

# The Normalization of Deviant Organizational Practices: The Non-performing Loans Problem in China

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**Abstract** Research on deviant organizational practices has demonstrated that normative and cognitive institutional forces contribute to making deviance acceptable. Data from a survey of 3,751 Chinese firms were applied to test the idea that a clearly articulated alternative identity is necessary if a firm is to resist the normalization of deviance. Widespread acceptance of delinquency in repaying loans was shown to make it more likely that a firm adopts that practice, but this normalization process is less likely for firms with a stronger anti-deviance identity.

**Keywords** Normalization · Deviance · Ethics in management · Non-performing loans in China · Payment arrears

## Introduction

The non-performing loans (NPLs) problem has recently received urgent attention in both developed and developing economies (Campbell 2007; Wagner 2010). The problem has been widespread, not merely a matter of misbehavior by specific organizations. In China, for example, acknowledged NPLs were estimated to have accounted for 25 % of state-owned banks' total loans in 1997 and 35 % in 1999 (Lardy 1998, 2001). Given the substantial negative consequences of the problem, research on possible remedial actions is clearly needed.

Academics and policy makers have been focused on creditor-side factors such as inadequate credit risk assessment and lack of collection enforcement (Campbell 2007; Firth et al. 2009; Horiuchi and Shimizu 2001), but this does not provide a complete picture of the NPLs problem, as it neglects the role of normative and cognitive factors on the debt holders' side. Research on deviant organizational practices has demonstrated that normative perceptions contribute to the prevalence of deviant acts via normalization (Earle et al. 2010; Ermann and Lundman 2002; Pinto et al. 2008). A firm's perceived norms can lead it to accept as normal behavior such as slow payment, erratic payment, or non-payment which outside observers would consider deviant. This body of research further suggests that remedies must address such thinking (Ashforth and Anand 2003; Misangyi et al. 2008), and that a primary means to change institutional thinking is to articulate alternative identities that resist being subverted (Hunt et al. 1994; Misangyi et al. 2008). Is non-payment of bank credit subject to such normalization? If so, are firms with certain identities more accepting of non-payment than others?

China's NPLs problem in the late 1990s provides a useful context for investigating these questions, because the problem was widespread and business norms were changing during that time period. Drawing from research on the normalization of deviant organizational practices, this study was designed to test the idea that (1) an individual firm's poor payment practices are more likely to become normalized if peer firms also carry NPLs, and (2) de-normalizing a poor payment practice requires creating an alternative self-image for the firm that frames NPLs differently. Misangyi et al. (2008) have asserted that firm identities can reside at the individual, organizational, societal, or other levels. This study examined firm identities in

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terms of the CEO's moral identity and the organization's identity based on the firm's characteristics.

This study tested the idea that widespread NPLs in a business community will positively influence firms in that community to default, and that the tendency will be weaker for firms with anti-NPL identities. A survey of Chinese firms generally supported the hypotheses. Privately owned firms and firms with market-selected CEOs were found to be less prone to accept default than state-owned firms and firms with politically appointed CEOs. A CEO's personal moral identity, however, did not seem to moderate the normalization process.

## Normalization and Role Identities

### Normalization of Deviant Practices

Let us follow Vaughn's lead in defining a *deviant organizational practice* as "an event, activity or circumstance, occurring in and/or produced by a formal organization, that deviates from both formal design goals and normative standards or expectations, either in the fact of its occurrence or in its consequences" (Vaughan 1999, p. 273). While much is known about how deviant organizational acts can be triggered by a variety of factors such as weak legal and regulatory enforcement (Adler 2002; Daboub et al. 1995), poor governance structures (Chen et al. 2006; Johnson et al. 2009), or poorly designed financial incentives (Baucus and Near 1991; Mishina 2010; Zhang et al. 2008), little is known about how deviant practices spread across a community.

Recently, a growing stream of research has studied the normalization of deviant organizational practices, suggesting that deviance will become embedded in the ongoing routines of a community if it is allowed to continue unchecked over time (Ashforth and Anand 2003; Earle et al. 2010; Ermann and Lundman 2002; Pinto et al. 2008). *Normalization* refers to the process in which a practice initially considered deviant becomes accepted in the social structure, routine, and normal (Ashforth and Anand 2003). When a practice has been performed repeatedly, organizations learn it and store it in their organizational memories, making the practice more likely to be applied again in the future (Yates 1990). Moreover, when many other firms employ the same practice, following the precedent helps legitimate it (Ahmadjian and Robinson 2001; Henisz and Delios 2001; Ocasio 1999). So when a deviant practice has been allowed to continue unchecked, it becomes part of the industry's norms and gets embedded in the ongoing routines of the business community.

As a once deviant practice becomes routine, a deviant culture emerges to normalize it and neutralize any stigma

(Ashforth and Anand 2003). As organizations adapt to the social groups and roles they occupy (the deviant culture in this case), more scrupulous organizations too end up engaging in deviant acts while fulfilling their "situationally defined role identity" (Misangyi et al. 2008, p. 753). Moreover, when deviance is prevalent in the social context, each firm feels less liable for the collective's destructive behavior as the responsibility for harmful outcomes is diffused to the collective (Bandura 1999). Through such role identity fulfillment and diffusion of responsibility, deviance gets rationalized, and becomes the norm.

### De-normalization and Anti-deviant Role Identity

Reversing the normalization of deviance is difficult unless new institutional logic condemning deviance is able to emerge (Misangyi et al. 2008). Institutional entrepreneurs, defined as social actors who have "the ability to motivate cooperation of other actors by providing them with common meanings and identities" (Fligstein 1997, p. 397), are one source of new institutional logic (Fligstein 1997; Hunt et al. 1994; Thornton and Ocasio 1999). Misangyi et al. (2008) described the processes by which institutional entrepreneurs create anti-deviant identities through diagnostic, prognostic, and motivational framing. In diagnostic framing, institutional entrepreneurs point out that the problems caused by the normalization of deviance, and that certain social actors (firms in this case) should be blamed for the situation. Prognostic framing is simply laying out what needs to be done to solve the problem (usually reinstating the previous norms). Finally, in motivational framing, institutional entrepreneurs construct an anti-deviant identity that is attractive and motivates remedial action. An example of how institutional entrepreneurs seek to change a deviant norm using framing processes is the emergence of anti-corruption logic in post-communist countries (e.g., Bosnia and Herzegovina, Romania). Corruption was prevalent in these countries. Institutional entrepreneurs first raised public awareness of the negative impact of corruption in diagnostic framing, then proposed anticorruption initiatives in prognostic framing. They also propagated a new collective identity (i.e., the European identity) as an alternative to existing, corruption-enabling identity to motivate reform actions (Karklins 2005; Misangyi et al. 2008). In short, the framing processes result in a new anti-deviant identity that forms the basis of new (or revived) institutional norms.

### China's Non-performing Loans Problem

The NPLs problem in China has been discussed more and more extensively over the last decade as firms have run up debts to the banks or other enterprises which they are

seemingly unwilling or perhaps unable to repay (Gamble 2003; Sun et al. 2002; Yuan 2000). Nominally, a loan is classified as non-performing if it has not been repaid and the due date has passed (Laurenceson and Chai 2003; Yuan 2000). NPLs comprised 35 % of state-owned banks' total loans in 1999 (Lardy 2001). China's financial system continues to be burdened by a mountain of NPLs in the state banking system, and commentary has suggested that economic growth resting on such shaky financial foundations may result in financial crises (Cavey 2009; Chan 2006). In attempts to sort out the NPLs problem, the central government had injected 270 billion renminbi (US\$32.6 billions) to recapitalize the state-owned banks in 1998. The government also set up four asset management companies in 2000 that would acquire the NPLs at face value from the banks. However, there is little evidence that situation has improved (Gamble 2003; Laurenceson and Chai 2003).

Taking a neoclassical economics perspective, one may argue that financial difficulty motivates firms' non-payment. Moreover, China's weak legal protection of creditors and investors has made it difficult to enforce interest penalties, credit rating downgrades, or forced liquidation for overdue payment (Allen et al. 2005; Gamble 2003). This neoclassical economics view regards firms as atomistic actors that choose practices on the basis of their immediate economic costs and benefits, and it predicts that NPLs should be minimized by enforcing punishments and strengthening the assessment of credit risk.

The neoclassical economics approach, however, ignores the role of cognitive and normative institutional logics in social contexts (Earle et al. 2010). The normalization perspective complements the neoclassical economics view by taking into account the actions of other firms, and the norms that evolve in a business community. The normalization perspective does not deny the relevance of the neoclassical economics view of NPLs. It acknowledges that immediate economic costs and benefits generate poor payment practices, but it asserts that institutional factors explain why NPLs proliferate in a business community and late payment or non-payment becomes routine. By 2000 China's NPLs problem had been recognized for a decade, but the problem was left unchecked. Erratic payment is not an option in developed countries because of heavy interest penalties and the risk of bankruptcy, but China's social norms at that time did not provide enough penalties for NPLs. For example, the bankruptcy law established in 1987 was not enforced (Gamble 2003), and the state-owned banks usually did not invoke the debt collection procedures (Yuan 2000). As erratic payment was left unchecked, it became an institutionalized routine for some enterprises. "[Firms] intended to maintain high debts rather than repay them [on time]." (Yuan 2000, p. 133).

Taking the normalization perspective, we argue that poor payment by industry peers would reinforce managers' perceptions that such deviant behavior had become the norm, thus increasing their tendency to engage in it. Previous studies on firm behaviors (e.g., Aerts et al. 2006; Chattopadhyay et al. 1999; Guillén 2002; Van Caneghem and Aerts 2011) have frequently measured the influence of norms by relating a focal firm's behavior to the average behavior of its peer firms; following their approach, we propose that a focal firm would be more likely to have NPLs (overdue debts) when more of its peer firms have NPLs.

**Hypothesis 1 (H1)** Firms are more likely to have NPLs (overdue debts) when they operate in industries with a higher prevalence of NPLs.

As Misangyi et al. (2008) suggested, a primary means to minimize the institutionalization of deviant practices is to demonstrate alternative role identities that resist deviance. Misangyi et al. further suggested that such role identities can be individual as well as organizational. In China, two common bases which may effectively distinguish between deviance and rectitude are a CEOs' personal moral identity (Aquino and Reed 2002), and a firm's identity as either liberal or statist (Huang 2010).

#### The CEO's Moral Identity

Individuals often incorporate personal ethical traits into their role identities (Aquino and Reed 2002), and individuals who view ethical traits as highly important to their identity are less likely to be morally disengaged and to involve themselves in unethical behavior (Detert et al. 2008). Chief executive officers (CEOs), like all other individuals, have multiple social identities, but their CEO identity is the most relevant to corporate behavior. CEOs whose ethical traits are very central to their role definition should be more likely to be guided by them in their decisions and behavior.

A CEO's moral identity should influence firm behavior for two reasons. First, he is a key decision-maker who should have a direct impact on his firm's payment practices. Then, the CEOs' moral identity can influence firm behavior indirectly by influencing the organization's moral climate. For example, a CEO with a strong moral identity may be more likely to develop formal ethics codes and insure that the firm provides ethics training as part of the socialization activities for new employees. The resulting organizational culture in turn will help guide individual employees' actions, which collectively determine the firm's behavior (Logsdon and Yuthas 1997).

There are many ethical traits which might be important to different CEOs, but ethical traits relating to compliance

and promise-keeping are the most relevant to NPLs. Kohlberg (1969) has proposed that there are six stages of moral judgment, on three broad levels. At the pre-conventional level, individuals are self-centered and their rationale for behavior is to avoid painful punishment (Stage 1) and pursue self interest (Stage 2). At the Conventional level, moral judgment is more externally oriented, such that the rationale for behavior is to meet peer group expectations (Stage 3) or comply with laws and regulations (Stage 4). At the post-conventional level, individuals determine what is right by considering social welfare and consensus (Stage 5) and universally held principles of justice and right (Stage 6). Compliance with government laws and industry regulations is related to Kohlberg's conventional level, while promise-keeping is a universally held principle that resides at the post-conventional level.

Individuals on the conventional and post-conventional levels are less likely to engage in deviant behavior than those using pre-conventional referents (Greenberg 2002; Rest et al. 1999). CEOs who value compliance and promise-keeping as central to their CEO role-definition should be concerned about acting accord to bank regulations and keeping the promise of repayment, thus treating poor payment as undesirable despite its financial advantages, as well as resisting institutionalized deviance even when "everyone else is doing it".

**Hypothesis 2 (H2)** Firms who's CEOs have stronger moral values regarding compliance and promise-keeping are less likely to have NPLs (overdue debts) (H2a), and are less prone to the normalization process predicted in H1 (H2b).

### The Firm's Identity

For many decades, China's economy has been characterized by financial support for the state sector and restrictions on private sector development (Huang 2008). Although reforms have been instituted, in the time period covered by the data for this study economic policy and the business situation could still be described as statist (Huang 2010). At that time, all formal financial institutions such as the banks and rural credit cooperatives were controlled by the central and county governments. Informal financing, through rural credit foundations for example, was illegal. In other words, both state-owned enterprises (SOEs) and private firms had to obtain any loans from government-owned institutions. The end result was that SOEs and enterprises with political connections were able to gain priority in obtaining funds, and other private enterprises were suffering discrimination (Brandt and Li 2003; Firth et al. 2009; Ge and Qiu 2007). The NPLs problem was in part a consequence of this situation because lending

decisions were based on ownership and political connections rather than credit risk and business prospects (Gamble 2003).

Such preferences in capital allocation inevitably lead to some sort of social movement by private enterprises through the framing processes depicted by Misangyi et al. (2008). Through diagnostic framing, private enterprises, especially those without political connections, found the preferential lending and the associated NPLs to be problematic. In prognostic framing, private enterprises hoped to change the system by bargaining for more financial liberalization and fairer lending decisions made on the basis of credit risks and business prospects. They also sought to help each other negotiate with local, provincial, and central governments (Ahlstrom et al. 2000). Their common goal of seeking financial liberalization and support for private entrepreneurship gave them a collective identity—the liberalists, supporting capitalist market logic (Huang 2010). As a result of their liberalist identity, private firms without political support were less likely to engage in the deviant acts engendered by statist, including non-repayment of loans, even if the practice was common.

In the Chinese context, firm ownership (state-owned or private) can be a reasonable proxy for a firm's statist or liberalist orientation. Private enterprises include domestic business not owned by the government, joint ventures between foreign and Chinese firms, and wholly owned foreign enterprises (Ahlstrom et al. 2000). Private enterprises are likely to suffer from discrimination resulting from statism, and thus to develop a liberalist identity. This should make them less likely to engage in the poor payment practices encouraged by statism.

**Hypothesis 3 (H3)** Private enterprises are less likely than SOEs to have NPLs (overdue debts) (H3a), and are less prone to the normalization process predicted in H1 than SOEs (H3b).

Second, the hiring of the CEO, through political appointment or market competition, can be another proxy for a firm's statist or liberalist identity. In China, the government frequently appoints the CEOs of both SOEs and private firms in order to insure state control and compliance with government policies (Fan et al. 2007). Firms with politically appointed CEOs are better connected to the government, while firms with CEOs selected by market mechanisms are unlikely to have such connections, which may lead them to suffer more from any preferential lending policy.

**Hypothesis 4 (H4)** Enterprises with market-selected CEOs are less likely to have NPLs (overdue debts) (H4a), and are less prone to the normalization process predicted in H1 than enterprises with politically appointed CEOs (H4b).

## Methods

### Data

This study used the NPLs problem in China in 2000 as its empirical context. During the period from 1998 to 2000, China had a growing NPL total (Lardy 1998, 2001). In 2000, China's NPL total was the greatest among the Asian economies including Indonesia, Japan, and South Korea, either as a fraction of total new loans made by banks or as a fraction of gross domestic product (Allen et al. 2005). These statistics indicate that poor payment practices were spreading during the time period studied. The data came from the Chinese government-funded entrepreneur survey system in 2001. The system carries out regular surveys to Chinese enterprises. It mails questionnaires to a proportional sample of enterprises based on industry, location, ownership, and size; the CEOs of the sampled firms are asked to fill out the surveys. After excluding surveys with missing variables, the final sample used in this study consisted of 3,751 firms. The firms were from the following nine industries: agriculture ( $n = 77$ ); mining ( $n = 36$ ); manufacturing ( $n = 1,929$ ); electricity, gas, and water supply ( $n = 45$ ); construction ( $n = 82$ ); transportation ( $n = 54$ ); wholesale and retail ( $n = 254$ ); other services ( $n = 60$ ); and finance and real estate ( $n = 59$ ).

### Measures

The dependent variable, *NPL practice*, was measured by the response to "Does your firm have overdue loans outstanding to other enterprises?" The responses were coded as no = 0; yes = 1. Fifty-nine percent of the firms in the sample said they had overdue loans outstanding.

The independent variable, *prevalence of NPLs in the industry*, was computed as the proportion of firms reporting overdue loans in each firm's industry, excluding the focal firm. That is, the variable was computed by an equation  $(\sum NPL\ practice_{i\ to\ n|i})/(n - 1)$  where  $i$  represent the focal firm, and  $n$  is number of firm in a given industry. By using a measure of prevalence based on the average behaviors of industry peers, we are able to identify differences in norms that influence a focal firm's behavior (Aerts et al. 2006; Van Caneghem and Aerts 2011).

The first putative moderator, *CEO's moral identity*, was measured by the response to "What do you think are the most important ethical traits of a CEO? Please choose a maximum of three out of the following eight traits." The eight ethical traits offered were "compliance with the law, compliance with industry regulations, being self-disciplined and not corrupt, being honest and promise-keeping, appreciating the job, caring for employees, protecting investors' interests, and protecting the enterprise's

interests." As mentioned before, ethical traits regarding compliance and promise-keeping are at the conventional and post-conventional levels of Kohlberg's (1969) cognitive moral development hierarchy, and those were the levels of interest. The relevant responses were compliance with the law, following industry regulations, self-discipline, and promise-keeping. We therefore aggregated each respondent's score on these four items into our CEO moral identity score. Since a respondent could choose a maximum of three traits, moral identity scores ranged from 0 to 3, where a higher value indicated a stronger moral identity. The four traits can be thought of as the components of a composite latent variable called moral identity. We did not assume or require that the items to be correlated, so assessing internal consistency was deemed inappropriate (MacKenzie et al. 2005).

The second hypothesized moderator, *private enterprise*, was measured by asking respondents to indicate the ownership type of their enterprise, and the response was coded into a dummy variable where 0 = state-owned enterprise, 1 = private enterprise.

The third hypothesized moderator, *market-selected CEO*, was measured by asking respondents to indicate whether they had been politically appointed or selected through market competition. A dummy variable was created where 0 = politically appointed, 1 = market selected.

Several control variables were also included. Each CEO's *age* and *education level* (secondary school or below; associate bachelor or bachelor; or post-graduate) were also included, because Rest (1986) suggests that older and highly educated individuals are more likely to be higher in moral awareness, making moral judgments, and establishing moral intents, thus are less likely to engage in deviant behaviors like deferring debt repayment. The gender of the CEO was not analyzed because only 3 % of the CEOs in the sample were female.

*Firm size* was included as a control variable because Baucus and Near (1991) found that large firms are more likely to resort to illegality, an extreme form of deviance. Respondents indicated the firm size using an ordinal variable with 1 = small-scale; 2 = medium-scale; 3 = large-scale; and 4 = very large-scale.

Three responses were used to measure and control for a firm's *financial difficulty* in repaying its loans. The first assessed whether or not other firms had overdue loans owing to the focal firm: "Do other enterprises have loans from your firm on which payments are overdue?" The responses were coded 0 = no; 1 = yes. The second item assessed the situation in the industry: "Your enterprise's current overall business situation is good, normal, or poor?" The third item assessed the firm's capital position: "Your firm's current working capital situation is sufficient, normal or tight?" These latter two items were coded a 1 for the

first response, 2 for the second or 3 or the third. The scores on these three items were standardized by subtracting the mean from the raw scores and then dividing by the standard deviation. The standard scores were then aggregated into a financial difficulty score, with lower scores indicating less financial difficulty. Note that our financial difficulty construct was an aggregated, multi-dimensional construct (Law et al. 1998) where each of the responses is a component of financial difficulty, but the three items are not necessarily correlated. Internal consistency is commonly assessed to test the reliability of a latent construct, but such testing is deemed inappropriate for an aggregate construct (Law et al. 1998) so it was not assessed here.

## Analysis and Results

Table 1 presents descriptive statistics and correlations for the study variables. The correlations among the independent variables were not particularly high in this sample, reducing any potential multicollinearity concerns. Table 2 presents binary logistic regression estimates of NPLs prevalence. Model 1 included all the control variables. Model 2 tested the main effects in each industry. Models 3–5 tested for any interaction of NPLs prevalence with the CEO's moral identity, private enterprise, and market selection of the CEO, respectively.

Hypothesis 1 predicts a normalization process: NPL practice by industry peers would constitute a norm that would be confirmed by a focal firm. In Model 2 the coefficient of NPLs prevalence was positive and significant ( $\beta = 4.53$ ,  $p < .01$ ), suggesting that as more peer enterprises delay payment, firms become more likely to follow the NPL practice. Consistent with earlier work suggesting that norm-conformity is evidenced when there is a positive relationship between the probability of a focal firm adopting a practice and the prevalence of the practice

in a reference group (e.g., Aerts et al. 2006; Chattopadhyay et al. 1999; Guillén 2002; Van Caneghem and Aerts 2011), we take this finding as an evidence of focal firms' conformity to industrial norms relating to NPL practice, thus H1 is supported.

Model 3 tested Hypotheses 2a and 2b which predict that CEOs with a stronger moral identity are less likely to rely on NPLs and are less susceptible to the normalization process. The results showed that while the main effect of CEO moral identity was negative and significant ( $\beta = -0.14$ ,  $p < .05$ ), there was no significant interaction between moral identity and NPLs prevalence. Consistent with H2a, CEOs who regard compliance and promise-keeping as important rely less on late payment, such that a unit increase in the CEO moral identity reduced the odds of having overdue debts by 12.6 %. But normalization apparently is not constrained by a CEO's moral identity.

Model 4 tested Hypotheses 3a and 3b which predicted that private enterprises are less likely to carry NPLs and less prone to accept normalization than SOEs. Consistent with H3a, the coefficient of the private enterprise term in the model was negative and significant ( $\beta = -0.35$ ,  $p < .01$ ). A private enterprise had 29.8 % lower odds of having NPL practice than a SOE. The coefficient on the state ownership and NPLs prevalence interaction term was also negative and significant ( $\beta = -0.28$ ,  $p < .01$ ), supporting H3b. To illustrate this interaction, a split sample analysis was conducted separating the private enterprises and the SOEs (as shown in Table 3). The results suggested that the relationship between NPL prevalence and poor payment practices is weaker for private enterprises ( $\beta = 3.30$ ) than for SOEs ( $\beta = 6.61$ ). That is, a unit increase in NPL prevalence increased SOEs' odds of NPL practice by a factor of 746.75, but only increased private enterprises' odds of NPL practice by a factor of 27.0.

Model 5 tested Hypotheses 4a and 4b which predicted that enterprises with market-selected CEOs are less likely

**Table 1** Descriptive statistics and correlations

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Having non-performing loans (1 = yes)	0.59	0.49	–								
2. CEO Age	47.64	7.38	–0.04*	–							
3. CEO Education	1.96	0.55	0.06**	–0.19**	–						
4. Firm size	1.97	0.74	0.09**	0.06**	0.24**	–					
5. Financial difficulty	0.10	2.03	0.36**	0.04*	–0.03	–0.04*	–				
6. CEO's moral identity	1.62	0.67	–0.05**	0.05**	–0.01	–0.03*	–0.02	–			
7. If private enterprise (1 = yes)	0.69	0.46	–0.10**	–0.07**	–0.09**	–0.15**	–0.13**	0.01	–		
8. If CEO market-selected (1 = yes)	0.53	0.50	–0.09**	–0.10**	–0.14**	–0.23**	–0.10**	0.01	0.50**	–	
9. Prevalence of peer NPLs practice	0.59	0.09	0.16**	0.02	–0.02	0.03*	0.03*	0.00	0.14**	0.11**	–

$N = 3,751$ . \* Significance at the  $p \leq 0.05$  (\*\*  $p \leq 0.01$ ) level in a two-tailed test

**Table 2** Binomial logistic regression results on NPLs prevalence

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
CEO age	-0.02** (0.01)	-0.02** (0.01)	-0.02** (0.01)	-0.02** (0.01)	-0.02** (0.01)	-0.02** (0.01)
CEO education	0.16* (0.07)	0.18* (0.07)	0.18* (0.07)	0.17* (0.07)	0.17* (0.07)	0.17* (0.07)
Firm size	0.29** (0.05)	0.26** (0.05)	0.26** (0.05)	0.24** (0.05)	0.25** (0.05)	0.24** (0.05)
Financial difficulty	0.41** (0.02)	0.41** (0.02)	0.41** (0.02)	0.41** (0.02)	0.41** (0.02)	0.41** (0.02)
CEO's moral identity	-0.13* (0.05)	-0.14* (0.06)	-0.14* (0.06)	-0.13* (0.05)	-0.14* (0.05)	-0.13* (0.06)
If private enterprise (1 = yes)	-0.18* (0.09)	-0.29** (0.09)	-0.29** (0.09)	-0.35** (0.10)	-0.31** (0.10)	-0.35** (0.10)
If CEO market-selected (1 = yes)	-0.05 (0.08)	-0.11 (0.09)	-0.11 (0.09)	-0.10 (0.09)	-0.11 (0.09)	-0.11 (0.09)
NPLs prevalence in the industry		4.53** (0.43)	4.76** (1.14)	6.56** (0.71)	5.91** (0.59)	7.14** (1.29)
NPLs prevalence × CEO's moral identity			-0.01 (0.06)			-0.02 (0.06)
NPLs prevalence × private enterprise				-0.28** (0.07)		-0.20# (0.09)
NPLs prevalence × market selected CEO					-0.25** (0.07)	-0.16* (0.08)
Constant	0.68* (0.33)	-1.73** (0.40)	-1.86* (0.74)	-2.83** (0.50)	-2.49** (0.45)	-3.30** (0.79)
df	7	8	9	9	9	11
$\Delta\chi^2$ compared to model 1		111.02**				
$\Delta\chi^2$ compared to model 2			0.05	13.06**	11.45**	16.61**
$\chi^2$	580.5	691.5	691.5	704.6	702.9	708.1

The dependant variable was a dummy representing the firm's overdue payment situation

#  $p = 0.06$ ; \*  $p \leq 0.05$ ; \*\*  $p \leq 0.01$  two-tailed test

Standard errors are in parentheses

**Table 3** Binomial logistic regression results relating NPLs with firm ownership

Variables	Private Firms		SOEs	
	Beta	Std. error	Beta	Std. error
CEO age	-0.02	0.01**	-0.04	0.01**
CEO education	0.20	0.08*	0.05	0.16
Firm size	0.20	0.06**	0.36	0.10**
Financial difficulty	0.40	0.02**	0.45	0.04**
CEO moral identity	-0.19	0.06**	0.03	0.10
If CEO market-selected	-0.12	0.10	-0.13	0.20
NPLs prevalence	3.30	0.54**	6.61	0.74**
Constant	-1.31	0.49**	-2.31	0.80**
N	2,598		1,153	
$\chi^2$	423.0		275.5	

The dependant variable was a dummy representing the firm's overdue payment situation

\* Significance at the  $p \leq 0.05$  (\*\*  $p \leq 0.01$ ) level in a two-tailed test

to engage in poor payment practices, and are less prone to accept normalization than enterprises with politically appointed CEOs. The coefficient on the market-selected CEO term was negative but the relationship was not

significant, so H4a was not supported. The coefficient of the market-selected CEO and NPLs prevalence interaction term was negative and significant ( $beta = -0.25, p < .01$ ), supporting H4b. To illustrate this interaction, a split sample analysis was conducted separating the firms with politically appointed CEOs and those with market-selected CEOs (as shown in Table 4). The results suggest that the effect of NPLs prevalence was weaker when a firm's CEO had been selected via the market ( $beta = 3.06$ ) than when he was politically appointed ( $beta = 6.00$ ). A unit increase in NPLs prevalence increased the odds of NPL practice by a factor of 21.3 for an enterprise with market selected CEO. The same increase in NPLs prevalence, however, increased the odds of NPL practice by a factor of 405.2 for an enterprise with politically appointed CEO.

Since the control variables showed consistent relationships across all the different models, we will interpret these effects on the basis of the full model (Model 6). First, the CEO-level control variables were found to be associated with carrying NPLs. Older CEOs were less likely to sanction late payment ( $beta = -0.02, p < .01$ ). CEOs with more education were, however, more likely to sanction deferring debt repayments ( $beta = 0.17, p < .05$ ). Scholars actively dispute the relationship between individual

**Table 4** Binomial logistic regression relating NPLs with CEO selection

Variables	Market selected CEO		Politically appointed CEO	
	Beta	Std. err.	Beta	Std. err.
CEO age	-0.02	0.01**	-0.02	0.01*
CEO education	0.28	0.09**	-0.04	0.12
Firm size	0.23	0.07**	0.27	0.08**
Financial difficulty	0.39	0.03**	0.44	0.03**
CEO moral identity	-0.22	0.07**	-0.03	0.09
If private enterprise (1 = yes)	-0.29	0.18	-0.32	0.11**
NPLs prevalence	3.06	0.63**	6.00	0.61**
Constant	-0.95	0.55	-2.37	0.63**
<i>N</i>	1,990		1,761	
$\chi^2$	312.8		372.3	

The dependant variable was a dummy representing the firm's overdue payment situation

\* Indicates significance at the  $p \leq 0.05$  (\*\*  $p \leq 0.01$ ) level in a two-tailed test

demography and deviant behavior (O'Fallon and Butterfield 2005; Treviño et al. 2006), so these results will not be discussed here.

Firm characteristics were also found to be correlated with carrying NPLs. Larger firms are more likely to carry NPLs ( $beta = 0.24$ ,  $p < .01$ ). This may be because large firms need larger amounts of extra capital to support their operations and expansion. Further, the coefficient on the term representing financial difficulty was positive ( $beta = 0.41$ ,  $p < .01$ ), indicating that firms in greater financial difficulty were more likely to defer loan payments, as might be expected.

## General Discussion

China's NPLs problem in the late 1990s offers researchers a valuable opportunity to examine deviant practices and the associated resistance forces. Anchored in the normalization literature (Ashforth and Anand 2003; Misangyi et al. 2008), this study has provided empirical evidence that poor payment practices were becoming accepted in China at that time, but that such normalization was sometimes resisted by firms with a liberalist identity.

Successfully countering the normalization of deviant borrowing practices apparently must be accompanied by a change in attitudes and the emergence of a viable anti-deviance identity (Hunt et al. 1994; Misangyi et al. 2008). Results indicate that in China, firms with a liberalist identity (private firms with a market-selected CEO) were less prone to accept carrying NPLs. The findings suggest that private enterprises, as well as those without political connections, were perhaps dissatisfied with the statist logic underpinning deviant payment practices, therefore were less prone to the normalization process. On the other hand, the results did not support the prediction that a CEO's moral identity can help counter the temptation to accept poor payment as normal. Although CEOs with a stronger moral identity were less

likely to sanction carrying NPLs, this was not apparently related with their resistance to normalization. It may be that such CEOs were fighting against normalization alone, without developing a collective identity. A collective identity may be needed to mobilize symbolic and substantive resources in support of institutional changes (DiMaggio 1988; Seo and Creed 2002).

## Implications for Theory and Research

A group led by Earle et al. (2010) provided the first empirical evidence regarding normative institutional influences on corporate unethical behavior, but that work did not investigate the forces resisting normalization. In their Russian sample, Earle's group found that firms were more likely to carry wage arrears when that practice was common in their geographical region. However, they did not examine any moderator resisting the diffusion of this deviant practice. Drawing on Misangyi's propositions about the role of anti-deviant identity in de-normalization (Misangyi et al. 2008), this study has empirically demonstrated that Chinese firms with a liberalist identity were less prone to accept carrying the NPLs whose normalization was supported by statist logic.

The findings reported here are also consistent with the agency view of institutional theory which proposes that temporary instances of isomorphism are logical jumping boards for processes of diffraction and fragmentation (Greenwood et al. 2002; Heugens and Lander 2009; Schneiberg 2005). Private enterprises and firms with market-selected CEOs were less likely to resort to the deviant practice of relying on NPLs for financing. The institutional norm of using NPLs was supported by Chinese statist logic, which resulted in various discriminations against private enterprises and firms without political connections, sometimes, perhaps, threatening their survival. These firms, supported by liberalist logic, resisted the norms supported by statist logic and resisted carrying NPLs.

This study has demonstrated that upper echelons theory (Hambrick and Mason 1984) can be applied to the study of deviant organizational practices. Upper echelons theory argues that an organization can be seen as a reflection of its top managers' experiences, values, and preferences. Top management as a strategic apex of the organization is responsible for decision-making, including endorsing any deviant practices. Studies of the relationship between CEO traits and negative deviance have been rare, but several studies have examined the link between CEO traits and positive deviance. Traits such as community orientation have been shown to be positively related with positive corporate social behavior (Buchholtz et al. 1999; Lerner and Fryxell 1994). Werbel and Carter (2002) also demonstrated that a CEO's personal interests, measured by their affiliations with non-profit organizations, influence the types of social causes (e.g., arts, education) supported by their firm's charity foundation. Managers' attitudes about environmental protection are also related to their intentions to implement source reduction activities (Cordano and Frieze 2000; Flannery and May 2000). This study extends these findings by demonstrating the applicability of upper echelons theory in the context of deviant organizational practices, such that CEOs who value compliance and promise-keeping as central to their identities are less likely to sanction NPL practices.

Additional analyses examined whether the negative relationship between a CEO's ethical values and his firm's deviant behavior is constrained by managerial discretion (proxied by state-ownership and political appointment; Li and Tang 2010). Although neither interaction was significant, sub-sample analyses (shown in Tables 3 and 4) indicated a weaker upper echelons effect in state-owned firms and where the CEO had been politically appointed. Future research might fruitfully examine further the governance factors that constrain CEOs' implementation of their ethical beliefs.

### Implications for Policy Makers

The NPLs problem hinders economic growth and increases the risk of financial crisis (Cavey 2009; Chan 2006). Given the substantial and negative consequences, research on possible remedial actions and policies is being called for. Scholars have suggested reinforcing credit risk assessment and debt collection (Campbell 2007; Firth et al. 2009; Horiuchi and Shimizu 2001), while policy makers in China have attempted to rectify the problem by improving the financial performance of the SOEs as well as recapitalizing the state banks (Yuan 2000). Yet, these remedies did not consider the institutional logic associated with carrying NPLs. The Chinese NPLs problem may be a reflection of an institutional logic that regards carrying NPLs as

legitimate, as shown in the normalization process. Measures to change such perceptions should help to deal with the shortcomings of the traditional remedies and suggest new ways to minimize NPLs. A renewed paradigm condemning NPLs needs to be put in place.

### Limitations and Future Research

Our conclusions were based on rigorous theorizing and anecdotal evidence about the institutional logic and framing processes of social actors in the Chinese NPLs problem. Despite so, a caveat is that our results rely on cross-sectional data. Future work with longitudinal datasets might more clearly elucidate the dynamics of NPL normalization and de-normalization. For example, while our NPLs prevalence variable captures the peer norm regarding NPL practice in the same year when a focal firm decides to engage in overdue loans, future research could use a time-lagged measure of NPLs prevalence to predict focal firms' NPL practice in a latter point of time.

Self-report of NPL practice might constitute a concern for our readers. Given the high proportion of reported NPL practice (59%), it is unlikely that firms were unwilling to admit that they have overdue loans because of the potential stigma associating with the practice. In line of the normalization perspective, we believe that because of the common occurrence of NPL in the country at the time of data collection, stigma associated with NPL was neutralized and firms had little social desirability concern when reporting their NPL practice. In case social desirability was a concern for our respondents, it would only compress the range of our key variables (i.e., the self-reported focal firm NPL practice and the computed peer firms' NPLs prevalence) around the lower end of the scale. This effect of social desirability, if exists, would attenuate our findings (because of restricted variance) and make our analyses a more conservative test of the normalization hypotheses.

Another concern might be the common source bias associated with the self-reported measures for NPLs, ethical traits, firm ownership, and CEO selection method. There were, however, filter items among the measurements of the independent and dependent variables to reduce the likelihood of producing spurious relationships among the variables (Podsakoff et al. 2003). Moreover, the interactions among the firm level moderators are unlikely to be an artifact of the single-informant method, as it is unlikely any respondent would have formulated the moderating relationship in his mind when filling out the survey (Doty and Glick 1998). Still, future research might use objective accounting data about NPLs to verify these findings.

## References

- Adler, P. S. (2002). Corporate scandals: It's time for reflection in business schools. *Academy of Management Executive*, 16, 128–129.
- Aerts, W., Cormier, D., & Magnan, M. (2006). Intra-industry imitation in corporate environmental reporting: An international perspective. *Journal of Accounting and Public Policy*, 25(3), 299–331.
- Ahlstrom, D., Bruton, G. D., & Lui, S. Y. (2000). Navigating China's changing economy: Strategies for private firms. *Business Horizons*, 43(1), 5–15.
- Ahmadjian, C. L., & Robinson P. (2001). Safety in numbers: Downsizing and the deinstitutionalization of permanent employment in Japan. *Administrative Science Quarterly*, 64(4), 622–654.
- Allen, F., Qian, J., & Qian, M. (2005). Law finance, and economic growth in China. *Journal of Financial Economics*, 77, 57–116.
- Aquino, K., & Reed, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, 83, 1423–1440.
- Ashforth, B. E., & Anand, V. (2003). The normalization of corruption in organizations. *Research in Organizational Behavior*, 25, 1–52.
- Bandura, A. (1999). Moral disengagement in the preparation of inhumanities. *Personal and Social Psychology Review*, 3, 193–209.
- Baucus, M. S., & Near, J. P. (1991). Can illegal corporate behavior be predicted? An event history analysis. *Academy of Management Journal*, 34(1), 9–36.
- Brandt, L., & Li, H. (2003). Bank discrimination in transition economies: Ideology, information, or incentives? *Journal of Comparative Economics*, 31(3), 387–413.
- Buchholtz, A., Amason, A., & Rutherford, M. (1999). Beyond resources: The mediating effect of top management discretion and values on corporate philanthropy. *Business & Society*, 38(2), 167–187.
- Campbell, A. (2007). Bank insolvency and the problem of nonperforming loans. *Journal of Banking Regulation*, 9, 25–45.
- Cavey, P. (2009, July 30). Now China has a credit boom. *The Wall Street Journal*. Retrieved December 30, 2009, from <http://online.wsj.com/article/SB10001424052970204619004574319261337617196.html>.
- Chan, J. (2006, May 18). Massive bad debt highlights China's financial instability. *World Socialist web site*. Retrieved December 30, 2009, from <http://www.wsws.org/articles/2006/may2006/chin-m18.shtml>.
- Chattopadhyay, P., Glick, W. H., Miller, C. C., & Huber, G. P. (1999). Determinants of executive beliefs: Comparing functional conditioning and social influence. *Strategic Management Journal*, 20(8), 763–789.
- Chen, G. M., Firth, M., Gao, D., & Rui, O. M. (2006). Ownership structure corporate governance, and fraud: Evidence from China. *Journal of Corporate Finance*, 12, 424–448.
- Cordano, M., & Frieze, I. H. (2000). Pollution reduction preferences of U.S. Environmental managers: Applying Ajzen's theory of planned behavior. *Academy of Management Journal*, 43(4), 627–641.
- Daboub, A. J., Rasheed, A. M. A., Priem, R. L., & Gray, D. A. (1995). Top management team characteristics and corporate illegal activity. *Academy of Management Review*, 20, 138–170.
- Detert, J. R., Treviño, L. K., & Sweitzer, V. L. (2008). Moral disengagement in ethical decision making: A study of antecedents and outcomes. *Journal of Applied Psychology*, 93(2), 374–391.
- DiMaggio, P. J. (1988). Interest and agency in institutional theory. In L. G. Zucker (Ed.), *Institutional patterns and organizations: Culture and environment* (pp. 3–22). Cambridge, MA: Ballinger.
- Doty, D. H., & Glick, W. (1998). Common methods bias: Does common methods variance really bias results? *Organizational Research Methods*, 1(4), 374–406.
- Earle, J., Spicer, A., & Peter, K. S. (2010). The normalization of deviant organizational practices: Wage arrears in Russia, 1992–1998. *Academy of Management Journal*, 53(2), 218–237.
- Ermann, M. D., & Lundman, R. J. (2002). Corporate and government deviance: Origins, patterns, and actions. In M. D. Ermann & R. J. Lundman (Eds.), *Corporate and governmental deviance: Problems of organizational behavior in contemporary society* (pp. 3–49). New York: Oxford University Press.
- Fan, J., Wong, T., & Zhang, T. (2007). Politically connected CEOs corporate governance, and post-IPO performance of china's newly partially privatized firms. *Journal of Financial Economics*, 84, 330–357.
- Firth, M., Lin, C., Liu, P., & Wong, S. M. L. (2009). Inside the black box: Bank credit allocation in china's private sector. *Journal of Banking & Finance*, 33(6), 1144–1155.
- Flannery, B. L., & May, D. R. (2000). Environmental ethical decision making in the U.S. metal finishing industry. *Academy of Management Journal*, 43(4), 642–662.
- Fligstein, N. (1997). Social skill and institutional theory. *American Behavioral Scientist*, 40, 397–405.
- Gamble, W. (2003). Going bust: Overcoming a dysfunctional credit system. *Harvard International Review*, 25(2), 54–57.
- Ge, Y., & Qiu, J. P. (2007). Financial development bank discrimination and trade credit. *Journal of Banking and Finance*, 31, 513–530.
- Greenberg, J. (2002). Who stole the money, and when? Individual and situational determinants of employee theft. *Organizational Behavior and Human Decision Processes*, 89, 985–1003.
- Greenwood, R., Suddaby, R., & Hinings, C. R. (2002). Theorizing change: The role of professional associations in the transformation of institutionalized fields. *Academy of Management Journal*, 45, 58–80.
- Guillén, M. F. (2002). Structural inertia, imitation, and foreign expansion: South Korean Firms and Business Groups in China, 1987–95. *Academy of Management Journal*, 45(3), 509–525.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as reflection of its managers. *Academy of Management Review*, 9(2), 193–206.
- Henisz, W. J., & Delios, A. (2001). Uncertainty, imitation, and plant location: Japanese multinational corporations, 1990–1996. *Administrative Science Quarterly*, 46, 443–475.
- Heugens, P. P. M. A. R., & Lander, M. W. (2009). Structure! Agency! (and other quarrels): Meta-analyzing institutional theories of organization. *Academy of Management Journal*, 52(1), 61–85.
- Horiuchi, A., & Shimizu, K. (2001). Did Amakudari undermine the effectiveness of regulator monitoring in Japan? *Journal of Banking & Finance*, 25(3), 573–596.
- Huang, Y. (2008). *Capitalism with Chinese characteristics: Entrepreneurship and state during the reform era*. New York: Cambridge University Press.
- Huang, Y. (2010). Debating China's economic growth: The Beijing consensus of the Washington consensus. *Academy of Management Perspectives*, 24(2), 31–47.
- Hunt, S. A., Benford, R. D., & Snow, D. A. (1994). Identity fields: Framing processes and the social construction of movement identities. In E. Larana, H. Johnston, & J. R. Gusfield (Eds.), *New social movements: From ideology to identity* (pp. 185–208). Philadelphia: Temple University Press.

- Johnson, S. A., Ryan, H. E., & Tian, Y. S. (2009). Managerial incentives and corporate fraud: The sources of incentives matter. *Review of Finance*, *13*, 115–145.
- Karklins, R. (2005). *The system made me do it: Corruption in post-communist society*. New York: M.E. Sharpe.
- Kohlberg, L. (1969). Stage and Sequence: The cognitive-developmental approach to socialization. In D. Goslin (Ed.), *Handbook of socialization: Theory and research* (pp. 347–480). Chicago: Rand McNally.
- Lardy, N. (1998). China and the Asian contagion. *Foreign Affairs*, *77*(4), 78–88.
- Lardy, N. (2001, June 22). China's worsening debts. *Financial Times*, 13.
- Laurenceson, J., & Chai, J. C. H. (2003). *Financial reform and economic development in China*. Cheltenham: Edward Elgar.
- Law, K. S., Wong, C. S., & Mobley, W. H. (1998). Toward a taxonomy of multidimensional constructs. *Academy of Management Review*, *23*(4), 741–755.
- Lerner, L., & Fryxell, D. (1994). CEO stakeholder attitudes and corporate social activity in the fortune 500. *Business & Society*, *33*(1), 58–81.
- Li, J. T., & Tang, Y. (2010). CEO Hubris and firm risk taking in China: The moderating role of managerial discretion. *Academy of Management Journal*, *53*(1), 45–68.
- Logsdon, J. M., & Yuthas, K. (1997). Corporate social performance, stakeholder orientation, and organizational moral development. *Journal of Business Ethics*, *16*, 1213–1226.
- MacKenzie, S. B., Podsakoff, P. M., & Jarvis, C. B. (2005). The problem of measurement model misspecification in behavioral and organizational research and some recommended solutions. *Journal of Applied Psychology*, *90*(4), 710–730.
- Misangyi, V. F., Weaver, G. R., & Elms, H. (2008). Ending corruption: The interplay among institutional logics resources, and institutional entrepreneurs. *Academy of Management Review*, *33*(3), 750–770.
- Mishina, Y., Dykes, B. J., Block, E. S., & Pollock, T. G. (2010). Why “Good” firms do bad things: The effects of high aspirations, high expectations and prominence on the incidence of corporate illegality. *Academy of Management Journal*, *53*(4), 701–722.
- O'Fallon, M. J., & Butterfield, K. D. (2005). A review of the empirical ethical decision-making literature: 1996–2005. *Journal of Business Ethics*, *59*, 375–413.
- Ocasio, W. (1999). Institutionalized action and corporate governance: The reliance on rules of CEO succession. *Administrative Science Quarterly*, *44*, 384–416.
- Pinto, J., Leana, C. R., & Pil, F. K. (2008). Corrupt organizations or organizations of corrupt individuals? Two types of organizational-level corruption. *Academy of Management Review*, *33*(3), 685–709.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*, 879–903.
- Rest, J. R. (1986). *Moral development: Advances in research and theory*. New York: Praeger.
- Rest, J., Narvaez, D., Bebeau, M. J., & Thoma, S. J. (1999). *Postconventional moral thinking: A Neo-Kohlbergian approach*. Mahwah, NJ: Lawrence Erlbaum.
- Schneiberg, M. (2005). Combining new institutionalisms: Explaining institutional change in American property insurance. *Sociological Forum*, *20*(1), 93–137.
- Seo, M. G., & Creed, W. E. D. (2002). Institutional contradictions praxis, and institutional change: A dialectical perspective. *Academy of Management Review*, *27*, 222–247.
- Sun, Q., Tong, W. H. S., & Tong, J. (2002). How does government ownership affect firm performance? Evidence from China's privatization experience. *Journal of Business Finance and Accounting*, *29*, 1–27.
- Thornton, P. H., & Ocasio, W. (1999). Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958–1990. *American Journal of Sociology*, *105*, 801–843.
- Treviño, L. K., Weaver, G. R., & Reynolds, S. J. (2006). Behavioral ethics in organizations: A review. *Journal of Management*, *32*(6), 951–990.
- Van Caneghem, T., & Aerts, W. (2011). Intra-industry conformity in dividend policy. *Managerial Finance*, *37*(6), 492–516.
- Vaughan, D. (1999). The dark side of organizations: Mistakes misconduct and disaster. *Annual Review of Sociology*, *25*, 271–305.
- Wagner, H. (2010). The causes of the recent financial crisis and the role of central banks in avoiding the next one. *International Economics and Economic Policy*, *7*(1), 63–82.
- Werbel, J., & Carter, S. (2002). The CEO's influence on corporate foundation giving. *Journal of Business Ethics*, *40*, 47–60.
- Yates, J. (1990). For the record: The embodiment of organizational memory, 1850–1920. *Business and Economic History*, *19*, 172–182.
- Yuan, G. (2000). Non-performing debts in SOEs and the effect of policies aimed at their solution. In P. J. Lloyd & X. G. Zhang (Eds.), *China in the global economy* (pp. 125–142). Cheltenham: Edward Elgar.
- Zhang, X., Bartol, K. M., Smith, K. G., Pfarrer, M. D., & Khanin, D. M. (2008). CEOs on the edge: Earnings manipulation and stock-based incentive misalignment. *Academy of Management Journal*, *51*(2), 241–458.