INTERACTION EPISODES AS ENGINES OF RELATIONSHIP CHANGE

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Abstract

A framework is discussed for analyzing interaction episode patterns that culminate in changes to a business relationship. A nomenclature is developed for mapping and characterizing patterns of episodes that take place in time and social space. Interacts, the building blocks of episodes, are explained, and episode valences are discussed. Critical events are the episodes in which decisions are made to change resource ties and activity links that represent structural components of a business relationship. Discussion using these concepts considers endogenous and exogenous influences on episodes, asymmetries in actor perceptions, tolerance zones for interpreting outcomes of episodes, difficulties perceiving patterns, and other issues.

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1 The authors are listed in reverse alphabetical order. All authors contributed equally.
A business relationship develops as actors make commitments and experience benefits from relational exchange. Marketing scholars have devoted significant effort to describing, explaining, and theorizing about business relationships. Particularly interesting is the fact that most of this work reduces a fundamentally dynamic process to a mere snapshot at a point in time. That is, we describe a relationship not as a combination of interactions, but as a state. Do the partners trust each other? How much conflict typifies this relationship? How long has it lasted? Of course, this approach makes sense in that our theories do not sufficiently model the dynamic aspects of relationships, despite the fact that in theory we say a relationship goes through development (Dwyer, Schurr, and Oh 1987) or at least different stages (Ford 1980). To be sure, we recognize that different processes are underway in most relationships; for example, a primary process is trust development leading to commitment (Morgan and Hunt 1994). We use point-in-time analysis because it is often difficult to make sense of a series of individual interactions—patterns are sometimes difficult to recognize and often hard to describe.

The importance of patterns of episodes occasionally receives attention in the business press. For example, Mittelstaedt observes that “nearly all serious accidents, whether physical or business, are the result of more than one mistake. If we do not 'break the chain' of mistakes early, the damage that is done, and its cost, will go up exponentially until the situation is irreparable” (Knowledge@Wharton 2004). Mittelstaedt asserts that many times events seem inconsequential by themselves—i.e., not “critical.” However, small events can create big change and precipitate major consequences. Business relationship theory would benefit if there were some way to understand how different types and patterns of interaction episodes lead to change, even critical change, in a relationship.

The purpose of this paper is to develop a conceptual and analytical framework of interaction episodes as engines of change in relationships. As will be explained shortly, we address several new ideas to accomplish this task. First, we provide a theoretical context in terms of network, relationship, and interaction episode theories. Our main discussion includes new ideas about patterns of interaction episodes and an approach to diagramming interaction episode patterns. Overall, we contribute the terminology and theory necessary for understanding, studying, and reporting business relationships at the interaction episode level of analysis.

**Relevant Theory**

Figure 1 depicts different, but related, bodies of business-to-business theory. According to IMP Group writings, interaction episodes between actors represent a fundamental level of theory for understanding business relationships. Essentially, episodes are the business-focused interactions that create different relationship states. At a relationship level of analysis, we can characterize, for example, the level of trust and the nature of commitments between two companies. Figure 1 circles represent interactions and lines show connections between interactions. Thus, the interactions are the detail of the process associated with a network tie between two nodes or individuals. A network tie is one business connection defined as actor bonds, resource ties, and activity links in IMP Group theory. Multiple relationships make up a network. An issue that has received too little attention is what happens at the interaction episode level that leads to change in a relationship. The following brief review provides groundwork for giving attention to this issue.

Throughout history businesses have collaborated to create value that translates to competitive advantage. Network theory provides understanding of business-to-business cooperation (Anderson, Håkansson, and Johanson 1994; Easton 1992). Networks are businesses connected by ties, activity links, and actor bonds (Håkansson and Johanson 1992). In fact, actors create resource ties and activity links as a consequence of their interaction episodes. Change in business relationships directly relates to changes in bonds, ties, and links because competitive advantage derives from these connections. In particular, any change, positive or negative, in the status of actor bonds, resource ties, or activity links represents a change in the nature of the business relationship (i.e., a network node) and its capacity to create a gain or loss. Sometimes important changes are not seen because, as Turnbull, Ford, and Cunningham (1996) assert, “all intercompany relationships simultaneously exhibit conflict and cooperation, with guile and self-seeking” (p. 4). Nevertheless, changes in actor
bonds, resource ties, and activity links are critical events—something relevant to a business relationship that happens at a given place and time. However, these changes alone may not necessarily develop a relationship nor lead to its decline, for changes elsewhere in the network and in the business environment also impact business success.

A relationship level of theory uses constructs such as trust, commitment, shared norms, cooperative adaptation, and relationship distance to explain the status of a relationship, as seen in the early IMP Group case studies (Håkansson 1982) and various conceptual articles (e.g., Dwyer, Schurr, and Oh 1987; Ford 1980). Empirical work is consistent with theory. For example, Cannon and Perreault (1999) empirically identified six relationship connectors (based on Dwyer, Schurr, and Oh 1987), including cooperative norms, information exchange, operational linkages, legal bonds, adaptations by sellers, and adaptations by buyers. Such observable and unobservable constructs represent the qualities of a business relationship that give it the possibility of producing gain or loss. Following the IMP Group model, we will focus on three connectors: actor bonds, resource ties, and activity links, constructs that incorporate the variables studied by Cannon and Perreault and talked about throughout the IMP Group literature.

**Figure 1**

*Episode, Relationship, and Network Levels of Theory*

Interaction episodes are at the heart of business relationships (Håkansson 1982). Following the first multinational IMP Group study, various researchers contributed to a greater understanding of how businesses interact and what ties them together (e.g., Ford 2002; Hedaa 1991). Rather than regard relationship as simple exchange (e.g., Bagozzi 1975), the IMP group pioneered a viewpoint that emphasizes network connections and the complexity of interaction that typifies on-going business relationships. Hedaa (1991) provides an interesting example of this larger view.
If a customer chooses to allocate a larger part of his purchase to a particular supplier, then we may say that the ties in the relationship have become stronger. However, this doesn't work the other way: If a larger part of the supplier’s sales is going to a particular customer, then the relationship has become stronger. In the latter case, the supplier may have lost one big customer whereby all other customer relationships have grown stronger. The supplier has just become more dependent on other customers (p. 105).

This illustrates an asymmetric aspect of buyer and seller relationships as well as the implication that an interaction episode elsewhere in the network may influence other buyer-seller relationships. A theory of interaction episode patterns must take a network perspective to explain business relationships.

A further complexity in this analysis is that different network ties have different degrees of usefulness. For example, actor bonds are critical to the exchange of useful information in a network. Weick (1979) calls actor bonds “ties.” He says that individuals are connected by strong ties that come from organization derived roles and reporting relationships and weak ties that derive from more informal interaction. Work by Levin, Cross, and Abrams (2002) indicates that trust and competence mediate the useful information gained from strong or weak ties. This study shows that the informational gain that comes from an actor bond, one of the very things that make a network useful, depends on certain qualities of the actors and the relationship—which suggests the difficulty of evaluating the importance of changes to a network node.

### Episodes as Engines of Change

Researchers interested in characterizing service encounters focused their attention on interaction episodes that fundamentally changed a relationship. For example, Bittner, Booms, and Tetreault (1990) investigated relationship dissolution by collecting data on particular episodes that preceded relationship dissolution, a critical incident in consumer services marketing. Their methods were based on the pioneering work of Flanagan (1954), who developed the Critical Incident Technique (CIT) to analyze flight-training failures. Unfortunately, there are two shortcomings to CIT research by marketing scholars. First, the body of research tends to focus on consumer behavior; only a small portion of some 160 studies concern business relationships (Gremler 2004). Second, the idea of a critical incident may have suited Flanagan’s (1954) goal of understanding why novice pilots crashed airplanes, but the idea as it stands now requires relationship dissolution, a dramatically obvious event, in order to work for business marketers. As we have said, important change—a critical event—in business relationships concerns changes to actor bonds, resource ties, and activity links. True, a business relationship that ends is a critical event, but business relationships tend to endure, so it is necessary to consider a different measure of criticality. By assessing the interaction episodes leading to a change in bonds, ties, or links, we can investigate interaction patterns that sustain a relationship.

### Episode Analysis—Foundations

Interaction is defined as the process of exchanging products, services, information, financial instruments, and socially valued experiences. Considering that individuals perform an act, partners interact, which refers to a behavior that occurs when actors perform exchange. In fact, our primary interest lies with actors engaging in social and information exchange and making agreements. An interaction episode consists of interacts that occur together in time and are separated by time from other, more closely spaced, interacts. An interaction episode may be made up of many interacts or just one. Shaking hands, exchanging hellos, and taking turns talking about a business problem, agreeing to a solution, and saying goodbye suggest the interacts in a problem-solving interaction episode. In different combinations, interacts may have different effects. A threat with a wink is
different from a threat and a cold stare. Importantly, interpretation of combined interacts depends on how they are perceived by an actor. An interaction episode may have a positive, negative, neutral, or indeterminate valence depending on how the outcome of an episode is perceived.

A business relationship usually consists of many episodes often involving participation by a number of actors from both sides. While our attention is focused on actors, a business relationship indicated by a tie in a sociogram drawing of a network also includes resource ties and activity links, which result from actor interactions. Given all of these potential connections in a business relationship, each connection in a network may be very complex. Furthermore, connections elsewhere in the network may influence seemingly distant business relationships outside the actor’s network horizon (Anderson, Håkansson, and Johanson 1994). Consequently, a diagram of interaction episodes may be quite complex.

Further complicating the picture, interacts may have the same or different effects on participants—each actor’s perception is their reality. That is, a sales agreement may represent a positive episode experience for the seller, but a negative episode experience for the buyer, who sees the result as negative for reasons irrelevant to the seller. An example of asymmetrical perceptions is an interaction episode where the primary interact is a buyer delivering a threat. The buyer may see this episode in a positive light because it asserts certain expectations. The seller, recognizing a shift in power, sees the episode negatively.

Diagramming an episode is necessary in order to characterize patterns that have some consequence for a relationship. We denote each episode as having a positive (+), negative (-), neutral (/), or indeterminate (0) effect on a business relationship. Because episodes influence participants differently, diagramming a series of interaction episodes in a relationship requires symbols for each participant. In Figure 2, for example, the initial meeting starts off well, but in the second episode the buyer has a negative reaction, while the seller is unable to determine how the episode turned out. The seller gives it a go in episodes 3 and 4, thinking all is well, but the buyer becomes increasingly disenchanted. Finally, in episode 5 the seller understands that the selling process is failing. This episode map corresponds to the traditional services marketing type critical incident study where relationship dissolution takes place. Of course the same end may be reached in many different ways.

**Figure 2**
Selling Episodes Ending in No Relationship

<table>
<thead>
<tr>
<th>Interaction Episode</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<td>+</td>
<td>+</td>
<td>-</td>
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<tr>
<td>Actor 2 Buyer</td>
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<td>-</td>
<td>/</td>
<td>-</td>
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**Episodes with Critical Events Diagrammed**

How do we know when a critical event has taken place? An episode that results in a decision about a change in a resource tie or activity link has a significant outcome, a critical event signified by a change in relationship quality. Conversely, failure to achieve a resource tie or activity link when one is expected also represents a critical event. Changes to actor bonds, on the other hand, are more or less intangible and are perhaps best indicated by the pluses and minuses indicated in Figure 2. However, changes in resource ties (RT) and activity links (AL) are a tangible and a recognizable signal that a critical event has occurred whether such episodes are perceived and understood or not.
In Figure 3, episodes 1 and 2 improved actor bonds. While we may not have direct evidence of this, the indication of a positive interaction by both the buyer and seller may be evidence enough. Human interaction studies suggest that positive mutual experiences are good for an interpersonal relationship. Perhaps in this example the participants in the meetings agreed to exchange information and delivered the information as promised. Perhaps they also disclosed confidential information. These interacts improved trust and mutual understanding. In episode 5, an agreement was made to jointly develop a product, fundamentally changing the quality (in terms of strengthening) of the relationship. Episode 5 was a critical event defined as the positive outcome of prior episodes.

Episodes 1, 2, 4, and 5 in Figure 3 correspond to Schurr’s (forthcoming) definition of a generative episode, “an episode having a strengthening affect on relationship bonds, resource ties, or activity links.” Schurr defines a degenerative episode as having a negative affect on these connections and a neutral episode (3 in Figure 3) as keeping relationship connections at current levels. Note that a generative episode or a degenerative episode can be a critical event when the actors agree to a change in resource ties or activity links.

**Time and Social Space**

The criticality of an event is determined by the event horizon that it influences. By event horizon we mean the perceived arc of events that influence the current perceived quality of a relationship. Similarly, episodes vary over time in how they are perceived. If asked immediately after a meeting, a buyer or seller may say that an interaction episode stands out as a success or failure. However, the very same individuals asked the same question two years later may not see the episode in question as being so significant. In other words, it is necessary to establish a frame of reference in order to establish the criticality of an episode and its consequences. This makes perfect sense because an ongoing relationship has both a history (in terms of experiences) and a future (in term of expectations).

Time is not the only dimension that determines the perceived criticality of an episode. Another frame of reference is social structure. Once again, considering that each node in a network may involve multiple actors in each business, and each node is influenced by relationships at other nodes, we can imagine that many relationships may be relevant. Furthermore, relationships differ in their degree of importance. Consider social space as a combination of the number of actors and their importance.

Taking the time and social space dimensions together (cf. Hedaa 1991, p. 20-3), we can say that high criticality is signified when an episode affects more time and more social space (more actors or nodes). For example, a decision to acquire a company has high criticality because the time influence goes significantly into the indeterminate future and social space influence covers two organizations and their connections elsewhere in the network. Another example is a long-term purchase agreement. A competitor of Albany International, a manufacturer of felt used in large-scale paper manufacturing, won a long-term contract with one of Albany International’s key customers. This
critical event covers large social space (a large part of the business network) because it signifies enhancement of the competitor’s connections to the key customer and the diminishing of Albany International’s connections. Also, the key customer’s favorable decision with the competitor created a negative experience for Albany International actors when they learned of the decision from their former key customer. Finally, the time horizon for this event was a minimum of five years. Figure 4 maps episodes in time and space.

**Figure 4**  
An Episode in Time and Social Space

<table>
<thead>
<tr>
<th>A1</th>
<th>A2</th>
<th>(A14)</th>
<th>(A15)</th>
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<td>+ + + + + + + + (+, RT+, AL+)</td>
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The arrow in Figure 4 indicates that the episode path between A2 and A15 (the competitor’s actor) contributes to the critical event between A1 and A2, the Albany International series. The vertical dots indicate social space. The dotted lines before the episode series substitute for a prior history of interaction episodes. Similarly, the dotted lines following the episode series represents the future. Thus, time and social space are represented.

Maps such as Figure 4 allow us to speak of both the course of a relationship and the status of a relationship at different points in time. The main course of a relationship is seen through the pattern of the interactions over time and over social space. For example, a pattern of predominantly positive valences suggest that the actor bonds of a relationship are strengthening. We could also consider the rate of relationship change, perhaps the ratio of positive episodes to all episodes in a period of time. The vitality of a relationship may be represented by the rate of positive agreements concerning resource ties and activity links over a period of time. The status of a relationship in terms of resource ties and activity links is indicated by recent agreements. Because these measures are related to a period of time, short relationships cannot be compared to long relationships without keeping time periods constant. Even then, longer relationships will be benefiting from—or suffering from—a history of actor bonds, resource ties, and activity links from earlier periods. Similarly, a longer relationship is likely to cover more social space, which has its own consequences. A large number of good relationships is an advantage; also, connections with other highly valued actors are helpful.

**Tolerance Zones**

Relationship drift occurs because a relationship is subjected to many outside (network) and inside (dyadic) forces. That is, agreements elsewhere in a network or in a partner company can change a buyer-seller situation such that the standards for evaluating an episode change. The interaction process and the status of the relationship quality are bounded by norms, beliefs, and values that circumscribe what is expected from a relationship. In Figure 5 we depict these boundaries as thresholds where upwards is positive and downwards is negative.
Structural changes in resource ties and activity links are sought when outcomes are below or even approaching the lower limit of tolerance. For example, a buyer that stretches out payments beyond an acceptable limit may be deemed unacceptable as a client and terminated. However, there are network constraints on behavior. For example, bankruptcy laws in the United States often force suppliers to tolerate unacceptable payments by customers because, when a customer goes bankrupt, the courts favor the bankrupt company. Therefore, while a supplier would be happier terminating a relationship with a delinquent customer, meetings may be the better alternative if some structural adjustment can be agreed upon.

Each actor in a relationship may have different tolerance zones. This partly explains why one actor will see an episode has having positive outcomes, while the other will see the episode outcomes as negative. Because tolerance zones differ, some interacts are more salient and meaningful to one-party but not the other. It should be noted that tolerance zones apply to actor bonds as well as resource ties, and activity links. Relationship drift occurs when actors perceive that relationship characteristics are within tolerance limits when actually they are not.

**Figure 5**
Comparison Levels for Perceiving the Status of an Episode and Its Relational Context

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<table>
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<th>Lower Limit</th>
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Sometimes structural change is forced on a business relationship. For example, in volatile environments rapid adjustment to resource ties and activity links may be required. However, if actor bonds are poorly developed or the character of episodes is dysfunctional, a relationship may not have the capability to adapt to a changing environment. This will cause outcomes outside the tolerance zones that mark expectations. Such an occurrence may be marked by internal role partners applying pressure to boundary spanners who have been unaware of the growing discrepancy between the environment and the structure of the business relationship. For example, the corresponding episode pattern may begin with infrequent interaction by boundary spanners, followed by a number of episodes with internal role partners, which precipitate more frequent meetings with actors in boundary spanning roles and, subsequently, a relationship adjustment.

In married life, an analogous situation occurs when a young family is growing. As a couple has more children, the husband and wife spend less time together and lose some of their ability to cooperate and adapt. However, a growing family can make housing, transportation, and financial plans out of sync with reality. Maybe the grandparents bring attention to this problem. When conflict occurs between the husband and wife, and the couple is unable to adjust, dissatisfaction can lead to dissolution of the relationship. Not surprisingly, marriage counselors sometimes recommend that famous romantic weekend away to restore a marital relationship—if only temporarily.
A further complexity in episode pattern analysis is that positive changes in resource ties and activity links may not necessarily result in positive outcomes for the business relationship. This surprising conclusion is arrived at by considering forces exogenous to a focal relationship, especially the structure of opportunities available to a business. It sometimes happens that two companies strengthen their relationship only to find that they have become more inflexibly committed to a market that suddenly declines. While the episode pattern and critical events would seem to indicate a vital and healthy relationship, elsewhere in the network a suddenly declining market spells disaster. For example, consider an advertising agency that increases its resource ties and activity links to a company that suddenly is faced with asbestos related liabilities. Although a relationship has strengthened, the future outcomes will be reduced as the client cuts advertising budgets in the face of reduced demand. From this standpoint, we urge caution when using episode stream analysis to draw conclusions about the outcomes for an organization. Company-level outcomes depend on much more than underlying episode patterns at one node in a network.

**Relationship Entropy.**

Our analysis suggests that relationships, in fact, experience entropy, and interactions play an important role in sustaining or restoring an otherwise naturally deteriorating relationship. By way of background, it was the German scientist Rudolf Clausius who in 1865 coined the term *entropy*. According to *The American Heritage Book of English Usage*, the etymology of entropy consists of the prefix en—to mean contents, and the segment trop—to mean transformation. Spliced together entropy means “contents that have been transformed.”

The entropy concept is part of the second law of thermodynamics that teaches us that the world is running down, deteriorating from differentiated complex forms to homogenous chaos. To avoid or postpone deterioration requires energy to be induced in the system.

Variations in entropy are defined by the sum of changes in intra-system and extra-system development features. When a system deteriorates it frees energy from the system to something else.

If we assume a supplier-customer relationship has system character, we may formulate a law of relationship entropy.

- Because of relationship-exogenous changes and events, a supplier will experience a declining sense and understanding of the customer’s needs and wants (though this experience may not be perceived).
- Because of relationship-endogenous mistakes, misunderstandings and unforeseen events, relationship quality is continuously breaking down.
- The only means to remedy entropy is to induce resources (energy) into the relationships.

The lesson is that to transform relationship contents from worse to better takes effort, and complacency leads to relationship deterioration and dissolution.

**Perceiving and Reporting About Interaction Episodes**

A problem that faces both practitioners and researchers is the fact that participants and observers may not perceive an episode pattern very clearly. One problem stems from influential episodes elsewhere in the network (i.e., in social space outside the dyad). Another problem concerns the difficulty of seeing the forest for the trees. An episode pattern horizon may exceed an individual's perceptual abilities. Doubtlessly this partly explains the value of sales automation software devoted to contact management. Even contact management software, not to mention the individuals entering data, has limitations with respect to characterizing an episode stream. As a practical matter, an individual or a company must decide how many interactions to track and report. Further, they must decide how to evaluate an episode stream. We suspect that account discussions are rarely as complex as the analysis suggested here.

From a researcher’s standpoint, a respondent will have limited capacity for recalling specific interactions, let alone larger patterns in time and social space. Also, individuals will be limited in their.
ability to assign valences because of variations in their understanding of effective interpersonal relationships and buying and selling. Nevertheless, changes in resource ties and activity links are tangible and can be readily identified, making episode pattern analysis quite feasible and a viable alternative to CIT.

Summary

In summary, this paper lays the groundwork for a new form of business relationship investigation. We have proposed terminology and a diagramming technique for analyzing interaction episode patterns. Further, we have explained how episode analysis relates to extant IMP Group theory.

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dissertation.

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