

**CHRISTIAN BUSINESS FACULTY ASSOCIATION
2001 CONFERENCE**

Title **A Combined Model of Cybernetics and Dynamic Social Impact
Communication Theory Applied to Learning and Faith Integration in Faith-
Based Educational Institutions Utilizing Internet Distance-Learning
Programs**

Abstract

In an effort to achieve organizational effectiveness, faith-based educational leaders are increasingly recognizing the importance of creating an integrated atmosphere of learning/faith-fit congruence among the organizational culture; administration, faculty, staff; and the students that comprise the organization (Yates, 1998). This paper presents an integrated conceptual model of dynamic social impact theory and cybernetics communication theory that can help explain and predict organizational effectiveness as a product of open systems organizational communication processes containing the modality variables of perceived learning/faith-fit congruence, and commitment to the organization. The model also includes culture cluster groups acting as moderating variables upon the system.

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An Integrated Communications Model 2

Abstract

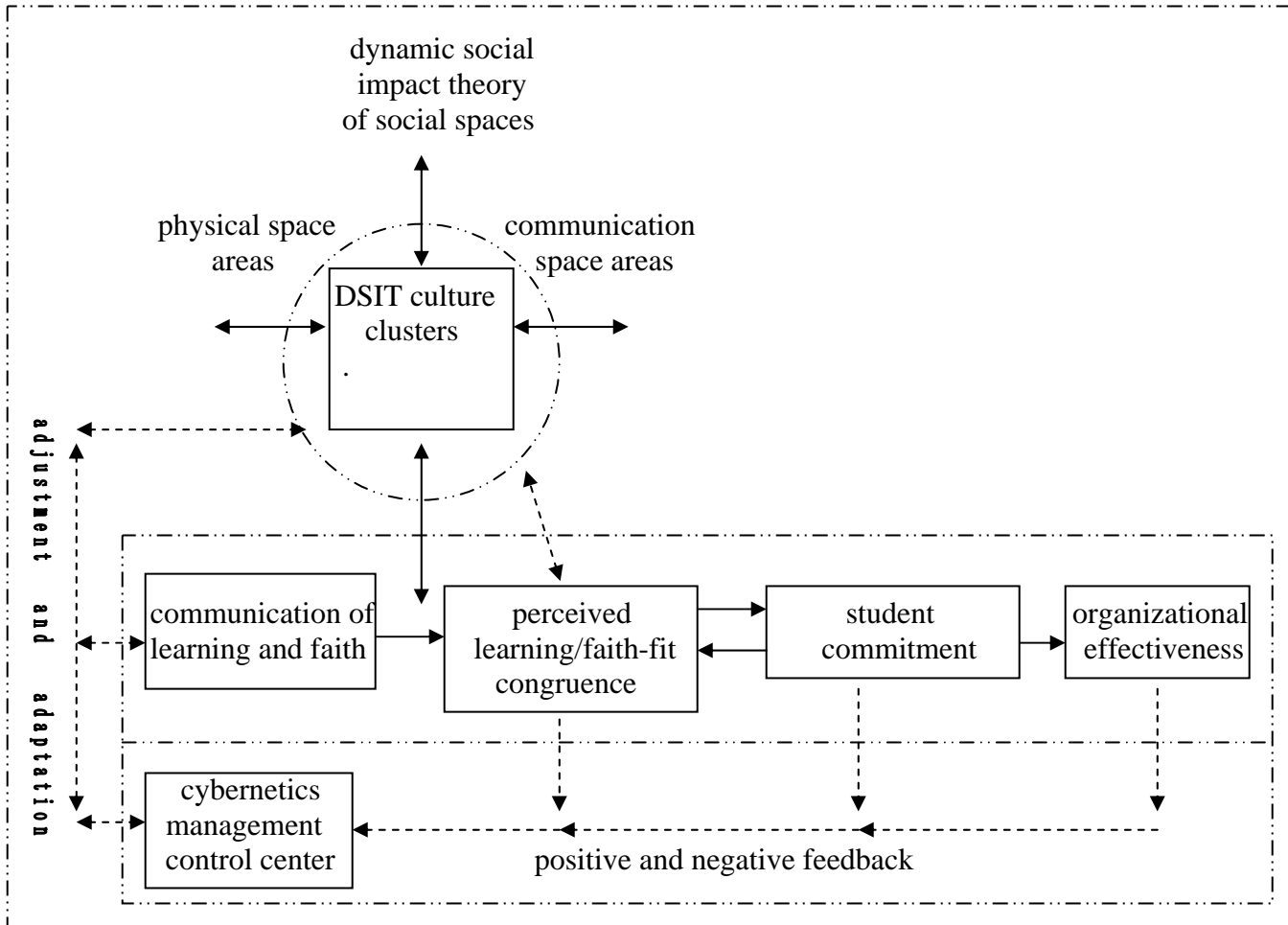
In an effort to achieve organizational effectiveness, faith-based educational leaders are increasingly recognizing the importance of creating an integrated atmosphere of learning/faith-fit congruence among the organizational culture; administration, faculty, staff; and the students that comprise the organization (Yates, 1998). This paper presents an integrated conceptual model of dynamic social impact theory and cybernetics communication theory that can help explain and predict organizational effectiveness as a product of open systems organizational communication processes containing the modality variables of perceived learning/faith-fit congruence, and commitment to the organization. The model also includes culture cluster groups acting as moderating variables upon the system.

A Combined Model of Cybernetics and Dynamic Social Impact Communication Theory
Applied to Learning and Faith Integration in Faith-Based Educational Institutions Utilizing
Internet Distance-Learning Programs

In an effort to promote organizational effectiveness, faith-based educational leaders are increasingly recognizing the importance of creating an integrated atmosphere of learning/faith-fit congruence among the organizational culture; administration, faculty, staff; and the students who comprise the organization (Yates, 1998). Pursuant to the open systems model of organizational leadership and communication, an important aspect of learning/faith-fit congruence among cultures is the communication process that integrates constituents into a system of “wholeness and interdependence” (Littlejohn, 1999, p. 42) leading to “homeostasis,” or “self-regulation” and the ability to maintain “a relatively stable state of equilibrium” and effectiveness (Goldhaber, 1993, p. 50).

As with open systems theory, cybernetics and dynamic social impact theories help explain/predict variables affecting and controlling organizational systems although there are differences between the two concepts. Cybernetics advocates the use of feedback to facilitate regulation, adaptation, and control of activity within the relevant system (Littlejohn, 1999) while dynamic social impact theory recognizes the role of cultural subsystems (individuals interacting within social spaces) in the convergence of attitude and knowledge (Littlejohn, 1999). In this paper we build a model to depict the relationship of cybernetics and dynamic social impact theoretical perspectives to explain learning and faith integration in internet distance-learning programs administered by faith-based educational institutions. The completed model (graphically depicted in Figure 1 below and explained in the subsequent discussion) integrates the principles of (a) open systems organizational communication processes, (b) perceived learning/faith-fit congruence, and (c) student commitment.

Figure 1 – A Combined Model



independent variables = communication of learning and faith
 dependent variable = organizational effectiveness
 mediating variables = perceived learning/faith-fit congruence and student commitment
 moderating variable = culture clusters of dynamic social impact theory – cognate groups
 -----> = cybernetics system feedback
 -.-.-.-.-> = open system

This paper presents a review of the literature providing a brief overview of (a) open systems theory and the three distinct components of the model: (b) communication of learning/faith leading to commitment and organizational effectiveness, (c) dynamic social impact communication theory of social spaces, and (d) cybernetics communication theory and the integration of cybernetics into the model. Next, this paper presents an integrated open systems

model of cybernetics and dynamic social impact theory followed by an anecdotal example using Regent University's doctoral programs in Organizational Leadership. Finally, we offer concluding remarks and recommendations for future research addressing the conceptual model.

Open Systems Theory

The open systems model of organizational leadership holds that: (a) "Organizations...are 'open' to their environment and must achieve an appropriate relation with that environment if they are to survive," (b) "Organizations...[are]sets of interacting subsystems," and (c) "Open systems encourage...congruencies or 'alignments' between different systems and...identify and eliminate potential dysfunctions" (Morgan, 1998, pp. 40-44). Open systems' elements interact and influence one another as the system exchanges information among the various components of internal/external environments. This dynamic interplay corrects deviations and maintains social structure (Morgan, 1998). These principles, applied within a faith-based educational institution would then require alignment among learning/faith, learning/faith-fit congruence, and student commitment to learning/faith and it is purported that communication is critical in attaining this alignment.

Communication of Learning/Faith Leading to Commitment and Organizational Effectiveness

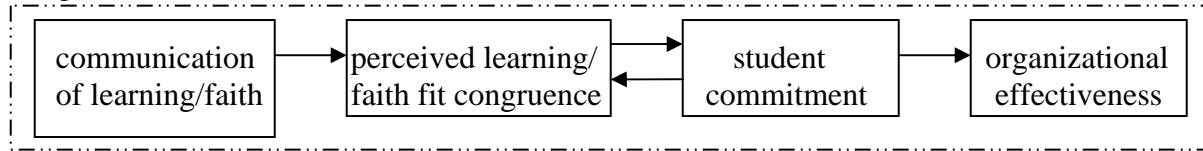
Organizational effectiveness is defined as "the degree to which an organization achieves its goals" (Goldhaber, 1993, p. 52). Adding to this, Daft (2001) identifies communication as a key to organizational performance. Continuing to build on the concept of effectiveness-communication it is important to consider Morgan's (1998) contribution as he relates controlling knowledge and information through the communication process to effectiveness; as well as Christensen's (1995) posit that communication is critical to managing the organization. Thus, it can be said that the organizational communication of learning/faith (causally modeled as an independent variable) influences organizational effectiveness (causally modeled as a dependent

variable) in faith-based educational organizations. Affecting the above variables are intervening elements of student commitment to learning/faith and learning/faith-fit congruence and organizational commitment as characterized as a values-based attitude toward the organization which impacts organizational effectiveness. Commitment when defined as “a ‘strong belief in and acceptance of the organization’s goals and values...and a definite desire to maintain organizational membership’” (Porter, Steers, Mowday, and Boulian as cited by Finegan, 2000, pp. 1, 2), indicates that student commitment and learning/faith-fit congruence (as a values-based attitude) can be modeled as interacting mediating variables intervening between communication of learning/faith and organizational effectiveness. A conclusion regarding the relationship between commitment and organizational/individual learning/faith-fit congruence can thus be made: the greater the individual’s/organization’s learning/faith-fit, the more committed the individual will be to the organization/culture (Hatch, 1997) which, in turn, increases organizational effectiveness.

Finegan’s (2000) study extended these concepts by including the variable of the individual’s personal perceptions of organizational values-fit related to commitment. Interestingly, he found that “one’s personal values or the match between the values of the person and the organization is less important in determining one’s level of commitment than is the [individual’s] perception of the values of the organization” (p. 11). For Finegan, values-fit congruence relates to communication as a product of receiver perception and derived meaning of values-fit congruence communication. Thus, in accordance with Finegan’s findings, “values-fit congruence,” seems to rest upon the perceptions concerning organizational values. Therefore, the values-based “learning/faith-fit congruence,” as a mediating variable, can be modified by “perceived learning/faith-fit congruence.”

A graphic depiction of a systems model of communication of learning/faith leading to commitment and organizational effectiveness is presented in Figure 2 below.

Figure 2 - System Model of Organizational Communication of Values Leading to Organizational Effectiveness



Dynamic Social Impact Communication Theory of Social Spaces

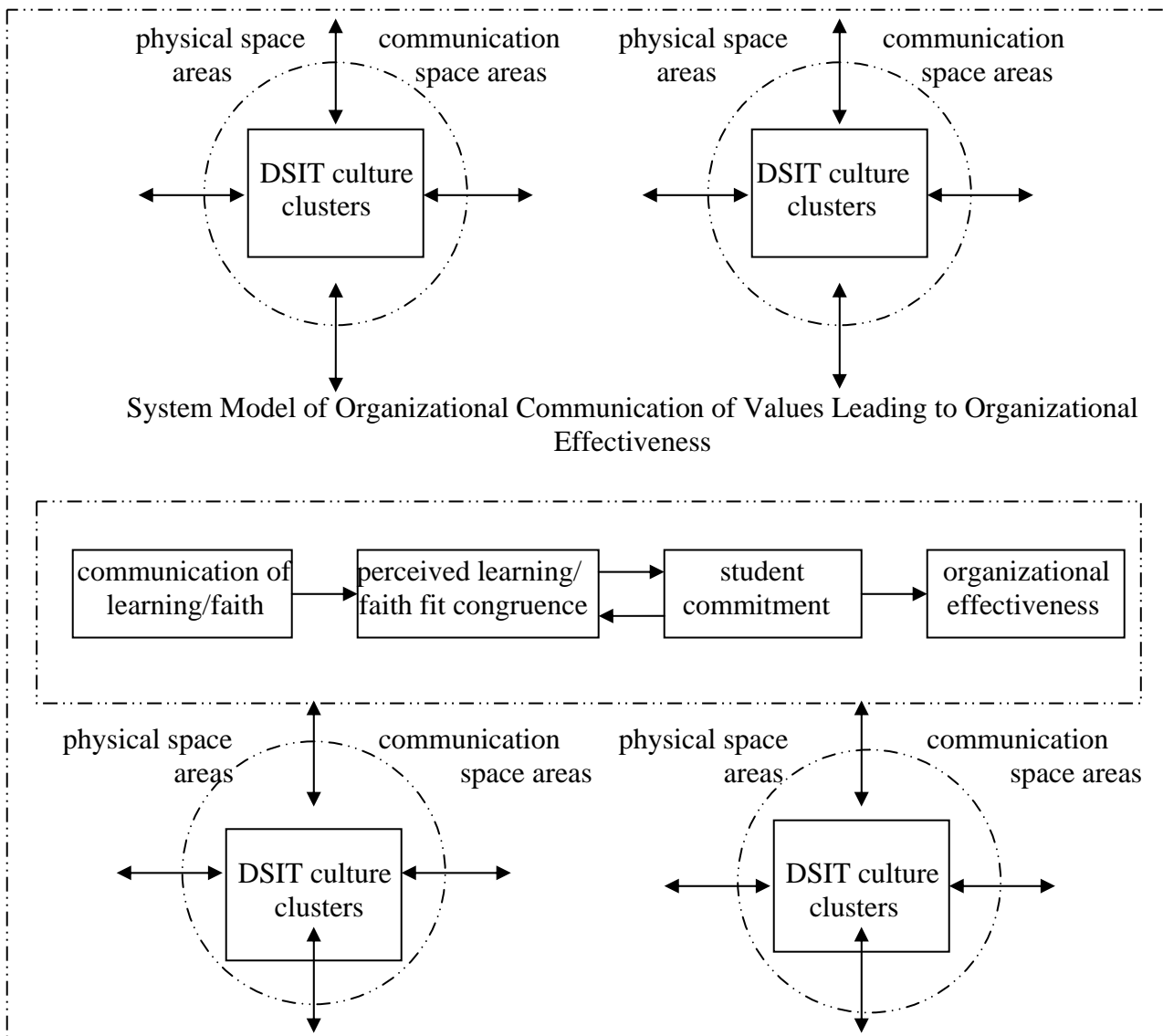
Latane’s (1996) dynamic social impact theory asserts that individuals in the midst of pluralistic settings “tend to group together into clusters of like-minded people” associated by physical space and communication space areas. These groupings develop “patterns of consensus in attitudes, values, practices, identities, and meanings that can be interpreted as subcultures” (p. 1) varying in strength, intensity, power, and influence. Each subculture develops differently with different outcomes. Some subcultures develop incrementally making small adjustments over time that converge with the larger organizational culture. Other subcultures make rapid “catastrophic” adjustments resulting in culture clusters that diverge from the organizational culture (p. 7). This convergence/divergence causes a competitive environment where subcultures compete for sustaining resources, thereby creating power structures of varied influence and organizational fit (Schaller and Latane, 1996). The cluster subcultures can be causally modeled as moderating variables (depicted in Figure 3) increasing or decreasing organizational culture-fit according to power and influence dynamics of various system components.

Latane and Liu (1996) advocate that, according to dynamic social impact theory, communication process occurs within a “social space” that is “somewhere between physical space and psychological space” (p. 2) which we refer to in this paper as ‘communication space.’ “Social space” is conceptually akin to “group and network” theories and “is a structure that

determines people’s relationships to each other and, therefore, the ways in which they are influenced by one another” (Latane and Liu, 1996, p. 2). To help understand this, consider that Huguet and Latane (1996) posit that many of the communication processes in dynamic social impact theory occur within the framework of informal, unstructured communication, and Rapert and Wren (1998) concur by identifying structural communication processes as emerging “in the daily enactment of organizational life” (p. 2).

A graphic depiction of the open system model of dynamic social impact theory of social spaces applied to the system model is presented in Figure 3 below.

Figure 3 - Open System Model of Dynamic Social Impact Theory of Social Spaces Applied to a System Model of Organizational Communication of Values Leading to Organizational Effectiveness



Since dynamic social impact theory is grounded in communication theory and the attitudinal relationships that occur, we posit that dynamic social impact theory has particular relevance within a model to depict educational organizational communication of learning and faith leading to organizational effectiveness.

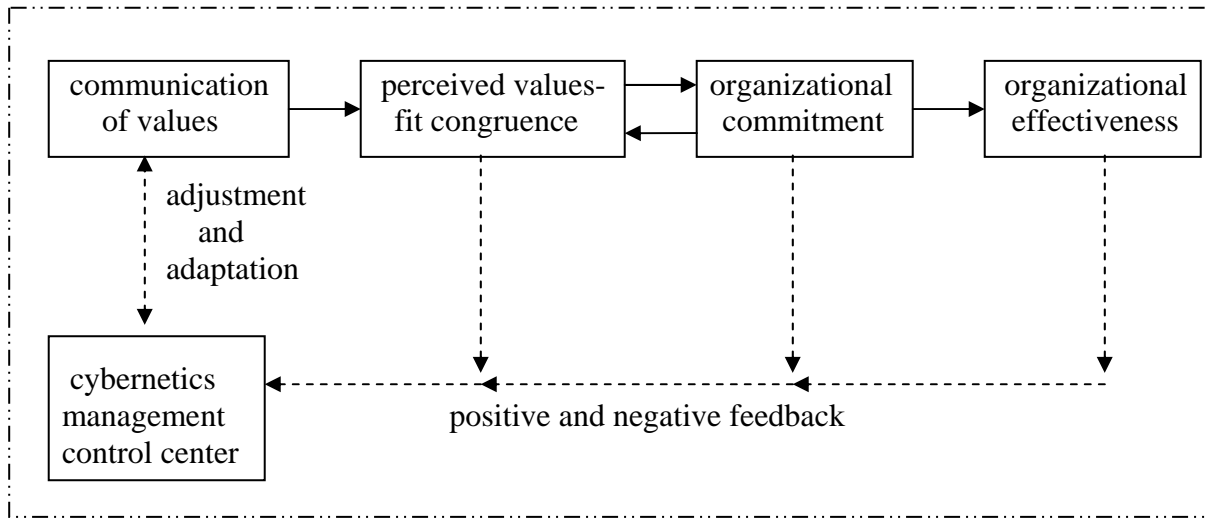
Cybernetics Communication Theory and the Integration of Cybernetics into the Model

Cybernetics theoretically deals with the way open systems regulate and control themselves and adjust appropriately to remain purposeful (Chisnall, 1999). We propose in this paper that cybernetics' regulatory concepts have relevance to a communication model when the organization's leadership uses feedback to determine if the organization is effective in attaining the organization's goals.

The fundamental element of cybernetics theory is a management control center to assure system regulation as stated by Littlejohn (1989): "A regulated system must possess certain control guidelines. The control center must 'know' what environmental conditions to respond to and how to respond. It must possess a sensitivity to aspects of the environment that are critical to its goal seeking" (p. 49). Feedback, whether it be positive (leading to change) or negative (leading to maintaining the status quo), is the mechanism that allows the system to enter a cycle of adaptation and renewal propelling an organization to change without completely abandoning the desired state (Westhefer, 2000).

A graphic depiction of the system model incorporating cybernetics system feedback is presented in Figure 4 below.

Figure 4 – System Model of Organizational Communication of Values Leading to Organizational Effectiveness Incorporating Cybernetics System Feedback



An Integrated Open Systems Model of Cybernetics and Dynamic Social Impact Theory

Although cybernetics and dynamic social impact theory are valid and important theories related to modeling communication leading to organizational effectiveness each has weaknesses that are resolved when combined in an integrated communication model.

Cybernetics, as a social construction approach to open systems theory, is criticized as being inconsistent with the mechanistic approach that much of open systems theory is founded upon (Littlejohn, 1999). Furthermore, this social construction approach lends itself to criticism that the approach is not really a formalized theory and has no real explanatory power (Littlejohn, 1999). Criticizing the concept, Rapert and Wren (1998) claim that cybernetics fails to explain and predict the verbal interaction processes by which human communication takes place. On the other hand, Rapert and Wren concede that cybernetics is useful in explaining and predicting the structural network frameworks necessary for dynamic communication.

Dynamic social impact theory is not a verbal theory, but a well-specified, computer-tested model” according to Huguet and Latane (1996, p. 3), however, it has limitations as an independent and separate theory. It appears weak in its explanations of the connectedness of

verbal communication channels throughout a system. It relies upon other verbal theories of communication to link and align various cultural (and subcultural) associations and activities. Heidenreich (1998) identifies dynamic social impact theory as including “orientations of human action” “dependent upon time and space” (p. 5). Dynamic social impact theory does not definitively identify the structural frameworks (as distinguished from structural processes) by which time and space dependencies are connected with human action throughout the system. Rapert and Wren (1998) state that structural frameworks are comprised of formalization (“formal rules, standard policies, and procedures” that govern communication and working relationships) and centralization (management control centers where “authority and control” are exercised) (p. 3), thus, it is necessary to discuss dynamic social impact theory within the framework of structural communication networks such as the neural network image utilized by Fink (1996).

Summary

Even though cybernetics and dynamic social impact theories have weaknesses as independent theories, a review of the literature indicates the weaknesses of each are greatly compensated for by the strengths of the other. Cybernetics provides the structural framework that dynamic social impact theory lacks, and dynamic social impact theory provides the social structural processes that cybernetics lacks. Both provide a useful theoretical construct concerning the causal relationship among organizational communication, perception of learning/faith-fit congruence, organizational commitment, and organizational effectiveness. Thus, a model integrating both theories creates a useful explanatory and predictive model of communication theory as applied within the framework of communication leading to organizational effectiveness in faith-based educational institutions.

An Anecdotal Application

An anecdotal example of the integrated model is Regent University's, internet-based, distance learning Organizational Leadership doctoral programs using cognate groups. In this model, organizational effectiveness (the dependent variable) would be the product of communication of faith and learning (the independent variables.) The cluster groups (the moderating variable) would be the cognate groups (primarily interacting by computer mediated distance dialogue) assigned by Regent administration. These Regent cognate groups should be viewed as legitimate social space groupings even though there is limited spatial grouping. It has been the experience of these authors that some of the Regent cognate groups moderate favorably and experience low attrition rates while others moderate unfavorably and experience much higher attrition rates. Possibly key to this model is the control the Regent administration exercises upon and within the cognate group. It may be that this interaction and control can be exercised in a predictive manner so as to increase the likelihood the moderating effect of the cognate group will be positive rather than negative, thereby leading to greater faith/learning integration.

Concluding Remarks and Recommendation for Further Research

We have approached this model conceptually and as a product of derived extensions of the literature, however, it has not been tested empirically. Therefore, recommendations for further research include: (a) studying the efficacy of the system model and the purported relationships of the modality variables; (b) if the model is found efficacious, studying the dynamics of the moderating cognate groups in an effort to explain/predict moderations in a strongly positive direction; and (c) studying applications in other settings i.e. the traditional classroom utilizing small group work, for-profit business settings, ministries, and other not-for-profit organizations.

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