

**A Matter of (Relational) Style:
Loan Officer Coherence and Consistency in Contract Enforcement in
Microfinance***

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Abstract

Social scientists have long considered what mechanisms underlie repeated exchange. Three mechanisms have garnered the majority of this attention: Formal contracts, relational contracts, and embedded social ties. Although each mechanism has its virtues, all three exhibit a common limitation: An inability to fully explain the continuation of inter-temporal exchange between individuals and organizations in the face of change. Drawing on extensive quantitative data on approximately 450,000 microfinance loans made by an MFI in Mexico from 2004 -2008 that include random assignment of loan officers, this research proposes the concept of “relational styles” to help explain how repeated exchange is possible in the face of change. We define relational styles as systematically reoccurring patterns of interaction employed by social actors within and across exchange relationships--in this paper, between microfinance clients and loan officers. Findings support our arguments that social actors care about the relational styles of their counterparties in an exchange. More specifically, we show that relational styles that are coherent facilitate a clear understanding of expectations and thus exchange. We also demonstrate that consistency in the relational styles followed by successive exchange counterparties mitigates the negative impact of change, like a broken personal tie. Theoretical implications and extensions are discussed.

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Introduction

Formal contracts are fundamental features of economic and social life. Because they specify rights and responsibilities *ex ante*, they facilitate exchange between actors by reducing the risk of defection. In complex settings, however, it is impossible to anticipate the myriad contingencies that may arise, rendering formal contracts incomplete, difficult to craft, and costly to enforce (Macneil 1978; Williamson 1985). To minimize these limitations, relational contracts are often employed to create more flexible structures based on the trust that develops between parties with an economic interest in repeated exchange (the “shadow of the future”). However, relational contracts ultimately derive value from relationships between actors (e.g. Uzzi 1997; Heimer 1992). When relationships change or dissolve, so should the value they create for individuals or the organizations they represent in an exchange (Broschak 2004). Given the ubiquity of change, employee turnover, and broken ties, it is therefore unclear how organizations can consistently rely on relational contracts to sustain repeated exchange. Yet many do to good effect. Our paper provides an explanation for this puzzle.

We do so using microfinance as a strategic research site. Microfinance provides small loans using simple contracts between Microfinance Institutions (MFIs) and their borrowers (e.g. Gine et al. 2010). The frequency of loan disbursements allows for the observation of a large number of simple contractual interactions between an organization and its clients. Microfinance clients tend to be destitute and geographically dispersed, so

loan officers are often their only point of contact with the MFI. Because client needs vary considerably across individuals and settings, *ex ante* contracts are necessarily incomplete and borrower-loan officer relational considerations carry particular importance. In essence, microfinance constitutes an extreme version of small business finance where decentralized banks have been shown to be more effective because their branch managers have the discretion and incentives to establish relational contracts with their clients (Petersen and Rajan 1994; Berger et al., 2001). Given that loan officers are constantly promoted, fired, or rotated, the ensuing broken ties should produce disruptions that impact continuity of exchange. Notwithstanding constant change, these decentralized banks retain an organizational advantage through their relational contracts.

We determine a way they do so, using a novel, proprietary dataset that includes information on approximately 450,000 microfinance loans made by an urban-focused MFI in Mexico between 2004 and 2008. Theory generation, construct development and validation, and model specification and interpretation are aided by rich ethnographic data, including 129 interviews, collected as part of a larger research project (see self-identifying citation omitted). We gain empirical traction from the natural variation in agents' relational styles and the firm's policy of randomly assigning and rotating loan officers across branches when joining the firm and in response to vacant positions created by frequent turnover. The data include fine-grained information concerning the terms of the loan, the borrower's characteristics, and unique measures characterizing the coherence of each loan officer's relational style, where some agents follow a strictly contractual approach, others adhere to a holistic, broad interpretation of contractual terms and client conditions, and others mix elements of both approaches. The random

assignment of loan officers to branches mitigates concerns of endogeneity with respect to loan officers and borrowers. Random loan officer rotation provides an exogenous severance of established ties and the imposition of new loan officers with the same or different relational styles, which affords the analytical leverage required to disentangle the mechanisms that support effective contractual relationships.

We provide compelling evidence that even though formal contracts bind the borrower to the MFI, and relational contracts are established between the loan officer and borrower, value is not solely derived from either type of contract. Rather, clients also care considerably about the *style* of the relationship that is maintained between them and whoever their loan officer is at a given time. We theorize these types as *relational styles*, or systematically reoccurring modes of interaction and underlying schemata and scripts within and between social actors. Below we propose theory that specifies how both the coherence (logical interconnectedness) and consistency (stability through time) of loan officers' relational styles influence a borrower's adherence to contractual provisions concerning timely repayment.

Our findings show that when loan officers turnover, which occurs quite frequently in the firm we study and the industry at large (Janik 2012), clients are approximately 24% more likely to miss a payment, and contingent on a first missed payment more than 47% also miss a second. We show that these figures can be reduced significantly and rapidly depending on the coherence and consistency of the relational style employed by the loan officer subsequently (randomly) assigned to administer the loan.

These findings have considerable economic implications. MFIs must maintain capital reserves equal to specific percentages of their outstanding portfolios at risk. As clients miss more payments, capital reserve requirements increase non-linearly (e.g., from 4% of the loan value if only one payment has been missed (1-7 days in arrears) to 30% if three scheduled payments are missed (30-60 days in arrears)). For an MFI with a \$100 million portfolio (which the MFI we study has), capital reserve requirements can vary by millions of dollars.¹

On a theoretical level, a focus on relational styles adds depth to our understanding of relational contracts (see, e.g. Baker, Gibbons, and Murphy 2002; Gibbons and Henderson 2011) as they help explain continued exchange between a client and organization despite a broken tie between the client and corporate actor who established and defined the terms of the relational contract. We demonstrate the value of this social mechanism above and beyond the value afforded by prior (business) relationships (Granovetter 1992; Uzzi 1997), or imprints and logics associated with specific roles or positions in social structure (e.g., Bechky 2006; Burton and Beckman 2007). An implication of our research is that relational contracts do not provide organizations with sustainable value solely through personal ties between corporate actors and clients; coherence and consistency in the relational style used in their enforcement also matter.

In the following section we provide additional background on microfinance and its suitability as a research setting. We then offer a summary of formal contracts, relational contracts, and relational embeddedness in the Granovetter 1992 sense (i.e., the quality of dyadic ties) to provide more detail about their virtues and common limitation—the inability to fully explain the continuity of exchange in the face of change. In the

theory section we proffer our theoretical arguments and related hypotheses specifying how, when, and why the consistency and coherence in relational styles of loan officers should matter above and beyond contractual or dyadic relationships with a client. We then discuss the quantitative and qualitative data collected, as well as our analytic strategy. This is followed in order by a presentation of findings and a discussion that includes consideration of scope conditions and avenues for future work.

Microfinance as a research site to study (relational) contracts

Each year, microfinance provides approximately \$85 billion in loans to more than 150 million low-income borrowers (Daley-Harris 2007, 2009; CGAP 2008). Broadly speaking, microfinance provides financial services, mostly in the form of microcredit, to unbanked and often destitute populations. Loans are typically small, provided for short terms (between four and six months), and amortized through high-frequency payments (for a good introduction see Morduch and Armendariz de Aghion 2005). Loans are of the simplest form with terms, fixed rates, and a straight amortization schedule specified in a simple legal document. Loans typically do not require formal collateral.

From its origins in the 1970s, microfinance has demonstrated that poorer households not only constitute reasonable credit risk but can also put loans to productive use, often using them as levers to mitigate the effects of poverty (Yunus 2003). One of the most remarkable aspects of microfinance is that, contrary to conventional contract and finance theory (e.g. Bester 1985; Stiglitz and Weiss 1986), destitute populations with little access to collateral and no experience with contracts or formal finance nonetheless exhibit exemplary repayment rates (Morduch 1999; Morduch and Armendariz de Aghion 2005). Initial explanations for this puzzle centered on the common methodology of

providing loans to joint-liability groups that, it was assumed, increase the odds of repayment by providing incentives for group members to thoughtfully screen, monitor, and enforce repayment of joint liability loans (e.g. Stiglitz 1990; Besley and Coate 1995). However, recent research employing experimental designs has demonstrated that other lending models, including non-collateralized loans to individuals, can achieve similarly impressive results (Gine and Karlan 2012). This has shifted focus away from the joint liability mechanisms to more general contractual structures common in microfinance (Gine et al. 2010).

Research has argued for different contractual structures that induce timely repayment including: (a) the incentive of future access to capital; (b) small yet frequent payments (e.g., weekly); (c) progressive lending (i.e., loans increase in size with timely prior payment) to place more value on future loans than on a potential default; (d) favoring borrowers (e.g., women, groups) who generally follow more conservative investment strategies (Anthony 2005); or (e) engaging in intense supervision of clients (Armendáriz de Aghion and Morduch 2000, 2004; Field and Pande 2008; Gine et al. 2010).

Considerably less attention has been devoted to the organizations and the agents that create and enforce MFI contracts (Jain and Moore 2003). This neglect is surprising for several reasons. First, microfinance clients are mostly poor and geographically dispersed, which means that loan officers are often the sole point of contact between a client and the MFI. While the central MFI determines lending policies, loan contracts, and collection procedures, these are always enacted and primarily enforced by loan officers operating from a network of small branches. Therefore, even though clients have

a contractual agreement with the MFI, they establish and experience it *through* their relationships with loan officers. Second, client needs vary considerably across individuals and time, making *ex ante* contracts necessarily incomplete. More broadly, microfinance constitutes an extreme version of small business finance, which has been shown to be especially sensitive to relational contracts and the “soft” information that can only travel through personal—rather than contractual—ties (e.g. Petersen and Rajan 1994; Berger et al., 2001). It also shares important characteristics with street-level bureaucracies, where agents must exercise unusual levels of discretion in the modes they follow to enforce rules (Lipsky 1980; Coslovsky 2011; Piore 2011; self-identifying citation omitted). For these reasons, we can expect that borrower-loan officer relational considerations will interact with formal contractual structures to affect loan outcomes. In addition, the high frequency of microcredit results in a large number of contractual exchanges between an MFI and its diverse client population (Gine et al. 2010). Microfinance therefore presents a rich setting to test and separate specific claims and mechanisms concerning formal and relational contracts.

Predictions concerning contracts, loan officer change, and relational styles

Contracts are foundational components of economic and social life (Durkheim [1933] 1987: 155; Weber 1978, Ch VIII; Fudenberg and Tirole 1990). Contracts specify rights and responsibilities between individuals—or between individuals and institutions—in various exchanges. From the most mundane of matters such as consumer purchases to the most intimate such as marriage, contracts reflect, shape, coordinate, and circumscribe expectations and action.

In a spot-market with perfect information contracts would not be essential because there would be no need to account for contingencies or facilitate coordination (Hermalin, Katz, and Craswell 2007). In the presence of information asymmetries and risk of contingencies, however, contracts can stipulate the price, quantity, and timing of repayment, as well as penalties and remedial rights if the contract is breached.

Formal contracts have limitations. First, they are incomplete, as the myriad contingencies that may arise cannot be accounted for ex-ante (Hart and Moore 1999). Second, they can be costly in time and money to craft and enforce. Relational contracts solve some of these limitations. They are less rigid than formal contracts as they rely on the trust that develops between parties who have an interest in repeated exchange (Macaulay 1963; Macneil 1978; McMillan and Woodruff 1999; Baker, Gibbons, and Murphy 2002).

Some have argued that formal contracts and the trust required for relational contracts are substitutes (Zucker 1986; Guseva and Rona-Tas 2001). Others have argued that formal contracts stunt the development of trust (Malhorta and Murnighan 2002). On the other hand, research also suggests that the two can be complements (e.g., Poppo and Zenger 2002) and are often used to reinforce each other (Baker, Gibbons, and Murphy 1994). A case in point is the imagery of community bankers who rely on relational lending practices that incorporate “soft” and “hard” information in decision making, as well as formal contracting mechanisms (e.g., Sharpe 1990; Berger and Udell 1995).

Relational contracts can be between people or people and institutions. For example, IBM once offered the promise of “lifetime employment” (Baker, Gibbons, and

Murphy 1994) that was not formally stipulated in employment contracts, but was understood by employees and applicants. More generally, organizational blueprints entail a host of implicit and explicit agreements with employees concerning the “employment deal” such as how their efforts will be coordinated, controlled, and compensated (Baron, Hannan, and Burton 2001). When these blueprints are changed employee turnover often ensues as implicit agreements are rescinded.

Change is ubiquitous in organizations as employees come and go, strategies and blueprints change (Hannan, Burton, and Baron 1996; Baron, Hannan, and Burton 2001), and internal “soft” expectations of performance adjust to align with the demands of changing market environments. When change alters or severs the ties that have sustained a relational contract, it follows that the value it creates can be compromised, often leading to the loss of an exchange relationship (e.g., Broschak 2004).²

In line with this intuition, our ethnographic work revealed the negative impact of change on borrowers. As noted above, while borrowers know their loan was provided by the MFI, they often perceive that their commitment is to the loan officer whom they work with. Thus, a change in the loan officer can be experienced by the client as a change in the relationship with the organization. Following this theoretical thread, we anticipate that a loan officer change should have a disruptive effect on the client’s enactment and fulfillment of her role as client. Consequently:

Hypothesis 1: A borrower is more likely to miss a payment contrary to contractual terms when there is a change in his loan officer.

As noted above, microfinance loans are simple in form: they have fixed terms and rates, and a straight amortization schedule summarized in a simple legal document. The null hypothesis for this prediction and the ones that follow is therefore consequential.

Timely payment should *not* vary as a function of the loan officer because the contract is signed between the borrower and the MFI.³ More broadly, credit methodologies typically assess the credit worthiness of a borrower. Clients can be classified as “good” credit risks because client types are assumed to be stable. There is no economic or legal reason why clients, who were evaluated with the same credit methodology, should differ in their repayment behavior when interacting with different loan officers with different styles. Furthermore, the significant incentive for repayment provided by the future access to credit is in no way dependent on a loan officer’s style.

Relational style (within-officer) coherence

The ways in which social actors interact can be abstracted and classified based on the roles each occupies (Berger and Luckmann, 1967: 72-77). This means that although there is heterogeneity in social interaction, there is also much that can be assumed based on homogeneity within roles. We argue that similar dynamics operate with respect to relations. Social cognitive psychologists have focused on specific layers of this process, and refer to the operating mechanism as relational schemata (Baldwin 1992; Sanchez-Burks, Nisbett, and Ybarra 2000). Relational schemata include an interactional model of “ego” and “alter.” Each actor has expectations of self and other, and both employ relational scripts that form a model of a typical interaction (Smith 1984). Relational scripts are often conceptualized as “if-then” statements that structure behavior. Hence, each interaction, even those with complete strangers, starts with a baseline of understanding. We focus on the aggregation of these schemata into systematically reoccurring relational styles that reoccur across actors.

In field observations of loan officers we found that certain loan officers interpret and enact policies flexibly while others adhere strictly to them (see Table 1 for examples). These observations led to an inductively developed typology of loan officer relational styles.

One category of loan officers tends to adhere strictly to the rules. They rely heavily on standardized models to assess borrowers, CRM systems to define client tasks, and use handheld technological devices to help automate decision-making in line with organizational policies and procedures. In turn, this underlying philosophy informs and is enacted in their relationships with clients. We refer to them as “letter of the law” (LL) officers. Consider a typical LL officer’s description of his job:

My job is to recruit the new loan groups, train them on the methodology, do the credit analysis, and make sure that the whole process runs smoothly. It basically consists of applying the methodology strictly and making sure that the groups adhere closely to the policies.

LL loan officers adhere strictly to rules not necessarily because they believe there is no latitude in their business relationships. Rather, they assume that the rules are designed intelligently to maximize efficiency. Thus the distance maintained by LL officers is intended to maintain objectivity in relations with limited information, not necessarily out of contempt for clients. The second category, “spirit of the law” (SL) officers, interpret provisions more expansively and flexibly; they also tend to develop deeper relationships with their clients as they learn about their lives, needs, and concerns holistically. This is not necessarily out of altruism; many SL officers believe developing multiplex relationships with clients enable them to perform their jobs more effectively (May and Winter 2000). As one SL officer put it:

Policies are good, they are useful, but you also need to give them a personal touch [...] It is much better to spend that time learning about the client, about her relationships, and selling her on opportunities [...] That's what helping my clients is about. (SL Officer)

Finally, some loan officers exhibited relational styles that are neither purely LL nor SL, but display a mix of both. These loan officers were labeled as “mixed” as they blend elements of each style with every client, rather than different styles with different clients.

INSERT TABLE 1 ABOUT HERE

A substantial body of research focuses on the socio-cognitive origins of categorical identities (e.g., Rosa, Porac, Runser-Spanjol, and Saxon 1999) and implications of coherent identities for organizational or individual variability and performance (Zuckerman 1999, 2004; Zuckerman, Kim, Ukanwa, and von Rittmann 2003; Hsu, Hannan, and Kocak 2009; Hannan 2010). The underlying social process that gives rise to observable “coherence effects” proceeds in steps: First, the evaluators (audience) classify “candidates” in categories of comparables. Second, finer distinctions are made between members of each category.

We argue that a similar dynamic operates in dyadic interactions in which there is ambiguity in action or expected reaction. Parties to such exchanges draw on prior categorizations and underlying expectations to inform current interactions. Theory and research concerning how individual social actors are evaluated based on their salient categorical membership(s) and others’ experience with those categories is a case in point. For example, employers extrapolate the potential of prospective employees based on their membership in specific gender or racial categories (see, e.g., Becker 1959; Arrow 1972; Bielby and Baron 1986).

A similar dynamic is evident in other social interactions where actors have no prior relationships, which leads them to extrapolate from typologies of prior experience. Police officers, for example, change their behavioral style depending on which *type* of citizen they perceive they are dealing with, so they develop heuristics to determine whether they are likely dealing with a citizen, a criminal, or an *asshole* (Van Maanen 1978).

In our research site this logic implies that actors try to establish role and relational expectations about their counterparties by classifying them into comprehensible categories. Loan officers do this when evaluating applicants. Categories might include high- or low-risk clients based on observable factors such as industry, proposed use of funds, and credit scores, as well as soft information. Once classified, borrowers' subsequent actions are often interpreted with reference to these initial categorical classifications.

For a borrower, it is also important to understand the expectations that her loan officer has of her because compliance with their relational contract will define her ability to succeed as a client. Loan officers must therefore clarify *task knowledge* to clients on the technicalities of a loan and provide them with clear *relational knowledge* (Gibbons and Henderson 2011). Will her loan officer establish and expect an arm's length exchange? Or will the exchange rely on a closer social relationship where the expectation is one of joint problem solving, transmission of "soft" information, and a contextual interpretation of contractual terms? Loan officers can signal these expectations through a clear and coherent relational style and clients can adjust their behavior accordingly. One loan officer explained:

They care about the loan and about the money, but they worry more about whether things are going to work out for longer, you know? They want the opportunity, not just the money. [...] So, you have to teach them. You see them begin to manage the loan and you have to be clear with them, sometimes repeat the same thing several times. Then they start becoming more astute when they manage their money and then you see them loosen up, you see them trust you because you do what you told them you would do. They do what you told them to do, and then there are no tricks, you increase the amount when they finish the first loan and things happen as you described them, so they trust you.

On the other hand, if a loan officer does not signal clear expectations, or sometimes employs relational scripts associated with a letter of the law style and other times a spirit of the law style, borrowers will have a difficult time understanding “soft” expectations and adjust their behavior accordingly (i.e., the “if-then” link becomes unclear). This incoherence should lead to uncertainty (e.g., Zuckerman 2004), misunderstanding, or even mistrust about what the loan officer expects of the borrower, and it implies that:

Hypothesis 2: A borrower is more likely to miss a payment contrary to contractual terms when her loan officer has an incoherent relational style.

INSERT FIGURE 1 ABOUT HERE

Relational style (between-officer) consistency

It is hard to evaluate without a referent. Categorization creates a comparison set that facilitates evaluation. Placing social entities in broad buckets is, however, a challenging matter given the multidimensionality they entail. Having a coherent identity facilitates this classification and, ultimately, comprehensibility and comparison (Zuckerman, Kim, Ukanwa, and von Rittmann 2003). Theoretically, this line of research is concerned with between entity comparisons; for example, the relative discount of (incoherent) diversified versus mono-line (coherent) businesses (Zuckerman 1999).

However, underlying socio-cognitive understanding can also be facilitated by interaction with successively similar entities or styles (see figure 1). We label this

“consistency” to distinguish it from coherence. This theoretical construct builds on Max Weber’s (1962) notion of uniformity as it relates to repeated action by the same individual or different individuals.

Coherence facilitates comprehension because the elements that comprise the entity are logically interconnected. The relational scripts employed by a letter of the law loan officer are thus mutually reinforcing manifestations of a rational philosophy of action with certain premises about behavior. For example, one LL officer described the relational script he employs with clients:

I explained things to them carefully, I went over the contract with them and they agreed. I told them of the responsibilities and the implications and they agreed. I went through different scenarios of good things and bad things that could happen and what the contract specified for good behavior and for bad behavior and they agreed.

Consistency facilitates comprehension by providing a within actor or category baseline for prediction. For example, prior relational styles by counterparties lead to predictions about their likely future relational styles, as evidenced by models of relational embeddedness (e.g., Uzzi 1997; Broschak 2004). A broken tie is thus disruptive because it removes the dyadic history that supports future expectations.

These actions do not have to be coherent. Indeed, relational styles, and social action more generally, can be consistently incoherent,⁴ which itself implies a set of scripts that are not applied in a logically interconnected manner. Consistency is concerned with the regularity of style or action irrespective of its content. There is nothing in this definition, however, to restrict consistency to repeated interaction with the *same* social actor. Rather, it can arise from interaction with different categories of actors who have consistent relational *styles*.

By relational styles we refer to the specific manner in which social actors in given roles interact and relate to other social actors in given roles. Focus here is not on the strength of the relationship (Granovetter 1973), nor of the functional or other characteristics of the role incumbent or successor (e.g., Burton and Beckman 2007). Rather, it is on the specific ways in which actors interact. For example, a loan officer, by virtue of prior experience, has a cognitive blueprint she enacts via scripts when interacting and responding to different client actions. This blueprint is based on her interpretation and understanding of organizational policies, incentives, and personal feelings about how to relate to clients.

An implication of a focus on relational styles is that trust and understanding can be derived from interaction with different actors that exhibit a similar way of interacting in specific roles and situations. This intuition underlies economic and sociological models of employer screening that incorporate consideration of categorical characteristics (e.g., race, gender), as noted above. Another example is the comparative advantage that certain firms gain from inculcating systematic relational styles in their employees. Greetings by employees of Soup Kitchen International (the “Soup Nazi” in the Seinfeld sitcom) are of a definable type that draws customers in addition to the food.

In a different business context, Southwest and Singapore Airlines have different value propositions, brand identities, and organizational cultures. The former stresses low cost, no-frills air transportation that is fun and requires customer involvement to achieve cost advantages (e.g., Heskett and Hallowell 1993). The latter positions itself as a premium product and service. Although each of these business’s functional objective is to transport people, how they do so is drastically different. Consequently, so are their value

propositions. Yet, the sum of their internal processes and external identity are tightly aligned in coherent yet different ways.

A customer who typically travels with Singapore Airlines would have a confusing experience when first interacting with Southwest employees, and vice versa. Moreover, in dealing with various employees of each company a definable, consistent relational style becomes evident that customers may have a preference or distaste for. Problems arise with gaps between what the company “says and does.”

The relational patterns evident in these organizations are no accident. Organizations spend considerable resources teaching employees how they should interact with clients (Van Maanen 1975, 1978, 1991). In our research context, trainees spend several months shadowing experienced loan officers observing and learning how they manage clients in the field. With experience, loan officers become keenly aware of the importance of providing a consistent client experience, as described by an officer:

[O]nce clients become used to working in one way, if you change things, many of them get confused and some even go to another MFI. [...] I know I am a good loan officer, but my style is different, and I learned that the hard way, losing clients in a previous rotation.

Consistency in the relational styles used by consecutive loan officers in our setting should thus facilitate borrower understanding even in the face of a broken interpersonal tie because the schemata and scripts employed are similar, and thus the client has a sounder basis for understanding expectations given specific instructions or signals. Conversely, inconsistency in relational styles should increase interpretive difficulty in “soft” expectations or the enforcement of “hard” stipulations, thus increasing ambiguity. One client who experienced a loan officer change explained:

(Turning to his wife): What was the name of the other woman? Yes, she was nice. I really liked how she worked. She came in, it was all business: do you want to renew? How much? Any problems? Any referrals? And she was gone. That worked for me. But this new guy, man, he is so chatty. Always asking me about other stuff, and then telling me how to run my business. I just want my loan to run smoothly, as it did with (previous officer). So yeah, the change was not great for me. (Borrower)

Inconsistency across loan officers should increase the likelihood of delinquency as it becomes more difficult to predict how loan officers will enforce contractual terms. We should thus observe that:

Hypothesis 3: A borrower is more likely to miss a payment contrary to contractual terms when there is a change in his loan officer and the subsequent loan officer has a relational style inconsistent with the previous loan officer's style.

From the discussion above, we can infer that the disruption caused by a broken tie that also brings inconsistency to a borrower's experience will be even larger when the inconsistency is magnified by an incoherent set of new expectations:

Hypothesis 4: A borrower is more likely to miss a payment contrary to contractual terms when there is a change in her loan officer and the subsequent loan officer has an inconsistent relational style that is also incoherent.

We argue above that consistency is preferable, as is coherence. These two propositions lead to a potential tension when there is a movement from incoherence to coherence (which implies inconsistency by construction). One can imagine two plausible predictions concerning which basis of predictability is most useful: that afforded by coherence⁵ or that concerning consistency. Absent theory, we pose this as a question to be explored with the data at hand rather than as a formal hypothesis, to wit: Is a borrower comparatively less (more) likely to miss a payment contrary to contractual terms when there is a change in his loan officer who has an incoherent style and the subsequent loan officer has a coherent relational style?

Setting and analytical strategy

Data

The data used in this study are drawn from a proprietary loan-level database maintained by one large MFI in Mexico for the period 2004 - 2008. The MFI is a well-established and regarded market leader that provides mostly individual rather than group loans in urban areas—primarily Mexico City. The data include 450,000 loans administered by more than 700 loan officers. We focus on loans as the level of analysis because each has specific features (e.g., interest rate, term, size) that vary within borrowers that can have a bearing on delinquency.⁶ Moreover, ultimately, loan officers must justify specific loans in branch credit meetings.

Two features of the study setting are worth highlighting: First, loan officers are randomly assigned to branches upon entry to the MFI and, once there, are assigned a geographic area of coverage. Second, the company has a policy of randomly rotating loan officers across branches. For example, the MFI purposefully staffs new branches with existing, randomly selected loan officers and then rotates additional officers around vacancies. The same applies when a loan officer leaves the MFI, which occurs quite frequently. This is a common policy in MFIs employed to reduce the risk of corruption and collusion between loan officers and clients, as well as the “capture” of clients by loan officers who can take them to a competitor if they leave the firm. When such rotations happen, the loan officer is assigned an existing portfolio at her new branch (see Hertzberg, Liberti, and Paravisini 2010; Fishman, Paravasini, and Vig 2011 on the logic of rotation practices). Her original portfolio is then assigned to a new loan officer or split between the officers who remain in the branch. This random reassignment creates an

exogenous source of broken ties in a setting where relational aspects play a critical role. It also provides a reasonable basis for addressing endogeneity and unobserved, time-invariant borrower-loan officer heterogeneity.

This paper is part of a larger mixed-data research program considering processes and outcomes in microfinance (self-identifying citations omitted). The qualitative component of the project includes ethnographic evidence and interviews with MFI managers and loan officers (N=76) at different levels of experience and institutional authority, as well as a random subset of their best and worst clients (N =53). We conducted around 400 hours of interviews and significant ethnographic observation at three different MFIs in Mexico, generating around 1,200 pages of notes that were transcribed by one of the authors. These qualitative data are used here to frame and generate hypotheses; and to inform the development, understanding, and interpretation of key constructs, findings, and implications. The qualitative data have been discussed in other studies (self-identifying citation omitted). Therefore, we limit presentation and discussion of them here to conserve space and focus attention on the novel contribution of this paper—the implications of loan officer coherence and consistency on delinquency.

Measures

Outcome measures: We calculate three outcome measures that evidence breach of contract: the first is a dummy coded variable that denotes that the borrower missed one payment or more in breach of contract during the life of the loan (mean = 0.33; SD = 0.47). The second measure, also dummy coded, denotes that contingent on missing a payment, the borrower missed two or more consecutive payments (mean = 0.48; SD = 0.5). The third measure denotes that contingent on missing a second payment, the

borrower missed three or more consecutive payments (mean = 0.68, SD = 0.47). As is evident by these summary statistics, a third of borrowers miss a payment.⁷ However, of those who miss a payment, nearly half also miss a second payment. And contingent on missing a second payment, two-thirds miss a third or more payments. To conserve space we discuss the first measure in depth while making reference to the other outcome measures in passing. Complete results for these models are available in the appendix.

These measures are well suited to assess a breach of contract and the theoretical predictions outlined above because the timely repayment of a loan is the most important responsibility of the borrower. In fact, repayment rates are the first and most common metric used by MFIs to evaluate loan officers, branches, and the overall health of their lending portfolio. More broadly, the timely repayment of a loan is the primary measure of compliance in any credit relationship in Mexico or the U.S.

Predictors: We calculate two sets of variables to classify loan officer relational style coherence and consistency. The first set includes spirit of the law (SL), letter of the law (LL), and mixed (M) relational style dummy variables to capture the coherence of loan officers' styles. SL and LL styles are regarded as coherent and mutually distinct relational styles guided by principles that subsume scripts that “hang together” in a logical fashion. By contrast, loan officers exhibiting a mixed style engage in operational practices that incorporate elements of both SL and LL style—practices that often do not hang together in a logically complementary manner. For example, a mixed loan officer might ask similar questions and signal to have a similar personal relationship with a client as a SL officer, but may be unresponsive if the client faces a problem that makes it difficult to pay, whereas a SL officer would almost invariably engage in joint problem

solving. In contrast, a LL officer will usually use the formal contractual mechanisms (asset confiscations, the presence of company collectors, etc.) to compel repayment.

To ensure this classification captures real differences in loan officer relational styles rather than loan officer experience, human capital, or other characteristics that may be correlated with managers' perceptions of loan officers' enforcement styles as well as their loan portfolio delinquency rates, we performed a number of tests reflected in table A1 of the Appendix. First, we calculated a direct measure of loan officer experience (tenure) and then compared it across styles reasoning that experience may be correlated with managers' ability to accurately classify loan officers. Second, we looked at the trajectory of loan officers within the MFI, assessing whether different enforcement styles were rotated at different rates (total branch rotations), deserted the firm in different proportions or rates (turnover (%) and turnover (days)), or had a different initial training experience (time in first branch). We also looked at other loan officer observable characteristics, including educational attainment, age, marital status, and gender. Finally, we calculated and compared average loan values and interest rates across styles. We reason that if managers differ in their knowledge of loan officers' experience and task-specific human capital that leads to misclassification, managers should be more restrictive in the amount of the MFI's resources they allocate to those loan officers for the same reason. The results of these tests confirm that managers classify loan officers strictly according to relational style and not based on a lack of experience with, or knowledge of, the officers.⁸

The second set of measures assesses the impact of broken ties on loan repayment. A first variable codifies cases when a client was transferred to a different loan officer

(changed officer). We then include interactions capturing consistency in, or the transition from, one loan officer relational style at time t to the same or a different style at time $t+1$. We create summary and fine-grained measures. The summary measures, following figure 1, are dummy variables denoting: (1) consistency within specific coherent relational styles ($SL_t \rightarrow SL_{t+1}$ or $LL_t \rightarrow LL_{t+1}$); (2) coherent styles irrespective of consistency ($SL_t \rightarrow LL_{t+1}$ or $LL_t \rightarrow SL_{t+1}$); (3) incoherent yet consistent styles ($M_t \rightarrow M_{t+1}$); and (4) incoherent and inconsistent ($M_t \rightarrow SL_{t+1}$ or $M_t \rightarrow LL_{t+1}$), which denotes that the original loan officer employed an incoherent relational style whereas the subsequent one employed a coherent one—either letter or spirit of the law.

The fine-grained transitions include: spirit of the law to spirit of the law ($SL_t \rightarrow SL_{t+1}$), letter of the law to letter of the law ($LL_t \rightarrow LL_{t+1}$), mixed to spirit of the law ($M_t \rightarrow SL_{t+1}$), mixed to letter of the law ($M_t \rightarrow LL_{t+1}$), letter of the law to mixed ($LL_t \rightarrow M_{t+1}$), letter of the law to spirit of the law ($LL_t \rightarrow SL_{t+1}$), spirit of the law to letter of the law ($SL_t \rightarrow LL_{t+1}$), and spirit of the law to mixed ($SL_t \rightarrow M_{t+1}$) with the omitted category in most specifications being changes from mixed to mixed. These measures provide a means of assessing how consistency in style across different loan officers over time has a bearing on the probability of delinquency (see Baron, Hannan, and Burton [2001] and Burton and Beckman [2007] for similar coding strategies).

Controls: We include three classes of controls, which are described and tabulated in table 2. One class includes measures of the characteristics of the loan that may have a bearing on the recipient's ability and willingness to repay in a timely manner. These include the size of the loan in thousands of pesos (mean = log (8.925); SD = 10.43), gender (female= 0.624; SD = 0.484), days between scheduled loan payments (mean =

15.5; SD = 14.42; range = 7 – 86) (Jain and Mansuri 2003; Field and Pande 2008); whether the loan has been issued to a group, which may increase the ability and social pressure to adhere to the provisions of the loan (mean = 0.15; SD = 0.357) (e.g., Stiglitz 1990; Armendáriz de Aghion 1999; also see Paromita 2009; but see Gine and Karlan 2012); interest rate charged (mean = 80.122; SD = 6.476; range 58 – 96); and a count of the total number of previous loans the borrower missed (mean = 1.083; SD = 1.525; range = 0 – 14). We also include controls that reflect the history and interaction of the borrower and loan officer to reflect their relationship and interpersonal learning, and to account for relationship-specific effects. Measures include whether this is the client’s first experience with a loan, which is important given that for many clients microfinance is their first exposure to financial products (mean = 0.232; SD = 0.422); whether a loan was restructured, which might signal that a client has experienced exogenous difficulties (mean = 0.006; SD = 0.074); the number of loan cycles the client has had with the MFI, as a proxy for experiential learning (mean = 5.701; SD = 5.154; range 1 - 40); as well as the number of loan cycles a client had with a particular loan officer, to control for the personal bonds that might have developed between them (mean = 2.370; SD = 2.196; range 1 – 27). Branch and year fixed effects are included to absorb institutional and temporal variation. Loan officer fixed effects are also included to ensure that the sequential consistency and coherence effects we observe are not attributable to some unobserved, time-invariant loan-officer or borrower characteristics.

INSERT TABLE 2 ABOUT HERE

Analytical strategy and identification

We model the probability of late payment with the following summary model:

$Pr\{Y = 1|coherence, loan\ officer\ change, consistency, \mathbf{X}\}$

$$\begin{aligned}
&= G[\beta_0 + \sum_{p=1}^P \beta_1(\text{Coherent}) + \beta_2(\Delta \text{ loan officer}_{t,t+1}) + \beta_3(\text{Consistent}_{t,t+1}) \\
&\quad + \beta_4(\text{Incoherent}_t \rightarrow \text{Incoherent}_{t+1}) + \beta_5(\text{Coherent}_t \rightarrow \text{Coherent}_{t+1}) \\
&\quad + \beta_6(\mathbf{X}) + \theta_l + \tau_i + \omega_t + \varepsilon]
\end{aligned}$$

where Y is a binary variable denoting that contrary to contractual provisions the borrower missed a payment(s); $\Delta \text{ loan officer}_{t,t+1}$ denotes a change in loan officer between time t and $t+1$; Coherent is a dummy variable equal to one if the loan officer originating the loan had either coherent relational styles (either SL_t or LL_t); $\text{consistent}_{t,t+1}$ is a dummy variable equal to one if the former and subsequent loan officer have the same relational style, e.g., $\text{LL}_t \rightarrow \text{LL}_{t+1}$ or $\text{SL}_t \rightarrow \text{SL}_{t+1}$ (and is therefore contingent on a loan officer change as are the measures the follow); $\text{Incoherent}_t \rightarrow \text{Incoherent}_{t+1}$ is a dummy variable equal to one if both the originating and subsequent loan officer have mixed relational styles; $\text{Coherent}_t \rightarrow \text{Coherent}_{t+1}$ is a dummy variable equal to one if both the originating and subsequent loan officer have coherent relational styles, even if different ones (e.g., $\text{LL}_t \rightarrow \text{LL}_{t+1}$, $\text{SL}_t \rightarrow \text{SL}_{t+1}$, $\text{SL}_t \rightarrow \text{LL}_{t+1}$, $\text{LL}_t \rightarrow \text{SL}_{t+1}$); the omitted category thus represents changes from coherence to incoherence; \mathbf{X} is a vector of controls; θ_l denotes loan-officer fixed effects; τ_i denotes branch fixed effects; ω_t denotes year fixed effects; and ε denotes the error term. We also specify style-specific models that separate the LL and SL effects:⁹

$Pr\{Y = 1|LL, SL, loan\ officer\ change, consistency, \mathbf{X}\}$

$$\begin{aligned}
&= G[\beta_0 + \sum_{p=1}^P \beta_1(\text{LL}) + \beta_2(\text{SL}) + \beta_3(\Delta \text{ loan officer}_{t,t+1}) + \beta_4(\text{SL}_t \rightarrow \text{LL}_{t+1}) \\
&\quad + \beta_5(\text{LL}_t \rightarrow \text{SL}_{t+1}) + \beta_6(\text{M}_t \rightarrow \text{SL}_{t+1}) + \beta_7(\text{U}_t \rightarrow \text{LL}_{t+1}) + \beta_8(\text{SL}_t \rightarrow \text{SL}_{t+1}) \\
&\quad + \beta_9(\text{LL}_t \rightarrow \text{LL}_{t+1}) + \beta_{10}(\mathbf{X}) + \theta_l + \tau_i + \omega_t + \varepsilon]
\end{aligned}$$

To ensure that clustering is adequately addressed, we estimated the model using a hierarchical nonlinear (“HLM”) framework and various standard error clustering techniques. Results are consistent statistically and substantively across models.¹⁰

Presentation of findings

INSERT FIGURE 2 ABOUT HERE

Figure 2 builds intuition concerning high-level findings. Missing a payment occurs 24% more often when there is a change in the loan officer (38.8%) as opposed to when there is stability in the loan officer (31.3%) (contrast = .074: t-test=13.01, $p < .000$). For two or more missed payments the difference is even greater: borrowers whose loan officer is rotated are 47.2% more likely to miss two or more payments (contrast = .071: t-test=13.92, $p < .000$). Continuing the trend, for three or more missed payments the difference is 61.3% (contrast = .061: t-test=13.42, $p < .000$). Note that all these tests and those that follow are conducted with robust standard errors clustered at the loan officer level. It is thus evident that, as predicted by relational embeddedness and the literature on change in organizations, borrowers experience significant disruption when the tie to their current loan officer is broken. These quantitative findings are echoed in our qualitative work. As noted above, one spirit of the law loan officer told us that: “Transfers are tricky. You can lose a lot of clients, because the clients are used to working with a different loan officer. So when you arrive they can be like ‘who the fuck are you?’” The question, however, is whether the disruption is truly attributable to the loss of a personal relationship or whether it reveals a deeper pattern.

INSERT FIGURE 3 ABOUT HERE

Figure 3 provides a graphical depiction of one or two missed payments by loan officer relational styles. For one missed payment, the rate is 33.3%. For two it is 16.8%. Scanning across the lines significant variation is evident by relational style. For those

loans administered officers with a mixed style, the percentage with a missed loan payment is 35%, with 19.8% missing two or more. By contrast, 30.3% of loans administered by letter of the law officers are not paid on time (13.8% two or more times). Spirit of the law officers exhibit similar patterns as letter of the law officers with figures of 31.8% and 13.3% respectively. For one missed payment the contrasts between mixed and letter of the law (contrast = .047: t-test=3.78, $p < .000$) and mixed and spirit of the law (contrast = .033: t-test=2.48, $p < .013$) are both statistically significant (with robust standard errors clustered at the loan officer level), while the contrast between letter of the law and spirit of the law is not statistically significant (contrast = -.014: t-test=-0.98, $p < .328$). (The same statistical results hold true for two or more or three or more delinquencies; results available upon request.) The pattern of these results suggests that borrowers are less likely to miss a payment if their loan officers have a coherent style, irrespective of whether this style entails strict interpretation and enforcement of the rules or a more flexible style. This suggests some value in presenting findings in general and specific terms.

INSERT FIGURES 4A AND 4B ABOUT HERE

Figure 4A illustrates loan officer change and missed payment rates by summary categories (e.g., coherent, which includes LL or SL) of relational styles; figure 4b breaks out results by specific transitions within or between styles. The first two columns provide baselines for one or two missed payments when there is no change in loan officer. In such cases 31.4% of loans experience a missed payment, with 15% experiencing two or more. The figures are considerably higher when there is a change of any kind, as previously

noted, to 39% for one and 22% for two missed payments respectively. However, there is significant variation in these figures depending on the pattern of loan officer relational style transitions. For example, when the former loan officer had a mixed style and the subsequent one a coherent one (either spirit or letter), the missed payment rate is 33% for one missed payment, and 15% for two. These figures are 14% and 31% *less than* the baseline for an officer change. Moreover, for two missed payments, the figure is the same as that for the situation in which there is no change. It is thus evident that the style employed by subsequent loan officer is consequential.

The second set of columns reveals that when the prior and randomly assigned subsequent loan officer employ the same relational style there is a 9% reduction in the percent of loans missing a payment, and a 23% reduction in two. Reductions are also evident with transitions within coherent styles (spirit to letter or vice versa).

Increases are evident when there are transitions within mixed styles (+3% and +14% for one or two missed payments respectively), with the worst outcome arising from a move from a coherent style (spirit or letter) to mixed (+14% and +25% respectively).

Figure 4b plots changes within and between specific styles. When there is a change in loan officer, but the old and new loan officers both employ a mixed style, 40% experience one missed payment and 25.1% two or more. For letter of the law officers the figures are 35.3% and 18.2%; and the corresponding figures for spirit of the law officers are 35% and 16.2%. While a change in loan officer appears to be detrimental in general,¹¹ it is clear it is considerably more detrimental when the loan officers have mixed styles as they result in 54.9% more multiple delinquencies than changes in spirit of the law officers (contrast = .05: t-test=2.22, $p < .026$) and 38.2% more than a comparable change

in letter of the law officers (Contrast = .048: t-test=2.46, $p < .014$). A movement from either a spirit of the law (43.2% for one, 26.4% for two or more) or letter of the law (46% for one, 28% for two or more) relational style to one with a mixed style results in a significantly greater percentage of missed loan payments (contrasts are all statistically significant). Conversely, moving from a mixed style to either a letter of the law (32.5% for one, 15.8% for two or more) or spirit of the law (33.7% for one, 14.7% for two or more) relational style decreases this percentage appreciably.

Unpacking the results further it appears that moving from a mixed to a letter of the law loan officer rather than vice versa reduces the probability of a missed payment by more than 41 percent (contrast = -.13: t-test=-6.74, $p < .000$); this compares to a figure of 28% for similar movements from mixed to spirit of the law (contrast = -.095: t-test=-5.39, $p < .000$)—once again, all these tests are conducted with robust standard errors clustered at the loan officer level. The results for two or more missed payments are even starker. But, interestingly, here the largest comparative difference is between moving from a mixed loan officer to one with a spirit of the law style (85.7%) rather than vice versa. An additional pattern is worth highlighting. Notice that changes to SL and LL styles perform similarly for the first missed payment. At the same time, clients who are assigned to SL officers after a rotation are significantly less likely to miss second and third payments, practically eliminating the impact of a broken tie. Thus, regardless of their preceding experience, clients who are assigned to SL officers consistently “recover” from the disruption of a rotation at a steeper rate with time.

It is thus evident that the relational styles employed by subsequent loan officers are consequential. Consistent with intuition developed during fieldwork, and prior theory

concerning the performance implications of incoherence (e.g., Zuckerman 2004), these results imply that, on average, borrowers take account of their counterparties' styles regardless of their own contractual responsibilities.

Bivariate analyses above reveal that borrowers exhibit significantly different repayment patterns based on the coherency and consistency in their loan officers' styles. To ensure that these results are not spurious we present several models that account for the characteristics of the borrower, the loan itself, and the institutional and economic environments within which loans are made below.

INSERT TABLE 3 ABOUT HERE

Table 3 presents logistic regression coefficients predicting the likelihood of breaching contractual provisions concerning timely loan repayment. The models control for the (LN) interest rate charged, frequency of loan payments, (LN) total amount of loan, the gender of the borrower, whether the loan was received as part of a group, and whether the borrower has a history of late payment. The controls are all highly statistically significant and in the anticipated directions, and are included in all models.

We build intuition by first presenting a summary model to demonstrate baseline effects. Model one reveals that loans administered by an officer employing a coherent style (either letter or spirit) are less likely to experience a missed payment ($e^{b(-0.125)} = 0.88$, $p < .001$ (two-tailed test, as are all that follow)). Model two separates the summary coherent effect into its constituent spirit ($e^{b(-0.13)} = 0.878$, $p < .001$) and letter ($e^{b(-0.118)} = 0.889$, $p < .001$) components, revealing that both tend to outperform the mixed style.

Model four demonstrates what happens when a loan officer changes, to wit: There is a significant increase in the odds of delinquency 1.53 ($e^{b(0.427)}=1.53$, $p<.001$). The effect is even stronger for two or more missed payments (model , table A2= $e^{b(0.581)}=1.79$, $p<.001$) or three or more (model 31, table A3= $e^{b(0.723)}=2.06$, $p<.001$). This finding is consistent with hypothesis one, which argued that a change in loan officer should have a negative impact on a borrower's adherence to contractual terms by introducing interpretive ambiguity into the relationship as an existing tie between borrower and loan enforcer dissolves, and a new one must be established.

Model 5 includes the summary relational style transition measures. Compared with a movement from a coherent to a mixed style, transitioning from a loan officer employing a coherent style (e.g., spirit, letter) to a different officer employing the same or different coherent style mitigates the impact of severing a tie ($(e^{b(0.419-.183)})$, $p<.001$), a results echoed in models of two or three missed payments. This finding corroborates hypothesis two.

We also find that transitions within consistent styles reduce the negative shock of a loan officer change roughly in half ($(e^{b(0.419-.206)})$, $p<.001$) as predicted in hypothesis three. Indeed, even a consistent move within mixed styles moderates the impact of change ($(e^{b(0.419-.066)})$, $p<.001$), a result that holds across models. Similar results are evident for two (model 22, table a2) or three (model 31, table a3) missed payments.¹²

Model 6 in table 3 provides estimates for style-specific transitions. The overall results are consistent with the summary measure such that style-consistent moves, particularly, those made between spirit of the law officers, tend to mitigate the impact of

change ($e^{b(0.379-.178)}$), $p < .001$), as do movements between coherent forms (e.g., letter to spirit) albeit at somewhat reduced rates ($e^{b(0.379-.141)}$), $p < .001$).¹³

Hypothesis four predicted that borrowers are more likely to miss a payment when there is a change in their loan officer and the subsequent loan officer has an inconsistent style that is also incoherent. Style-specific results in model 7 provide strong support for this argument. Compared with transitions that are consistent (e.g., $LL_t \rightarrow LL_{t+1}$) or between coherent forms ($LL_t \rightarrow SL_{t+1}$) transitions from a coherent style to a mixed style increases the odds of one, two, or more missed payments appreciably. This is particularly true of transitions from a letter to mixed style, resulting in a 60% increase in the odds of a missed payment ($(1 - e^{b(0.187+.284)})$, $p < .001$). These results also hold across model specifications.

INSERT TABLE 4 ABOUT HERE

Robustness checks

To ensure that the findings are non spurious and apply to all client subpopulations, a host of robustness checks were performed (some of these are presented in table 4, and all others are available upon request). All robustness checks include loan-officer, branch, and year fixed effects. The first two models (8 and 9) are restricted to female and male borrowers respectively to determine if missed payments vary by borrower gender. There is no evidence of this. Moreover, coefficient estimates tend to be quite similar for both.¹⁴ Models 10 and 11 are restricted to group and individual borrowers respectively. Results indicate that our hypothesized mechanisms operate for both, consistent with work by Gine and Karlan (2012). Model 12 and 13 are restricted to

clients with less/more than average tenure with the firm to get at differences in possible learning effects. Results hold across both sub-samples. Models 14 and 15 are contingent on loan sizes below/above the median to proxy for client wealth since loan sizes are correlated with it. Results hold across sub-samples. Models 16 and 17 distinguish the gender of the loan officer to determine if style effects vary across female and male officers. The mechanisms we outline hold across models. Finally, models 18 – 20 are conditional on a loan officer change (rather than based on interaction terms), and yield similar substantive conclusions.

Contextualizing all the previous findings, it is important to note that when a new loan officer is assigned to administer a loan the borrower does not have a choice of who that officer is or what his relational style is. This exogenous change in loan officer style if and when there is a change enables us to identify to what extent moving from an incoherent relational enforcement style to a coherent one impacts breach of contract in the form a missed payment. The results suggest that moving from a mixed to a spirit of the law relational enforcement style reduces the odds of delinquency appreciably. The same is true for a movement from a mixed to a letter of the law relational style. The converse is also true: moving from a coherent style (either LL or SL) to an incoherent style increases the odds of a default (see model 2). Moreover, the results are amplified when we consider two or more or three or more delinquencies.¹⁵

Finally, it becomes clear once again that though clients who are transferred *to* a LL or SL officer have similar likelihoods of missing a first payment, across the board we find that clients who are transferred to a SL officer have a significantly lower likelihood of missing second and third payments. The pattern may seem puzzling, but together with

our qualitative data it provides evidence of the mechanisms we theorized affect loan outcomes after a broken tie. In discussing why coherence and consistency should matter in exchange relationships, we argued that loan officers “educate” clients not only on the technical aspects of a loan, but also on the *relational* expectations of a lending relationship. When the patterns that clients expect in their loan interactions change, clients experience a disruption in the relational contract with the MFI. But the replacement loan officer can mitigate this by taking the time to “re-educate” existing clients on new relational expectations and set consistent expectations:

Before I go to my new branch I go out with the loan officer and ask him to take me to his clients and introduce me, and then I spend time explaining to the clients how I like to work and letting them ask me all their questions. Then when I am transferred I go out again, and I say, remember me? I am your new loan officer and I tell them again how my style is different and why I think it is better. (SL Officer)

From this perspective, it is less surprising that SL officers eliminate the negative impact of a broken tie by the second and third missed payment of a loan. In loan officer interviews and observations, SL officers not only spoke more often and in more depth about the importance of educating clients, we also observed them spend much more time in client education activities, especially following a branch rotation. In fact, it is an inherent characteristic of the SL style that loan officers spend more time exchanging “soft” information with their clients. This includes information on why clients miss payments if their loan officers are transferred and on the expectations they created during their previous lending relationships that no longer hold. This pattern provides additional insights into the implications of our findings for organizations, which we discuss in the next section.

Summary and conclusion

Repeated exchange is essential in social and economic life. Formal contracts and embedded ties that enable relational contracts have long been regarded as mechanisms that facilitate repeated exchange. However, neither provides an adequate explanation of how repeated exchange is possible in the face of inevitable change.

We propose theory that specifies how both the coherence and consistency in *relational styles*, above and beyond relational embeddedness, can facilitate the continuity of repeated exchange in the face of change. We define relational styles as discernible, reoccurring types of interactional styles within and between social actors. Informed by rich evidence, we demonstrate that loan officers who employ coherent relational styles improve loan outcomes. We also show that when a loan officer turns over, replacing him with another officer who follows a consistent relational style mitigates the negative effects of a broken tie.

Research has shown that relational contracts can create sustainable competitive advantages for organizations (Wernerfelt 1984; Gibbons and Henderson 2011). Less clear is how, in the face of change, relational *contracting* can become an organizational capability. In this paper we show that organizations can derive significant and sustainable advantage through educating their employees and clients on how to interact with each other. By implication, specific people or positions become less important than consistent interactional patterns. In particular, organizations should establish routines that select and socialize employees to develop coherent interaction styles with clients. They should also train employees to “educate” clients on the relational expectations of their interactions with the organization. To the extent that organizations can maintain *coherent* and

consistent relational styles with clients across individual employees, they will be better able to leverage relational contracts despite employee turnover and exogenous change.

The findings also have sociological implications. Prior theory has considered the impact people (or dyadic interaction) and positions (or roles) have on outcomes of interest. In this research we focus a spotlight on a different layer of social structure: typologies of relational styles within and between social actors that shape expectations and actions. As this is an initial statement concerning the concept many questions follow. First, the data used here are rich and extensive. However, they are derived from one industry, in one country, during a specific period of time. The extent to which these findings—as well as the underlying social mechanisms concerning relational style consistency and coherence—apply in other settings is ultimately an empirical question to be adjudicated with suitable data. Second, additional theorization and investigation into the antecedents, forms, and consequences of coherence and consistency in relational styles is necessary. Indeed, we believe there is significant opportunity to broaden and deepen our collective understanding of interaction patterns and their consequences in a range of settings by considering relational styles, which we view as a theoretical concept that integrates and extends insights from the rich literatures concerning categories and relational embeddedness. This includes the basic question of how interaction patterns develop in the first place.

An important first step is the specification of boundary conditions. As demonstrated in this research, interpersonal relations matter, this is consistent with research concerning relational embeddedness. Similarly, we show that coherence matters in dyadic exchange, as does consistency in relational styles across social actors. This

finding is of sociological interest because it helps explain the continuity of exchange in the face of change. More generally, it helps explain how social actors can use relational contracts effectively with different actors within and across contexts.

One can imagine other social settings where similar dynamics are at work. Labor and dating markets are examples that come to mind, as are alliance relationships between firms. In each of these cases learning occurs at one point in time about how to interact and transact with another party. But this learning is not partner or corporate actor-specific. There are types of relational styles that reoccur, and having experience with a particular type helps shape future understanding and action when confronted by other individuals exhibiting the same relational style. Moreover, because of path dependencies and self-fulfilling dynamics in the establishment of relational contracts, these relational style types can remain stable across interactions and settings. One can imagine, however, a wide range of types of styles that are conceptually nested within a set of principles that serve as building blocks for variations.

As noted above, many organizations spend considerable time training employees on how to interact with customers with a specific focus on providing a consistent customer experience across its employees. Employees are heavily socialized when they join “The Happiest Place on Earth.” But so are clients (Van Maanen 1996). These taught and learned relational styles can then be a key element of the organization’s value proposition. From a customer’s perspective, it clarifies expectations for all interactions with the organization. Expectations are similarly set for employees concerning appropriate ways of interacting with clients. Relational styles thus buffer the organization against changes in personnel that could potentially damage customer-client relationships

because customers are not tied to organizational employees per se, but rather to how employees of the organization *generally* interact with them.

General principles of interaction can vary across cultures. It thus follows that so too should relational styles. A question is thus to what extent relational styles vary across social contexts, as well as when and where they are more important. The extent to which standardization is important in the context can be one basis of variation, as may be the heterogeneity and homogeneity evident in terms of social actors. In some industries or businesses, there may be an expectation for coherent relational styles but not necessarily consistency. Discerning when this is the case is another important avenue for future research.

We conclude by noting that relational styles appear to be a lever organizations can strategically use in two primary ways. First, the styles with which officers engage their clients have a bearing on their performance. In particular, officers that employ coherent styles tend to outperform significantly those using a mixed style. While differences between the two coherent styles are initially marginal with letter slightly outperforming in the wake of a loan officer change, over time, and especially around client management (as compared to selection) tasks, a spirit of the law style tends to perform best. These findings would seem to suggest that MFIs should exclusively select and train spirit of the law officers. There is evidence to suggest that although a reasonable inference, this is not an ideal solution at the organizational level. Loan officers process lending decisions within their branches. When branches contain a high concentration of any particular style, they can develop a local lending culture that can degenerate to an extreme version of that style. A branch with only SL officers, for example, can become overly focused on client

service and lose sight of the importance of maintaining strict lending standards. In contrast, branches that only contain LL officers can become too restrictive in their lending and become unresponsive to client needs. As a result, branches perform best when they have no loan officers with incoherent styles and there is a distribution of both letter and spirit styles to counterbalance each other (self-identifying citation omitted). This finding is consistent with a host of organizational research that touts the benefits of heterogeneity—in this case, of relational styles. Second, organizations that experience turnover by choice, chance, or circumstance can mitigate the negative impact of the severed ties these processes entail by replacing departing employees with successors who employ consistent or coherent relational styles.

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TABLE 1: TYPOLOGY OF LOAN OFFICERS' ENFORCEMENT STYLES

Rule	Spirit of the law ("SL")	Letter of the law ("LL")
- Loan officers should maintain an institutional relationship with clients. Clients should see the LO as the institution, not as the person	- Relationships with clients at a personal level - Emphasizes personal character of relationship with client while constantly referring back to company as "the boss" or "company policies"	- Relationships with client at an institutional level - Emphasizes professional character of relationship, constantly highlighting the fact that he/she only represents the company and its investors
- LO should know the status of the client's business in terms of its profitability	- Close follow-up of business as well as personal activities, family issues, friendships, etc.	- Interaction mostly on a transactional basis, limits interaction to credit-related issues and business liquidity
- LO should know whether a client's referrals and guarantors exist and are trustworthy	- Knows a client's business and personal network and often refers clients to other clients, building wider networks	- Does not like to "get involved" with clients, prefers to maintain arms-length relationship and only checks on client's network to ensure potential pressure for repayment
- LO should not give business advice to clients due to liability issues	- Open to provide advice on business issues	- Afraid to provide advice on business issue with a "we could be liable" argument
- If a client is in trouble, negotiated agreements be reached, but it is the LO's discretion	- Engages in joint problem-solving with client, especially in times of trouble	- No joint problem-solving, only interacts on contractual terms
- Loans must be collected upon and it is one of the most important measurement metrics	- Emphasizes trustworthiness of clients –"most clients want to pay"	- Emphasizes that clients can be devious –"most clients want to shirk"

Note: N=711: SL = 235; LL = 233; and 243 = mixed. "Mixed" loan agents blend various elements of SL and LL agents, vacillating between the two

TABLE 2: VARIABLES AND DESCRIPTIVE STATISTICS

Variable	Description	Mean	SD	Min	Max
Business loan	Dummy Variable. Takes the value of 1 for incorporated firms (0 for individual borrowers with unregistered businesses)	0.000	0.016	0	1
Changed officer	Dummy variable. Takes the value of 1 if the loan officer was rotated during loan cycle	0.253	0.435	0	1
Client tenure	Number of loan cycles the client has had with the firm	5.701	5.154	1	40
Female	Dummy variable. Takes the value of 1 for female clients	0.624	0.484	0	1
First loan	Dummy variable. Takes the value of 1 if this is the client's first loan cycle with the firm	0.232	0.422	0	1
Group loan	Dummy Variable. Takes the value of 1 for group loans	0.150	0.357	0	1
Interest rate ¹	Yearly interest rate charged	80.122	6.475	58	96
Loan amount ¹	Size of the original loan, in thousand pesos	8.925	8.561	0.50	50
Past delinquency	Total number of previous loan cycles where the client has missed a payment	1.083	1.525	0	14
Payment due ¹	Size of scheduled payments, in thousand pesos	1.114	1.924	0	20
Payment frequency	Days between scheduled loan payments	15.545	14.423	7	86
Previous regime	Length of relationship, in number of loan cycles, between the client and the <i>previous</i> loan officer --conditional on a changed officer	2.370	2.196	1	27
Restructured loan	Dummy variable. Takes the value of 1 if the loan has been restructured	0.006	0.074	0	1
Three missed payments	Dummy variable. Takes the value of 1 if a <i>third</i> payment is missed	0.115	0.319	0	1
Two missed payments	Dummy variable. Takes the value of 1 if a <i>second</i> payment is missed	0.168	0.374	0	1
One missed payment	Dummy variable. Takes the value of 1 if there has been a missed payment in the loan cycle	0.333	0.471	0	1
SL _t	Dummy variable. Takes the value of 1 if loan officer has a spirit of the law relational enforcement style.	0.352	0.478	0	1
LL _t	Dummy variable. Takes the value of 1 if loan officer has a letter of the law	0.313	0.464	0	1

relational enforcement style					
Mixed _t	Dummy variable. Takes the value of 1 if loan officer has a mixed relational enforcement style	0.336	0.472	0	1
SL _t →LL _{t+1}	Dummy variable. Takes the value of 1 if at time t the loan officer had an SL relational enforcement style, the officer was reassigned, and the subsequent/different loan officer at time t+1 had an LL style	0.028	0.166	0	1
LL _t →SL _{t+1}	Dummy variable. Takes the value of 1 if at time t the loan officer had an LL enforcement style, the officer was reassigned, and the subsequent/different loan officer at time t+1 had an SL style	0.019	0.135	0	1
U _t →SL _{t+1}	Dummy variable. Takes the value of 1 if at time t the loan officer had an Mixed enforcement style, the officer was reassigned, and the subsequent/different loan officer at time t+1 had an SL style	0.033	0.18	0	1
M _t →LL _{t+1}	Dummy variable. Takes the value of 1 if at time t the loan officer had a Mixed enforcement style, the officer was reassigned, and the subsequent/different loan officer at time t+1 had an LL style	0.024	0.153	0	1
LL _t →LL _{t+1}	Dummy variable. Takes the value of 1 if at time t the loan officer had an LL enforcement style, the officer was reassigned, and the subsequent/different loan officer at time t+1 also had an LL style	0.02	0.14	0	1
SL _t →SL _{t+1}	Dummy variable. Takes the value of 1 if at time t the loan officer had an SL enforcement style, the officer was reassigned, and the subsequent/different loan officer at time t+1 also had an SL style	0.032	0.177	0	1
M _t →M _{t+1}	Dummy variable. Takes the value of 1 if at time t the loan officer had a Mixed enforcement style, the officer was reassigned, and the subsequent/different loan officer at time t+1 had a Mixed style	0.041	0.198	0	1
SL _t →M _{t+1}	Dummy variable. Takes the value of 1 if at time t the loan officer had an SL enforcement style, the officer was reassigned, and the subsequent/different loan officer at time t+1 had a Mixed style	0.032	0.175	0	1
LL _t →M _{t+1}	Dummy variable. Takes the value of 1 if at time t the loan officer had an LL enforcement style, the officer was reassigned, and the subsequent/different loan officer at time t+1 had a Mixed style	0.024	0.154	0	1

¹ The log of these variables is used in the analyses.

TABLE 3: LOGISTIC REGRESSION PREDICTING A MISSED PAYMENT IN A LOAN CYCLE

VARIABLE	1	2	3	4	5	6	7
	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)
Coherence _{t,t+1}	-0.125 (0.007)***						
Spirit _t		-0.13 (0.009)***		-0.079 (0.009)***			
Letter _t		-0.118 (0.010)***		-0.091 (0.010)***			
Mixed _t			0.125 (0.007)***				
Δofficer change _{t,t+1}				0.427 (0.009)***	0.419 (0.019)***	0.379 (0.015)***	0.187 (0.016)***
Consistency _{t,t+1}					-0.206 (0.030)***		
Mixed _t → coherence _{t+1}					-0.251 (0.023)***		
Within coherence _{t,t+1}					-0.183 (0.031)***		
Mixed _t → mixed _{t+1}					-0.066 (0.019)***		0.165 (0.019)***
Spirit _t → spirit _{t+1}						-0.178 (0.034)***	
Spirit _t → letter _{t+1}						-0.145 (0.036)***	
Letter _t → letter _{t+1}						-0.15 (0.043)***	
Letter _t → spirit _{t+1}						-0.141 (0.043)***	
Mixed _t → spirit _{t+1}						-0.214 (0.023)***	
Mixed _t → letter _{t+1}						-0.206 (0.028)***	

	Spirit _t →mixed _{t+1}							0.19
	Letter _t →mixed _{t+1}							(0.024)***
								0.284
								(0.027)***
LO fixed-effects	NO	NO	NO	NO	YES	YES	YES	
Branch fixed-effects	YES	YES	YES	YES	YES	YES	YES	
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	
Model fit/diagnostics								
N	438,252	438,252	438,252	438,252	438,346	438,346	438,346	
χ^2	48,031***	48,030***	48,031***	49,998***	46,402***	46,385***	46,395***	

Source: Proprietary, loan-level database of microfinance loans from one urban-focused MFI in Mexico, 2004-2008

Note: *** $P < .001$; ** $P < .01$; * $P < .05$ (two-tailed tests)

The dependent variable is dichotomous and takes the value of one if, within a loan cycle, a client has missed a payment. Where indicated, models also include loan officer fixed effects. In addition, all models include the following controls, which were omitted from the table for presentation purposes and because the coefficients are remarkably stable across the specifications (coefficients significant at 0.01 level in parentheses): Payment frequency (-0.021), ln(loan amount)(0.817), ln(loan installments) (-0.777), ln(interest rate) (2.09), Female (-0.025), Group loan (0.118), Client tenure (-0.137), Business loan (0.462), History of delinquency (0.417), Restructured loan (1.214), Client's first loan (0.38), Length of relationship (# of loan cycles) with prior loan officer (0.025).

TABLE 4: ROBUSTNESS CHECKS: LOGISTIC REGRESSION PREDICTING A MISSED PAYMENT IN A LOAN CYCLE

	8	9	10	11	12	13	14	15	16	17	18	19	20
VARIABLE	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)
Δ officer change _{t,t+1}	0.523	0.516	0.673	0.48	0.517	0.435	0.538	0.481	0.504	0.55			
	(0.022)***	(0.029)***	(0.044)***	(0.019)***	(0.031)***	(0.028)** *	(0.026)* **	(0.025)* **	(0.029)***	(0.027)***			
Consistency _{t,t+1}	-0.275	-0.217	-0.266	-0.242	-0.26	-0.331	-0.314	-0.213	-0.187	-0.344	-0.663		
	(0.036)***	(0.046)***	(0.075)***	(0.031)***	(0.037)***	(0.046)** *	(0.042)* **	(0.039)* **	(0.042)***	(0.042)***	(0.037)** *		
Mixed _t →coherence _{t,t+1}	-0.332	-0.338	-0.363	-0.317	-0.289	-0.433	-0.359	-0.31	-0.374	-0.361	-0.714		
	(0.027)***	(0.034)***	(0.052)***	(0.023)***	(0.028)***	(0.033)** *	(0.030)* **	(0.030)* **	(0.034)***	(0.030)***	(0.031)** *		
Within coherence _{t,t+1}	-0.211	-0.228	-0.23	-0.212	-0.247	-0.233	-0.197	-0.243	-0.308	-0.219	-0.659		
	(0.037)***	(0.047)***	(0.072)***	(0.032)***	(0.038)***	(0.047)** *	(0.042)* **	(0.041)* **	(0.045)***	(0.041)***	(0.039)** *		
Mixed _t →mixed _{t,t+1}	-0.048	-0.084	-0.082	-0.054	-0.055	-0.07	-0.064	-0.053	-0.02	-0.044	-0.106		0.589
	(0.022)**	(0.028)***	(0.041)**	(0.019)***	(0.024)**	(0.027)** *	(0.025)* **	(0.024)* *	-0.029	-0.027	(0.021)** *		(0.028)** *
Spirit _t →spirit _{t,t+1}													-0.606
													(0.046)***
Spirit _t →letter _{t,t+1}													-0.611
													(0.051)***
Letter _t →letter _{t,t+1}													-0.616
													(0.055)***

Letter _t →spirit _{t+1}													-0.595	
													(0.054)***	
Mixed _t →spirit _{t+1}													-0.649	
													(0.037)***	
Mixed _t →letter _{t+1}													-0.662	
													(0.042)***	
Spirit _t →mixed _{t+1}														0.645
														(0.032)**
														*

Table 4. Continued...

Letter _t →mixed _{t+1}														0.763
														(0.035)**
														*

LO fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Branch fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SAMPLE/ RESTRICTIONS	Female borrowers	Male borrowers	Groups	Individual borrowers	Tenure<m ed.	Tenure>m ed.	Size of payment < med.	Size of payment > med.	LO female	LO male	Conditional on loan officer change			
Model fit/diagnostics														
N	273,268	164,877	63,624	374,548	232,751	205,484	213,662	224,590	174,290	218,454	112,188	112,188	112,188	
χ^2	31,123***	18,894***	5,763***	43,985***	19,087***	26,748 ***	23,284 ***	27,549 ***	21,187***	24,897***	12,058 ***	12,037***	12,063 ***	

Source: Proprietary, loan-level database of microfinance loans from one urban-focused MFI in Mexico, 2004-2008

Note: *** $P < .001$; ** $P < .01$; * $P < .05$ (two-tailed tests)

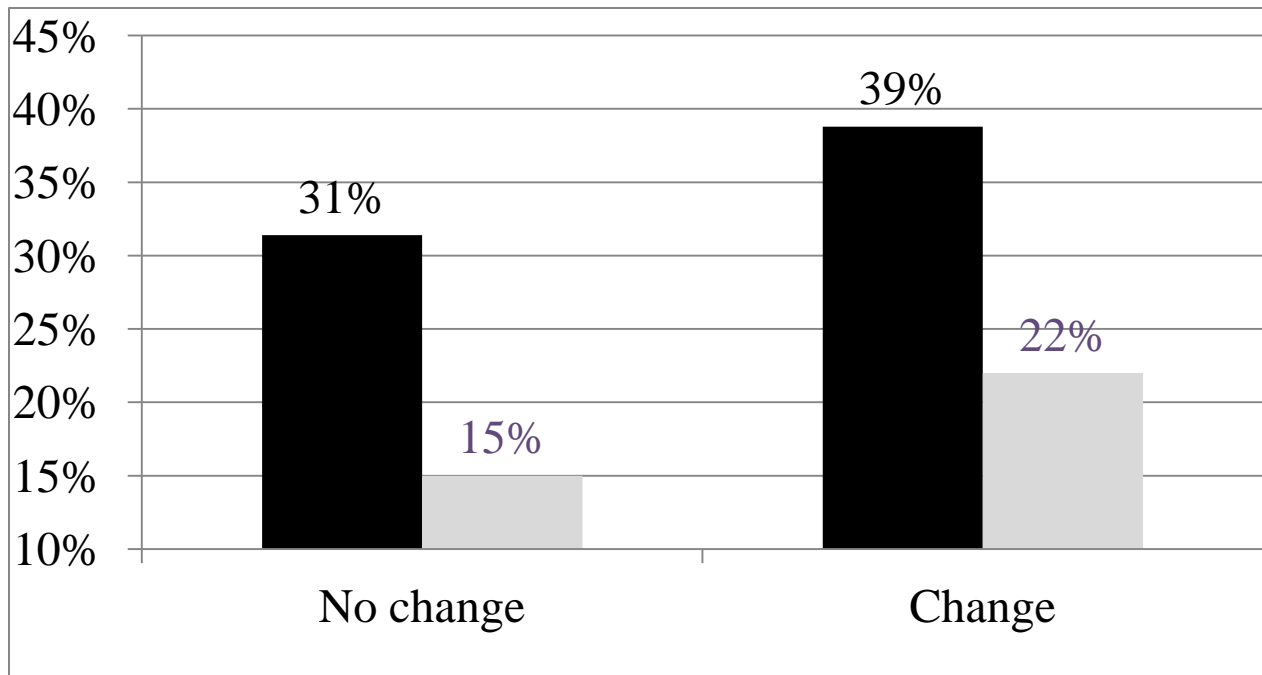
The dependent variable is dichotomous and takes the value of one if, within a loan cycle, a client has missed a payment. Where indicated, models also include loan officer fixed effects. In addition, all models include the controls outlined in the previous table.

FIGURE 1: (IN)COHERENCE AND (IN)CONSISTENCY IN RELATIONAL STYLES

		(Between Actor)	
		<u>Consistency</u>	
		Yes	No
(Within Actor)	Yes	<p>1</p> <p>Coherent, consistent</p> <p>(e.g., $LL_t \rightarrow LL_{t+1}, SL_t \rightarrow SL_{t+1}$)</p>	<p>2</p> <p>Coherent, inconsistent</p> <p>(e.g., $SL_t \rightarrow LL_{t+1}, LL_t \rightarrow SL_{t+1}$)</p>
	No	<p>3</p> <p>Incoherent, consistent</p> <p>(e.g., $M_t \rightarrow M_{t+1}$)</p>	<p>4</p> <p>Incoherent, inconsistent</p> <p>(e.g., $M_t \rightarrow LL_{t+1}, M_t \rightarrow SL_{t+1}$)</p>

Note: “SL” denotes spirit of the law loan officers; “LL” denotes letter of the law loan officers; and “M” denotes loan officers who vacillate between styles. Arrows denote that, contingent on a change in officer, the prior loan officer had the first enforcement style and the subsequent one the style after the arrow. For example, “ $M_t \rightarrow LL_{t+1}$ ” denotes that the loan officer at time t had a mixed enforcement style and the subsequent loan officer, at time t+1, had a letter of the law enforcement style

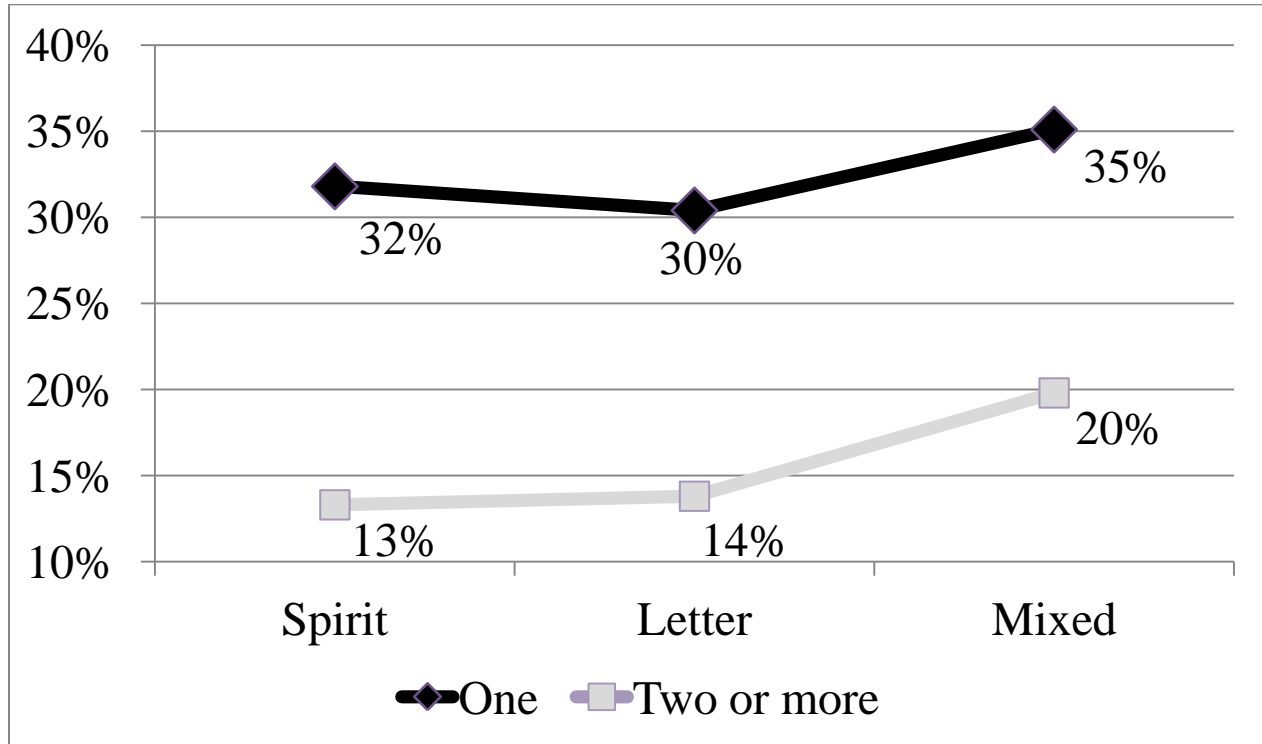
FIGURE 2: A CHANGE IN LOAN OFFICER RESULTS IN A HIGHER RATE OF MISSED PAYMENTS



Note: Black bars denote one missed payment; gray bar denotes two or more missed payments. Differences are statistically significant at $p < .01$. Models are unconditional.

Source: Unique dataset of $\approx 450,000$ microfinance loans made in Mexico, 2004 -2008

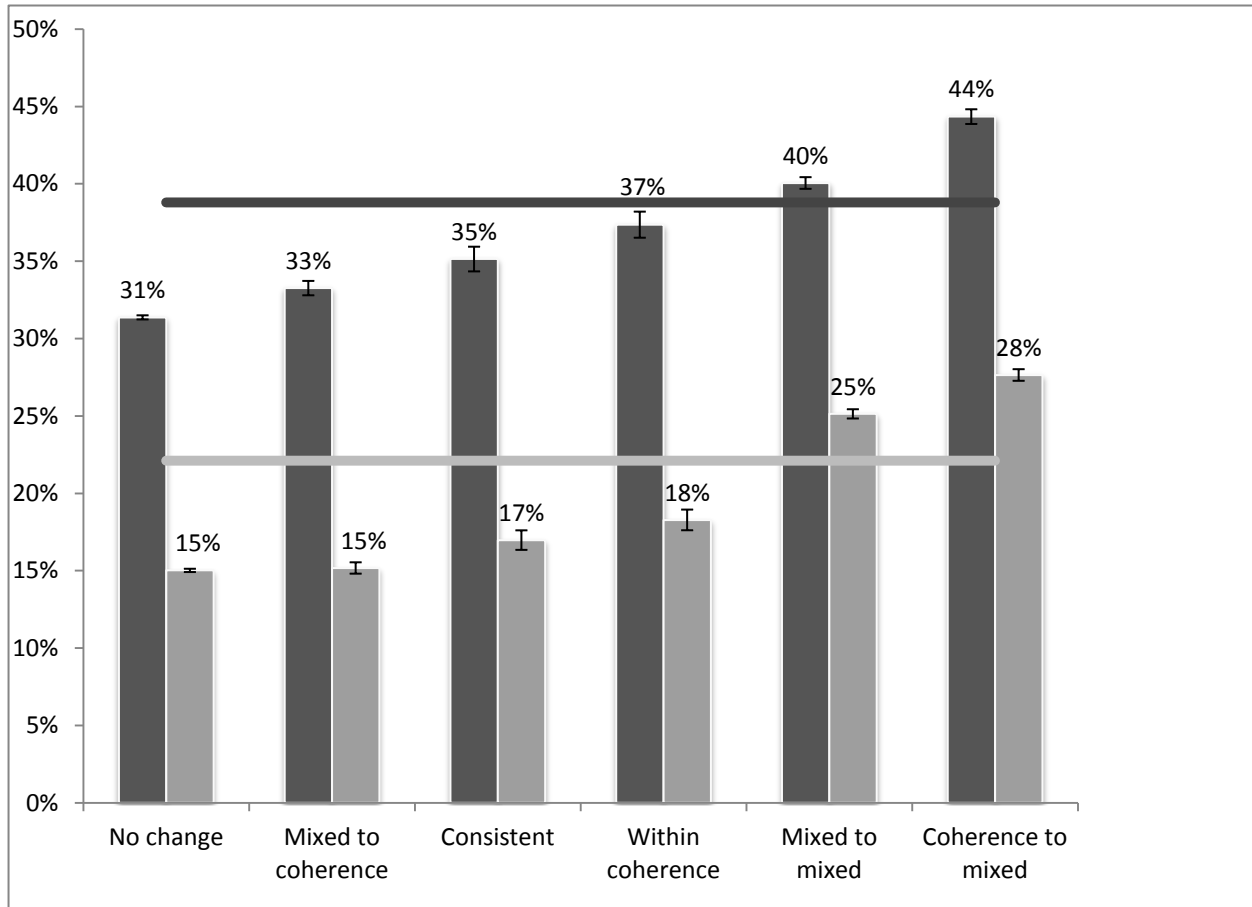
FIGURE 3: MISSED PAYMENT RATES VARY BY LOAN OFFICER RELATIONAL ENFORCEMENT STYLES



Note: Black line denotes one missed payment; gray line denotes two or more missed payments. Differences are statistically significant at $p < .01$. “Spirit” denotes spirit of the law loan officers; “letter” denotes letter of the law loan officers; and “Mixed” denotes loan officers who blend and vacillate between styles. Models are unconditional.

Source: Unique dataset of $\approx 450,000$ microfinance loans made in Mexico, 2004 -2008

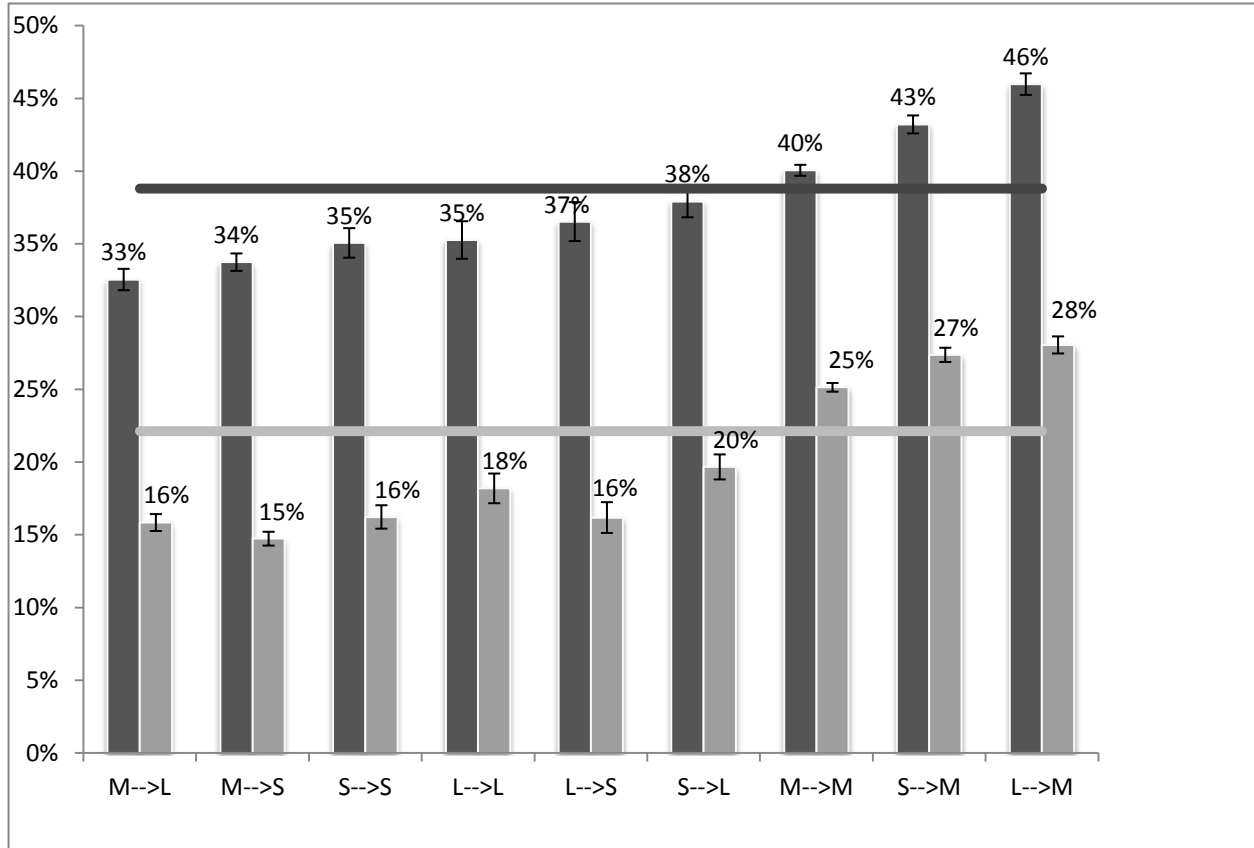
FIGURE 4A: MISSED PAYMENT RATES VARY BY TRANSITIONS BETWEEN AND WITHIN LOAN OFFICER RELATIONAL ENFORCEMENT STYLES



Source: Unique dataset of $\approx 450,000$ microfinance loans made in Mexico, 2004 -2008, by an urban-market focused MFI.

Note: Black (grey) line denotes sample average rate for one (two) missed payment if there is a change in loan officer. Dashed line denotes sample average rate for on missed payment if there is no change in loan officer. “Spirit” denotes spirit of the law loan officers; “Letter” denotes letter of the law loan officers; and “Mixed” denotes loan officers who vacillate between styles. Arrows denote that, contingent on a change in officer, the prior loan officer had the first enforcement style and the subsequent one the style after the arrow. For example, “Mixed \rightarrow Letter” denotes that the loan officer at time t had a mixed enforcement style and the subsequent loan officer, at time t+1, had a letter of the law enforcement style. Models are unconditional.

FIGURE 4B: MISSED PAYMENT RATES VARY BY TRANSITIONS BETWEEN AND WITHIN LOAN OFFICER RELATIONAL ENFORCEMENT STYLES



Source: Unique dataset of ~450,000 microfinance loans made in Mexico, 2004 -2008, by an urban-market focused MFI.

Note: Black (grey) line denotes sample average rate for one (two) missed payment if there is a change in loan officer. Dashed line denotes sample average rate for on missed payment if there is no change in loan officer. “Spirit” denotes spirit of the law loan officers; “Letter” denotes letter of the law loan officers; and “Mixed” denotes loan officers who vacillate between styles. Arrows denote that, contingent on a change in loan officer, the prior loan officer had the first enforcement style and the subsequent one the style after the arrow. For example, “Mixed→Letter” denotes that the loan officer at time t had a mixed enforcement style and the subsequent loan officer, at time t+1, had a letter of the law enforcement style. Models are unconditional.

Appendix

Construct validity of loan officer typology

When instructing managers to code each loan officer by relational enforcement style, managers were shown table 1 and told that the categories only referred to enforcement styles and not performance. Two things are worth mentioning. First, the managers thought it was descriptive, intuitive, and a fair representation of loan officers. Second is the remarkable speed with which the managers coded the officers. It typically took them less than one second to place an officer, which both reinforces the validity of the typology and reveals the depth with which managers know their staff. Inter-rater reliability was just below 80 percent. There was no instance where one manager coded an officer as SL while another coded her as LL. The only discrepancies were between a coherent type and Mixed. These discrepancies were treated as Mixed. The reason for doing so is straightforward: The inability of managers to agree on how to classify a loan officer provides *prima facie* evidence that the loan officer's style is incoherent.

It should be noted that although there are clear behavioral and philosophical differences in enforcement styles, the qualitative evidence leads us to believe that the underlying motivation of officers is the same across types: to perform their jobs well, which means minimizing delinquencies under conditions of risk or uncertainty. For LL officers this entails deference to the parameters defined by organizational policies and contractual provisions. SL officers, on the other hand, seek to minimize information asymmetries by developing multiplex relationships that maximize information access, reduce risk or uncertainty, and create alternative enforcement avenues.

Differences in enforcement style are at no point more evident than in the case of a loan delinquency, which is a discrete event that must be documented pursuant to organizational policies. Loan officers are expected to collect the loan following contractual terms. Yet, while all missed payments look the same on paper—and clients give similar explanations for them—some loan officers choose to collect the loan as prescribed by the policies while others choose to engage in negotiations and problem solving with the client. The choice depends, most importantly, on the loan officer's reading of the reason behind the delinquency.

During one of the author's ethnographic fieldwork he observed that SL officers overwhelmingly chose to negotiate with clients who missed a payment while LL officers generally chose to collect following contractual terms and company policy. Loan officers typically visit between one and three missed clients or groups per day. Between 2002 and 2008 a total of 578 loans were restructured through negotiation. SL officers restructured more than half of those loans, while LL officers only accounted for 100 restructurings. From each officer's perspective, however, the goal was simply to achieve a better business performance. Delinquency rates are the most highly weighted element of an officer's bonus and it is usually the first thing that managers look at when assessing loan officer performance. Thus when SL officers go out of their way—sometimes interpreting policies in very expansive terms to “help” a client—they are not being altruistic. In fact, they are not equally “lenient” with all clients and their collection strategy is not based on compassion but on a different interpretive frame. Qualitative client interviews—especially with clients who dropped out of the program—revealed that the most common cause for missed payments is a client's vulnerability to external shocks. Poorer households are more sensitive to contingencies due to a lack of assets, savings, or support structures to absorb them (e.g. Morduch, 1994). All clients confront exogenous economic shocks at some point, but the more destitute have less of a buffer, so even small unforeseen events can set-off a chain of negative events. In cases of clients who missed payments after a negative shock

and the loan officer chose to support them through a restructuring or a contingency loan, they were often able to get back on their feet. When loan officers demanded repayment pursuant to contractual terms notwithstanding these shocks, she often hastened and exacerbated the downward cycle. Putting pressure on a good but troubled client often only leaves the option of informal moneylenders who can –and almost always do—create disastrous effects. Clients take out loans to pay other loans. Since they are not investing in productive activities, they become entangled in a trap. As an illustration, consider two women who started with loans of \$50 and, after some productive loan cycles they became entangled in a debt spiral. One owed \$50,000 and the other \$25,000. The MFI’s credit analysis determined a debt capacity of \$300 for each, which should put their outstanding debt in some perspective. At the same time, the more vulnerable the client, the harder it is to codify her information in company policies, and the less guidance that a loan officer has to make decisions. In such situations, SL officers rely on personal relationships to gather additional information while LL officers fall back on the company’s policies, which they trust:

If your client is in a bad situation [...] and you don't find a solution for her, then you can turn good clients into bad ones. [...] Whenever my poorer clients tell me they can't make a payment because something bad happened to them, I have a policy of always trusting them [...] of every ten clients I have helped, nine have made it and eight have become long-term clients. A restructuring is a great opportunity because you develop a double commitment with your client. (SL officer)

Contrast this with a representative LL officer’s interpretation:

Clients are always trying to take advantage of the firm. They tell you stories of why they can't pay their loans, and they are usually good stories. The last thing these people need is leniency, you have to be tough with them, you have to pressure them until they pay [...] The policies are very clear on this. (The clients) signed a contract and they must abide by it. Otherwise they all learn that it is OK not to pay and other clients can see this and do the same. (LL officer)

In that sense, SL officers who may seem lenient when a payment is missed may simply have more information, gathered through personal relationships with clients, to interpret an otherwise noisy signal. Given that a set of boundaries –social, economic, cultural—exist between clients and the MFI, policies may miss important elements that can be relevant, especially during atypical situations like an exogenous shock. SL officers construct bridges across those boundaries:

Officers are information brokers. They have information on each of their clients and sometimes of the people the clients know. They can use that information to determine the moral and economic solvency of new prospects, to detect when a client is in trouble, and to be more effective when they need to collect (...) they have seen what works and what doesn't (...) They know who does what and who know who. When officers use that information to benefit a client, they can truly make a difference. (Regional Manager, Urban)

Table A1, below, compares observable characteristics across loan officer styles to ensure that the categorization is not capturing something other than the enforcement style. For example, a particular concern may be that Mixed loan officers are less experienced with policies, are less well known by their managers, or simply did not stay in the firm long enough to develop a style. The data show, however, that observable characteristics are virtually identical across styles, which minimizes concerns that the typology is driven by an omitted (and problematic) variable.

TABLE A1
CROSS-TABULATION AND TEST OF DIFFERENCES IN LOAN OFFICER CHARACTERISTICS BY
RELATIONAL ENFORCEMENT STYLE

Loan Officer Type	(SD in parentheses)			<i>T Test of difference in means</i> (SE of difference in brackets)		
	Spirit	Letter	Mixed	S - L	S - U	L - U
Tenure (Days)	990.70 (742.5)	996.00 (760.9)	948.90 (628.1)	0.06 (85.47)	0.52 (80.94)	0.56 (83.83)
Total branch rotations	5.30 (7.917)	5.19 (6.958)	5.88 (8.705)	1.01 (0.959)	0.39 (0.909)	1.4 (0.941)
Left firm (%)	0.54 (0.492)	0.58 (0.470)	0.57 (0.484)	1.3 (0.058)	0.59 (0.055)	0.77 (0.056)
Time in first branch (months)	10.92 (9.599)	9.11 (8.759)	8.90 (7.290)	1.18 (1.032)	2.08# (0.978)	0.8 (1.013)
Technical degree	0.11 (0.313)	0.09 (0.280)	0.12 (0.325)	0.66 (0.037)	0.27 (0.036)	0.93 (0.036)
College degree	0.79 (0.409)	0.78 (0.419)	0.75 (0.434)	0.28 (0.050)	0.81 (0.048)	0.5 (0.050)
Gender	0.41 (0.493)	0.46 (0.501)	0.36 (0.480)	0.95 (0.057)	0.94 (0.055)	1.87 (0.058)
Age	28.15 (4.939)	26.67 (4.369)	26.75 (4.288)	2.57** (0.579)	2.31# (0.546)	0.38 (0.574)
Married	0.36 (0.483)	0.30 (0.451)	0.26 (0.441)	1.41 (0.057)	1.88 (0.053)	0.36 (0.054)
Average Loan	8.79 (3.509)	8.32 (2.055)	8.79 (2.110)	1.46 (0.320)	0 (0.303)	1.49 (0.314)
Average interest rate	81.56 (3.508)	85.02 (3.378)	81.39 (3.146)	1.13 (0.403)	0.45 (0.382)	1.59 (0.395)

Source: Unique dataset of $\approx 450,000$ microfinance loans made in Mexico, 2004 -2008

Note: *p <.1, **p<.05, # insignificant at p <.05 with Bonferroni adjustment (two-tailed tests). For proportions, a z-test of the difference was performed.

TABLE A2: LOGISTIC REGRESSION PREDICTING TWO MISSED PAYMENTS IN A LOAN CYCLE

VARIABLE	21	22	23	24	25	26	27	28	29
	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)
Spirit _t	-0.444								
	(0.011)***								
Letter _t	-0.361								
	(0.013)***								
Δofficer change _{t,t+1}		0.581	0.545	0.337	0.477	0.392			
		(0.024)***	(0.019)***	(0.021)***	(0.022)***	(0.029)***			
Consistency _{t,t+1}		-0.198					-1.058		
		(0.038)***					(0.046)***		
Mixed _t → coherence _{t+1}		-0.282					-1.142		
		(0.028)***					(0.038)***		
Within coherence _{t,t+1}		-0.166					-1.045		
		(0.039)***					(0.049)***		
Mixed _t → mixed _{t+1}		-0.058		0.186	0.033	0.13	-0.125		0.983
		(0.022)***		(0.024)***	(0.023)	(0.030)***	(0.025)***		(0.034)***
Spirit _t → spirit _{t+1}			-0.225		-0.154	-0.072		-1.027	
			(0.044)***		(0.045)***	(0.04)9		(0.058)***	
Spirit _t → letter _{t+1}			-0.116					-0.972	
			(0.045)**					(0.063)***	
Letter _t → letter _{t+1}			-0.067					-0.957	
			(0.054)					(0.068)***	
Letter _t → spirit _{t+1}			-0.145			0.009		-0.982	
			(0.055)***			(0.059)		(0.070)***	
Mixed _t → spirit _{t+1}			-0.277		-0.206	-0.125		-1.092	
			(0.030)***		(0.032)***	(0.037)***		(0.046)***	
Mixed _t → letter _{t+1}			-0.201					-1.047	
			(0.035)***					(0.051)***	

Spirit _t →mixed _{t+1}				0.222	0.071	0.168			1.062
				(0.029)***	(0.029)**	(0.035)***			(0.039)***
Letter _t →mixed _{t+1}				0.268		0.215			1.169
				(0.033)***		(0.038)***			(0.043)***
LO fixed- effects	NO	YES	YES	YES	YES	YES	YES	YES	YES
Branch fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
SAMPLE/ RESTRICTIONS Model fit/diagnostics							Condition on LO change	Condition on LO change	Condition on LO change
N	438,157	438,346	438,346	438,346	438,346	438,346	112,188	112,188	112,188
χ^2	33,719***	34,120***	34,112***	34,109***	34,081***	34,117***	9,892***	9,874***	9,890***

Source: Proprietary, loan-level database of microfinance loans from one urban-focused MFI in Mexico, 2004-2008

Note: *** $P < .001$; ** $P < .01$; * $P < .05$ (two-tailed tests)

The dependent variable is dichotomous and takes the value of one if, within a loan cycle, a client has missed two payments. Where indicated, models also include loan officer fixed effects. In addition, all models include the controls outlined in the previous tables, which are omitted for presentation purposes. Controls remain stable across models.

TABLE A3: LOGISTIC REGRESSION PREDICTING THREE MISSED PAYMENTS IN A LOAN CYCLE

VARIABLE	30	31	32	33	34	35	36	37
	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)	b/(SE)
Spirit _t	-0.564							
	(0.013)***							
Letter _t	-0.481							
	(0.015)***							
Δofficer change _{t,t+1}		0.723	0.691	0.441	0.606			
		(0.028)***	(0.023)***	(0.026)***	(0.026)***			
Consistency _{t,t+1}		-0.287				-1.214		
		(0.045)***				(0.053)***		
Mixed _t → coherence _{t+1}		-0.319				-1.274		
		(0.033)***				(0.043)***		
Within coherence _{t,t+1}		-0.167				-1.13		
		(0.045)***				(0.056)***		
Mixed _t → mixed _{t+1}		-0.052		0.231	0.05	-0.128		1.109
		(0.025)**		(0.028)***	(0.027)*	(0.028)***		(0.039)***
Spirit _t → spirit _{t+1}			-0.321		-0.235		-1.213	
			(0.053)***		(0.055)***		(0.068)***	
Spirit _t → letter _{t+1}			-0.14				-1.049	
			(0.053)***				(0.072)***	
Letter _t → letter _{t+1}			-0.156				-1.07	
			(0.065)**				(0.078)***	
Letter _t → spirit _{t+1}			-0.116				-1.066	
			(0.065)*				(0.081)***	
Mixed _t → spirit _{t+1}			-0.33		-0.246		-1.249	
			(0.036)***		(0.038)***		(0.053)***	
Mixed _t → letter _{t+1}			-0.223				-1.142	
			(0.042)***				(0.058)***	
Spirit _t → mixed _{t+1}				0.275	0.095			1.201

Letter _t →mixed _{t+1}				(0.034)***	(0.033)***			(0.043)***
				0.29				1.284
				(0.038)***				(0.048)***
Loan officer fixed-effects	NO	YES	YES	YES	YES	YES	YES	YES
Branch fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES
SAMPLE/						Condition	Condition	Condition
RESTRICTIONS						on LO	on LO	on LO
Model						change	change	change
fit/diagnostics								
N	437,913	438,346	438,346	438,346	438,346	112,188	112,188	112,188
χ^2	28,860***	27,983***	27,976***	27,975***	27,953***	8,510***	8,496***	8,506***

Source: Proprietary, loan-level database of microfinance loans from one urban-focused MFI in Mexico, 2004-2008

Note: *** $P < .001$; ** $P < .01$; * $P < .05$ (two-tailed tests)

The dependent variable is dichotomous and takes the value of one if, within a loan cycle, a client has missed three payments. Where indicated, models also include loan officer fixed effects. In addition, all models include the controls outlined in the previous tables, which are omitted for presentation purposes. Controls remain stable across models.

ENDNOTES

¹ Because MFIs leverage capital (8x for conservative ones), the difference in capital reserve requirements implies the inability to invest several million dollars. With yearly turnover of invested capital averaging 3x, and high interests rates charged to clients (mean=80,122; SD=6.475), this implies foregone income of millions of dollars.

² The MFI (and industry) we study experiences high rates of employee turnover (Janik 2012). Consequently, they seek to limit the depth of officers' ties to clients because they fear that if they leave they will take good clients with them. Random loan officer rotations are employed to reduce this possibility. But, as a consequence, MFIs suffer increased delinquencies as we show here.

³ Payment is made directly, electronically, to the MFI. Consequently, there is no technical reason changing loan officers should have an impact on timely payment.

⁴ On related intuition concerning predictably irrational behavior see Ariely (2008).

⁵ For similar logic at the organizational level see Barnett and Carroll (1995); Baron, Hannan, and Burton (2001).

⁶ Treating borrowers as the unit of analysis would therefore require ignoring loan and time-varying contextual information or aggregating data in some fashion that would obscure important differences.

⁷ This number may seem high compared to microfinance best practices, which usually document delinquencies below 5%. Publicized numbers usually focus on 30- or 60-day delinquency rates, while we focus on the dynamics of enforcement by observing trajectories of delinquency from the first missed payment. Overall rates of delinquency and default mirror standard best practices.

⁸ See the appendix for more information concerning construct development and validity checks; see also (self-identifying citation) for ethnographic information on typology development.

⁹ In loan officer fixed effects models betas one and two cannot be identified. Models without fixed effects and thus main relational style effects yield similar results.

¹⁰ Given the size and complexity of our models, convergence took a considerable amount of time, making it unpractical for more than a robustness check.

¹¹ All contrasts are statistically significant when compared to no change.

¹² All contrasts are statistically significantly different save for the differences between mixed → coherence v. consistency or consistency v. within coherence.

¹³ Differences are statistically significant in models without loan officer fixed effects.

¹⁴ Statistically comparing across models is a non-trivial challenge. Because our hypotheses are agnostic to sample differences, and the point of these checks is to establish robustness rather than theorize differences, we refrain from such comparisons here.

¹⁵ We estimated the model using a two-level (Bernoulli) hierarchical model. The results (available upon request) were substantively and statistically similar.