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Conflict Management in Information Systems: An Improved Conceptual Model

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ABSTRACT

This paper examines the relationship between conflict, innovation, and profits and studies several approaches to Conflict Management (CM), before synthesizing the best parts of each into a new model along with ideas gleaned from the examination of the aforementioned relationship. It provides an analysis of current thinking in CM, breakthrough thinking as a way of prompting innovation, information systems (IS) usage in CM, and IS's and CM's impact on profitability. It reviews a current software implementation of a CR model and suggests improvements based off current practices from the fields of CR, IS, and innovation. An improved conceptual model is proposed, and businesses may be able to use this new model to achieve better outcomes to business CM, make better decisions, create innovative breakthroughs, and improve their bottom line.

INTRODUCTION

The area of applying information systems to business CM as a way of increasing profits is ripe for exploration. This paper will explore some state-of-the-art information systems-based Conflict Resolution (CR) and CM processes, as well as manual processes. A synthesis of these available models and of a literature review will facilitate the development of an improved conceptual model for business Conflict Management.

For the purposes of this paper, the Van Slyke model of CM through listening will be assumed to be the basis of the CM foundation this paper builds on (Van Slyke, 1999). Conflict will be defined from Van Slyke's definition as "the competition between interdependent parties who perceive that they have incompatible needs, goals, desires, or ideas. It is a situation in which people cannot agree or create harmony with one another. The important elements of this definition are competition, interdependence, and perceived incompatibility" (Van Slyke, 1999). Further, "The factors that affect conflict include:

- The nature of the conflict.
- The size of the conflict
- Issue rigidity
- The situation and the environment
- Individual personalities, traits, and dispositions
- CM orientation and strategies
- Cultural influences
- CM skills" (Van Slyke, 1999, p. 15).

"Constructive CM skills promote the use of cooperative strategies for handling conflict." (Van Slyke, 1999, p. 15).

For the purposes of this paper, the term CR(CR) will be used synonymously with the term CM. CM is the more all-encompassing term and is what is meant in most cases here, but the term CR is prevalent in the existing literature. Empathic listening can be described as "the highest level of listening", that is, "listening with the intent to accept and understand the other person's frame of reference." "Empathic listening is listening with the ears, mind, eyes, and *heart* to become aware of the sender's feelings and emotions." In fact, after performing empathic listening, the receiver should be able to "convey understanding of both the content and the emotion of the speaker's explicit message, and that we reflect understanding of the implicit, or unspoken and implied core." Finally, "it requires that you separate the person from the problem in the conflict and accept the person as valuable and likable" (Van Slyke, 1999, p. 108).

Innovation is industrial creativity. Creativity has three parts: expertise, the ability to think flexibly and imaginatively, and motivation. Managers effect it in five ways: "The amount of challenge they give employees, the degree of freedom they grant around process, the way they design work groups, the level of encouragement they give, and the nature of the organizational support". Industry innovation comes from seven possible sources according to Drucker (1998). A breakthrough innovation will be defined as a business innovation that results in a new process, lesson, or product that positively impacts a company's ability to compete in industry. Profitability is the "ability of a company to provide investors with a particular rate of return on their investments" (Horngren, 1999). This paper provides an analysis of current thinking in CM, breakthrough thinking as a way of prompting innovation, IS usage in CM, and IS's and CM's impact on profitability. It reviews a current software implementation of a CR model and suggests improvements based off current practices from the fields of CR, IS, and innovation.

LITERATURE REVIEW AND SYNTHESIS ON CM MODELS

Why study conflict in a business setting? "Conflict is inevitable in organizations" (Gibson, Ivancevich, and Donnelly, 2000), and "As interdependence and coordination of efforts among groups increase, so does the potential for conflict" (Sullivan, 1996, p. 188). Indeed, "over 20% of a manager's time is spent in conflict management" (Rahim, 1992, p. 423). "However, because it can take both a positive and a negative force, management should not strive to eliminate all conflict, only that which has disruptive effects on the organization's efforts to achieve its goals. Some type or degree of conflict may prove beneficial if it is used as an instrument for change or innovation" (Gibson, Ivancevich, and Donnelly, 2000).

"For every organization an optimal level of conflict exists that can be considered highly functional; it helps generate positive performance" (Gibson, Ivancevich, and Donnelly, 2000). When this state is reached, some key characterizations of the organization are: positive movement toward goals, innovation and change, search for problem solutions, creativity and quick adaptation to environmental changes (Gibson, Ivancevich, and Donnelly, 2000).

So, some conflict can be good, and organizations that have an optimal level of conflict can be characterized by their ability to innovate and change, search for problem solutions, and for their creativity and

quick adaptation to environmental changes. Clearly, conflict helps drive organization innovation, change, problem solving, creativity and adaptation. Nevertheless, organizations are constantly looking to improve their ability to innovate, change, solve problems, and to be creative and adaptive. Why do they do this? These abilities, to make Business Breakthrough Ideas, are closely associated with profitability, the maintenance and improvement of which are very important to business organizations. Therefore, applying a methodical, disciplined, process to CM could improve business's profitability by generating more business breakthrough ideas.

There are many CM techniques employed by organizations today, such as: Problem solving, Superordinate goals, Expansion of resources, Avoidance, Smoothing, Compromise, Authoritative command, Altering Human variables, Altering Structural variables, Identifying a common enemy, Negotiation processes, and Team-building processes (Gibson, Ivancevich, and Donnelly, 2000).

EXAMPLES OF USING INFORMATION SYSTEMS IN CONFLICT RESOLUTION

Besides the commercially available systems such as NEGOTIATE ™from Axcerion, Inc., which will be described later, there are also other attempts to use IS to help facilitate organizational work and interaction.

One related piece of research is Beck's work in International conflict using a neural network model. According to him, "This type of model is well suited to data with complex, nonlinear, and contingent relationships. It is not a panacea or always appropriate, but it provides an immensely useful tool that has not been sufficiently exploited in this field to date" (Beck, 2000). In fact, prior models of conflict prediction were unable to predict the occurrence of any conflict (e.g., war), but Beck's model "picks up about 17% of these disputes" (Beck, 2000). Increasing from 0% predictability to 17% is an enormous and highly consequential improvement which validates the approach of using Information Systems concepts in the field of Conflict Resolution. A simple logit model produces no ability to predict conflict and a Generalized Additive Model (GAM) predicted 5.6% of disputes. (Beck and Jackman, 1998).

Signorino (1999) asks the question: "How well does traditional logit model strategic interaction? At least for the simple crisis interaction model here, the answer appears to be: Not very well at all." This is in agreement with Beck (2000). He goes on to cite a well-known model in international conflict literature, Bueno de Mesquita and Lalman's (1992) international interaction game. "Pedagogically, it is an excellent candidate for the application of a strategic statistical model. It is a rare example of a well-specified game-theoretic model of international conflict that has been empirically tested, with considerable attention paid to the operationalization of the expected utilities involved." Bueno de Mesquita and Lalman's (1992) 2 x 2 tables successfully predict conflict 13% of the time. Beck's NN approach seems to be more successful in predicting conflict than logit models, GAMs, or the Bueno de Mesquita and Lalman (1992) game.

Beck states that "for international conflict data there are massive nonlinear interactive effects, and only the confluence of many causal factors leads to a nontrivial increase in the probability of war" (Beck, 2000). Additionally, in yet another IS vein, their model introduces "several graphical procedures for interpreting the results of neural networks" (Beck, 2000). In short, IS is already used in analyzing International conflict with noticeable results.

These neural networks allow for the rich study of relationships, in this case between country dyads. "…the NN model reveals that the pacific effects are strongest when both partners score high on the democracy scale… Interestingly, the most quarrelsome dyads are those in which both partners have a middling democracy score" (Beck, 2000). With the analogies between war and business, and war phraseology abounding in many business publications, the applicability of Beck's model to business should be apparent. Beck goes on to state "we do not believe that neural network models should in all cases replace logit models in quantitative studies of international conflict, but our results seem to indicate they have a place in the toolkit of international relations researchers" (Beck, 2000).

"NNs can find contingent causal structures missed by the simpler, uncontingent, logit model. This forecasting result can only be driven by an underlying structure of international politics that stays relatively stable over time. Confirming the existence of and understanding this structure has been a holy grail in quantitative conflict studies, and we believe our neural network approach represents progress toward this goal" (Beck, 2000).

Finally, Beck goes on to say, "Neural networks are computationally and intellectually complex, but they are no more than extensions of standard interactive models" (Beck, 2000). In short, Information Systems are already used in analyzing International conflict with noticeable results.

EXAMPLES OF IS IN CM

Axcerion, Inc.'s NEGOTIATE ™
Beck's (2000) Neural Network model for Internal Conflict Resolution
Beck's and Jackman's (1998) Generalized Additive Model (GAM)
Bueno de Mesquita and Lalman's (1992) international interaction game (2*2 tables)
USC's CONSA (Collaborative Negotiation System based on Argumentation) ." (Tambe and Jung, 1999).

Another approach is a systems approach to CR, which also lends itself to an IS approach. In Pape's (2000) study on health care organizations, she states, "A team-oriented systems approach can be a constructive way to resolve conflict within health care institutions and improve outcomes – an important concern in today's health care market". "Collaboration is the most effective method of conflict resolution, and it results in mutual commitment to those solutions" (Baker, 1995). "When an organization's cost-effectiveness and quality of service are considered, decisions made by teams of employees are considered superior to those made by organizational hierarchies" (Jones, 1990). Pape says, "By adding input to the resolution process, OR personnel are more likely to take ownership of expected and actual outcomes… Involving the entire group in the resolution process converts decisions into successful actions. Those who are directly involved in the problem may innately know the solution, but may be unable to articulate it or bring it to action without assistance from team members" (Pape, 2000). The Pape research is another important example of bringing a system for CMinto the workplace. Pape (2000) cites the work of C. A. Maher who " identified the CM approach as a systems approach that features four separate yet interrelated phases used for effective problem solving. These phases include clarification to identify the conflict, design, implementation, and evaluation to determine the extent to which the problem has been resolved".

Brett, Goldberg and Ury (1990), describe a systems approach containing steps external to the dispute resolution process. For example, they find that pre-dispute training in dispute resolution improves people's ability to resolve disputes. They call for rewarding manager for avoiding conflict in the first place. They implement a technique during the process called a "loop-back" which is a built-in procedure to help avoid errors in the dispute resolution process. They talk of "dispute systems designers" and their roles, such as "analyzing the current system and considering potential changes". They used these

techniques in a contract dispute regarding a coal mining company which had had 27 wildcat strikes in the two years prior, coupled with jailing of miners, and bomb threats. After applying their system, "bomb threats ceased, sabotage and theft decreased, and productivity improved. There were no wildcat strikes until the national contract expired, nearly a year later." (Brett, Goldbert, and Ury, 1990)

In yet another example of using Information Systems in Conflict Management, the Information Sciences Institute at the University of Southern California is working on a technology-based system called CONSA (Collaborative Negotiation System based on Argumentation), which "casts CRas a team problem, bringing to bear some of the recent advances in flexible teamwork to improve the flexibility of agent behavior in conflict resolution. Second, because team conflicts are often about past teamwork, CONSA exploits teamwork models to provide agents with reusable argumentation knowledge. Third, CONSA focuses on collaborative argumentation strategies such as improve-support. Fourth, as an implemented system in a dynamic environment, CONSA uses a decision-theoretic approach, argument ordering, and pruning to reduce the cost of negotiation." In the improve-support strategy, "agents might attempt to improve the quality of teammates arguments." (Tambe and Jung, 1999). The system does a cost benefit analysis of arguing. CONSA uses 109 rules of logic in their decision-theoretic approach. The key idea is to "cast CRas an explicit common team goal." (Tambe and Jung, 1999). CONSA is partially funded by the Air Force and is mainly used to resolve conflicts in war-gaming simulation scenarios. Its many constructs would be valuable in business scenario modeling as well.

Santhanam and Hartono (1997) state "Researchers have shown that a firm's ability to effectively leverage its IT investments by developing a strong IT capability can result in improved firm performance… Our results indicate that firms with superior IT capability indeed exhibit superior current and sustained firm performance when compared to average industry performance, even after adjusting for effects of prior firm performance."

THEORETICAL FRAMEWORKS AND CONCEPTS OF CM

It is evident that people are using IS in CR, and it seems that CR leads to profits. The key question is: How can we improve the IS/CR models? Now we will turn to looking at non-IT-based CR framework's (Van Slyke's and Pate's) as stepping-stones to improving an IT-based one (NEGOTIATE ™.

Van Slyke (1998) presents a framework for effective CM based on empathic listening. During the collaboration process, in order to achieve constructive outcomes, the following conditions must be established at some point during the process:

1. Face-to-face interaction.
2. High acquaintance potential (ability to accept and have a positive regard for the other party)
3. Constituency support.
4. Cooperative tasks.
5. Shared exploration
6. No fixed agenda
7. Adherence to collaborative process steps (Van Slyke, 1998).

IS technology can help establish 1, provides 4, and demands 5 and 7 for it to work. The more options that can be identified, the more possibilities there are for a breakthrough.

SYNTHESIS OF THE MODELS

The NEGOTIATE ™model, the Van Slyke model, and the Pape model coincide in several ways, but not completely. It would be valuable to compare them in depth and see where the differences are. Besides inputs from those three models, there is a list of things pointed out by research that an improved model would also encompass or do:

1. People must recognize the potential for collaboration
2. "creative ideas in business must be new *and* useful." (Amabile, 1998, p.15)
3. "politics get in the way of open communication, obstructing the flow of information from point a to point b." (Amabile, 1998, p.15)
4. "Depersonalize conflict" (Leonard, 1997, p. 74)
5. "Corporate reporting systems further ingrain this reaction, for they draw attention away from unanticipated possibilities" (Drucker, 1998, p. 148). Our model needs to draw attention *to* unanticipated possibilities.

1. The Data Question, "What did you see or hear that led you to that conclusion?" and the Rule of Three Interpretations: "If I can't think of at least three different interpretations of what I received, I haven't thought enough about what it might mean." (Weinberg, 1993, p. 91).

Indeed, a new model is needed to address some of the weaknesses of each of the three existing models. For example, the Van Slyke (1999) model does not involve a systems approach of evaluation and revision. Also, it can be improved slightly by the addition of Weinberg's (1993) Data Question and his Rule of Three Interpretations. The NEGOTIATE™(Axcerion, Inc., 2003) model doesn't provide much in the way of guidance for eliciting true motives and cares from humans, such as the Van Slyke (1993) model attempts to do. Additionally, the Van Slyke and Pape models don't take advantage of automation or the data gathering capabilities of a computer software implementation.

LIMITATIONS OF EXISTING MODELS

Model	Van Slyke	NEGOTIATE ™	Pape model
Limitation(s)	Not a systems approach Not automated No data gathering/storing capability.	Not a systems approach Not much emphasis put on eliciting true motives	Not automated No data gathering/storing capability.

The following new conceptual model of Business CM (BCM) can address these issues and make an attempt to overcome them. It is derived by synthesizing the key ideas from the existing models and forming a new conceptual model from them.

NEW CONCEPTUAL MODEL OF BCM

1. Prepare for the Interaction
   - a. Select experienced Facilitator
   - b. Understand the situation and the environment
   - c. Specify the involved parties
     - i. Acquire support from those who will be affected.
       1. People must recognize the potential for collaboration
     - ii. Acquire supervisory support
     - iii. Constituency support
     - iv. Understand individual personalities, traits, and dispositions
     - v. Understand individual CM orientation and strategies
     - vi. Understand cultural influences.
     - vii. Understand level of CM skills
   - d. Research interests
   - e. Understand expectations of each side of dispute.
   - f. Research your priorities and preferences.
   - g. Reflect on organization's value and mission statements, high-level strategy
   - h. No fixed agenda
   - i. Defer judgment
   - i. Agreement to adhere to collaborative process steps
   - j. Agreement that empathic listening will be used as verbal communication model (training may be needed).
     - i. accept and understand the other person's frame of reference
     - ii. become aware of the sender's feelings and emotions

iii. receiver should convey understanding of content and emotion of the speaker's explicit and implicit message.
1. Use Weinberg's Data Question and Rule of Three Interpretations to help verify messages are received accurately.
iv. separate the person from the problem
v. accept the person as valuable and likable
1. positive interest in welfare of other

2. Initiate the Exchange
a. Confront
i. Face-to-face interaction
ii. High acquaintance potential
iii. Build positive attitudes.
1. Cooperative tasks
2. shared exploration
iv. List the issues
v. Explain the type of conflict that seems to exist.
vi. Determine the extent and intensity and issue rigidity of the dispute.
vii. Describe the conflict in performance terms if possible.
b. Involve
i. Obtain agreement about the nature of the dispute with those involved.
ii. Hold one conversation at a time.
iii. Stay focused on the topic
c. Problem-Solve
i. Design phase:
1. set a resolution goal or goals
2. establish criteria for a solution
3. identify several approaches for resolution
4. Improve other person's arguments
5. Build on the ideas of others
6. Understand if politics is preventing the flow of information between participants.
7. Select methods based on practicality or goal attain ment, propriety or legality, cost, systemic feasibil ity and cultural acceptability.
8. Outline a written plan to complete the process.
ii. Enumerate possible options
1. Examine Drucker's Seven Sources of Innovation
a. Unexpected occurrences
b. Incongruities
c. Process needs
d. Industry and market changes
e. Demographic changes
f. Changes in perception
g. New knowledge
2. Can several existing products/processes or services be combined to solve a problem?
3. Are there new uses for traditional products, pro cesses or services
4. Reflection
5. Brainstorming
a. Encourage wild ideas
6. Shift in viewpoint
7. Interpret the new situation
iii. Specify values and spreads
iv. Plot values and spreads to see closeness of positions
v. Attention is drawn to unanticipated possibilities.

3. Facilitate the relationship
4. Understand the interests
a. Understand your priorities and preferences
b. Understand the other parties priorities and preferences.
5. Examine the solutions
a. Select and modify proposals
b. Is the solution new and useful?
c. All sides find solution acceptable?
d. Offers considerable increase in value?
6. Reach consensus
a. Suggest an agreement
b. Making concessions
7. Follow through with plan
a. Prototypes of solutions
8. Observe reactions to change.
9. Measure degree of goal attainment.
10. Determine if any unintended side effects resulted from the process (systems thinking).
11. Recognize benefits that occurred.
12. Revise if needed.
13. Document process, rationale, benefits and archive data for future comparison.

The new BCM model has not been applied in any setting, either academic or professional and therefore there is no validation that the new model can positively impact an organization's CM process. It has not been implemented in software nor incorporated as part of a corporate CM process. Though queried, Axcerion ignored the authors' request for information pertaining to the results companies have experienced using NEGOTIATE ™

CONCLUSIONS AND FUTURE OUTLOOK

A CM model, as opposed to a zero-sum model can provide for an improved workplace environment, and better business decisions being made. In fact, it can lead to business breakthroughs, which spur profits. These are the managerial implications. And, the synthesis of several of these models, both IS-based and otherwise, can serve as a useful starting place for further research or as an experimental workplace model. In addition, IS has been shown to be used extensively in the Innovation industry, and profitably, too.

What are some of the advantages to a model like this? Given a model like this, even normal people can be creative. Letting the model serve as a guide to discussion helps depersonalize the process. Also, it can bring consistency to the process and a systematic, disciplined approach to innovation.

Weinberg (1993, p. 37) relates a metaphor from Kiyo Morimoto in which "each person sees the world through his or her own slice of Swiss cheese. Some things get blocked and some can be seen immediately through the holes." No one can see the complete picture by himself. One might imagine a group of co-workers gathered around a table observing an object, each looking through their own slice of Swiss cheese. How can they ever see the whole object in front of them? A possible answer is: By swapping slices with their co-workers and looking through them. In this way, they become aware of the blocked areas of their co-workers' vision, as well as where the co-worker was seeing clearly but they themselves were not. Using this analogy, an IS-based CM model can, in effect, help professionals look through their co-worker's slice of cheese and see a different, but more complete, accurate, and opportunity-rich view of a conflict situation.

Why is it that in high intensity realms such as international relations, the military and surgical operating rooms, a move has already been made to apply systems and or IS approaches? Can the move to push IS-based CR into everyday organizations be far behind? Phillips (1992) sums up Abraham Lincoln's management style regarding influencing others as follows, "Understanding the nuances of various positions and building rapport with a variety of workers allows you to take the most effective path to success without damaging relationships." The new BCM model could help facilitate these key steps of understanding nuances, building rapport and providing light to the most effective path, while seeking to improve working relationships.

This model may prove useful in both high- and low-tech businesses as they seek to find a process to manage conflict. Even a paper-based process can work in a high-tech Information Systems based company. And, obviously, the model could lend itself to assisting many industries if it was realized in an Information System of its own. It may be that attempting to bring the model into a workplace would be met with political barriers. In this case, it might be proposed as an experimental project within which results would be carefully monitored to see if improvements are made over existing corporate CM practices.

A key area for further research would be using the new model in real-world situations to see if it is useful, to see if it improves the CR process of a business group, and to receive feedback which may improve the model. Another rich area for further research would lie in realizing an implementation of the new conceptual model. A software implementation of the new model could be created which would provide the new process model to users, enable facilitation of a process based off the model, capture and present information and lead to identification of possible opportunities, and serve as a repository of historical CM data. This could prove beneficial to those interested in applying a systematic approach to CMand innovation.

With the increase of foreign competition, and the shrinkage of profit margins brought on by margin-squeezing companies such as Dell and Wal-Mart, companies in both high and low-tech industries must enable innovation to stay alive (not to mention, to stay ahead). Also, since our economy is largely information based now, a company's capital is largely in the minds of its employees. As such, these employees take much of the corporate capital home with them every day, and they can take it to another company if given reason. So, to succeed, we must decrease turnover by establishing work environments wherein all employees feel they will be heard and where they feel they are expected to be part of the solution. BCM is a powerful tool because properly managing BCM will provide companies with a competitive edge that can be replenished conceivably *every time there is a conflict*.

REFERENCES

Amabile, Teresa M. (1998), "How to Kill Creativity," Harvard Business Review, Sept-Oct.

Axcerion, Inc., NEGOTIATE (CR software package). www.axcerion.com — retrieved on date: 1/22/03.

T. Anderson (1992), "Step into My Parlor: A Survey of Strategies and Techniques for Effective Negotiation," Business Horizons, May-June, pp. 71-76.

Baker, K.M. (1995), "Improving staff nurse conflict resolution skills," Nursing Economics 13 (September/October).

Beck, Nathaniel (2000), "Improving Quantitative Studies of International Conflict: A Conjecture.", American Political Science Review, March.

Beck, Nathaniel, and Jackman, Simon, (1998) "Beyond Linearity by Default: Generalized Additive Models." American Journal of Political Science 42 (2): 596-627.

Brett, Jeane, Stephen B. Goldberg, William L. Ury, (1990), "Designing Systems for Resolving Disputes in Organizations", American Psychologist, February, pp. 162-170.

Bueno de Mesquita, Bruce, and David Lalman, (1992) War and Reason. New Haven, CT: Yale University Press.

Constantino, Cathy A., Christina S. Merchant (1996), "Designing conflict management Systems: A Guide to Creating Productive and Healthy Organizations", Jossey-Bass, San Francisco.

Drucker, Peter F. (1998), "The Discipline of Innovation," Harvard Business Review, Nov-Dec.

Harvard Business School Press (1999), "Harvard Business Review on Breakthrough Thinking," Boston.

Horngren, Charles T., Sundem, Gary L., and Elliott, John A. (1999), "Introduction to Financial Accounting", Seventh Edition, Prentice Hall, Upper Saddle River, NJ.

JL Gibson, JM Ivancevich, JH Donnelly, Jr. (2000), "Organizations: Behavior Structure Processes", Tenth Edition, Irwin McGraw-Hill, Boston.

Kim, Chan W., and Mauborgne, Renee (1997), "Value Innovation: The Strategic Logic of High Growth", Harvard Business Review, Jan-Feb.

Leonard, Dorothy and Straus, Susaan (1997), "Putting Your Company's Whole Brain to Work", Harvard Business Review, Jul-Aug.

Leonard, Dorothy and Straus, Susaan (1997), "Spark Innovation through Empathic Design", Harvard Business Review, Nov-Dec.

Lester, Richard K, Piore, Michael J., and Malek, Kamal M. (1998), "Interpretive Management: What General Managers Can Learn from Design," Harvard Business Review, Mar-Apr.

M A Jones, S C Bushardt, G Cadenhead (1990), "A paradigm for effective resolution of interpersonal conflict," Nursing Management 21 (February) 64B.

M.A. Rahim, J.E. Garrett, and G.F.Buntzman (1992), "Ethics of Managing Interpersonal conflict in Organizations," Journal of Business Ethics, vol. 11, pp. 423-32.

Ngwenyama, Ojelanki K, and Lee, Allen S. (1997), "Communication Richness in Electronic Mail: Critical Social Theory and the Contextuality of Meaning," MIS Quarterly, June, pp. 145-167.

Pape, Tess (1999), "A Systems Approach to Resolving OR Conflict", AORN Journal, March, pp. 1-12.

Phillips, Donald T. (1992), "Lincoln on Leadership: Executive Strategies for Tough Times", Warner Books, NY.

Santhanam, Radhika and Hartono, Edward (1997), "Issues in Linking Information Technology Capability to Firm Performance," MIS Quarterly, Volume 27, Issue I.

Signorino, Curtis S. (1999), "Strategic Interaction and the Statistical Analysis of International Conflict.", American Political Science Review, June,.

Sullivan, Decker (1996), Effective Leadership and Management in Nursing, 188-189; RW Griffin, Management, fifth ed (Boston: Houghton Mifflin Co.) 584-585.

Tambe, Milind, and Hyuckchul Jung (1999), "The Benefits of Arguing in a Team," AI Magazine, Winter.

Van Slyke, Erik J. (1999), "Listening to Conflict: Finding Constructive Solutions to Workplace Disputes", American Management Association, NY.

Weinberg, Gerald M. (1993), "Quality Software Management Volume 2: First-Order Measurement", Dorset House Publishing, NY.

Wetlaufer, Suzy (1997), "What's Stifling the Creativity at CoolBurst?", Harvard Business Review, Sept-Oct.