

CROSSVERGENCE THEORY AND THE EVOLUTION OF CULTURAL VALUES: INTRODUCING A TRANSVERGENT PERSPECTIVE

Abstract

This paper complements and extends present research on the crossvergence theory of cultural values evolution at the individual manager level. It does so by focusing on the synergistic interaction of Chinese problem solving influences of a strategic nature. It establishes the implications of such interactions to IB practitioners and explains the nature of crossvergence at international boundaries. This paper also proposes an evolutionary strategic dynamic: transvergence. We thus contribute an additional theoretical foundation for further empirical research into the integration of macro-, meso- and micro-level cross-cultural and international economic variables.

Keywords: China, crossvergence theory, strategic theory, cultural values evolution.

1 Introduction

The concept of crossvergence proposes, in simple terms, that an individual incorporates basic influences from culture and economic ideology synergistically, thus creating a different and unique value system (see Ralston, Gustafson, Cheung, & Terpstra, 1993). This concept initially seems to complement the ongoing debate on convergence or divergence of values and appears intuitively reasonable. Economic and cultural influences, evidenced in business and societal practices, certainly interact and these interactions are likely to have an effect on the individual, potentially changing his or her value system. In logical terms, a synergistic interaction within an individual's value system implies that two separate inputs work together to create a different output. But is crossvergence not, therefore, merely self-evident, perhaps trite or just tautological? Why do influences expend energy working together (*syn* – together, *erg* – work) just to evolve another system, is there an evolutionary purpose? Why does Witt (2008) forcefully challenge the meanings, definitions and processes of value change in the crossvergence theory so well argued by Ralston (2008)? Are there deeper implications of the theory that require further consideration?

Crossvergence theory certainly raises two major questions associated with processes of value change. *Firstly*, explaining longitudinal dimensional trends in values evolution (Ralston, 2008, p.35) and, *secondly*, investigating the how, when and why of values evolution (*ibid*, p.38). By considering culture as an evolutionary system, the objective of this paper is to answer Ralston's (2008) two queries by simplifying the dynamics of the synergistic interaction. Simplification is intended to aid communication with and relevance for international business (IB) practitioners in identifying any evolutionary reason for crossvergence to occur. Greater consideration of the synergistic interaction, which theoretically creates unique value systems in the individual managers being challenged

globally, suggests that a focus on IB-managers operating across national boundaries could be rewarding.

We must point out that we do not comment directly on crossverging cultural values or economic ideologies themselves *but* on explaining dimensional trends, their likely processes of value change and the resultant implications for the IB-manager. We are wary of investigating influences of a purely ideological nature as the literature does not indicate clear and unequivocal empirical demonstrations of cultural values (the ‘desirable goals’ as ‘guiding principles’ proposed by Schwartz, 1992) actually interacting with sets of ideas or ideologies (Ralston, et al., 2006) to evolve into unique value systems. However, we take the position that individual managers, e.g. when resolving strategic problems for survival within the ecology of a business society (the market relationships and institutions in which managers trade and are regulated), adopt a weighted mix of internalised cultural solutions and external business solutions - similar to the concept of internal integration and external adaptation proposed by Schein (1985). The evolution of ‘new and unique values systems’ (see Ralston, 2008, p. 29) could then occur by an alteration in the weightings of the relative importance of internal and external core problem solutions – not necessarily from change in the actual values themselves. This would explain why core values are retained but why their weightings, their dimensional differences, can alter between categories of individuals across national borders (Chinese Culture Connection, 1987). A unique value system may then evolve (or not) according to the successful (or unsuccessful) output of the problem solving systems specific to the individual.

We therefore interpret the challenges raised by Witt (2008) and Ralston (2008) as a theoretical problem which should not focus on the identification of either the initial cultural and ideological influences or the final unique value system but on the purpose and

functioning of any synergistic interaction. Our research problem is in line with a recent exhortation for a ‘more in-depth look at the complexity of transition of values’ as suggested by Khilji *et al.* (2010, p. 419). Our initial starting point is that crossvergence does indeed lie somewhere between convergence and divergence and may in fact be the evolutionary adaptation process, moving between those two poles, which seeks to find a more successful value set for ongoing survival. The focus of this paper is thus on the evolutionary system in which the theoretical crossvergent interaction potentially occurs.

Our paper is structured as follows: Firstly, we clarify in greater detail the three concepts of convergence, divergence and crossvergence and discuss their possible implications for strategic problem solving when values evolve from a synergistic interaction. We develop a simple system approach for cross-border interactions and derive basic propositions to explain the processes of cultural values evolution and introduce the concept of transvergence. Finally, we follow the four principles of Kuhn (1970) and use the derived propositions to create testable predictions, indicate theoretical success, develop predictive techniques, and argue the challenges in improving predictive power. The paper finishes with a brief conclusion, limitations and contributions of this paper.

2 Perspective and concepts

This chapter will position key terms which are essential for the subsequent discussion and justify the perspective of this paper. A first key term to define when discussing cross-, con- and di-vergence is culture. Culture, we note, has many definitions such as ‘collective programming of the mind’ (Hofstede, 1984, p.13) or the ‘way we do things around here’ (Deal & Kennedy, 1982, p.4) and the interpretation of the major categories of culture still is an open field for discussion (see, e.g., Earley, 2006; Smith, 2006). Crossvergence, however, focuses on culture’s evolutionary nature and we therefore understand culture within the

environmental causation model simply as ‘human-made responses to the ecology within which societies exist’ (Matsumoto & Yoo, 2006, p.240). This understanding also conforms to the anthropological argument that individuals ‘unmodified by the customs of particular places do not in fact exist, have never existed, and most important, could not in the very nature of the case exist’ (Geertz, 1975, p.35).

In order to maintain the practical relevance of this paper for IB-practitioners, we also consider a strategic perspective, in particular, the ‘emerging’ strategic school (Mintzberg, Ahlstrand, & Lampel, 1998), with its focus on human-made responses. Strategy thus emerges from problem solving and the related solutions which allow the individual manager to survive in a competitive IB world with strategic responses culturally differentiated (Schneider & De Meyer, 1991; Williams & van Triest, 2009). A strategic perspective within IB also allows for the present period of rapid change (the 2008/09 financial crisis is an example) with IB managers forced to act quickly and practically to solve economic and business problems for their organizations arising from a changing environment (Leiblein & Macher, 2009). Both Kuhn (1970) and Popper (1976) take a basic Darwinian perspective, and argue that successful actions evolve and become established because they are subject to an evolutionary process with paradigm survival and evolutionary adaptation dependent upon the outcome of problem solving. Our paper argues that such an evolutionary process, the synergistic interaction, is thus an important problem solving focus in seeking to answer the challenges posed by Witt (2008) and Ralston (2008).

As an appropriate level of analysis we then follow McGaughey & DeCieri (1999) who have advocated a meso-level approach for the debate on convergence and divergence. The meso-level perspective (see Rousseau & House, 1994, for an elaborate discussion) moves the discussion forward by expanding the units of study ‘beyond the deceptive tidiness

of individual, group, and organization' (*ibid*, p.16) and is proposed as a rewarding approach to study effects of context on individual behavior and the construction of context by individual psychological processes and social dynamics. The continuous interplay of personalities, culture, environmental factors, and institutional factors - the many personal, political and relational issues that consciously and unconsciously bear on an individual's managerial aims again are argued to result in a strategic decision, a human-made response, affecting managerial choice and survival (Harris & Carr, 2008).

Crossvergence is also considered as a human-made response and Ralston *et al.* (1993; 1997) discuss the concept of crossvergence as a continuum between the polar extremes of convergence and divergence. It is far beyond the scope of this paper to review the advances in the over four decade old debate on the convergence/divergence issue or to provide an overview on the comparably young theoretical advancement of crossvergence. A recent summary on these three perspectives and values change is provided by Ralston *et al.* (2006) indicating that on the one side of the convergence/divergence continuum, proponents of the *convergence* perspective argue that 'industrialization and technology are the primary driving forces of the global merging of work values' and a convergence of values across societies. From an evolutionary perspective, we would add that the population follows individual adaptation (Futuyma, 1986) to a better 'way of doing things' (Nelson & Winter, 1982, p.258). On the other side of this continuum, *divergence* theorists argue that 'the values system of a society is deeply embedded in its cultural roots' (Ralston, et al., 2006) and - as learned in an enduring socialisation process – is passed on throughout generations and changes very slowly. Evolutionary change for societies where past experience has provided successful solutions is relatively slow, giving rise to periods of 'punctuated equilibrium' (Bak & Sneppen, 1993).

No movement within the convergence-divergence continuum indicates equilibrium. Crossvergence therefore requires an interaction, i.e., an active process of different influences within a community, resulting in an evolved, unique value system (Ralston, et al., 2006, p.70). In this notion, crossvergence may be an integrative alternative characterized as a melting pot of values formation: crossvergence was originally considered as a value set that was ‘in between’ the values supported by national culture and economic ideology. A broader definition views crossvergence as ‘something different’, rather than something ‘in between’. Thus, it can be argued – as a further definitional attempt by Ralston (2008) to ease Witt’s (2008) concerns – that *crossvergence* occurs when an individual incorporates both national culture influences and economic ideology influences synergistically to form a unique value system that is different from the value set supported by either national culture or economic ideology. The best analogy we can give as an introductory assistance is that of a chef synergistically interacting with a set of ingredients. It is the resultant weighted mix of the chef’s guiding principles and the restaurant resources, the successful, internationally acclaimed recipe that is initially unique and different (crossvergent) and is adapted by others (convergent) or remains nationally distinct (divergent). However, the actual interaction – not its output – we call transvergence.

The ‘chef’ analogy implies that convergence occurs when solutions to problems are accepted internationally, that divergence occurs when national solutions are retained (such as national cuisines), and that crossvergence may be a novel combination of acceptance and retention. To put it in Kuhn’s (1962) paradigm terms, crossvergence may be the adjustment process in paradigm change and the process, the synergistic interaction, becomes the explanatory focus to advance crossvergence theory. In an unstable ecology it is worth expending energy in seeking improved solutions for evolutionary advantage. Crossvergence theory does not clearly model any synergistic interaction and thus is unable to explain

longitudinal dimensional trends, the how, when and why, of values evolution, and the resultant implications for strategic problem solving. Furthermore, we also query the concept of crossvergence as it seems to be primarily tautological given that the term ‘synergistically’ implies that the evolved value system is logically always different from the initial influences in any synergistic interaction. From an evolutionary perspective an obvious question now arises – why bother changing the value system? Change occurs over time, a longtime process, and an understanding of the system is needed to explain how, when and why change occurs.

3 Towards an interactive dynamic system

Our focus on the interactive dynamics seeks to understand the synergies in the system. A focus on dynamic system interaction rather than an empirical comparison of the initial influences with the evolved values is necessary. A system perspective is both mathematically and economically sound for interpretive purposes (Simon, 1962) with crossvergence probably of a complex, interactive nature.

In deriving an interactive system and cross-culturally valid system, we have been concerned that Western theory does not automatically apply to Asian practices and that cross-cultural caveats are necessary (Van de Vijver & Leung, 2000). For West and East to converge, diverge or crossverge, there needs to be common interpretation across the boundary. One major cultural caveat is the difference in the holistic cognitive processes of the Asian mind which contrast sharply with Western analytical techniques (Nisbett, Peng, Choi, & Norenzayan, 2001). This ethnic difference transcends national cultural dimensions and is a cognitive difference related to problem solving. Tayeb (1994) recommends that theoretical considerations should be holistic in nature and we follow this recommendation in our consideration of cross-border managerial interaction with reference to Chinese managers.

The iterative value adjustments of Adler (1997) indicate that any cultural value change involves a feedback from pattern generation. We take this a step further in terms of an evolutionary argument – if the patterns are not successful adaptations to the external environment then the values guiding the problem solving may be rejected. If successful then the values are reinforced and imitated into an established pattern and this position conforms to the linkages argued by Tang & Koveos (2008). The patterns after adaptation, the human-made responses, need to be successful to survive in the ecology of Chinese society. Hofstede (1997) notes that core values differentiate decision choice – yet culturally reinforced decisions can prove to be unsuccessful across cultural boundaries, creating culture shock (Furnham & Bochner, 1986). Trompenaars & Hampden-Turner (1998, p.7) establish that repeated success creates the core assumptions in problem solving. Our main argument in developing a theoretical system on values evolution is that evolution of a surviving (unique or not) value system is one in which the system feedback iterates successful solutions into assumptions for future survival patterns used in problem solving. For the IB-practitioner the success pattern is primarily strategic across cultural and business borders, becoming a preferred method of cross-border management control (Williams & van Triest, 2009).

A dynamic system iterates and generates patterns and is a simple mathematical concept which must incorporate the *space* of the system where change takes place, *rules* for change within the *space*, and *time* in which the change takes place (Casti, 2000, p.37-39). The *space* we posit is that of strategic problem solving. Crossvergence suggests that cultural values and economic ideology are two elemental influences which interact and define the system *space* for the interaction. The speed of change in the interaction output is dictated by the *time* measured in the system. Our focus in this paper is on the interacting *rules* – the synergistic interaction regulating the output of the system and creating the evolutionary change. The *time* taken for change in the system will reflect in the longitudinal trends of

value based dimensions. Mathematically, a functioning dynamic system tends towards a small number of control variables with any number of state or descriptive variables (Saunders, 1980). This also simplifies our argument as the number of *spatial* descriptive variables (the numerous types and categories of strategic problems, their varied solutions and subsequent dimensional patterns) is not under study and we can focus on the small number of controlling *rules*. Socio-cultural values are considered a *rule* as they guide strategic decision choice through relational, communal networks but economic ideologies *rule* through the institutional constraints of the markets in which that strategic decision is to be implemented (Lin, Peng, Yang, & Sun, 2009).

3.1 A cross-culturally valid system

Is crossvergence then a valid theory in Asia? Reflecting on crossvergence theory, Ralston (2008) also uses the West-East-context to note that there are no theoretical explanations why Hong Kong national managers' values are evolving towards higher levels of Confucian dynamics whilst Chinese managers are tending towards lower levels. In terms of *rules* within a manager's problem solving *space* the answer should initially lie in the human-made intra-national responses to environmental influences on that society. It must be noted here as an explanatory assistance that the Chinese Culture Connection (1987) proposes Confucian dynamics as a dimension peculiarly Asian, identified as representing long-term orientation (Hofstede & Bond, 1988).

For instance, Chinese networks have been demonstrated by Haley & Tan (1999) to contain trial and error, intuitive and holistic decision making practices. Any lack of formal analytical process is catered for within a Chinese dynamic and relational network – *guanxi* (Xin & Pearce, 1996). Studies into *guanxi* have indicated that it is prevalent throughout Chinese society and that it is multifaceted (Chen, 2001). *Guanxi* has governance mechanisms

and operates in China in a unique fashion. The practical facets of guanxi enable transactions to be controlled within a poorly defined and limited legal framework (Allen, Qian, & Qian, 2005). Trusting relationships within these networks are important (Chua, Morris, & Ingram, 2009) but relationships may decrease as open markets increase (Fan, 2002). The relational nature of guanxi is clearly economic with specific intended application and closely networked (Wood, Whiteley, & Zhang, 2002). The development and trading of valuable (or rare) network resources is well embedded in guanxi and contributes to firms' growth (Peng, Wang, & Yi, 2008). High trust levels within the network (Child & Rodrigues, 2004; Chua, *et al.*, 2009) are necessary to establish renqing, a system of decision making designed to create future obligations, although Luo (2008) does confirm the increasingly corrupt and manipulative nature of such guanxi obligations when they transcend the family connection into business.

Chinese relationships thus provide control over business transactions but, in the absence of strong institutions, the controlling rules can be manipulative. Our system perspective and concept should therefore apply to both Western institutional and Chinese relational practices, noting that the manager operates at the meso-level (in different systems). Can our system concept now explain crossvergence theory in a Chinese context? The Hong Kong British institutions and territory were handed over to Chinese control in 1997. Political and business ambiguity in Hong Kong would have been decreasing before and during the handover period following protracted successful negotiations for the 'one country, two systems' agreement between the UK, Hong Kong and Chinese representatives. Hong Kong managers are also relating more openly to China, especially in the Pearl River Delta, and are likely to develop greater longer term guanxi relationships in China than hitherto (Fan, 2002). Hong Kong managers will thus meet tension in their own societal networks from the different

cross-border networks when adapting to a changing external business environment. This would imply an acceptance of the longer term strategies prevalent in Chinese relationships.

At the same time, China was preparing to enter the World Trade Organization (WTO) by 2001, creating a change in traditional relational market governance and in behaviour (see Fang, Zhao, & Worm, 2008 for an overview of changes in China). As China enters the legal institutions of WTO market governance, the relative importance of its managers' long-term values, geared to relationships, are likely to drop towards the WTO shorter term orientation of contractual resolution such as prevails internationally. It would be unusual if economic and business ambiguity did not increase over such a period for the Chinese managers as they have little experience of WTO market *rules*. A trend to shorter term strategies, possibly more opportunistic transactions of globally valuable resources, would be competitively advantageous whilst governance issues were being assimilated.

In dynamic terms, the separate sets of *rules* of the individuals in Hong Kong and China were undergoing different *spatial* ambiguities, requiring the formulation and acceptance of new *rules* against a specific *time* period. The Chinese system *rules* were adapting to the global environment and the Hong Kong system *rules* were adapting to the Chinese environment. We can argue strategically that Chinese managers alter their weighting from high trust and long-term internal *guanxi* with low transactional costs to valuable resource trading using shorter term strategies governed by institutions within the WTO. On the other hand, Hong Kong managers need relationships in China and alter their values weighting towards longer term flexibility in strategies with higher relational trust. A crossover of value trends in Confucian dynamics identified by Ralston (2008) is explicable through the system dynamics of outputs under the changing clarity of the ambiguous environments. It is the controlling *rules* within, but not across, separate systems that are

interacting and the resultant outputs, although linked by Ralston (2008), are actually the outputs of two distinct system *spaces* for the Hong Kong and Chinese individual managers. To put it bluntly, the crossvergent comparison is not valid. This also explains why Ralston (2008) can interpret the dimensional trends of the Hong Kong and Chinese individuals from all three convergent, divergent and crossvergent perspectives by bringing in US trends – the system *spaces* are mutually exclusive. The Hong Kong managers are resolving problems in relating to Chinese cross-border business and the Chinese managers are resolving problems from WTO institutions and regulatory governance.

The unsubstantiated crossvergent interaction within the *spaces* of the Chinese and Hong Kong systems is apparently comparable only because of coincidental *time* periods. If the Hong Kong handover were not coincident with China's progress towards WTO accession, the longitudinal crossover trend would be different. It is a convergent trend by Hong Kong managers to a Chinese relational environment and a convergent trend by Chinese managers to a global institutional environment. If the solution trends are successful then the *rules* for Hong Kong managers will evolve and those for Chinese managers will evolve. But Hong Kong and Chinese *rules* do not synergistically interact with each other when the systems are exclusive – the *rules* are adapting to meet external environmental change.

3.2 The crossvergence challenge

Our conceptual discussion so far is creating a difficulty in the acceptance of crossvergence theory in terms of its definition. There is a difference between Western and Eastern systems but one major contrast is institutional versus relational *rules*; the former system having strong legal institutions to protect economic activity, the latter relying on relational trust for markets to function. North (1990) argues historically that the latter was the case in Europe before inter-state trade required state enforced contract law across state boundaries. This would

initially suggest that convergence or divergence is the ultimate strategic output of interactions across borders with modern institutional governance assisting convergence and ethnic and regional relational governance maintaining divergence. Our system derivation conforms to Leung's (2008) observations. An interim meso-level interaction is thus of strategic significance in explaining trends towards either pole in the convergence/divergence continuum.

Any explanatory system must therefore cater for the opposing tension between a relationally controlled national manager and the international governing institutions of the open or closed marketplace in which the manager operates. This tension is identified in IB when managers polarize decisions between the socio-cultural group dynamics relating to the management of relationships in cross-border activities, and the business logic decisions relating to the strategy necessary for countering external competition, customer demands and resource deployment (as explained by Evans & Lorange, 1989). These logic systems have been subsequently empirically established, using strategic problems as system categories, and identify different national strategic solutions across Europe as variance in the weightings of the two logics (Segalla, Fischer, & Sandner, 2000). This empirically established concept aids the context of our paper; management strategies have nationally differentiated dimensions, the strategic influences over problem solving can resolve socio-cultural integration and external market adaptation, problem solutions are weighted, integrated adjustments of the elements in the influences.

Adjusting the weighted mix of the strategic influences will change patterns of behaviour and, through iteration and feedback, successful patterns of behaviour will evolve successful value adjustments. The system dynamics therefore imply that values acceptance or retention vary according to the strategic solutions within the problem solving *spaces*.

Different forms of governance (e.g. institutional versus relational) can create tension in strategic decision making (choice between *rules*). In consequence, system assumptions need to go beyond synergistic interaction of *rules* and consider the *space* of the system where change occurs. An appropriate system description needs to incorporate relevant logics to resolve the integration of institutional and relational controls. Decision making requires dynamically interacting within the system and settling on the most acceptable choice for evolutionary advantage based on the strategic mix and *rules* of the *spaces* in which managerial success or failure is achieved.

The problem solving description in Figure 1 shows how steps (solid lines) in strategic problem solving lead from variation in problem identification, where the evolutionary selection (the decision choice) is made, how feedback occurs (the dotted lines) and where retention in success is constantly tested by the environmental ecology. The system process also allows for an evolutionary ‘trial and error’ activity which spurs experimentation and possibly rejection. For example, the BP experimentation in fixing an oil blow-out during 2010 in the Gulf of Mexico is evolutionary in that it threatened BP’s corporate and managerial survival. The strategic tension, between the large multinational socio-cultural *rules* of BP integrating their managerial actions and adapting to the external political and institutional *rules* of the US administration, is not necessarily resolved in short *time* periods but creates output solutions allowing iteration and adjustment over *time*. IB strategic systems are therefore evolutionary by allowing successful or unsuccessful choice under novel or ambiguous ecologies as an evolutionary survival process. An ambiguous condition we define as not having accurate probabilities of likely success attached to it. Such a condition is necessarily evolutionary as it has no past patterns to mathematically define choice. In our example of BP in the Gulf, the volatility in the BP share price during the search for solutions

provides an indication of uncertainty over levels of uncertainty – there was no clarity in the probabilities of successful solutions.

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The schematic nature of the IB problem solving system can now be summarized as follows:

- The system *rules* enable individual managerial choice within the *spaces* defining the internal and external boundaries of IB problem solving.
- Choices are strategic and subject to successful or unsuccessful system outputs over *time* feeding back and iterating into more successful, possibly unique, *rules* governing managerial survival.
- Strategic problem solving and decision-making systems generate evolving sets of solutions when ambiguity over *time* challenges the stability of system *rules* and affects the established past successes in problem solving.

The influences in crossvergence theory are strategic *rules* interacting synergistically over *time* to generate increased choice of potential solutions (see Figure 1) where ambiguity in output success exists. The synergistic interaction is not wasteful in energy terms as the possibly unique output is strategically specific and aimed at improved solutions to an externally changing ecology. Successful choice feeds back to iterate further strategic *rules* – and the process continues over *time*, constantly evolving improved solutions and future *rules*. Crossvergence theory, however, seems to have two *spaces* with socio-cultural and economic ideology *rules* straddling the two *spaces*. Crossvergence seems to involve interacting *spaces*

rather than, or as well as, strategic *rules*. Longitudinal trends are explicable if the system *spaces* are firstly tested under basic set theory – are they mutually exclusive or partially inclusive? If the former, then the trends are explained by the internal *rules* adjusting to the external environment but evolving within the system. In the latter case, the system *spaces* must combine to allow their respective *rules* to interact. Further consideration of the systems (with examples to aid explanation) is necessary.

4 The dynamic systems perspective, longitudinal trends and values evolution

We argue in this paper that it is survival dynamics in the face of ambiguity which evolve system *rules* within descriptive *spaces*. Closed border national cultures in the past, had stability in cultural system input and institutions, resulting in little to no change in output, implying slow value evolution unless occupied militarily (Hofstede, 1997). There is a continuing trend to disequilibrium in modern business (Bettis & Hitt, 1995) with cross-border activity increasing and previously closed societies such as China encountering ambiguity from external business threats (Warner, 2002). Chinese investment overseas is increasing and thus presenting different ecologies to the national Chinese manager. We argue that *time* governing the evolution of strategic solutions is now shorter with successful and unsuccessful choices being made under conditions of increasing ambiguity.

4.1 Chinese systems

As Chinese expand their overseas activities their systems will partially merge with global systems - simple *rules* interacting with complex *rules*. From a strategic perspective, a first proposition is that for Chinese management involved in international business, there would be considerable retention of relational *rules* when institutional *rules* are complex.

At an international boundary, a Chinese company maintaining Chinese practices would have relational management resources difficult for a Western company to imitate. Retaining *rules* governed under relational guanxi would be one way to prevent imitation. Conversely, the Chinese company would find it difficult to imitate Western companies unless it adopted Western institutionalized legal and management practices and dispensed with relational guanxi. The dynamic solution to the dilemma is to increase heterogeneity in resources by merging *spaces*. From a competitive advantage perspective, a second proposition is that there should be retention of relational guanxi but also a convergent trend to Western institutional *rules* where possible at the international boundary. This should occur when a strategic opportunity for heterogeneity in managerial choice is available. The optimum strategic solution is to allow problem solving *spaces* to merge. This, we contend, is part of the crossvergent interaction process.

The relational Chinese manager is also interested in the follow-on potential to an overseas investment (Li & Rugman, 2007). The Chinese use of future obligations through the renqing function in guanxi, although cementing present relationships and improving harmonious behaviour does create and possibly increase future ambiguity because of the unspecified nature of those future obligations. The system *rules* are more likely to evolve successfully if ambiguity can be decreased and problem solving patterns become established. Arbitration is an intermediate step between relational and legal governance and is increasing in Asian society to resolve ambiguity in Asian transactions (Peel & Croft, 2010). Following this line of reasoning, a third proposition reasons that there should be a decrease in the importance of renqing obligations with a trend towards Western arbitration institutions to counter ambiguity in the retention of Chinese socio-cultural relational *rules*. The problem solving *spaces* would retain some socio-cultural divergent *rules* but also increase institutional convergent *rules* as the *spaces* combine to increase solution success. This third proposition

therefore conforms to increased heterogeneity in resources (proposition 2) and in improved governance over potentially opportunistic strategies (proposition 1).

The propositions are not mutually exclusive and the problem solving *spaces* can merge. However, the merging of problem solving *spaces* does not constitute convergence. The evolved *rules* from the *space* mergers are the outputs of the synergistic interaction and it is the outputs that dictate convergence or divergence. Our system argument leads us to believe that the crossvergence concept applies to the merged *spaces*, implying that it is indeed ‘something different’ from an intermediate position in the convergence/divergence continuum. The interaction of the *rules* in any single *space* results in an adjustment of the value weightings, in other words a transvergence to create more successful strategic choices.

To sum up, three propositions are developed for the context of Chinese managers solving problems at an international boundary. Following the previous discussion, evolution in their problem solving system *rules* is explicable when there is a trend towards maximizing strategic solution success through:

- a) the retention of traditional socio-cultural *rules* governing transactions, as the Chinese then retain high relational trust levels to decrease costs, but integrated with
- b) an increased heterogeneity in resources to improve problem solving when different strategic problem solving *spaces* offer alternative system *rules* for competitive advantage with
- c) the system outputs tending over *time* to solutions which decrease ambiguity in the flexibility necessary for future obligations to be met without manipulation.

4.2 Longitudinal trends and values evolution

The summary of our system discussion, in points a), b) and c), is specific to Chinese managers and is testable using basic strategic theories (e.g. transaction cost economics). However, our argument is focused on explanation. We now summarise our argument on trends for problem solving systems, and define our paradigm beliefs:

Transvergence is the successful integration of strategic influences and is an adapted weighting chosen, in our argument, by the strategic problem solver from the holistically interacting relational and institutional influences. The integration is a human-made response to ambiguity in the business ecology within a society and can result in convergence or divergence to or from other societies. If there are low levels of ambiguity then the output retains stability and past patterns of behaviour.

Convergence is the successful output of integrated strategic influences and is similar in process to transvergence. The output is an evolutionary solution arising from challenges to the business ecology within a society. The solution is a preferred tendency towards external low risk societal patterns where successful evolution has been demonstrated.

Divergence is the successful output of integrated strategic influences and again is similar in process to transvergence. The output is an evolutionary solution arising from challenges to the business ecology within a society. The solution is a preferred tendency towards internal societal patterns where successful evolution has been demonstrated and avoids external, higher risk, societal patterns of behaviour.

Crossvergence is not a 'point' in the convergence/divergence continuum but is the result of an interaction between strategic influences where the influences synergise across

two distinct problem solving systems. Crossvergence is different from transvergence, convergence or divergence, because ambiguity in the business ecology creates a preferred choice for the merging of problem solving systems. Crossvergence is the successful output of interactive strategic influences across different problem solving systems (see Figure 2). The output is a human-made response to change in the ambiguity of the business ecology within a society by evolving a preference for integrating both internal and external societal patterns, where successful system solutions have been achieved, to form a unique problem solving system.

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Strategic influences are problem solving *rules* and can be considered cultural values and business ideologies for crossvergence theory but are more likely to involve the totality of personal, corporate, environmental, institutional, political, relational and other identified influences on managers' decision making. For our paper we have identified institutional versus relational influences as important for the study of Chinese managers. The strategic influences are therefore case and context specific and can be chosen for further research after defining the *space* of the problem solving system or systems and establishing levels of system exclusivity.

Longitudinal value trends will thus depend upon the ongoing successful problem resolution of adjusting to a changing external environment either by transverging, converging, diverging, or crossverging. The how, when and why of values evolution are, respectively, the interaction of case and context specific strategic influences such as institutional and relational *rules*, the availability and subsequent implementation of successful solutions in problem solving *spaces*, the improvement of individual managerial survival by

adopting successful outputs from the interacting *rules* and, over *time*, the successful managerial community will adapt.

4.3 The systems perspective as an explanatory paradigm?

We raise recent arguments in the literature over the meaning and definitions of crossvergence in order to develop an explanatory theory for values evolution. The theorizing in this paper is primarily from first principles and we are conscious that some principles are already advanced through more recent research. Our contribution is to insert system dynamics into the discussion and in doing so we have identified where crossvergence takes effect – across different problem solving systems. The subsequent sections in this discussion chapter will follow the principles of Kuhn (1970) and seek to answer the following questions: (1) What can the dynamics of the model predict? (2) Does the model have even partial success? (3) Are predictive techniques developed? (4) What are the challenges of improvement?

Prediction: For China, the system indicates that reliance purely on institutional regulation is not the optimal strategic choice. A system *rule* that controls opportunistic behaviour through a relational trusting network is cheaper in transaction cost terms for complex business transactions and should be evolutionary convergent and imitated by other societies. Where regulations prevent this convergence of relational *rules* then a *space* merger, rather than a *rule* convergence, would allow Chinese relational networking to exist with WTO institutional controls for simple contracts, such as basic trade or affreightment issues. Crossvergence would then occur with unique heterogeneous *rules* conforming to transaction cost theory yet improving Chinese competitive advantage. For the West, used to institutions leveraged for consumerism, recessionary deflationary markets would suggest an evolutionary adjustment to increased socio-cultural thrift. Thrift is an important value in the Confucian dynamics dimension of long-term orientation and an increase in Western thriftiness would be

a convergent trend to Chinese behaviour. An increasing distrust of politicians' and economists' abilities to handle recession would also result in convergence to the more low trust Chinese society outside the *guanxi* network. Indeed, with China becoming partially convergent to Western institutional governance, the system predicts that the West becomes partially convergent to Chinese socio-cultural values. The problem solving *spaces* are thus likely to merge or overlap (e.g. from joint adoption of G8 and G20 agreements) and crossvergence becomes the more descriptive theory with increased potential for prediction.

Where *spaces* are 'exclusive' and not merging, the system demonstrates that Hong Kong managers' values evolution, initially tending towards Chinese long-term orientation then overtaking it, is a relative adjustment caused by greater socio-cultural certainty in Hong Kong through and post-1997 but greater institutional uncertainty in China through 2001. The more internationally inclined Hong Kong manager may now perceive increased global institutional uncertainty but China may feel more certain than the rest of the world of its own intrinsic competitive advantages. Hong Kong managers would become more opportunistic and Chinese more keen on flexible real options. A reversal of the present divergent vector trends for the two managerial groups should therefore occur with convergent economic solutions manifested through common values (and communal relationships) in the Confucian dynamics, long-term orientation, dimension.

Success: This section questions whether the system is even partially successful? Could the system, for example, have predicted the arrival of the 'astronauts', the Chinese immigrants to Canada who return to Asia as expatriates, referred to by Tung (2008). The system does cater for socio-political uncertainty. The lead author of this paper was an IB practitioner in Taiwan in 1978/79 when President Carter recognized Beijing over Taipei, and was based in Hong Kong in 1984 when the British Prime Minister announced the handover of

the territory to China. He was immersed in a changing social and business environment yet observed that minimal societal unrest followed. Nevertheless, some Taiwanese took refuge in US immigration and many Hong Kong Chinese (primarily civil servants) requested British passports, others emigrated to Canada (Vancouver gaining the nickname Hongcouver), Australia and New Zealand. A socio-cultural dynamic, the Chinese predilection to importance of the family (Luo, 2008), was being threatened by political and institutional ambiguity. Flexibility as an evolutionary survival option would indicate that by applying for foreign passports and ‘host’ country residency but returning ‘home’ as expatriate managers to Hong Kong, a competitive advantage over other foreign expatriates in resources of language and existing *guanxi* is created. The problem solving *space* (family survival problems) links Canada’s institutional residency *rules* and Chinese relational network *rules* at the personal individual level to optimize strategic solutions in a dual country environment. The strategic system has predictive and explanatory power once the problem solving *spaces* (Canada’s socio-cultural *rules*, for example, are not involved) are clearly defined.

Few systems function well in periods of cataclysmic economic or social unrest but our proposed system actually requires an ambiguous environment to allow for evolution. The system expends energy in seeking to cater for ambiguous and difficult environments, such as the present credit crunch, by adjusting its problem solving from market influences to past socio-cultural success. For example, market dominated US Republicans may let banks go bust (Lehman Bros) but the socialist British Labour Party nationalizes them (Northern Rock) – indicating socio-political path dependence under economic ambiguity. In short, problem solving systems enable *rule* synergy to evolve into improved ‘human-made responses’ in attempting survival solutions but past or hibernating *rules* in society are always an optional, occasionally preferred, choice.

Techniques: The Asian manager case specific influences in our argument are capable of predictive techniques by integrating the governance of opportunistic behavior with increased resource heterogeneity and also ensuring that flexibility in options for an ambiguous world are maintained. Integrating theories is perhaps more challenging than differentiating them but actual Chinese holistic practice incorporates basic strategic theories in seeking some form of stable equilibrium when resolving problems from environmental ambiguity. Research on Chinese problem solving *rules* should find, in *guanxi*, a dependency on relational obligations, on relational trust, and on risk avoidance. In contrast, when expanding internationally, Chinese managers should decrease their relational obligations, increase institutional trust levels and acknowledge increased risk taking. The system can be tested on its integrative techniques when it rebalances, at IB boundaries, traditional, retained managerial weightings of strategic influences.

Challenge: Finally, it is difficult to assess how challenging any improvement in predictive techniques might be. For example, we have not yet considered the transfer potential across different managerial groups in varied organizations and industries. Our system perspective allows for interacting system *rules* between different socio-cultural and market *spaces*. For example, the system adjustment and change in the internal dynamics of Western firms, resulting from tension between corporate culture and specialized functions (e.g. silos), is also researchable by our system theory. Research into lowering inter-network risk when exchanging resources such as information should identify a demand for inter-network reciprocity and a need to decrease system manipulation in, for example, a large MNE. To deliver networked value across functions within an organization there is a need for reciprocity between the networks. An increase in the heterogeneity of intra-network problem solving expertise should be identified as an alternative to organizational, networked but narrow path specialization. An increase in intra-organizational trust may be achievable

through the use of holistic solutions to corporate culture and internal transactional issues. Within regional trading blocs, the evolving solution appears to be improved trust levels due to stronger institutional affinities. Researching the nature of strategic alliances should indicate that complementary *rules* can be applied – one firm’s institutional *rules* complementing another firm’s relational *rules*. The challenge is in the techniques required for holistic measurement and interpretation.

5 Conclusion

Our paper aims to complement and extend present work on crossvergence. The theoretical argument in our study complements crossvergence theory by explaining longitudinal trends in values evolution and gives examples of how, when and why such value systems evolve. We bring a strategic perspective into crossvergence theory. While Ralston and colleagues concentrate their discussion mainly upon the societal, macro-level influences upon micro-level values evolution, our strategic argument takes into account the institutional, meso-level influences on values evolution.

Key arguments use Western strategic theories and Chinese management relational practices - thus identifying an explanatory interaction in the socio-cultural and business influences of crossvergence theory. We thus extend crossvergence theory by focusing on its synergistic interaction and considering values evolution as a strategic solution to IB problem solving. Values evolve when new successes are better at solving problems than past successes – a minor paradigm shift.

We acknowledge that our study has limitations which relate to theory advancement. The theoretical development is derived from basic principles of culture and economic theory and from our attempts to take an intuitive leap into Chinese *guanxi* practices. The universality

of the system would benefit from a discussion of our transvergence concept, the dynamics of holistic interaction, in a number of different contexts. The new theoretical perspectives developed in our paper need empirical support based on solid constructs in order to ensure the predictive successes of integrated strategic theories. The socio-cultural *rules* need to be refined further and tested against the problem solving behaviors emanating from different national institutions and organizational cultures as they meet increased ambiguity at international boundaries.

In defence of these limitations, we would wish to reiterate Ralston (2008, p.30) and argue that we have based our arguments ‘on logic, underlying assumptions, and/or historical facts to identify the situational differences’ in seeking to make the theoretical advancements in our paper relevant.

In consequence, a major contribution of our paper is that it advances the general understanding of trends in IB problems and their likely strategic solutions. The arguments in our paper are consistent with Ralston’s (2008) call for the integration of the macro, meso and micro-level variables towards a more complete understanding of crossvergent values evolution. A suitable research approach should clearly identify the problem solving *spaces* of the individual IB manager before analysing dimensional changes in strategic behaviour – qualitative identification followed by a quantitative pattern analysis. The system *rules* output is specific to the problem solving *space* and mis-interpretation in quantitative presentations must be avoided.

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Appendix

Figure 1

Strategic Problem Solving Space

System *Rules* Evolution

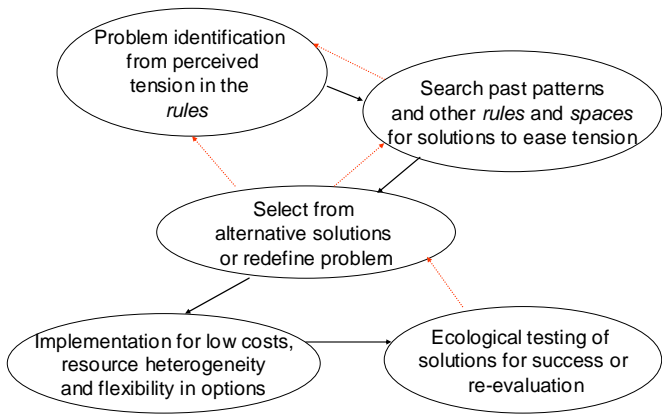


Figure 2

Strategic System: *Space, Rules and Time*

