting in the public interest" are filtered through the market tenets. Thus, the focus is on the individual decision maker and how his or her cognitive make up influences ethical considerations. The criteria for evaluation are generally tied to the prevailing market motivated codes.

In our previous work (Dillard and Yuthas, forthcoming-2), we proposed a responsibility ethic as an expansion to the cognitive perspective.[2] An individual's ethical actions are seen to be a function of the interpretations of past actions, the anticipated response to anticipated actions within the context of an ongoing community. A normative stakeholder[3] is proposed as a means for identifying the members of the ongoing community within which the professional carries out his or her responsibilities. The stakeholder groups are identified, their interests are articulated, and the associated rights and interests are specified. The ideas contained in the theory of communicative action are put forth as providing guidelines for engaging in the conversation among the stakeholder groups.[4] Structuration theory[5] provides a theoretical framework that considers both the social structures that enable and constrain action as well as the relationship between the actor, the structures and the action.

STRUCTURATION THEORY

According to Giddens (1984), structuration theory has two primary components: structure and agency. Structures are rule-resource sets that reflect the patterning of social relations across time and space and are understood as reproductive practices, providing the context for integration. Agency is the ability of a human being to act purposefully, knowledgeably, and reflexively. The means for integration are the instantiated actions of social agents. That is, rules and resources (structures) existing only as memory traces of the agents and instantiated in action, are recursively implicated in the reproduction of social systems. Structuration refers to the process of structuring social relations across time and space by virtue of the duality of structure. The duality of structure is the process whereby social structures enable and constrain human action and at the some time are constructed and reconstructed by that action. Structuration theory formulates how social systems reach across time and space to facilitate social and system integration. Social integration is the reciprocity of practices between co-present agents at a given moment in time and space. The system integration is the reciprocity of practices between agents or collectives across time and space.

As illustrated in Figure 1, Giddens proposes three primary categories or properties of a social system: structure, modality, and interaction. *Structures* are rules and resources organized as properties of social systems. *Modalities* are the means by which structures are translated into action. *Interaction* is the action or activity instantiated by the agent acting within the social system. Giddens identifies three types of structure: signification, domination, and legitimation, each with a mediating component represented as: interpretative schemes, facilities for attaining goals, and norms. Concepts imbedded in the structure are given specificity by social agents through the application of the agents' stocks of knowledge. The interaction of the agent and the structures results in action, or reaction, manifested as communication, power and sanctions.

***** Enter Figure 1 here *****

Giddens formulates two types of structure: rules and resources. Rules are seen as either being normative or interpretive. Normative rules represent structures of *legitimation*, while interpretive rules represent structures of *signification*. Legitimation structures are made up of rules that identify legitimate or moral conduct within a social system such as an organization or professional service firm. These structures represent at varying levels the norms and values that "make things seem" appropriate or ethical. The normative rules are translated and "verbalized" by social agents as specific rights and obligations, and sometimes codified as policy, rule or law, accompanied by sanctions and/or rewards.

Signification structures consist of shared knowledge and organizing rules that guide social interaction. Interpretive rules create signification or meaningful symbolic systems that provide ways for actors to perceive and interpret events. The reflexive interaction of interpretative schemes and stocks of knowledge result in communication among the social agents. The signification structures thus influence the manner in which actors understand themselves and attach meaning to their surroundings.

Resources represent the second type of structure. *Domination* structures determine who has access to resources. Two resource categories are identified: allocative and authoritative. Allocative resources relate to material, or economic, resources such as materials, natural resources, wealth, etc. and result from domination over nature. Authoritative resources represent nonmaterial resources, such as human beings, and result from the domination of some actors by others. Resources provide the means, or facilities, for realizing specific social goals or objectives. The realization of such goals results in the manifestation of power by those agents controlling the resources.

In our previous work, we have argued that structuration theory provides depth to the normative formulations by recognizing that action results from the dynamic interaction of human agency and social structures in moments of copresence and the constitution and reconstitution of social systems across space and time. These characteristics of an ongoing community can be useful in understanding how agents act and react as they engage in professional activities as well as articulating a theoretical relationship among norms and values, power, and communication. The shared social structures provide integration mechanisms for forming and maintaining social systems whereby rights and responsibilities as well as resource control are specified and operate over time and space. Structuration theory indicates that ethical behavior as well as changes therein cannot be made independent of the agent or the social structures that exist within the social system. Structures of power and meaning both influence and are influenced by norms and values. Responsibility and accountability as well as the requisite sense making take place over time as a result of the integrating structures operating within the prevailing social order. Changes in behavior require changes in the way the actor frames and communicates, in the norms and values held, and in the allocation and distribution of resources. Through jointly held social structures, social systems enable and constrain action over time and space. Reciprocally, the agent constructs and reconstructs the social structures through his or her social reactions.

In the remainder of this paper, we discuss how structuration theory can be used in what we term "ethics in action." Next, we will discuss a way of explaining how a professional engages in ethical behavior, the interaction of the social structures, and the instantiation of structures in the act of doing represent the enactment, and ongoing context, of norms and values. Changes in ethical behavior are brought about through the day to day actions and interactions that take place. We are concerned with what behavior might be anticipated, how changes might be brought about, and how the implications of the changes might be interpreted. The illustrative example in the following discussion considers the application of advance information technology within a financial services firm.

<div align="center">STRUCTURATION THEORY AND ETHICS IN ACTION</div>

Structuration theory can provide a framework for understanding the interaction among external technical frameworks,[6] social structures, and individuals acting within these contexts. The analysis focuses on the facilitating social structures that serve as templates for taking action. Ethical codes of conduct provide idealized structures for behavior. There are structures in the "code" and structures in action; each interactively shaping the other. In order to understand how action is motivated and change takes place, it is necessary to understand the interaction among the structures and the agent. This requires an analytical distinction among the social structures, an articulation of how the agent interacts, and therefore acts, as well as the recognition that ethical social structures are only instantiated in the moment of action.

Giddens (1984) describes accountability as the intersection of interpretative schemes and norms.

> The idea of 'accountability' in everyday English gives cogent expression to the intersection of interpretative schemes and norms. To be 'accountable' for one's activities is both to explicate the reasons for them and to supply the normative grounds whereby they may be 'justified'. Normative components of interaction always centre upon relations between the rights and

obligations 'expected' of those participating in a range of interaction contexts. Formal codes of conduct, as for example, those enshrined in law (in contemporary societies at least), usually express some sort of claimed symmetry between rights and obligations, the one being the justification for the other. But no such symmetry necessarily exists in practice…. Normative sanctions express structural asymmetries of domination, and the relations of those nominally subject to them may be of various sorts other than expressions of the commitments those norms are suppose to engender. (p. 30)

Having identified accountability as central to responsible and thus ethical behavior, we now argue that the intersection of interpretative schemes and norms provides an appropriate point at which to study ethics in action. Implementing structuration theory we specify the structural properties of the legitimation and signification structures that must be considered in AIT applications. However before we do so, we discuss some of the structural properties that might be useful in understanding and exploring ethical systems.

The Spirit of Structural Features

Ethical systems can be described as having two dimensions: structural features and spirit[7] of these features. Following Giddens, the structural features are the specific characteristics contained in the ethical system. The spirit of the ethical system is its general intent which provides a normative framework concerning behavior that is appropriate and helps understand and interpret the implied meanings within the framework. The ethical spirit is a property of the ethical statement/code presented as a guide for behavior. Its spirit is not the intent of the drafters because it is impossible to totally capture the intent within the statement. Neither is it the actor's perspective or interpretation. The spirit can be understood by a hermeneutical reading of the text. Relevant questions are: what goals are being promoted? and what values are being supported? If contradictions arise either within the specifications or among affected parties, there is evidence of a lack of coherent spirit or underlying thrust. With respect to individuals and collectives, a coherent spirit is more likely to channel behavior in an intended or specific direction than one that has a fractionalized spirit. The spirit and features form the structural potential that the agent(s) draw upon to instantiate particular social structures in action. The particular social structures are a result of their instantiation by the affected parties. For example, a formal and efficient statement might promote a parsimonious, step by step, data oriented approach to ethical decision making. Actors would be expected to stick very closely to the procedures set forth.

Appropriation

The concept of appropriation as useful in understanding the underlying processes used as an actor interacts with others. Appropriations are the "immediate, visible actions that evidence deeper structuration processes" (DeSanctis and Poole, 1994 p. 128). Evaluating appropriations provides insight into how a given norm or value is employed. Appropriation of certain ethical structures becomes evident as an agent, or groups of agents: make judgments as to whether or not to consider certain structural features; actually instantiate the structures in action; and/or develop interpretations of the meaning of an ethical structure. As noted above, structuration theory allows for ethical structures to stabilize over time as they are used in a consistent way as well as change through use, intentionally or unintentionally. Social structures are instantiated in and provide a framework for action. Ethical structures are produced and reproduced as the frameworks are applied by agents. Over time, new social structures may develop representing the interrelated dynamics with other structures as well as with the task situation or environment. Once the emergent structures are instantiated, they may become institutionalized.

Agents actively select how ethical structural features are used. The adoption varies, and the features can be chosen from a large set of alternatives. DeSanctis and Poole (1994, p. 129-130) identify four aspects of appropriation that agents may choose that represent possible variations in the interactive processes. First, the agent can decide the extent to which a given norm or value is used. In this regard, the norm or value may be directly used, may be used in relation to the task, situational, or environmental contexts, may be used to interpret or constrain a primary criteria, or may be used to make judgments about other criteria. Second, a choice is made as how features will be appropriated relative to the spirit of norms and values. Third, the agent can choose to use the norms and values for different instrumental uses or purposes. Fourth, the

agent's attitude sets the tone for instantiation of the ethical structures (pp. 129-130).

Ethics in Action

Ethical codes can be seen to embody particular symbolic properties.[8] These properties are politically, economically, and socially organized phenomenon instantiated in time and space as well as transcendent over time and space. In Giddens' terms, these properties make up social systems. Recurrent social practice produces and reproduces a particular structure of ethical behavior. The structures are emergent, not prespecified. Ethics in action represents the use of the symbolic properties and makes no assumptions about stability, predictability, or relative completeness of the ethical criteria. It focuses on what legitimating structures emerge as agents interact recurrently with whatever criteria are at hand. Users shape ethical structures that in turn shape their use. Ethical structures are not external or independent of human agency and are virtual, emerging from repeated and situated instantiation. These enacted structures, ethics in action, are the sets of rules and resources that are constituted and reconstituted in copresent interaction among agents.

Ethics in action involves repeatedly experienced, personally ordered and edited versions of symbolic properties being experienced differently by different individuals and differently by the same individual depending on the time and circumstances. The use of any particular symbolic property or set thereof is influenced by images, descriptions, rhetorics, and ideologies. Specific social structures are routinely enacted as the particular symbolic properties are used in everyday situated activities. Some symbolic properties that are available do not exist to the agent because s/he is unaware of their existence while others are strongly implicated. Only when symbolic properties are instantiated in recurrent social practices do they structure actions. Saying that instantiation is situated does not mean that action is totally open to all possibilities. The more a particular set of symbolic properties is integrated into a larger social system, the narrower the range of alternative uses available. The more complex the context, the stronger the inclination toward standardization and routinization. Over time regular instantiations become expedient and habitual and possibly institutionalized. However, it must be kept in mind that these symbolic properties and their instantiations may be changed as agents experience changes in awareness, knowledge, power, motivation, and circumstances.

In the next section, we develop symbolic property or structural sets what might arise from the consideration of designing, developing, and implementing an expert system within a professional service firm. In doing so, we provide an illustration, and "ideal type," of legitimating structures that can be used to compare actual instantiated structures. The ideal type incorporates the components of a responsibility ethic described earlier.

<div align="center">AN ILLUSTRATION OF ETHICS IN ACTION</div>

In this section we illustrate how symbolic properties could comprise an instantiated legitimation structure. As noted earlier, holding the agent accountable requires that s/he explicates reasons and provides normative grounds for the reasons, represented in Giddens' formulation as an intersection of the legitimation and signification structures. We specify the signification and legitimation properties and postulate the instantiated action or outcome that would indicate the interacting modalities. The example is based on the analysis reported in Dillard and Yuthas (forthcoming). The analysis is undertaken from the vantage point of the professional service firm as it considers the implementation of advanced information technology represented in the form of an expert system that will carry out audit tasks currently requiring the expert judgment of a skilled consultant. The new system will result in the use of lesser skilled staff in carrying out the task. The constructs of the responsibility ethic are used to categorize the symbolic components considered as structural elements available for instantiation in action. Two sets of issues are addressed. The first relates to relatively general professional and economic responsibilities the firm has toward the client. As a result of these considerations, the firm may come to the conclusion that developing an expert system should be considered. The next step in the analysis concerns the implications of the course of action on the affected stakeholder groups.

Firm and Client

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One possible rendering of the symbolic features that could comprise the constraining and enabling features of the decision to develop and implement advance information technology within a professional service organization is outlined in Table 1. Any or all of these characteristics could be instantiated by the agent (decision maker in the firm) as the responsibilities to affected stakeholder groups are considered. As stated previously, we consider these to represent ideal types whereby the structures actually instantiated could be compared and a determination could be made as to the level of accountability the firm perceives to owe to any given stakeholder group. The reason articulates an attribute or quality that should be taken into account in making an enlightened evaluation. The normative grounds represent the criteria required to justify the claim that, or the extent to which, the attribute or quality has been satisfied. The context provides the source of evidence for validating the claim. These "structures" represent an agent's memory traces instantiated in situations of copresence and guide the agent's actions. In turn, the agent's actions will reproduce or modify the components of the structures. The decision being considered is a complex one and cannot be completely articulated below. However, we do hope to illustrate the complexity of the stakeholder considerations and to provide a theoretical structure useful in articulating and understanding them.

(***** Enter Table 1 here *****)

Acting responsibly toward the client, the firm would have to consider a multitude of issues such as those relating to professional and contractual responsibilities. For example, the firm has a responsibility to use the most cost efficient personnel for a given task. The possible action is identified via signification structures that provide meaning or reasons. The justification for choosing the personnel set to carry out the task is provided by the legitimating structures that represent normative grounds for choosing a particular course of action. The efficacy and legitimacy of the action can be evaluated by observing the outcome in light of the reason given to the act and the normative grounds provided. As noted above, the signification and legitimation structures are instantiated in action. The appropriation of criteria and objectives from the possible available sets or features is undertaken by the agent at the time the issue is considered and acted upon. Only traces of these structures would be available after the fact. However, as illustrated by DeSanctis and Poole (1994), appropriations can be gleaned from an observation of action and their existence and use traced. As illustrated by Orlikowski (2000), structuration theory can provide a framework for such a micro analysis of the enactment of the structures.

One way of addressing some of the considerations identified in Table 1 would be to design, develop, and implement advanced information technology in the form of an expert system (ES). The reasons and normative grounds would again center on relations between rights and obligations of those participating. Examples of the structural features that might be relevant in such an analysis are presented in Table 2.

(***** Enter Table 2 here *****)

Structural sets that could be enacted as the expert system decision is made are developed. Again, structuration theory indicates how this process is carried out and explains how change does, or does not, take place over time.[9] We postulate three steps in the sequence of action. The first is the choice of the structural sets that are enacted. The second is the process by which the structure sets are implicated in the action, and the third is the result or consequence of the enactment of the structures.

Choice of structural sets

The structural feature or set can be directly appropriated in the enactment indicating that the ethical structure set is directly, and explicitly, instantiated. A change occurring in such a situation where the structural feature or set is directly appropriated would be "unsystematic," emerging from the unanticipated consequences arising from the action. Alternatively, the feature may not be enacted and would therefore have no influence even though it is present. The more likely situation is either partial enactment or enactment in various combinations with other structural features. A similar, but not identical, set may be used. Complementary sets may be combined. Incompatible sets may be combined or one set may be used as a corrective of perceived deficiencies in the other. Change in partial enactments can be "systematic" in that one, preexisting structural feature

set is not the sole context for action. The enactment of partial feature sets do not provide the same enabling and constraining context as would the instantiation of a single feature or of the entire feature set. Approximations of feature sets may not provide the same enactment as the original set. As sets are combined, they make possible new action space or constrict the current space. As feature sets are "corrected" by the integration of other features or as features are overridden or enhance by contrary features, behavior is more likely to deviate from that anticipated by the original feature set and the reconstructed structures are different than those in existence prior to the instantiation.

Processes by which structure sets are implicated in action

It is at this stage that the structural sets are operationalized. The features are encoded, enacted, and reproduced in the action. Here accountability for the agent's actions is accessed by the explication of reasons for the action and the justification of the reasons by the supplying of their normative grounds. The focus centers on the relationship between the rights and obligations expected of those participating in the action space. Meaning of the structure sets is given by the instantiation as the structural set is enacted as a rule having an influence on the action space. This now takes the form of Giddens' signification structure. The justification for the use of the feature is given by the grounds attached which constitute legitimation structure. The agent can question the enactment process. The action is brought to a close. The process can be specified, and the results observed.

Reflexive evaluation of enactment

At this point, learning can take place within the process. The structural instantiation within the act may now be reflexively evaluated. The agent reflexively considers the structural set instantiation and in doing so can question the structures, the enactment process in light of the outcome(s). As Giddens notes, the structures are reproduced or modified in action. Extending these ideas, modified structures or modification "kits" associated with the signification and/or legitimation structures may be reproduced within the memory traces of the agents. The modification kits constitute cues that remind the agent to modify the structural sets or instantiation thereof in the next enactment. Upon reflection, the agent can agree with the enactment or reject the enactment as being wrong or inappropriate in the situation. Intermediately, additional information may be obtained from other sources such as members of the ongoing community with respect to the efficacy, adequacy, and comprehensiveness of the outcomes. At a more detailed level, positive or negative implications/outcomes can be noted with respect to a given enactment. This is a critical stage if learning, or change, is to take place. Structural sets and the resulting instantiated structures are replicated, rejected, or changed based on the reflexive process undertaken by the agent in conjunction with members of the ongoing community. The changes take place in the process of reflecting on and evaluating the consequences of the acts. Again, the consequences can be either intended or unintended and the resulting structures may be a replication of the previously instantiated ones or mutations thereof.

Ethical action and legitimation structures

Structuration theory explicitly designates norms and values that provide legitimating grounds for action as one of its three primary structural components. Within the context of our discussion, two levels of justification are called for. The first concerns why structural feature is chosen from among the alternatives. The second relates to how this specific structural set conforms to the grounds provided for its choice. From an ethics perspective, the questions are: (1) are the structural features selected based on ethical/moral criteria? and (2) are the outcomes motivated by the particular feature ethical? Relating this to the discussion above, the items presented in Table 1 might reflect the issues considered in coming to the conclusion that the firm should consider constructing AIT applications in order to meet their client responsibilities. Most of the reasons given in Table 1 relate to economic factors or professional task related issues. The ethical justifications concern responsibilities for efficient and effective use of scare resources within the context of capitalist market structures. The professional responsibilities relate to those responsibilities that have developed within this environment relating to expected levels of task performance as well as a certain respect for the public interest dimension of the professional activities. The structural features in Table 2 reflect the firm's responsibilities to the client when developing and

implementing the AIT on the client's audit. We focus the discussion here at the second level.

At this point, Table 2 reflects issues that relate to the effective and efficient carrying out of the firm's professional, economic, and contractual obligations to the client. These responsibilities are quite legitimate ones that must be considered if the firm is to behave ethically and forthrightly with the client. However, the ethical behavior of the firm must consider a more inclusive stakeholder set. Following the theoretical discussion above, ethical structural sets incorporate ethical reasons and ethical grounds for action. It is necessary for the agent to appropriate these structural sets and combine them with other structural sets as part of the process of enactment. Table 3 provides an example of how a stakeholder perspective might be operationalized. Normative stakeholder theory can be used to identify the affected groups the responsibilities to which should be considered. Also, there should be ethical grounds for considering each of the issues identified in Table 2. Examples of these are also provided in Table 3.

(***** Enter Table 3 *****)

As discussed in Yuthas and Dillard (forthcoming), delineating the ethical issues associated with AIT design, development, implementation, and application is a complicated and time consuming undertaking. In the previous work, we propose a stakeholder committee be formed and supported by the organization developing the AIT application. Such a committee would be instrumental in specifying alternative values that need to be considered by the firm in considering AIT applications. Each structural feature would be evaluated relative to its implications for each of the stakeholder groups. Such an analysis is beyond the scope of this discussion. What we are illustrating here is that structuration theory can provide a means for prescribing as well as evaluating ethically informed action.

The normative grounds presented in Table 3 supplement the more focused ones specified in Table 2, illustrating additional grounds that should supplement for the economic and professional reasons given for developing AIT. As indicated in Table 3, there are some groups that could incur significant advantages as well as disadvantages. These types of normative grounds should be identified and associated with each structural feature. The ethical grounds would be considered along with the ones presented in Table 2. The normative grounds provided in Table 3 can be useful in identifying ethical dilemmas that might arise. For example, while the costs are reduced to the client, firm employees are faced with the likelihood of a reduction in promotion and prospects because fewer employees and less expertise are needed to meet the regulatory and professional requirements. The agent is confronted with a dilemma as to which group to privilege and which to subordinate. Here higher level criteria such as justice and/or fairness might be used in evaluating the grounds provided for the structural features in appropriating them in arriving at the final action. At this point, arguments and theories from moral philosophy can be used in evaluating the ethical dilemmas associated with the AIT application.[10]

It is informative to consider how the appropriation of structural features and/or structural sets through enactment might be described using the structuration process. Direct enactment appropriates the structural feature or set. For example, the sole criteria for action might be that the AIT application would increase the overall audit efficiency. The criteria for audit efficiency would be the legitimating reasons provided as well as the criteria used in evaluating the success of the undertaking. Within the context of our previous discussion, we would propose that such a perspective represents a narrow and at best amoral position. At the level of analysis engaged in the previous discussion, we would expect the enactment of a complex array and combinations of structural sets. We expect a broad range of what has been previously termed "partial enactment" where variously relational combinations of structural sets are instantiated. One structural set may be enacted as part of a more inclusive set. For example, the structural set associated with increasing overall audit effectiveness might include all structural sets that relate to components of effectiveness (e.g., reduce the need for highly compensated experts). The agent may enact sets with similar features such as "reduce the need for highly compensated professionals" and "contribute to a reasonably priced audit." Two compatible structural sets may be combined so as reduce to the need for highly compensated experts and enhance the productivity of cheaper nonexperts. Two incompatible sets

may be combined such as "reduce the need for highly compensated experts" and "system should enhance development of expertise." A structural set can be used to correct a deficiency such as system judgements should be validated by human expertise.

The formulation presented above does not prespecify structural process or content by a given agent at any given time. Structuration theory suggests that in noncrisis situations, agents tend toward instantiating familiar structures in relatively routine situations. Thus, while the possibility for change is present, it is less likely to occur. However, each agent may bring different history and memory traces and therefore two people faced with an apparently identical situation may respond differently. Structuration theory provides theoretical insights into such occurrences.

The next phase to be evaluated is the process by which the structural sets are enacted through instantiation of the structures. Here, the signification (reason) structures and legitimation (grounds) structures are enacted as the action is taken. The context of the rule set becomes empirically observable and can be evaluated relative to the associated criteria. As such, agents are held accountable for their actions within the context of an ongoing community. Meaning is given to the act/choice by the instantiated structure (rule): experts systems should reduce the need for highly compensated expert. The justification for using the rule can be provided. An ethically responsible justification would include considerations of potential implications for various stakeholder groups. The grounds for instantiation include the task criteria and skill requirements are articulated or can be articulated. The possible impact on stakeholder groups is specified. The structures appropriated and enacted represent the context (enabling and constraining) for the expert system decision. The action can be evaluated relative to the criteria for stakeholder inclusion. The sequence of instantiation becomes evident. The enactment process can be evaluated and questioned. Closure is brought to the action phase as the process motivated by the instantiated structures is completed. Reflexively, the specific processes implicated in the structures as well as the outcomes are recognized. Finally, the result of the enactment is complete, at least at this time and place. The agent reflexively reevaluates the enactment of the structural sets as a part of the structures instantiated so as to reproduce and/or modify traces representing structural sets and instantiation processes. In doing so, the agent may agree, reject, or ask the opinion of others. The agent may note positive and/or negative implications and outcomes.

An analysis of Table 3 shows how legitimating structures are used in incorporating ethical considerations into the agent's deliberations. The economic and political considerations related to the firm – client dyad are supplemented by the inclusion of the legitimating structural features gleaned from the stakeholder analysis. The firm's economic and professional considerations should be combined with the reasons that relate to other stakeholder groups. These structural features are included with the economic and professional ones that characteristically tend to dominate. Potential ethical dilemmas become evident. The expert is affected by the reduced demand for the expertise even though his or her reputation may be enhanced, at least in the short term. The nonexpert employee may experience enhanced responsibilities and development of intermediate skills, and job opportunities. However, the long term prospects for skill development, training and advancement will be limited by the fewer higher level employees who will be needed. The client may benefit from a reduction in the cost of the firm's services but may be detrimentally affected by the reduced level of experience and expertise on the job and a lack of flexibility in unique situations. Likewise, investors may benefit from reduced costs and increased consistency in the application of rules and procedures but may be adversely affected by a lower level of expertise on the job. Regulators may experience more consistency in the application of regulations but may be detrimentally affected by the lower level of professional judgment on the job. The profession might see higher procedural consistency with respect to professional standards but suffer in the long term from a reduction in the number of professionals because of the reduction in the number of people employed by the firms as well as a reduction in the overall level of expertise of members of the profession.

Each of these conflicting outcomes presents the firm with an ethical issue that should be considered and resolved as the AIT application is considered. By examining an agent's legitimation structural features, the presence and/or absence of ethical considerations can be determined.

Programs designed for enhancing ethical awareness should focus on supplementing existing legitimating structures so that they include the features that facilitate at least the recognition of possible ethical dilemmas or concerns. In order to change actions, changes in the structural sets or attributes that comprise the possibilities of enactment are needed.

<div align="center">CLOSING REMARKS</div>

Limitations and future research opportunities

The reader must consider several limitations in the proposals provided therein. Structuration theory is not without its critics. As discussed extensively elsewhere, a framework that attempts to be as encompassing and complete as is Giddens' objective expects attacks from those at the extremes of the debate concerning the place of structure and agency in the process of social and system integration. From a functionalist perspective, the framework is seen to lack rigor and explicitly specified empirically testable propositions. From a structuralist perspective the formulation of agency under determines the influence of structures on the human being's ability to choose and act. From an ethnographic perspective, there is excessive specification of structure that over determines the ability of the human being to choose and act. From a postmodern perspective, the ideas are termed too modernist evidenced by the over specification of constructs and the presumption of the possibility of metanarrative qualities.

The next step in the research program is to evaluate the ideas presented herein in an action context. The inclusive framework proposed herein needs to be subjected to evaluation by observing behavior within the context specifically of professional service firms and generally in a multitude of social contexts. Consistent with Giddens' perspective, we are not advocating developing stringent hypotheses, experiments, and statistical analysis. We are proposing the observation of ethics in action where agents are observed within their work environment as they make decisions and take action within the context of their ongoing communities.

The examples presented to illustrate the use of structuration theory are obviously incomplete and need to be expanded. Further developed can provide a template of evaluating agents' actions in light of ethical considerations. A related issue is the level of analysis chosen here. We look at the question of deciding whether or not to implement AIT within a professional service firm. We do not question the economic or professional issues embedded within the system of market capitalism that privileges owner/investor interests. Also, the preceding discussion provides a relatively detailed analysis of one – the firm and the client – of the several relevant dyads in terms of the structural features. Further, we do not consider the issues related to evaluating the actual implementation of the AIT application in terms of its actual effects on different stakeholder groups. These provide areas in need of further development.

Power or domination structures are not adequately considered. We at least implicitly assume that the allocation of administrative and authoritative resources will follow from the instantiated rules associated with meaning and values. This is a tenuous assumption that deserves to be investigated and relaxed. In some circumstances, power is a precursor to and the driving force behind any change process. It is important to investigate how resources are implicated in developing ethical structural sets as well as their instantiation.

Conclusion

The position presented in the preceding discussion is predicated on the existence of the moral agent who deliberates and acts as a conscious member of an ongoing community within the context of present, though changeable, integrating structures. Structuration theory provides a way of understanding how ethical issues are recognized and considered at a point in time and space. More importantly, it provides an explanation of how and why perceptions and actions maintain, change, and/or can be changed over time. Structuration theory can provide a needed theoretical link to the accounting ethics literature as it can represent ethics in action. The ideas represented by the framework are firmly grounded in social theory and an explicit recognition of the possibility for alternative perspectives and different interests. The framework provides a central place for alternative values and legitimating grounds and how these are implicated in, and interact with, structures of

meaning/understanding and power to facilitate social and system integration and therefore action in conditions of copresence and over time in complex social arrangements.

Our work here is another step toward developing a comprehensive approach for investigating ethics in action. In previous renderings we propose that deciding *what* AIT projects should be developed and used can be facilitated by using the conceptualizations of action and accountability within an ongoing community formulated within a responsibility ethic. *Who* should participate in the ongoing community can be evaluated using normative stakeholder theory. Emancipatory systems development methodology indicates *how* AIT applications can be conducted as an inclusive, socio-politically informed process. In this paper we illustrate how structuration theory provides a comprehensive framework grounded in social theory that explains *why* certain actions are taken and changes do, or do not, take place over time. The next phase is to take these ideas into the field: first observing actual behavior within professional service firms; and second to implement change programs based on the theoretical framework presented herein and the empirical observations gained from the field studies. Though there is much still to be done from both a theoretical and empirical standpoint, the ideas illustrated in the preceding discussion provide a framework for studying ethics in action in a complex social setting.

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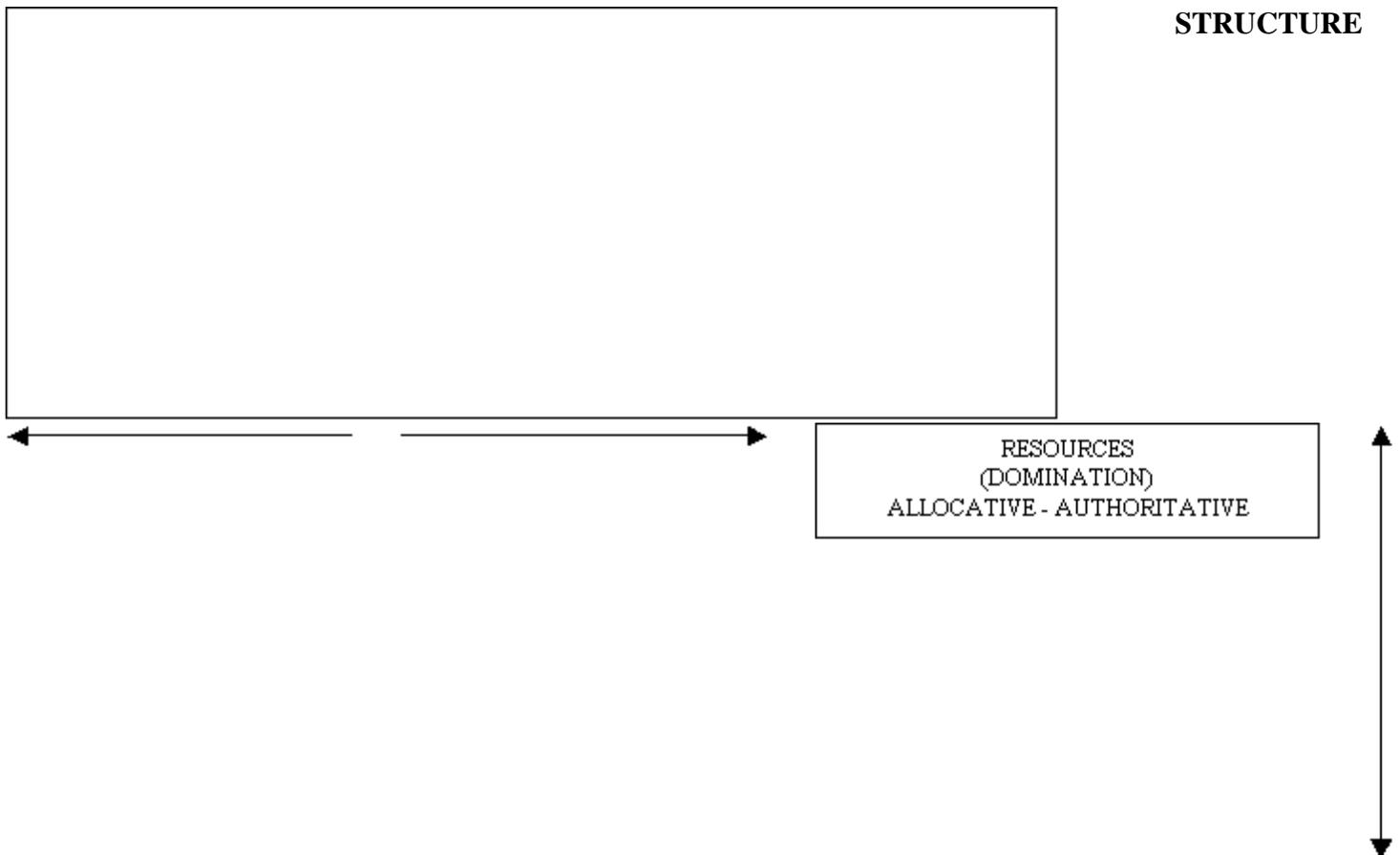
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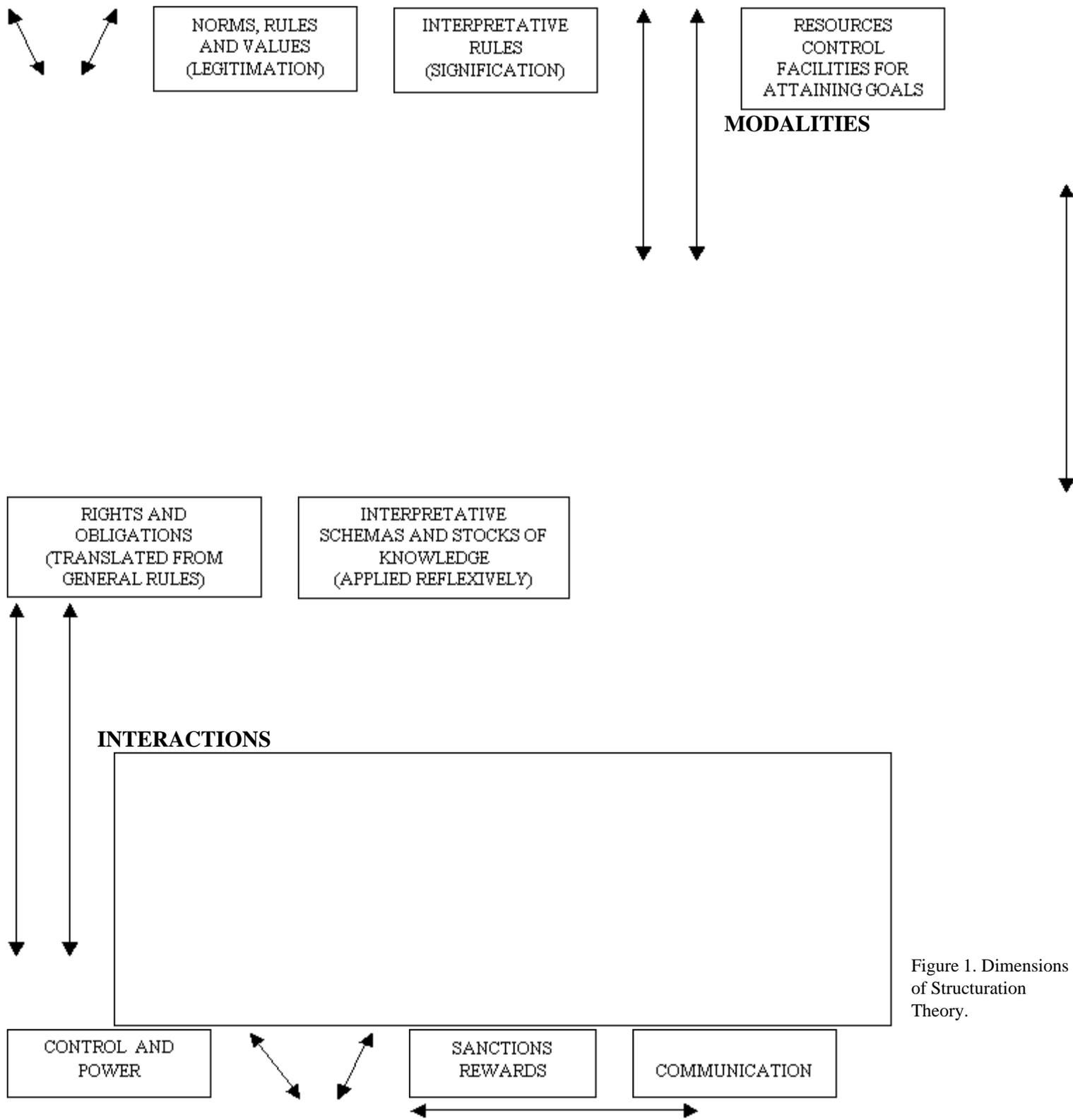
STRUCTURE

RESOURCES
(DOMINATION)
ALLOCATIVE - AUTHORITATIVE

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| NORMS, RULES AND VALUES (LEGITIMATION) | INTERPRETATIVE RULES (SIGNIFICATION) | RESOURCES CONTROL FACILITIES FOR ATTAINING GOALS |

MODALITIES

| RIGHTS AND OBLIGATIONS (TRANSLATED FROM GENERAL RULES) | INTERPRETATIVE SCHEMAS AND STOCKS OF KNOWLEDGE (APPLIED REFLEXIVELY) |

INTERACTIONS

Figure 1. Dimensions of Structuration Theory.

| CONTROL AND POWER | SANCTIONS REWARDS | COMMUNICATION |

TABLE 1

FIRM'S RESPONSIBILITIES TO CLIENT

REASONS	NORMATIVE GROUNDS	CONTEXT
Audits should be performed satisfactorily	Criteria for satisfactory performance	Audit performance
Ongoing relationships are beneficial	Criteria for beneficial ongoing relationship	Results of ongoing relationship (fees, cooperation, quality)
Repeats audits must be profitable	Criteria for profitability from repeat audits	Profitability of repeat audits

Meet industry quality standards	Industry quality standards	Extent to which audits have met industry quality standards
Assign qualified personnel to requisite tasks	Criteria for qualified personnel	Assignment of personnel
Use appropriate level of technology	Specifications for appropriate level of technology	Levels of technology used
Apply appropriate billing levels	Specifications for appropriate billing levels	Billing levels used
Use of trainees should not impede audit quality or efficiency	Criteria for appropriate use of trainees	Level of trainees used
Use up to date audit procedures	Criteria for determining up to date audit procedures	Audit procedures used
Keep up with technological advancements	Criteria of evaluating applicable technological advancements	Level of currency with respect to audit technologies
Use of technology comparable with best practices	Best practices	Best practices technology used
Use appropriate technology for audit task	Criteria of evaluating audit technology relative to task	Technology used
Recognize competitive pressures from peer firms	Extant competitive pressures in audit profession	Response to competitive pressures
Need to use productivity enhancing technology	Criteria for evaluating technology	Use of productivity enhancing technology
Need to use most cost efficient personnel for the task	Criteria for determining most cost efficient personnel	Use of personnel for the task

TABLE 2

FIRM'S RESPONSIBILITIES TO CLIENT
WHEN CONSIDERING THE DEVELOPMENT AND IMPLEMENTATION
OF AN AUDIT EXPERT SYSTEM

REASONS	NORMATIVE GROUNDS	CONTEXT
Should increase overall audit effectiveness	Audit effectiveness criteria	Increases overall audit effectiveness
Should increase overall audit efficiency	Audit efficiency criteria	Increases overall audit efficiency
Should enhance productivity of cheaper nonexperts	Task criteria and skill requirements	Enhances productivity of cheaper nonexperts
Should reduce the need for highly compensated expert	Task criteria and skill requirements	Reduces need for highly compensated expert
Should enhance consistency of the audit process and documentation	Consistency and documentation criteria	Enhances consistency of the audit process and documentation
Should reduce time required to perform audit tasks	Criteria for time reduction	Reduces time required to perform task
Should reduce audit risk	Criteria for evaluation audit risk	Reduces audit risk
Should reduce likelihood of litigation	Criteria for assessing the likelihood of litigation	Reduces the likelihood of litigation
Should contribute to reasonably priced audit	Pricing criteria	Contributes to reasonably priced audit
Should facilitate meeting industry quality standards	Industry quality standards	Facilitates meeting industry quality standards
System development should use qualified personnel	Criteria for qualified personnel	Qualified personnel used for systems development
Number of experts working on project will be reduced	Determination of number of experts	Reduction in the number of experts working on the project
System should be adequately validated	Criteria for adequate validation	System is adequately validated
System should be appropriately applied	Criteria for appropriate application	System is appropriately applied

System judgments should be validated by a human expert	Validation criteria	System judgments are validated by human expert
System should be used by competent personnel	Competency requirements	System is used by competent personnel
System should enhance development of expertise by firm personnel	Criteria for evaluating development of expertise by firm personnel	Enhances expertise by firm personnel
System judgments should be questioned by the users	Procedures to be followed by the users	Judgments are questioned by the users
System should be technologically justified	Criteria for technological justification	System is technologically justified
System should meet professional standards	Professional standards	System meets professional standards

STAKEHOLDER RELATED NORMATIVE GROUNDS ASSOCIATED WITH SPECIFIC REASONS (STRUCTURAL FEATURES) FOR IMPLEMENTING AIT FROM THE PERSPECTIVE OF THE FIRM

EXAMPLES OF REASONS FOR IMPLEMENTING AIT

(from Table 2)

STAKEHOLDER GROUPS	*Should enhance productivity of cheaper nonexperts*	*Should reduce the need for highly compensated experts*
EXPERT	-reduces number of tasks expert has to perform -reduces need for expert	-reduces job opportunities for the expert -enhances reputation in the firm
FIRM EMPLOYEE	-reduces number of employees needed to perform tasks -reduces learning opportunities -provides task support -enhances responsibilities	-enhances intermediate skill level development -enhances job opportunities for nonexpert positions -reduces advancement and training opportunities for certain areas and levels of expertise
CLIENT	-reduced costs -decisions made by nonexperts -lack of flexibility in unique situations	-reduced costs -higher standardization for routine situations -reduced experience available to handle nonroutine situations -reduced level of expertise on the job
INVESTOR	-reduced costs	-lower level of expertise on the job -reduced costs
REGULATOR	-more consistently applied regulations	-lower level of professional judgment on the job
PROFESSION	-higher procedural consistency with respect to professional standards -reduced number of professionals	-lower level of professional judgment available on the job -reduced number of expert professionals

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[1] See Dillard and Yuthas (forthcoming-1) for a review.

[2] See Louwers, et al., 1997 for a review of this literature especially the work that is based on the work of Kohlberg (1969, 1979, 1982, 1984) and the application of variants of moral philosophy and cognitive psychology (see Rest, 1986; Jones, 1991; Trevino, 1986, 1992; Weber, 1990).

[3] For a discussion of normative stakeholder theory see Donaldson and Preston, 1995, Calton and Kurland (1996), Cochran (1994), Donaldson and Dunfee (1994), Goodpaster (1991), Freeman (1984), Jones (1995), and Meznar et al (1991). For a review and application of stakeholder theory in an accounting ethics context see Dillard and Yuthas (forthcoming-2), Yuthas and Dillard (forthcoming, 1999).

[4] See Habermas (1984, 1987), Kettner (1993), Drake, et al. (2000).

[5] See Giddens (1976, 1979, 1984), Macintosh (1994), Turner (1986), Yuthas and Dillard (1997-98).

[6] External technical frameworks are represented by ethical codes in this study but could also include reporting hierarchies, organizational

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knowledge, (p.125) technical structures, formal tasks structures, organization structures (DeSanctis and Poole, 1994) all of which are also based on social structures and could be analyzed as proposed in the paper. However, in the following discussion these will be viewed as parameters.

[7] Spirit is an idea taken from DeSanctis and Poole (1994) though they discuss the concept in a different context.

[8] These ideas were motivated by a reading of Orlikowski (2000) who applies structuration theory in discussing technology in use. Within the context of our previous work, we have reformulated these ideas within an ethical context based on our reading of Giddens (1984).

[9] This discussion is draws on DeSanctis and Poole's (1994) discussion of appropriation. However, our rendering is directed toward a very different action situation. We conceptualize appropriation differently, more in the sense of Orlikowsky's (2000) idea of enactment.

[10] See Arnold, et al. (1997), Sutton, et al. (1995), and Sutton, et al. (1997-1998) for applications of normative ethical constructs to AIT applications in the accounting literature.