Integrating Relationship Marketing and Lifecycle Perspectives: Strategies for Effective Relationship Migrations

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Report Summary

Firms spend in excess of $12 billion annually on customer relationship management, in efforts to understand how to target and sell to customers across various relationship stages. Academic researchers offer two main perspectives: relationship marketing research reveals the most effective strategies for building relationships to enhance performance, while lifecycle research indicates how the effectiveness of relationships varies at different stages of development.

In this report, Jonathan Zhang, George Watson, Robert Palmatier, and Rajiv Dant integrate these research streams to capture the differential effects of relationship marketing on performance as relationships evolve.

Using dynamic statistical modeling techniques, the authors employ a longitudinal survey data set of 346 business-to-business relationships maintained by a *Fortune* 500 firm across six years. They uncover four distinct latent relationship states (*transactional*, *transitional*, *communal*, and *damaged)*, each with substantial differences in relationship performance. Although three of the four states—transactional, communal, and damaged —are consistent with past research, the authors newly identify a "transitional state," where performance is growing rapidly but managers must either invest to bond more tightly or miss the window of opportunity to move to a higher performance communal state.

The authors propose and test three positive (exploration, endowment, recovery) and two negative (neglect, betrayal) migration mechanisms to describe how these relationship states change over time, and empirically test state-specific migration strategies.

Their analysis provides managers with insights on relationship stages with their customers, as well as guidance on the optimal strategies to deploy in order to improve the financial performance of these relationships.

Based on the empirical results, managers would be able to infer the latent relationship state of a channel partner based on the change in his or her relationship survey response, and then employ, in a just-in-time fashion, state-specific strategies to migrate the customer to a desirable state (e.g., focusing on communication and competence to move a customer from transactional state to a rapidly growing transitional state), or to prevent a potential decay into an undesirable state (e.g., being cautious about being perceived as "unjust" in a conflict, as it might quickly wreck even the strongest of relationships).

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Understanding and managing customer relationships is fundamental to marketing. Accordingly, firms spend in excess of $12 billion annually on customer relationship management, in efforts to understand how to target and sell to customers across various relationship stages (Gartner Research 2012). In the academic domain, researchers offer two main perspectives. First, relationship marketing researchers focus on changes in relational variables due to marketing strategies (Morgan and Hunt 1994; Palmatier et al. 2006). Second, lifecycle researchers provide rich conceptual frameworks for describing how performance varies as relationships migrate through different stages, due to the underlying changes in the relational variables (Dwyer, Schurr, and Oh 1987; Jap and Anderson 2007). We integrate these research streams by modeling the effect of relationship marketing strategies on relational variables (trust, commitment, dependence, norms) while simultaneously accounting for the effect of changes in relational variables on customer migration across multiple lifecycle stages. With this approach, we can capture the differential effects of relationship marketing on performance as relationships evolve. Accordingly, our research goal is to *advance theory by integrating relationship marketing and lifecycle perspectives within a single conceptual and empirical framework to understand the most effective state-specific migration strategies.* Managerially, our research *provides managers with insights on which relationship lifecycle stage that their customers (channel partners) are currently in, and provides specific guidance on the optimal relationship marketing strategies to deploy in order to improve the financial performance of these relationships.*

Substantial relationship marketing research, including meta-analyses, identifies communication, relationship investments, and competence as the most effective strategies for increasing trust, commitment, and relational norms, whereas unfairness and conflict typically are the most damaging (Palmatier et al. 2006; Samaha, Palmatier, and Dant 2011). Such studies tend

to ignore heterogeneity in effects due to different relationship stages and instead assume that the strategies are equally effective at every point in the lifecycle. However, the view that the strategies $\rightarrow$ relational variables $\rightarrow$ performance outcomes linkages are independent of development stages is undermined by lifecycle literature, which argues that psychological processes unique to each developmental stage determine the effectiveness of any relationship marketing strategy (Dwyer, Schurr, and Oh 1987; Jap and Anderson 2007). Lifecycle theories further outline stages that describe unique patterns of state variables, relational processes, and outcomes (Dwyer, Schurr, and Oh 1987; Jap and Anderson 2007). Even after 25 years of theory though, empirical insights into the most effective strategies across stages are limited.

To address this gap, researchers recently have turned to hidden Markov models (HMM) to capture the effects of marketing across multiple relationship states (Luo and Kumar 2013; Montoya, Netzer and Jedidi 2010; Netzer, Lattin, and Srinivasan 2008; Schweidel, Bradlow, and Fader 2011). We apply this approach to lifecycle theory, which allows us to identify states using relational variables proposed by lifecycle theory (e.g., trust, commitment) rather than inferring states from observed behaviors (e.g., sales activities) and investigate the underlying mechanisms. We also hypothesize and test which relationship marketing–based migration strategies effectively drive state change.

To achieve these research objectives, we conduct two sequential studies with a six-year longitudinal data set of 346 business-to-business relationships maintained by a *Fortune* 500 firm. In Study 1, we test extant lifecycle theory, using a multivariate HMM to infer the number and nature of unobserved relationship states and identify actual migration paths. In Study 2, we further develop our HMM by combining the relationship structure uncovered in Study 1 with our proposed theoretical framework for describing the underlying migration mechanisms. By doing

so, we can parsimoniously explain observed customer state changes and empirically test the strategies that we predict will influence each migration mechanism. An HMM approach is well suited to combining these two perspectives, because it *simultaneously* identifies the customer's relationship state, probable migration paths, and effects of various migration strategies.

In turn, we contribute to relationship marketing and lifecycle theory and practice in four ways. First, we provide a head-to-head test of extant lifecycle frameworks across three key elements from lifecycle theory (relationship state variables, state conceptualizations, and migration paths). This test reveals four dynamically linked latent states, with unique patterns of trust, commitment, dependence, and relational norms, which are characterized by different relational and financial forms of performance. Although trust and commitment tend to move in unison, we find that divergent levels of relational norms and customer dependence are critical to understanding relationship states. Our results support extant research by empirically recovering three previously identified—transactional, communal, and damaged—relationship states (Anderson and Narus 1991; Hibbard, Kumar, and Stern 2001; Jap and Anderson 2007). They also go beyond prior findings by identifying and describing the key role of the transitional state. This unidirectional (nine times more likely to move up than move down), relatively temporary state (i.e., least "sticky"; twice as likely to change than to remain in the same state in each period) serves as an "engagement period": Performance is high, but partners must either invest and bond more tightly or miss the window for advancing to a communal relationship.

Second, our probabilistic model provides a lens to evaluate the likelihood of the most prevalent migration paths within a single framework. We find that relationship migrations do not follow purely sequential-deterministic (Dwyer, Schurr, and Oh 1987), oscillating-cyclical (Luo and Kumar 2013; Ring and Van de Ven 1994), or relational-transactional continuum (Anderson

and Narus 1991) patterns, as previous researchers have argued. Instead, while a set of prototypical transitions explain a majority of customer migrations, there remains substantial unexplained heterogeneity in the actual path followed.

Third, we advance lifecycle theory by developing and testing a framework that describes the underlying state-specific migration mechanisms responsible for "prototypical transitions." All customer state changes (with non-zero probabilities) can be explained parsimoniously by three positive (exploration, endowment, recovery) and two negative (neglect, betrayal) underlying migration mechanisms. For example, *neglect* captures a pattern of slow state variable decay, due to passive inattention, and it can explain two negative state changes in our empirical results. *Betrayal* describes immediate, dramatic damage to state variables, due to purposeful actions, and typically is accompanied by a strong emotional response, which can explain the two other negative and more dramatic state changes shown in our findings.

Fourth and finally, using the uncovered relationship state structure and our proposed migration mechanisms, we empirically test strategies that we predict will influence each migration mechanism. In this sense, we move beyond extant lifecycle theory focused on describing "relationship states" in an attempt to understand "relationship state change." Therefore, we provide managers with clear guidance on which migration strategies, both individually and synergistically, are most effective for promoting state-specific change. For example, our post hoc analysis suggests that increasing communication and competence (1 SD above the mean) are effective migration strategies for customers in the transactional state: They enhance the likelihood that a customer will shift to a more positive relational state by 41% (supporting the exploration mechanism). Accelerating customer migrations out of the transactional state also pays off, in that in our sample, it moves more customers from a state with

sales growth of 7% to one with sales growth of 23%, an increase of 220%. Customer and seller investments, both individually and synergistically, also offer effective migration strategies for triggering the endowment migration mechanism, which increase the likelihood that a relationship will shift from a transitional to a communal state by providing resources to create value by exploiting identified opportunities.

In addition, these four areas of academic contribution, combined, form a comprehensive managerial decision support tool for managers to effectively monitor and improve relationship performance among the customers. First, from this research, managers would understand how different latent relationship states are uncovered using survey data, and understand the nature of the states in a holistic view in terms of the state variables and performance outcomes, which do not always move in synchronization. For example, we find that the poorest relational quality of damaged state actually exhibits higher sales than the transactional state, a state with higher relational quality. However, this is likely due to the fact that customers move to the damaged state from the communal state via the mechanism of betrayal. Hence they still have high dependence to the firm as a supplier in the short run, even though the relationship is dangerously close to getting dissolved once the customer finds a replacement supplier. If the manager focuses only on sales amount, then he would think the business is as usual and would miss the dire gravity of the situation, whereas the holistic view of the state would alert the manager of the poor relationship state by showing this customer as having high dependence, but low relational variables such as trust and commitment, and stagnant sales growth. Second, the general transitions patterns among the various states would give managers insights on how the relationships in their customer base are shifting, and would prepare managers for the upcoming state transitions. For example, if a manger identifies a customer to be in the transitional state,

then our empirical results show that it is very likely that this customer will get ready to transition to the communal state. The manager needs to have the necessary resources to prepare for and facilitate this transition. Third, our framework gives state-specific guidance on the optimal strategies to improve state performance in a timely fashion. For example, when a customer is in the transactional state, we find that the best strategy to move the relationship towards transitional and eventually communal state, is a combination of communication and competence. Likewise, when a customer is in a damaged state due to a previous experience of injustice, the best strategy to move this customer back to transactional state is via a combination of communication and sincere compromise. In the post-hoc analysis, we quantify the impact of various state-specific strategy, and show the percentage of customers such strategies would affect in their relationship state movements.

In summary, in Study 1 we use state variables (e.g., trust, commitment, dependence, norms) to understand relationship states, and in Study 2 we use migration strategies (e.g., communication, investments) to understand state change. This integrated relationship marketing–lifecycle theory is consistent with our empirical modeling approach, in that we describe customer relationship states, prototypical migration mechanisms, and the most effective migration strategies for managing customers' development dynamically to improve performance.

Relationship Lifecycle Theory

Extant research argues that relationship development is not a random walk of accidental encounters but rather a progression that exhibits a high degree of path dependency (Dwyer, Schurr, and Oh 1987; Jap and Anderson 2007). For example, partners are more likely to reach an advanced relationship state (e.g., communal, "married") after passing through intermediate

developmental states (e.g., transactional, "dating"). Lifecycle theory offers conceptual frameworks for explaining common trajectories, which describe sequential relationship states, as summarized in Table 1. These different "lifecycle frameworks" can be categorized parsimoniously according to three key characteristics. First, each framework offers specific *relationship state variables*, defined as relational constructs that determine each developmental stage. Second, each lifecycle framework proposes a set of *relationship state conceptualizations* that describe a predetermined number of "named" stages, which seek to capture the blend of state variables, psychological and behavioral outcomes, and relational processes that is unique to each stage. Third, each framework outlines a *relationship migration path* that defines the typical transition sequence, including the expected directionality and cyclicality of relationship change. We compare extant lifecycle literature according to these three defining characteristics next.

<center>(Table 1 follows References)</center>

Relationship State Variables

Different lifecycle frameworks propose various state variables as critical for determining a relationship's state or stage, including trust, commitment, dependence, and relational norms. These four state variables are not only the most frequently studied but also capture alternative facets of the relationship. Relationship state typically depends on both partners' perspectives on the relationship (partner and self), where trust is more partner-focused and commitment is more self-focused (Garbarino and Johnson 1999). State variables also can provide information about individual partners (trust, commitment) or the bilateral structure of the exchange (dependence, relational norms). In addition, the four state variables have different temporal characteristics, such that trust and dependence tend to change more quickly, whereas commitment and norms

change more slowly (Jap and Ganesan 2000). Each state variable also provides nonredundant information about the relationship.

Perhaps the most studied relationship state variable is *trust*, defined as "confidence in an exchange partner's reliability and integrity" (Morgan and Hunt 1994, p. 23). It is an other-focused evaluation of the partner's integrity, reliability, and intentions. Trust in an exchange partner enhances performance by inducing potentially risky but rewarding investments, in the belief that the partner will not act opportunistically (Palmatier, Dant, and Grewal 2007). It also facilitates the sharing of information and resources. Finally, trust helps to assess the quality of a relationship and is a key predictor of performance (Fang et al. 2008).

Customer commitment, which is "an enduring desire to maintain a valued relationship" (Moorman, Zaltman, and Deshpandé 1992, p. 316), serves some similar purposes. Customer commitment reflects self-focused attitudinal facets of an exchange, such as dedication, personal identification with the partner, and a focus on long-term benefits over short-term alternatives (Garbarino and Johnson 1999; Morgan and Hunt 1994). As a global evaluation of the relationship with a temporal facet indicating a long-term expectation of continuity, customer commitment is key to the long-term success of a relationship (Palmatier et al. 2006).

A third widely studied state variable is *customer dependence*, which reflects the evaluation of partner-provided benefits, for which there exist few alternatives (Hibbard, Kumar, and Stern 2001). Customers and sellers can create value by investing in relationship-specific assets, which increase dependence and exposure to opportunism (Wathne and Heide 2000). These assets are difficult to transfer without loss of productive value but often enhance performance. In addition, a high level of dependence can lock in a partner and prevent switching,

even in the face of problems. Customer dependence is useful for assessing a relationship, in that it captures an immediate evaluation of structural constraints with an exchange partner.

Finally, *relational norms* emphasize long-term concerns about a partner's prosperity, ensure equitable sharing of benefits and costs, reduce opportunism, and provide a normative governance structure, because they "guide and regulate the standards of trade and conduct" (Gundlach, Achrol, and Mentzer 1995, p. 81; see also Heide and John 1990). Relational norms focus on the interactions between partners and reflect the history of these interactions. Norms are used to make decisions, such that they are useful for evaluating the state of a relationship. Along with trust, customer commitment, and customer dependence, relational norms provide a multifaceted view of the relationship, including partner versus self, individual versus bilateral structure, and short- versus long-term perspectives, which together define the relationship state.

Relationship State Conceptualizations

Relationship state conceptualizations specify a set number of developmental stages to describe unique combinations of state variables, outcomes, and processes to identify each state. Extant research exhibits low consensus about the number or nature of specific states positing anywhere from two to six different states based on varying state variables as summarized in Table 1. In general, lifecycle frameworks can be classified into three types, depending on how they conceptualize relationship states: an initial neutral or transactional state, a positive relational state (often comprising multiple stages), and a negative relational state.

In most extant frameworks, relationships start at a point of low experience and norms (Jap and Anderson 2007). Initial states are characterized by low to moderate interpersonal interactions with correspondingly low levels of relational state variables. In this stage, partners become aware of each other, often with low levels of relational bonding, akin to what Anderson

and Narus (1991) call transactional exchanges. In some situations, this state can exhibit moderate financial performance, due to repetitive purchases with low transaction costs.

Thereafter, lifecycle frameworks diverge considerably. Positive relationship states contain as few as one stage to as many as three and potentially more (Heide 1994; Wilson 1995). Yet consistently, the relationship state(s) appears to serve to develop shared purposes, values, and expectations and identify value-creating opportunities. This state is characterized by increasing levels of trust and commitment, increasing interdependence as partners make nonrecoverable investments, and the establishment and augmentation of relational norms as the customer and seller "explore," "expand," and "build up" the relationship (Dwyer, Schurr, and Oh, 1997; Jap and Ganesan 2000). When relational variables and investments expand, the states feature higher levels of relational and financial performance, beyond that of the initial transactional state. Whether the boundaries between a developmental state and a mature state blend or are fundamentally different remains an open question.

The final category of state conceptualization is the negative relationship state, which exhibits very low levels of trust, commitment, and norms, often due to some relationship failure, with varying levels of dependence. A relationship with low state variables may terminate in subsequent periods when there is nothing holding the partners together. However, when one partner is highly dependent on the other, for lack of better alternatives, the "relationship" can persist despite its underlying problems. Depending on the circumstances, performance in a negative state exhibits diverging levels, often determined by the level of dependence. Highly dependent negative states may result in performance on par with neutral states, whereas low dependent negative states likely dissolve relatively quickly and degrade performance.

Relationship Migration Paths

A third characteristic differentiates lifecycle frameworks, namely, the relationship migration path. Each framework describes a typical transition sequence among states. Many propose that relationships develop deterministically, through a sequence of well-ordered stages (Dwyer, Schurr, and Oh 1987; Jap and Ganesan 2000). For example, customers enter the relationship in the initial state and progress through increasing levels of development, until the zenith of the relationship, at which point state variables level off, and the inevitable decline to ultimate termination begins (inverted U-shape). Sequential-deterministic migration paths rarely provide for recovery; once the decline initiates, efforts to rejuvenate are in vain (Anderson and Jap 2005). Other lifecycle frameworks propose similar migration paths but allow relationships to regress from more developed states without terminating (Johnson and Selnes 2004; Montoya, Netzer and Jedidi 2010; Netzer, Lattin, and Srinivasan 2008; Schweidel, Bradlow, and Fader 2011). In the most simplistic version of this framework, relationships move back and forth along a continuum, from a purely transactional state to a committed and codependent state (Anderson and Narus 1991). The key feature of this migration path is that development can change directions. Another migration path proposes that relationship development is cyclical or oscillating (Netzer, Lattin, and Srinivasan 2008; Ring and Van de Ven 1994). This migration pattern is characterized by repeatedly cycling through a set of states, with the possibility of dissolution at multiple points in the cycle (Jap and Anderson 2007). If exchange partners perceive an interaction to be satisfactory, an initial transaction may develop into a long-term sequence of interdependent cycles as the relationship ebbs and flows.

In summary, vast, influential research offers diverse "lifecycle theories" that vary significantly across the three fundamental elements of lifecycle frameworks. Most extant

research is non-empirical, relies on cross-sectional data, or uses age as a proxy for relationship development, which precludes testing dynamic lifecycle theory. Even after nearly three decades of lifecycle theorization, the empirical justification for which lifecycle frameworks best mirrors reality is limited. Thus, we analyze six years of relationship development, focusing on relationship state variables, state conceptualizations, and migration paths (i.e., three fundamental elements of lifecycle frameworks) to provide an agnostic test of extant lifecycle theory.

Study 1: Dynamic Test of Relationship Lifecycle Theory

Paradoxically, most lifecycle research uses cross-sectional data (Hibbard, Kumar, and Stern 2001), relies on age as a proxy for development (Hibbard et al. 2001), includes a limited set of state variables (Palmatier et al. 2013), or forces respondents to self-select from a predetermined set of relationship states (Jap and Anderson 2007), which restrict the available inferences about actual lifecycles. To test extant lifecycle theory empirically, we employ a multivariate hidden Markov model (HMM) to infer the number and nature of unobserved relationship states and identify the actual migration paths in our sample, using the four most commonly theorized state variables (trust, customer commitment, customer dependence, and relational norms). This model is inherently well suited to the dynamic modeling of relationship states, because it (1) supports the empirical identification of latent states using mixtures of state variables, (2) simultaneously models both relationship states and the dynamically linked migration paths, and (3) provides insights into the likelihoods of multiple migration paths.

Sample and Measurement

We used a longitudinal panel data set, collected from surveys of B2B customers of a *Fortune* 500 company over a six-year period. To capture sufficient relationship dynamics, we

limited our sample to customers that responded to at least five of the six waves of data collection. Of the relationships in place at the beginning of the sample period, less than 2% ended their relationships before the data collection was complete. The resulting 1,863 observations of 346 relationships featured multiple products, which reduced any product category–specific effects.

To assess nonresponse bias, we compared cases included in the analysis with the total sample across each year of data collection for all study constructs. The results indicated that the respondents represent the same population ($p > .05$). The same survey questions appeared each year, as reported in Appendix A. Trust, customer commitment, customer dependence, and relational norms, as well as cooperation and profit, used five-point Likert scales. The seller provided the objective financial measures of sales revenue and growth. All scales exhibited Cronbach's alpha values above .91, in support of their internal reliability, and for each construct, the square root of the average variance extracted exceeded the construct correlations, indicating discriminant validity. Individual confirmatory factor analyses for each year of data yielded acceptable fit indices ($\chi^2_{(220)} = 279.22$–1009.40, $p < .01$; comparative fit index $= .95$–$.99$; root mean square error of approximation $= .03$–$.05$). Table 2 contains a summary of the descriptive statistics and correlations.

(Table 2 follows References)

Analysis

In our HMM, relationship states are determined by the time-varying levels of survey responses of the four state variables for each customer. It thus simultaneously captures customer–seller relationship dynamics, as well as allowing customers to transition freely across different states, depending on the levels of their state variables. We provide a detailed description of the HMM approach, model specification, and Markov chain Monte Carlo (MCMC)–based

estimation in Appendix B. To test lifecycle theory empirically, we estimate multiple models and select the one that offers the best fit. Because we use MCMC for the model estimation, a deviance information criterion (DIC) is an appropriate model selection tool that accounts for additional model parameters. If the trajectories are path dependent, as proposed by lifecycle theory (rather than a "random walk" development), we expect a better fit from HMM than from static latent class segmentations. Thus, we compare the fit of our HMM to three-, four-, and five-state latent class segmentation models.

Results

Compared with the latent class segmentations, all three HMMs have significantly smaller DICs, indicating the presence of nonrandom patterns of customer state-to-state migrations. The DICs for the three-, four-, and five-state latent class models are 19,011, 16,989, and 17,999, respectively—significantly larger than the comparable values for the HMM DICs, at 14,037, 13,213, and 14,400, respectively. These fit criteria indicate that the four-state HMM fits the data significantly better than any other HMM or latent class models. We report the Study 1 results in Table 3, which reveals the significantly different mixtures of state variables and outcomes for the four relationship states. In addition, Table 3 presents the migration path probability matrix. The diagonal of the matrix represents the mean probability of remaining in the same state (i.e., stickiness). The off-diagonal values indicate the probabilities that a customer in a given state, listed on the left, will migrate to a different state, listed at the top of each column.

(Table 3 follows References)

To provide an empirical test of extant "lifecycle theories" from Table 1, we evaluate our results across the three fundamental elements of lifecycle frameworks (state variables, state conceptualizations, migration paths). The first *transactional state* is where most relationships

begin (M_{age} = 4.1 years), characterized by low-medium levels of trust (M = 3.75), customer commitment (M = 3.90), and customer dependence (M = 2.58), as well as relatively low levels of relational norms (M = 2.47). This mixture of state variables captures a neutral, undeveloped relationship, with little relational governance embedded in the exchange. Relationships in this transactional state exhibit moderate levels of cooperation (M = 3.82), profit (M = 3.61), and sales growth (7%), but it captures the most relationships across the four states (52%). It is unique, in that it exhibits the most heterogeneous state migrations. Relationships move to stronger relational states 35% of the time, to weaker or damaged relational states 13% of the time, and remain in the transactional state from one period to the next 50% of the time. The transactional state thus mimics an evaluative "dating" phase, when parties receive some value from their transactional exchanges but also explore opportunities to create more value before making significant investments. Figure 1 provides a visual representation of the four relationship states and their typical migration paths.

(Figure 1 follows References)

Following the positive migration trajectory, relationships move from the transactional to the next state, which exhibits medium to high levels of trust (M = 4.13), commitment (M = 4.44), and relational norms (M = 3.63) and medium levels of customer dependence (M = 2.79). Two unique characteristics help define this state. First, all state variables are higher than in the previous state, and the change in relational norms is three to five times greater than the change in the other state variables, which reflects a substantial increase in relational governance. Second, this state is the least sticky; in each period, 68% of the relationships transition to another state (61% strengthening, 7% weakening). We thus refer to it as the *transitional state*, in recognition that most of these relationships are simply transitioning from a transactional to the strongest

relational state (communal), such that they are unlikely to remain in this state for more than a period. Cooperation (M = 4.02), profit (M = 3.81), and annual sales growth (22%) are all higher than in the transactional state. Keeping with our marriage metaphor, this state is similar to an engagement: Both parties have identified the other as a good match and are quickly moving toward matrimony, barring any drastic problems.

The *communal state* exhibits the highest levels of trust (M = 4.74), commitment (M = 4.91), customer dependence (M = 3.69), and relational norms (M = 4.13). The strong relational development is reflected in the highest level of cooperation (M = 4.61) and profit (M = 4.28), as well as good sales growth (9%). In terms of migration, the communal is the most "sticky" relationship state (61% remain in the state each period), but if the relationship changes, it also is likely that they move directly to the weakest relational state (damaged), rather than just migrating to a weaker relational state. Thus, transgressions are particularly damaging in the communal state. Similarly, in a marriage, spouses who change their state typically do not migrate back to engagement or dating but rather to separation or divorce.

Finally, the last relationship state is the *damaged state*, marked by low levels of trust (M = 2.64) and commitment (M = 2.79) and very low levels of relational norms (M = 1.62), though with medium to high levels of customer dependence (M = 3.28). The combination of low trust, commitment, and norms but higher dependence results in divergent relational and financial performance. Cooperation is the lowest of any state (M = 2.85), and sales growth (3%) is moderate. Exiting the damaged state is difficult; 57% of the relationships remain stuck here in each period, and if they recover, they move only to the relationally neutral transactional state. Exchanges in the damaged state do not feature undeveloped relationships but rather negative

ones. If not for the high dependence, many relationships would dissolve—as in damaged marriages, in which spouses might remain together due to financial or child-based dependence.

Discussion

Study 1 provides three empirical tests of extant lifecycle theory. First, we show that the four-state HMM fits the data significantly better than any of the latent class segmentation models, which indicates the need to account for relationship path dynamics. Different patterns of all four state variables are critical for determining unique state conceptualizations. Although trust and commitment tend to move in unison, we find that divergent levels of relational norms and dependence are important for state identification. Frameworks that fail to include one of these critical state variables thus may be unable to identify or fully explain lifecycle states and migration paths (e.g., Palmatier et al. 2013).

Second, our results support extant literature, in that we empirically recover three previously identified states: transactional, communal, and damaged (Anderson and Narus 1991; Hibbard, Kumar, and Stern 2001; Jap and Anderson 2007). We also identify and describe the key role of the transitional relationship state. This relatively temporary state (least sticky) also is unidirectional (nine times more likely to move up than to move down). Thus, it constitutes a key waypoint between transactional and communal relationships, during which exchange partners act on newly discovered opportunities by building relational governance. The partners appear to be transitioning from exploration to exploiting opportunities (March 1991). The transitional state thus serves as an "engagement period," when performance is great but the partners must either bond more tightly or else miss their chance to build a communal relationship.

Third, our data and methodological approach provide much needed empirical insights into alternative patterns for customer relationship migrations and the likelihood of each path,

while still allowing for migration path heterogeneity. This probabilistic model thus provides a lens to evaluate three prevalent lifecycle migration perspectives in a single study. The "sequential-deterministic" state change perspective receives support in less than half of the exchanges. For example, there is only a 35% probability of moving from transactional to transitional states, a 61% probability of a transitional-to-communal move, and a 21% probability for the move from a communal to a damaged state in any period (Dwyer, Schurr, and Oh 1987). We also find partial support for a cyclical or oscillating state change perspective, in that approximately 38% of damaged relationships move back to a transactional state and begin the cycle again every period (Luo and Kumar 2013; Ring and Van de Ven 1994). Finally, the transactional–relational continuum perspective is supported, in that relationships vary from negative to weak to strong states (Anderson and Narus 1991). However, our results suggest these changes do not follow a smooth continuum; rather, qualitative differences in sequential states indicate that relationships can skip states as they grow or decay.

These results thus describe substantial heterogeneity in relationship migration, which is not captured or explained by extant lifecycle frameworks. Because membership in a specific relationship state has important performance implications, and the direction and timing of state change is not predestined, we investigate in Study 2 the strategies that influence these relationship migrations. Specifically, we address the research question, *What state-specific strategies promote positive state migrations and suppress negative state migrations*?

Study 2: Relationship Migration Strategies

Study 1 reveals four dynamically linked relationship states, each with different levels of relational and financial performance, and finds substantial heterogeneity in how relationships change. Because extant lifecycle theory that uses a more determinist perspective offers little insight into the strategies managers could employ to influence customers' migration among states or how migration strategies ultimately may affect performance, we seek to advance relationship marketing and lifecycle theories in two key ways. First, we develop a theoretical framework that describes the migration mechanisms (exploration, endowment, neglect, betrayal, recovery) as a means to clarify state-specific change (positive and negative). Second, using the relationship structure we uncovered in Study 1 and our proposed migration mechanisms, we empirically test the strategies we expect to influence each migration mechanism. That is, in Study 1, we used state variables to understand relationship states; in Study 2, we use migration strategies to understand state migration.

Relationship Migration Mechanisms: Effect of Path-Specific Migration Strategies

By using an HMM approach to model relationship lifecycles, we can identify simultaneously a customer's relationship state, the most probable migration paths, and the effect of different strategies on customer migration (see Figure 1). Because each customer's state is determined by the unique mixture of state variables, the migration path ultimately is determined by changes in these state variables. However, many state migrations follow a common underlying pattern of change in the relational variables. Using the patterns of changes in state variables, performance, and descriptive measures across relationship states in Study 1, we parsimoniously group customer state changes as due to five underlying migration mechanisms. A *relationship migration mechanism* is the unique pattern of change in relational variables, which

leads to a "prototypical transition" between relationship states. We identify three positive relationship migration mechanisms (exploration, endowment, and recovery) and two negative migration mechanisms (neglect and betrayal). In Table 4, for each mechanism, we describe the unique pattern of change in the variables, relevant migrations, and effective strategies.

(Table 4 follows References)

Exploration mechanism: Transactional-to-transitional states. Relationships in a transactional state, where they normally begin, have low-medium levels of state variables. Relationships that grow from this state typically move to the transitional state, where trust, commitment, and dependence all increase (8%–14%), reflecting the stronger relational bonds. However, relational norms undergo dramatic growth during this state change (47% growth, about five times greater than for the other state variables), reflecting a significant increase in relational governance due to the positive evaluation of reciprocal behaviors. Performance rapidly grows during this state change, representing significant value creation (the largest sales growth increase occurs between these states). We refer to this pattern of change as an *exploration* relationship migration mechanism, because the partners explore the value creation potential of the relationship and demonstrate their willingness to share rewards and costs (Dwyer, Schurr, and Oh 1987; Jap and Ganesan 2000). Identifying value creating opportunities and building norms for sharing value are both key to this exploration migration mechanism.

Extant literature suggests two likely strategies enhance the effectiveness of exploration: communication and competence. *Communication* is the amount, frequency, and quality of information shared between partners (Mohr, Fisher, and Nevin 1996). Through the exchange of information, partners identify value-creating opportunities. In addition, communication helps partners establish mutual goals and relational norms, necessary for governing the exchange to

ensure an equitable division of value, which then increases confidence about investing for further value creation (Jap and Ganesan 2000). Although communication helps identify opportunities, a partner also must demonstrate *competence*, or a capability to perform tasks according to expectations and obligations, such that it can act on opportunities and create value (Morgan and Hunt 1994). In summary, communication and competence represent two strategies to promote the exploration migration mechanism, which increases the likelihood that a relationship migrates from the transactional to the transitional state by helping partners create and fairly share value.

H$_1$: (a) Communication and (b) competence positively affect the probability of migrating from the transactional to the transitional state.

Endowment mechanism: Transitional-to-communal states. Relationships in the transitional state have medium-high levels of state variables, with a high probability to migrate to the communal state in each period (61%). This migration requires trust, customer commitment, and relational norms to continue to increase (11%–15% from the transitional state), to strengthen relational bonds. However, the most substantial change in state variables during this migration is the large increase in dependence (32% growth, or two to three times greater than for the other state variables). This migration mechanism, termed *endowment*, implies stronger relational bonding between partners, with a large increase in dependence as both partners make unrecoverable investments in the exchange to spur performance to its highest level.

Past research indicates a key role of *relationship investments*, or "time, effort, spending, and resources focused on building a stronger relationship" (Palmatier et al. 2006, p. 138), for leveraging the value-creating capabilities of partners (De Wulf, Odekerken-Schröder, and Iacobucci 2001). Relationship investments also increase dependence, due to the difficulty of redeploying resources to other exchanges, such that they can help mitigate concerns of opportunism and support further investments (Heide and John 1990). Customer and seller

investments help increase performance to its highest level by endowing the relationship with the resources necessary to exploit identified opportunities (Jap and Ganesan 2000; Palmatier et al. 2006). Moreover, the positive interaction between customer and seller investments should accelerate relationship transition to a communal state. When both parties provide resources, the opportunity to create complementary and unique value increases, with potential to generate superior returns (Kozlenkova, Samaha, and Palmatier 2013). Thus, customer and seller investments represent key strategies for enhancing the endowment mechanism, which increases the likelihood that a relationship will shift from transitional to communal states, by providing the resources needed to exploit opportunities, creating unique value propositions, and building a protective shield of dependence.

H_2: (a) Customer and (b) seller investments positively affect the probability of migrating from the transitional to the communal state.

H_3: The interaction of customer and seller investments positively affects the probability of migrating from the transitional to the communal state.

Neglect mechanism: Communal- and transitional-to-transactional states. Relationships that reach the transitional and communal states can also weaken, rather than continue to strengthen or remain in the same state. A negative migration mechanism that describes both transitional- and communal-to-transactional state changes is *neglect*, which captures a pattern of decay due to passive inattention rather than proactive negative activities. The change results from an erosion in the state variables (20%–40% decay). Often the relationship does not end, because neglect results in "reduced social exchanges with the partner firm (but not necessarily reduced economic exchanges with them)" (Ping 1999, p. 221).

Marketing research on relationship decay and passive neglect is relatively limited, but social psychology literature identifies an absence of communication between partners as

especially detrimental to relationships (Rusbult, Zembrodt, and Gunn 1982). Lower levels of communication reduce trust, commitment, and norms but typically do not affect dependence, which is more of a structural constraint (Heide and John 1990; Koza and Dant 2007). The absence of communication thus promotes the neglect mechanism, which increases the likelihood of a relationship returning to the transactional state.

Similarly, reducing relationship investments removes the resources required for value creation and signals a lack of relational motivation (Rindfleisch and Heide 1997), which suppresses trust, commitment, and relational norms, consistent with the neglect mechanism (Palmatier et al. 2008). For example, Rusbult and colleagues (1982, p. 1239) argue that failing to invest resources is "promotive of relatively destructive behaviors such as ignoring the partner." Thus, reduced communication or customer and seller investments represent "passive strategies" for triggering the neglect migration mechanism, which increases the likelihood that a relationship will shift from a transitional or communal state to the transactional state, in that it removes the factors that helped improve the relationship. Because the passive decay of a relationship due to inattention or inaction is less emotional, the relationship likely drifts into a neutral or "transactional," rather than the more negative "damaged," state.

H₄: Reducing (a) communication, (b) customer investments, and (c) seller investments increase the probability of migrating from the transitional to the transactional state.

H₅: Reducing (a) communication, (b) customer investments, and (c) seller investments increase the probability of migrating from the communal to the transactional state.

Betrayal mechanism: Communal- and transactional-to-damaged states. In addition to passive neglect, purposeful actions can significantly and immediately reduce relational measures (Hibbard, Kumar, and Stern 2001). The damaged state suffers the lowest levels of trust, commitment, and norms, though the exchange is held together by medium to high levels of

dependence. This negative migration mechanism, capturing both transactional- and communal-to-damaged state changes, is *betrayal*. It describes an immediate and dramatic drop in state variables, due to purposeful actions rather than passive neglect, typically accompanied by strong emotional responses (Hibbard, Kumar, and Stern 2001; Samaha, Palmatier, and Dant 2011). Often only dependent relationships survive betrayal due to anger and the desire to punish the betrayer (Eyuboglu and Buja 2007). This strong emotional aspect and resultant drop in state variables differentiates betrayal from neglect. For example, in negative migrations from the communal state, trust, commitment, and norms decrease twice as much with the betrayal migration, compared with neglect, though dependence diminishes only one-third as much.

According to extant literature, conflict and injustice represent two migration "strategies" that likely invoke the betrayal migration mechanism (Kaufmann and Stern 1988). Unresolved *conflict*, or "disagreement between a seller and a customer as each party strives to achieve its business goals" (Samaha, Palmatier, and Dant 2011 p. 102), can have detrimental impacts on relationship health, in that "The mere presence of relationship conflict demonstrates that parties do not share mutual understanding and appreciation, and will thus undermine trust" (Langfred 2007, p. 887). *Injustice*, or perceived unfairness in the ratio of outcomes to inputs, can be especially damaging in a relationship setting (Samaha, Palmatier, and Dant 2011). We further expect a synergistic interaction between conflict and injustice that accelerates the transition of a relationship to the damaged state, because perceptions of injustice suggest a partner's negative intentions (Campbell 1999). That is, perceived injustice adds emotionally powerful, negative attributions to any ongoing conflict. Because injustice is difficult to attribute to external sources other than the exchange partner, these perceptions exacerbate the damaging effects of conflict (Samaha, Palmatier, and Dant 2011). Thus, both conflict and injustice represent key triggers of

the betrayal mechanism, which increases the likelihood that a relationship will shift from the transactional or communal to damaged states, by removing the factors underpinning the exchange relationship and provoking a significant emotional response.

H_6: (a) Conflict and (b) injustice increase the probability of migrating from the communal to the damaged state.

H_7: (a) Conflict and (b) injustice increase the probability of migrating from the transactional to the damaged state.

H_8: The interaction of conflict and injustice enhances the probability of migrating from the (a) communal or (b) transactional to the damaged state.

Recovery mechanism: Damaged-to-transactional states. The last migration mechanism is recovery, which describes the pattern of change in the state variable necessary for an exchange to migrate from a damaged to a transactional state. Because relationships in the damaged state reveal low levels for all state variables, recovery entails massive increases in trust, commitment, and relational norms (>40%). In addition, damaged relationships are sticky, such that relationships are more likely to remain damaged (57%) than migrate to a more positive state.

Migration strategies to promote the recovery mechanism must help resolve the underlying conflict and injustice, as well as rebuild the damaged relational state variables. Just as communication helps identify value creation opportunities to promote relationship growth, it is critical to relationship recovery, because it can identify root causes of conflict and inequity. Communication is necessary but not sufficient for recovery; after the problem is identified, partners must act on this information through *compromise*, or "the resolution of conflicts by developing a middle ground on a set of issues based on the initial positions of both parties" (Ganesan 1993, p. 186). Through compromise, partners directly address conflict and inequalities that damaged the relationship. Thus, communication and compromise individually and synergistically represent migration strategies for promulgating the recovery migration

mechanism, which increases the likelihood that a relationship will shift from the damaged to the transactional state, by identifying and correcting problems and rebuilding relational bonds.

H$_9$: (a) Communication and (b) compromise increase the probability of migrating from the damaged to the transactional state.

H$_{10}$: The interaction of communication and compromise enhances the probability of migrating from the damaged to the transactional state.

Sample and Measurement

For Study 2, we used the same data set and measures for the state variables and outcomes that we adopted in Study 1 but also added migration strategies to the model (see Appendix A). All strategy scales indicated Cronbach's alpha values greater than .88, and each construct's square root for the average variance extracted exceeded the construct correlations. Confirmatory factor analyses for each year of data yielded acceptable fit indices ($\chi^2_{(1064)} = 1515.51$–$2094.85$, p < .01; comparative fit index = .95–.98; root mean square error of approximation = .03–.04).

Analysis

In Study 2, we added to Study 1's HMM by integrating the hypothesized migration strategies into the final four-state model and thereby test the drivers of state-specific migrations. As we have noted, in Study 1, we used state variables to define the relationship states, whereas in Study 2, we simultaneously used migration strategies to explain heterogeneity in transitions among states. Conditional on being in relationship state s at response time j, the state variables—and thus the relationship states themselves—respond to changes in the hypothesized migration strategies. We test our hypotheses by including the hypothesized migration strategies and interactions in the transition matrix of the HMM, and estimate the parameters that correspond to these migration strategies. For a detailed description of the analysis and estimation approach, see Appendix B.

Results

In Table 5, we present the effect of each hypothesized migration strategy on the probability of a state-specific change. Conditional on being in the transactional state, both communication ($\beta = .46$, $p < .01$) and competence ($\beta = .48$, $p < .01$) significantly increase the probability of moving a customer to the transitional state, in support of H_1 and the underlying exploration migration mechanism. In support of the endowment mechanism, partners can increase the probability of advancing their relationship from the transitional to the communal state by making customer ($\beta = .47$, $p < .01$) and seller ($\beta = .62$, $p < .01$) investments, which supports H_2. Furthermore, the positive interaction between customer and seller investments promotes the transition of partners to the communal state ($\beta = .35$, $p < .01$), in support of H_3.

For the two relationship damaging mechanisms, we find that reducing communication ($\beta = .53$, $p < .01$), customer investment ($\beta = .49$, $p < .01$), and seller investment ($\beta = .67$, $p < .01$) increases the probability of shifting a relationship from the transitional to the transactional state, in support of H_4. Similarly, reducing the levels of communication ($\beta = .27$, $p < .01$), customer investment ($\beta = .48$, $p < .01$), and seller investment ($\beta = .36$, $p < .01$) increases the probability of shifting a relationship from the communal to the transactional state, in line with H_5. Worse still, the betrayal mechanism drives a relationship to the damaged state through conflict and injustice. As we predicted in H_6, conflict ($\beta = .56$, $p < .01$) and injustice ($\beta = .82$, $p < .01$) significantly degrade communal relationships to the damaged state; being perceived as unjust appears especially harmful. Similarly and in support of H_7, conflict ($\beta = .37$, $p < .01$) and injustice ($\beta = .48$, $p < .01$) increase the likelihood that a transactional relationship moves to the damaged state. The significant, positive interaction effect between conflict and injustice enhances the

probabilities of migrating from the communal ($\beta = .59$, $p < .01$) and transactional ($\beta = .38$, $p < .01$) states to the damaged state, in support of H_8.

Finally, we evaluate the recovery migration mechanism, which moves customers from damaged to transactional states. Contrary to our expectations, the direct effect of communication fails to increase the probability of transitioning out of the damaged state, so we must reject H_{9a}. Yet compromise ($\beta = .62$, $p < .01$) has a significant positive effect on the likelihood of migrating to the transactional from the damaged state, in support of H_{9b}. However, we find that the interaction between communication and compromise is significant ($\beta = .43$, $p < .01$), in support of H_{10}. That is, communicating is helpful to recovery only if combined with the more solution-oriented compromise strategy (i.e., "talking" without action does not help recover a relationship).

(Table 5 follows References)

Discussion

Study 2 advances relationship marketing and lifecycle theories in two key ways. First, we identify, define, and empirically test five "prototypical" relationship migration mechanisms, three positive (exploration, endowment, recovery) and two negative (neglect, betrayal), that parsimoniously account for observed customer state changes. Second, using the structure uncovered in Study 1 and the proposed migration mechanisms, we empirically test state-specific migration strategies that we expect will influence each migration mechanism most. Thus, we move beyond extant lifecycle theory that has focused on describing "relationship states" to understanding "relationship state migration" and thereby provide managers with guidance on which migration strategies individually and synergistically are most effective at promoting or suppressing state migration. In addition to providing insights for managers to dynamically

manage their customers over time, our model provides a holistic view of both customer lifecycle states and state migrations.

For example, post hoc analysis suggests that increasing communication and competence (1 SD above the mean) are very effective migration strategies for customers in the transactional state, because it increases the likelihood of a customer shifting to a more positive relational state by 41% (supporting the exploration mechanism). For our sample, accelerating customer migrations out of the transactional state pays off; it moves more customers from a state with sales growth of 7% to a state with sales growth of 23%, which represents an increase of 220%. Alternatively, customer and seller investments represent ideal migration strategies for engaging the endowment mechanism, which increases the likelihood that a relationship will shift from the transitional to the communal state by providing the resources to create value and build protective interdependence. From a state variable standpoint, building relational norms are critical for exploration, while increasing dependence through investments is key for endowment.

We also find support for the two relationship damaging mechanisms. As Jap and Anderson (2007, p. 272) note, "decline is a separate phenomenon, unique in its own right, and deserves more systematic research." We show that neglect and betrayal both damage relationships but operate through different mechanisms. Neglect is passive inattention, where partners withhold relationship-sustaining resources (communication, investments), moving the relationship to a transactional state. Betrayal actively undermines relational equity, driving the relationship into a damaged state, often through direct, synergistic effects of conflict and injustice.

Finally, our findings suggest that even though a relationship in a damaged state is roughly 50% more likely to remain damaged than it is to improve, contrary to extant literature (e.g.,

Dwyer, Schurr, and Oh 1987), it can still be recovered by repairing norms and rebuilding trust and commitment. In addition to solving the underlying conflict and injustice, the joint effects of communication and compromise appear to be the most effective recovery strategies.

Conclusion and Implications

Two extant streams of research in marketing provide insight into how customer relationships affect performance. Relationship marketing reveals the most effective strategies for building relationships to enhance performance (Morgan and Hunt 1994; Palmatier et al. 2006), and lifecycle research indicates how the effectiveness of relationships varies at different stages of development (Dwyer, Schurr, and Oh 1987; Jap and Anderson 2007). *One perspective looks at relationship strategies while ignoring lifecycle differences; the other describes relationship development but provides little guidance into the most effective strategies*. This article advances theory and practice by integrating these perspectives into a single conceptual and empirical framework, to explicate the most effective relationship migration strategies and capture the differential effects of relationship marketing on performance as relationships develop.

This article has various implications for both theory and practice. We provide an "agnostic" empirical test of extant lifecycle theories by identifying four relationship states and the most likely migration paths. Although three states are consistent with past research, the newly identified, unidirectional, relatively temporary "transitional state" adds a key waypoint, where performance is growing but managers must either invest to bond more tightly or miss the window of opportunity to move to a higher performance communal state. Our post hoc analysis shows that increasing seller and customer investments (1 SD above the mean) increases the probability that a relationship shifts from the transitional to the communal state by 43%

(supporting the endowment mechanism), which moves more customers to the highest performance state and provides the firm with a 34% increase in sales from these customers.

We also advance lifecycle theory by conceptualizing and empirically testing five "prototypical" relationship migration mechanisms that parsimoniously account for the observed customer state changes in our data. That is, in addition to relationship states, we describe relationship state changes. We provide a balanced view by identifying and describing two negative migration mechanisms in addition to positive mechanisms. The resulting managerial insights reveal some underlying causes of neglect, including the failure to communicate or invest, versus betrayal, which typically sparks a strong emotional response due to conflict and unfairness. If a firm is inattentive to communication and investments (−1 SD), the likelihood of a customer shifting from the communal to the transactional state increases by 28% (neglect mechanism), which diminishes sales growth among these customers by 22% and thus reduces the firm's sales by 9%. Higher levels of conflict and unfairness (+1 SD) instead increase the likelihood that a communal customer shifts to the damaged state by 150% (betrayal mechanism), reducing the firm's sales by 31% and the sales growth among those customers by 67%.

By combining the relationship structure and migration mechanisms, we empirically test a constellation of *state-specific migration strategies* and thereby indicate which migration strategies, individually and synergistically, are most effective for driving state change. Strategies can be targeted, based on lifecycle stage. For example, early in the lifecycle, managers should focus on developing strong communication processes and increasing the competence of boundary spanners to help identify value-creating opportunities, as well as build relational norms, because these migration strategies best increase the likelihood of a positive migration.

We also acknowledge some limitations of our research. First, we examine longitudinal relationships between a single large firm and its many customers. The generalizability of this analysis would increase with a broader sample of customer–seller relationships from multiple firms across different industries. Further research should determine if there are fundamental differences in relationship lifecycles across industries or contexts, to clarify the most effective strategies for managing relationships in various environments. Second, we examine four important relationship state variables, but other potential state variables might capture additional relationship facets. For example, gratitude and reciprocity debts could be critical early in a relationship lifecycle. Third, we used a yearly sampling frame, a gap that might be too long to detect rapid relationship migrations. Although business relationships tend to be slow to develop (Jap and Anderson 2007), monthly or quarterly measurements might provide more fine-grained information about relationship dynamics, especially early in the relationship and during conflict-laden periods. Fourth, we do not account for competitive relationships. Further research should expand our analyses by noting possible influence of third parties and thus examining group-level relationship dynamics.

Constructs and Measures (Scale Sources)	Item Loadings
Relationship State Variables	
Trust (Crosby, Evans, and Cowles 1990)	
I can count on [Seller] to be honest in their dealings with me.	.87
[Seller] is a company that stands by its word.	.87
I can rely on [Seller] to keep the promises they make to me.	.88
[Seller] is sincere in its dealings with me.	.90
Customer commitment (Kumar, Scheer, and Steenkamp 1995)	
We continue to represent [Seller] because it is pleasant working with them.	.83
We intend to continue representing [Seller] because we feel like we are part of the [Seller] family.	.91
We like working for [Seller] and want to remain a [Seller] agent.	.82
We are a [Seller] agent because we like what [Seller] stands for as a company.	.85
Customer dependence (Kumar, Scheer, and Steenkamp 1995)	
If for some reason, our relationship with [Seller] ended…	
The loss would hurt our sales of non-[Seller] lines as well.	.48
We would compensate for it by switching our effort to other lines we carry. [R]	.59
It would be relatively easy for us to diversify into selling new product lines. [R]	.99
We would suffer a significant loss of income despite our best efforts to replace lost income.	.51
Relational norms (Kaufmann and Dant 1992)	
Even if the costs and benefits are not evenly shared between us in a given time period, they balance out over time.	.80
We each benefit and earn in proportion to the efforts we put in.	.83
My business usually gets a fair share of the rewards and cost-savings in doing business with [Seller].	.85
In our relationship, none of us benefits more than one deserves.	.79
Performance Outcomes	
Cooperation (Morgan and Hunt 1994)	
Overall, our relationship with [Seller] suggests that…	
We can work together well in this business.	.82
We can count on [Seller] to be a team player.	.87
We look after each other's interest in this relationship.	.87
We should describe our relationship as cooperative.	.87
Profit (Lusch and Brown 1996)	
As compared to other similar [Seller] agents, our performance is very high in terms of…	
Cash flow.	.74
Profit growth.	.78
Overall profitability.	.82
Migration Strategies	
Communication (Greenbaum, Holden, and Spataro 1983)	
Communications are prompt and timely.	.74
Information provided is relevant for decision-making.	.79
Communications are complete.	.90
The channels of communication are well understood.	.83
Competence (Kumar, Stern, and Achrol 1992)	
We have detailed knowledge of [Seller]'s product lines, which makes us an effective [Seller] agent.	.74
We understand [Seller]'s business procedures and can help customers that require special assistance in dealing with [Seller]	.70
We have invested considerable time and money in educating and training our employees to be more competent in selling [Seller]'s products.	.60
Customer investment (Heide and John 1988)	
I have invested a lot of myself as a [Seller]'s agent, in terms of...	
Time, beyond normally expected, in order to make [Seller] business successful.	.82
Effort, beyond normally expected, in order to make [Seller] business successful.	.80
Personal sacrifices (e.g., lost opportunities for other jobs, vacations, etc.).	.88
Professional knowledge as a retailer.	.83
Seller investment (Zaheer and Venkatraman 1995)	
[Seller] has invested significant resources in providing me ongoing training.	.74
[Seller] has invested significant resources in providing me customized support.	.82
[Seller] has invested significant resources in improving personal relations between us.	.89
Injustice (Kumar, Scheer, and Steenkamp 1995)	
Our earnings from [Seller]'s business are fair given...	
The duties and responsibilities that I perform for [Seller].	.87
What other [Seller] agents earn in markets similar to mine.	.59
What [Seller] earns from its sales through my business.	.90
The contributions I make towards [Sellers'] marketing effort in my market.	.80
Conflict (Kumar, Scheer, and Steenkamp 1995)	
OVERALL, I consider my relationship with [Seller] to be…	
Full of ill will.	.77
Frustrating.	.75
Threatening.	.66
Hostile.	.67
Compromise (Ganesan 1993)	
In our disputes with [Seller], they usually...	
Try to find the middle-ground between our position and theirs.	.83
Try to soothe our feelings and preserve our relationship by meeting us half-way.	.87
Try to find a fair combination of gains and losses for both of us.	.91
Let us have some of our positions if we let them have some or theirs.	.66

Note: All items were measured using five-point scales, from 1 = "strongly disagree" to 5 = "strongly agree." [R] = reverse coded.

APPENDIX B

A Multivariate Hidden Markov Model (HMM) for Dynamic Relationship Migration

Using a multivariate HMM, we empirically infer the latent relationship states from the time-varying levels of survey responses of the four state variables for each customer. The vector of state variables for customer i at time j is $\mathbf{y_{ij}} = (t_{ij}, c_{ij}, d_{ij}, n_{ij})$, where t_{ij} is the average of the trust items and c_{ij}, d_{ij}, and n_{ij} are commitment, dependence, and relational norms, respectively. The latent state at time j for customer i, $\left\{ \mathbf{Y_{i1}} = \mathbf{y_{i1}}, ..., \mathbf{Y_{ij}} = \mathbf{y_{ij}} \right\}$, has four components: (1) the initial latent state probabilities $\boldsymbol{\pi_i}$, which denote the customer's initial state; (2) a matrix of transition probabilities among the states $\boldsymbol{\Omega_{i,j\text{-}1 \rightarrow j}}$ that explains how the customer moves between states from one period to the next, as well as the effects of various migration strategies on the transition; (3) a multivariate likelihood of interrelated state variables, conditional on the relationship state $L_{ij|s} = f_{is}(t_{ij}, c_{ij}, d_{ij}, n_{ij})$; and (4) the customer's latent state probability at each time period.

Initial State Distribution

Let s denote a latent relationship state ($s = 1, 2, ..., S$). Let π_{is} be the probability that customer i is initially in state s in the first period of our data set, where $1 \geq \pi_{is} \geq 0$ and $\sum_{s=1}^{S} \pi_{is} = 1$. We use S – 1 logit-transformed parameters to represent the vector of initial state distribution.

Markov Chain Transition Matrix

The HMM transition matrix denotes the probability of a customer moving from one state to each other state, from one period to the next. We model the transitions as a Markov process:

<div align="center">State at t</div>

$$
\mathbf{\Omega_{i,j\text{-}1\rightarrow j}} = \begin{array}{c} \text{State at t-1} \\ \\ \\ \\ \\ \end{array} \begin{array}{c} 1 \\ 2 \\ \vdots \\ S \end{array} \begin{array}{ccccccc} 1 & 2 & 3 & \cdots & S-1 & S \\ \hline \omega_{ij11} & \omega_{ij12} & \omega_{ij13} & \cdots & \omega_{ij1S-1} & \omega_{ij1S} \\ \omega_{ij21} & \omega_{ij22} & \omega_{ij23} & \cdots & \omega_{ij2S-1} & \omega_{ij2S} \\ \vdots & \vdots & \vdots & \ddots & \vdots & \vdots \\ \omega_{ijS1} & \omega_{ijS2} & \omega_{ijS3} & \cdots & \omega_{ijSS-1} & \omega_{ijSS} \end{array}
$$

where $\omega_{ijss'} = P(S_{ij} = s' \mid S_{ij\text{-}1} = s)$ is the conditional probability that customer i moves from state s at time $j-1$ to state s' at time j, and where $0 \leq \omega_{itss'} \leq 1 \;\; \forall s, s'$, and $\sum_{s'} \omega_{ijss'} = 1$.

The transition probabilities might be influenced by several factors (i.e., migration strategies) at time $j-1$, as we outlined Study 2. We therefore define each transition probability $\omega_{ijss'}$ as a function of migration strategies, and we use the logit specification to ensure $0 \leq \omega_{itss'} \leq 1$. We define:

$$
\omega_{ijss'} = \frac{e^{\mathbf{x_{ij\text{-}1}}' \mathbf{\gamma_{is}}}}{1 + \sum_{s=1}^{S-1} e^{\mathbf{x_{ij\text{-}1}}' \mathbf{\gamma_{is}}}}, \tag{B1}
$$

where, $\mathbf{x_{ij\text{-}1}}$ is a vector of migration strategies affecting the transition between states, and $\mathbf{\gamma_{is}}$ is a state-specific vector of response parameters that measure the impact of each migration strategy on the transition probability $\omega_{ijss'}$. Specifically, $\mathbf{x_{ij\text{-}1}}$ includes all hypothesized migration strategies and interactions from Study 2.

HMM Likelihood Function

Conditional on being in state s at time j, a customer responds to the level of trust, commitment, dependence, and relational norms. These four responses are unconditionally interrelated. If customer i at time j is in a latent state $S_{ij} = s$, we can factor the conditional discrete–continuous joint likelihood $L_{ij|s}$ using multivariate normal distributions to model the joint distributions on all four variables, as follows:

$$L_{ij|s} = f_{is}(t_{ij}, c_{ij}, d_{ij}, n_{ij}),\qquad\qquad\text{(B2)}$$

where t_{ij} c_{ij}, d_{ij} and n_{ij} are trust commitment, dependence, and relational norms, respectively.

Considering the Markovian structure of the model, the likelihood of observing a set of joint customer responses at time J depends on all responses up to that event. The likelihood of observing the customer's responses over J periods ($\mathbf{Y_{i1}}, \mathbf{Y_{i2}}, ..., \mathbf{Y_{iJ}}$) is:

$$L_{iJ} = P(\mathbf{Y_{i1}} = \mathbf{y_{i1}}, ..., \mathbf{Y_{iJ}} = \mathbf{y_{iJ}}) = \boldsymbol{\pi_i}\mathbf{M_{i1}}\boldsymbol{\Omega}_{i,1\rightarrow2}\mathbf{M_{i2}}...\boldsymbol{\Omega}_{i,J-1\rightarrow T}\mathbf{M_{iJ}}\mathbf{1'},\qquad\text{(B3)}$$

where $\boldsymbol{\pi_i}$ is the initial state distribution, $\boldsymbol{\Omega}_{i,j\rightarrow j+1}$ is the transition matrix, $\mathbf{M_{ij}}$ is a $S{\times}S$ diagonal matrix with the elements $L_{ij|s}$ from Equation B1 on the diagonal, and $\mathbf{1'}$ is a $S{\times}1$ vector of ones.

To ensure identification of the states, we restrict customers' responses to "trust" to be non-decreasing in the relationship states. Let β_{b01i} be customer i's mean-level response to trust in the state 1 with the lowest trust. Then, we impose the restriction $\tilde{\beta}_{t01i} \leq \tilde{\beta}_{t02i} \leq ... \leq \tilde{\beta}_{t0Si}$ by setting

$\tilde{\beta}_{t0si} = \beta_{t01i} + \sum_{s'=2}^{s}\exp(\beta_{t0s'i})$; s = 2, ..., S. To avoid underflow, we scale the likelihood function in Equation B2 using the approach suggested by MacDonald and Zucchini (1997).

Recovering the State Membership Distribution

We use a filtering approach (Hamilton 1989), to determine the probability that customer i is in state s at time j, conditional on the customer's history:

$$P(S_{ij} = s \mid \mathbf{Y_{i1}}, \mathbf{Y_{i2}}, .., \mathbf{Y_{ij}}) = \boldsymbol{\pi_i}\mathbf{M_{i1}}\boldsymbol{\Omega}_{i,1\rightarrow2}\mathbf{M_{i2}}...\boldsymbol{\Omega}_{i,j-1\rightarrow t\bullet s}L_{ij|s} / L_{ij},\qquad\text{(B4)}$$

where $\boldsymbol{\Omega}_{i,j-1\rightarrow j,s}$ is the sth column of the transition matrix $\boldsymbol{\Omega}_{i,j-1\rightarrow j}$, and L_{ij} is the likelihood of the observed sequence of joint decisions up to time j from Equation B2.

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TABLE 1
Summary of Customer Relationship Lifecycle Research

Reference	Methodology	Number of Citations[1]	Number of Lifecycle Stages	Relationship State Variables	Relationship State Conceptualizations	Relationship Migration Paths
Conceptual						
Dwyer, Schurr, and Oh (1987)	Conceptual	7,046	6	Trust; commitment, dependence, norms	Awareness-exploration-expansion-commitment-dissolution	Sequential-deterministic
Rousseau et al. (1998)	Conceptual	4,201	3	Trust	Building-stability-dissolution	Sequential-deterministic
Ring and Van de Ven (1994)	Conceptual	9,720	4	Trust; dependence, norms	Negotiation-agreement-execution-assessment-dissolution	Cyclical-oscillating
Lewicki and Bunker (1996)	Conceptual	1,852	4	Trust; identification	Stage 1 (calculus- and deterrence-based trust)-stage 2 (knowledge-based trust)-stage 3 (identification-based trust) decline; initiation-maintenance-termination	Sequential-deterministic
Heide (1994)	Conceptual / partial empirical test	1,779	3	Dependence, norms	Initiation-maintenance-termination	Sequential-deterministic
Wilson (1995)	Conceptual	1,736	5	Trust; commitment, social bonds, satisfaction, cooperation	Partner selection-defining purpose-setting relationship boundaries- creating relationship value-relationship maintenance	Sequential-deterministic
Johnson and Selnes (2004)	Conceptual; using simulation	298	3	Trust; commitment, satisfaction	Acquaintances - friends - partners	Transactional-relational continuum
Anderson and Narus (1991)	Conceptual; using case studies	103	Continuous	Dependence, norms	Transactional vs. relational	Transactional-relational continuum
Empirical						
Jap and Ganesan (2000)	Cross-sectional; age cohorts	794	4	Commitment, dependence, norms, satisfaction, bilateral investment, conflict	Exploration-buildup-maturity-decline	Sequential-deterministic
Hibbard et al. (2001)	Cross-sectional; age as covariate	266	4	Trust; commitment, dependence, communication, shared values	Exploration-buildup-maturity-decline	Sequential-deterministic
Netzer, Lattin, and Srinivasan (2008)	Longitudinal; HMM	83	3	Satisfaction, emotional commitment, pride for subset of sample	Quartile 1 (age: 1-96 months) - quartile 2 (age: 97-160 months) - quartile 3 (age: 161-236 months) - quartile 4 (age: 237+ months) - Dormant-occasional-active	Cyclical-oscillating
Jap and Anderson (2007)	Cross-sectional; age cohorts	69	4	Trust; dependence, norms (goal congruence) risk seeking	Exploration-buildup-maturity-decline	Sequential-deterministic vs. cyclical-oscillating
Palmatier et al. (2013)	Longitudinal; latent growth curve	1	Continuous	Commitment, commitment velocity	Continuous dynamic state	Transactional-relational continuum
Luo and Kumar (2013)	Longitudinal; HMM	0	3	None	State 1 (lower) - state 2 - state 3 (highest)	Cyclical-oscillating

[1] Average of Google Scholar, Web of Science, and Harzing's Publish or Perish.

TABLE 2
Descriptive Statistics and Correlations

Constructs	M	SD	AVE	α	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Relationship State Variables																		
1. Trust	4.18	.53	.87	.96														
2. Customer commitment	4.30	.53	.76	.93	.65*													
3. Customer dependence	3.03	.61	.86	.91	.14*	.25*												
4. Relational norms	3.53	.68	.75	.92	.58*	.56*	.19*											
Performance Outcomes																		
5. Cooperation	4.07	.50	.90	.97	.65*	.63*	.18*	.61*										
6. Profit	3.86	.61	.93	.98	.34*	.43*	.14*	.38*	.35*									
7. Sales growth (%)	8.95	124.09	NA	NA	-.00	.00	.05	.00	.01									
8. Sales (thousands of $)	530	659	NA	NA	-.25*	-.11*	.11*	-.24*	-.24*	.07*	-.02							
Migration Strategies																		
9. Communication	3.81	.50	.93	.98	.52*	.46*	.10*	.47*	.60*	.26*	.00	-.31*						
10. Competence	3.97	.53	.72	.88	.30*	.43*	.12*	.27*	.28*	.45*	-.07	.12*	.30*					
11. Customer investment	3.70	.51	.95	.99	.30*	.33*	.16*	.32*	.34*	.29*	.02	-.02*	.35*	.39*				
12. Seller investment	3.54	.64	.77	.91	.46*	.47*	.14*	.49*	.54*	.30*	.03	-.23*	.56*	.34*	.53*			
13. Injustice	3.12	.65	.84	.95	.46*	.40*	.18*	.66*	.47*	.22*	.00	-.21*	.39*	.17*	.27*	.42*		
14. Conflict	1.77	.55	.88	.97	-.50*	-.47*	-.10*	-.42*	-.57*	-.20*	.01	.21*	-.47*	-.17*	-.15*	-.34*	-.34*	
15. Compromise	3.54	.63	.87	.96	-.45*	-.40*	.13*	-.48*	.52*	.28*	.02	-.18*	.30*	.22*	.30*	.45*	.34*	-.30*

* *p* < .01.

TABLE 3
Results: Study 1 Relationship States

Constructs		Relationship States			
		Transactional	**Transitional**	**Communal**	**Damaged**
Relationship State Variables					
Trust	(1-5 scale)	3.75*	4.13*	4.74*	2.64*
Customer commitment	(1-5 scale)	3.90*	4.44*	4.91*	2.79*
Customer dependence	(1-5 scale)	2.58	2.79	3.69*	3.28*
Relational norms	(1-5 scale)	2.47*	3.63*	4.13*	1.62*
Performance Outcomes					
Cooperation	(1-5 scale)	3.82	4.02	4.61	2.85
Profit	(1-5 scale)	3.61	3.81	4.28	3.55
Sales growth	(%)	7%	23%	9%	3%
Relationship State Descriptive Values					
Percent of sample across all years	(%)	52%	11%	18%	19%
Sales revenue	(1000$)	607	666	895	683
Relationship duration	(Years)	4.1	5.3	7.4	5.7
Marriage metaphor		Dating	Engagement	Married	Married for convenience

Migration Path Probabilities

Transition from:	To:	**Transactional**	**Transitional**	**Communal**	**Damaged**
Transactional state		50.2%	34.5%	-	13.2%
Transitional state		7.0%	29.4%	61.3%	-
Communal state		16.1%	-	60.8%	21.1%
Damaged state		37.9%	-	-	56.9%

Model Fit Comparisons

		3-State	**4-State**	**5-State**
Latent class	(DIC)	19,011	16,989	17,999
HMM	(DIC)	14,037	13,213	14,400

Notes: * State is significantly different from neighboring states at $p < .01$. The " - " indicates this cell value is not statistically different from 0.

TABLE 4
Relationship Migration Mechanisms

| Migration Mechanisms	Pattern of Change in State Variables	Relevant State Transitions	Migration Strategies	References
Exploration	Trust, customer commitment, and customer dependence increase 8%-14% to strengthen relational bonds. Relational norms dramatically increase (47%), due to a positive evaluation of reciprocal behaviors, strengthening relational governance.	• Transactional-to-transitional	• Communication • Competence	Dwyer, Schurr and Oh (1987); Jap and Ganesan (2000); Mohr, Fisher, and Nevin (1996); Morgan and Hunt (1994)
Endowment	Trust, customer commitment, and relational norms increase 11% to 15%, reinforcing relational bonding. Customer dependence dramatically increases (3-5 times more than other migrations) as both partners' make non-recoverable investments.	• Transitional-to-communal	• Customer investment • Seller investment • Customer x seller investment	De Wulf, Odekerken-Schröder, and Iacobucci (2001); Heide and John (1990); Palmatier, Dant, and Grewal (2007)
Neglect	Trust, customer commitment, customer dependence, and relational norms decay between 20% and 40%, eroding relational bonds.	• Communal-to-transactional • Transitional-to-transactional	• Low communication • Low customer investment • Low seller investment	Koza and Dant (2007) Ping (1993, 1999); Rusbult, Zembrodt, and Gunn (1982)
Betrayal	Trust, customer commitment, and relational norms implode 40% to 60%, destroying relational bonds. Immediate and dramatic state variable damage due to purposeful actions, typically accompanied by a strong emotional response. Relationship often only saved from termination by high dependence.	• Communal-to-damaged • Transactional-to-damaged	• Conflict • Injustice • Conflict x injustice	Grégoire and Fisher 2008; Hibbard, Kumar, and Stern (2001); Samaha, Palmatier, and Dant (2011)
Recovery	Trust, customer commitment, and relational norms improve 40% or more, mending relational bonds. Recovery must overcome the relatively "sticky" nature of damaged relationship.	• Damaged-to-transactional	• Communication • Compromise • Communication x compromise	Ganesan (1993)

Table 5
Results: Effect of Path-Specific Migration Strategies

Migration Mechanisms	Migration Probability	Effect of Migration Strategies on Migration Probabilities		
Exploration				
Transactional-to-transitional	34.5%	Communication (H_{1a}) .46*	Competence (H_{1b}) .48*	
Endowment				
Transactional-to-communal	60.1%	Customer investment (H_{2a}) .47*	Seller investment (H_{2b}) .62*	Customer investment x seller investment (H_3) .35*
Neglect				
Transitional-to-transactional	9.0%	Low communication (H_{4a}, H_{5a}) .53*	Low customer investment (H_{4b}, H_{5b}) .49*	Low seller investment (H_{4c}, H_{5c}) .67*
Communal-to-transactional	13.5%	.27*	.48*	.36*
Betrayal				
Communal-to-damaged	19.4%	Conflict (H_{6a}, H_{7a}) .56*	Injustice (H_{6b}, H_{7b}) .82*	Conflict x injustice (H_{8a}, H_{8b}) .59*
Transactional-to-damaged	13.1%	.37*	.48*	.38*
Recovery				
Damaged-to-transactional	35.9%	Communication (H_{9a}) .08	Compromise (H_{9b}) .62*	Communication x compromise (H_{9c}) .43*

Notes: Hypothesis tests were carried out by factoring and evaluating the conditional discrete continuous joint likelihood. For a detailed explanation, please see Appendix B.

* $p < .01$.

Figure 1
Overview of Relationship States, Migration Mechanisms, and Migration Strategies
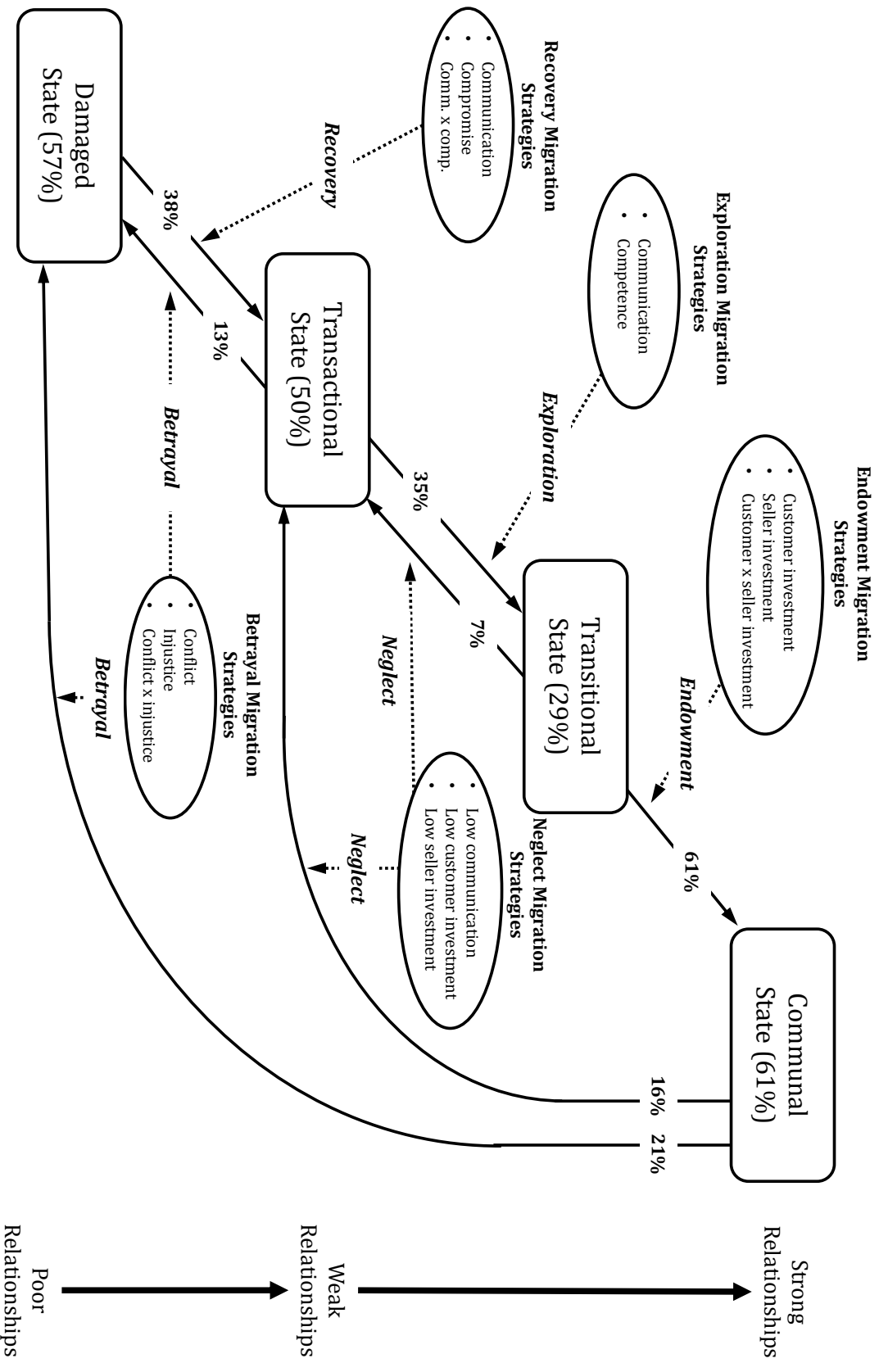
Note: Percentages represent probabilities of following each migrating path or remaining in the same state each year.