



INDUCEMENTS, CONTRIBUTIONS, AND FULFILLMENT IN NEW EMPLOYEE PSYCHOLOGICAL CONTRACTS

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This longitudinal study of newly hired Chinese college graduates (N = 143) investigates the effects of contract fulfillment, employee reports of company inducements (organizational support and job rewards), and supervisory reports of individual contributions (job performance and extra-role citizenship behavior) upon changes in the graduates' psychological contracts. Three survey waves were administered a year apart, starting with the recruits' job offer acceptance. Analyses revealed that employee fulfillment and perceived contributions predicted particular changes in employer psychological contract obligations, whereas employer fulfillment and perceived inducements predicted changes in employee obligations. The effects of inducements on employee obligation changes and contributions on employer obligation changes were mediated by their respective fulfillment measures. Changes in obligations were greater in the first year of employment than in the second. This study yields implications for managing newcomers and researching the initial phase of employment. © 2011 Wiley Periodicals, Inc.

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A psychological contract constitutes an individual's beliefs regarding reciprocal obligations to another; it is fundamental in regulating the employee–employer relationship (Rousseau, 1995). Employees' psychological contracts influence their efforts on behalf of the employer (Coyle-Shapiro & Conway, 2005; Hui, Lee, & Rousseau, 2004) as well as their acceptance of organizational change (Rousseau & Tijoriwala, 1998) and reactions

to an employer's failure to keep perceived commitments (Robinson & Rousseau, 1994). Despite psychological contracts' centrality to work-related attitudes and behavior, researchers have seldom examined the mechanisms underlying their development.

The present study follows new recruits in the two years after accepting their first post-graduate job. Contract obligations change considerably during a recruit's first years on the job (Robinson, Kraatz, & Rousseau, 1994;

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Thomas & Anderson, 1998), making new recruits an appropriate population to study how psychological contracts develop. This study differs from previous research in several ways. First, it assesses the psychological contract at three critical times: at initial job acceptance and at the ends of the first and second years on the job. At the latter point, recruits have considerable experience with their employers' management practices. Second, it postulates and investigates three mechanisms underlying contract change: (a) reciprocity for actual employee contributions (supervisor ratings of in- and extra-role performance), (b) reciprocity from employer inducements (employee perceptions of rewards and organizational support), and (c) the effect of the perceived fulfillment of employer and employee obligations.

The notion of a psychological contract as a schema is important to both practitioners and scholars as psychological contract represents thought processes underlying how employees judge their employer's actions, how employees respond to their treatment, and how they react to changes in their conditions of employment.

Developing Psychological Contract Obligations

In psychological contract theory, dynamics underlying a contract's development and change arise from its functioning as a cognitive schema (Rousseau, 1995, 2001). That is, an employee's psychological contract develops from a relatively simple and incomplete cognitive representation (i.e., schema) to a more elaborate one. What workers believe the employer must provide them and what they owe in return (Shore & Tetrick, 1994; Shore, Tetrick, Taylor et al., 2004; Thomas & Anderson,

1998) is a product of each individual's personal, work, and family history, including perceived cues from the employer during recruitment. The notion of a psychological contract as a schema is important to both practitioners and scholars (Rousseau, 2001) as psychological contract represents thought processes underlying how employees judge their employer's actions, how employees

respond to their treatment, and how they react to changes in their conditions of employment.

Once established, a psychological contract is the lens through which individual employees view their employer and judge its practices and policies. At the time of hire, however, it is an incomplete representation of a preliminary arrangement comprising contributions the organization expects from the employee and rewards the employee can expect in return. Once on the job, new experiences lead to contract updates and changes. New employees acquire information through both the employer's socialization practices and their own efforts to learn about their employer's expectations, norms, and policies. Recruits devote considerable cognitive effort to developing a more detailed and "complete" psychological contract (De Vos, Buyens, & Schalk, 2003; Rousseau, 2001). In this context, *complete* means consistent with on-the-job experiences such that the individual can reasonably anticipate the future exchange of rewards and contributions. Contracts are mental representations of the employment arrangement that individuals use in determining how to respond to organizational initiatives (e.g., new service norms), management requests (e.g., new work demands), or any novel circumstances arising and eliciting employee action. Once employees attain consistency, they tend to reduce information gathering, resulting in their psychological contracts becoming relatively stable and durable (Shore et al., 2004). For example, after accepting a job with a company that she anticipates to be an employer of choice, Jessica encounters a developmental and supportive work setting during her first year. She is likely to spend less subsequent effort sizing up what to expect from her new employer. Her psychological contract subsequently functions as a reliable referent for gauging the treatment she can anticipate in the future and what she needs to provide in return. Established contracts guide employee action and anticipation without much effort on the part of either employee or employer unless events call into question how well the existing contract tracks with current experience

(Johnson, Chang, & Lord, 2006; Rousseau, 2001). Trigger events promoting renewed attention to an established psychological contract include first-hand experiences with an employer's failure to live up to a commitment (Robinson & Rousseau, 1994), cues from coworkers and friends that the employer might not always act in good faith (Ho & Levesque, 2005), and disruptive organizational change (Rousseau & Tijoriwala, 1998).

Still, we do not know much about the information recruits acquire posthire and its impact on the developing psychological contract. A central question is how employees' actual experiences with the employer affects the less established, very incomplete contract derived from their recruitment and early experiences with the employer. Psychological contract theory and social exchange research agree on the central mechanism governing the beliefs related to the employee–employer relationship—namely, reciprocity (Coyle-Shapiro & Shore, 2007; Dabos & Rousseau, 2004a; Gouldner, 1964; March & Simon, 1958; Uhl-Bien & Maslyn, 2003). Reciprocity, a social norm common to most societies (Gouldner, 1964), indicates that benefits received from one party create a social obligation to provide some form of benefits in return and, at a minimum, do the other no harm. The norm of reciprocity also applies to negative exchanges, where actions by one party that negatively affect someone else lead to social norms justifying comparable adverse actions by the other (Gouldner, 1964; Uhl-Bien & Maslyn, 2003). Achieving symmetry or balance in the exchange is characteristic of voluntary relationships such as employment, business dealings, and other exchanges among people who are neither kin nor otherwise closely tied. This form of reciprocity involves the exchange of roughly equivalent resources (Wu et al., 2006). In contrast, the norm of reciprocity in kinship relationships tends to manifest in generalized reciprocity, where individuals need not directly reciprocate benefits to a family member or close friends, but can return them by providing benefits to a benefactor's family or friends. Balanced or symmetrical reciprocity often governs the psychological contract in

employment, although the contract can involve more generalized reciprocity when socioemotional bonds exist (Rousseau, 1995).

Reciprocity impacts three aspects of employment exchanges, thereby altering contract obligations: (a) the extent the psychological contract is fulfilled, (b) the extent workers receive inducements or benefits from their employer, and (c) the extent workers provide contributions or benefits to their employers. Researchers have proposed fulfillment as the basic metric for gauging a contract's performance (Rousseau, 1995, 2010). The extent of an initial obligation's fulfillment is likely to impact subsequent contract beliefs. Fulfillment, as in the previous case of Jessica, increases existing beliefs by reinforcing them. It also can erode existing beliefs in obligations by undermining their reliability as a referent, reducing the perceived odds of an obligation being honored in the future. If Jessica's so-called employer-of-choice offers little employee support or training, she would likely downgrade any employer obligation she once anticipated. Inducements are the rewards and supports, monetary and otherwise, that employers provide, motivating workers to join the firm, remain, and contribute efforts on its behalf (March & Simon, 1958). Contributions—the reciprocal resources employees provide in terms of their work efforts—commonly manifest as job performance (in-role performance) and discretionary efforts on their employer's behalf (extra-role performance). In the context of the psychological contract, the meaning ascribed to inducements and contributions depends on whether the employee perceives these as fulfilling prior obligations, creating new ones, or a combination of the two, as expressed in our conceptual framework (Figure 1). To both understand and manage the employee–employer exchange,

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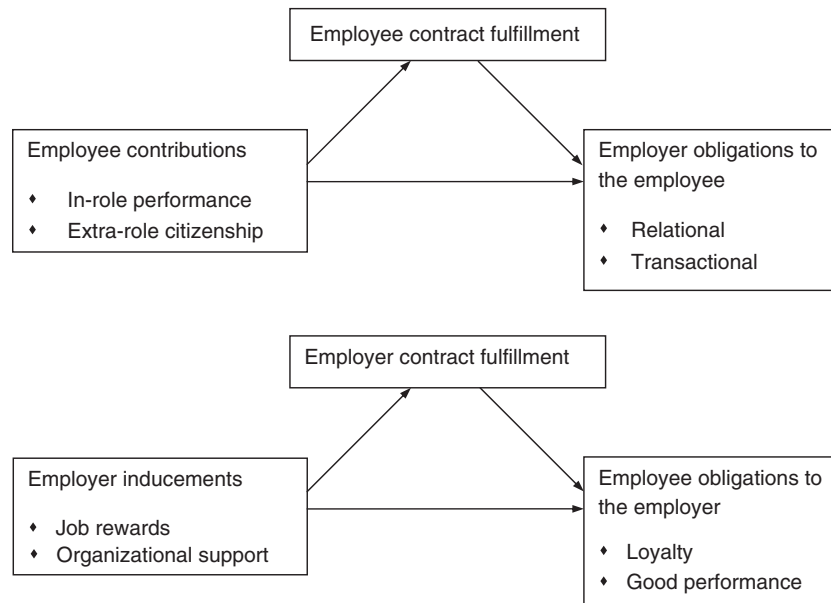


FIGURE 1. The Role of Contract Fulfillment in Employee–Employer Relationships

it is critical to assess employee perceptions and experience. It is also important to understand how workers judge the quality of their employment relationship and the value of their job (cf. Lazear, 1981; Ritter & Taylor, 2000) as shaped by the inducements they experience, their contributions (Tsui, Pearce, Porter, & Tripoli, 1997), and the extent to which they regard their employer's and their own obligations as being met (Rousseau, 1995).

Fulfillment as Performance of Contract Obligations

Fulfillment describes the extent to which one party to the contract deems the other has met its obligations. From an individual worker's perspective, it takes two forms: (a) worker beliefs regarding the extent the employer fulfills its obligations to the worker (perceived employer fulfillment), and (b) a worker's perceptions of his or her own fulfillment of obligations to the employer (perceived employee fulfillment). Using an example from a study of R&D units (Dabos & Rousseau, 2004a), a scientist who collaborates with team members on innovative research is likely to believe he has fulfilled his

obligations to the lab that employs him. If the lab's director obtains the funds to send the scientist overseas for advanced study, the scientist is likely to believe the employer has met its obligations to help develop his career. Meanwhile, low levels of fulfillment are synonymous with psychological contract breach, where parties perceive the obligations as being unmet (Robinson & Morrison, 2000; Rousseau, 2010).

Fulfillment increases the likelihood that the worker places greater trust in and reliance upon the employer (Robinson, 1996). Perceptions of employer fulfillment affirm to an individual that the employer is trustworthy. In determining subsequent obligations, whether one party met its past commitments may be more important than any rewards or benefits actually received (Lambert, Edwards, & Cable, 2003). When employees perceive that their employer fulfilled its obligations, they tend to reciprocate (Rousseau, 1995). This reciprocity takes the form of meeting existing obligations, as in the case when a recently promoted employee feels obligated to work longer hours. Reciprocity can also engender new cycles of inducements and contributions, such as when an employee accepts a demanding assignment (a contribution) on the condition that

more flexible hours come with it (an inducement).

Judging an employer to have met its obligations leads workers to deepen its commitment and sense of obligation to the employer (Turnley, Bolino, Lester, & Bloodgood, 2003). For example, a lawyer who works hard in anticipation of promotion becomes even more devoted to the firm's interests after making partner. Furthermore, employees who believe they have fulfilled their own obligations are likely to broaden and amplify the obligations they ascribe to their employer. That hard-working lawyer indeed is likely to expect that she deserves not only the promotion, but also respect and acknowledgment of her value to the firm. Meanwhile, a recruit disappointed by the treatment she experienced at her so-called great employer may recalibrate her understanding of that employment arrangement, reducing her own sense of obligation. If a recruit feels she has failed to live up to her own commitments due to being unable to put in the requisite 40-hour workweek, she may downgrade her estimates of what the company owes her. In effect, the degree of fulfillment of obligations by one party appears to positively relate to subsequent obligations on the part of the other. Thus, we hypothesize:

Hypothesis 1: An employee's fulfillment of psychological contract obligations will be positively related to change in the employer's obligations to the employee.

Hypothesis 2: An employer's fulfillment of psychological contract obligations will be positively related to change in the employee's obligations to the employer.

Employee Contributions: In-Role and Extra-Role Performance

Employee contributions can take several forms. We focus on two of the most central employee contributions: in-role and extra-role performance. In-role job performance is a basic employee contribution, including regular attendance and satisfactory performance of one's job duties (March

& Simon, 1958). Meanwhile, extra-role performance involves going beyond a job's requirements, such as by helping coworkers and customers on behalf of the employer (Organ, 1990).

Employees contribute to the organization in honoring the commitments they made and in reciprocating the employer's rewards and benefits. Contributions can also bind the employer, in the worker's eyes, to future reciprocity. For instance, expatriates often anticipate company support for their family and future career opportunities for themselves as a quid pro quo independent of what their employer has actually offered them (Guzzo, Noonan, & Elron, 1994). Moreover, when employees execute responsibilities exceptionally well, they may anticipate a greater reward than what normally follows standard performance (cf. Adams, 1965). As a case in point, Dabos and Rousseau (2004b) found that workers whom others intensely sought for work-related advice tended to believe that their employer owed them more than those whose advice was rarely sought. Contributing advice affected the psychological contract beyond an individual's formal organizational role. As a general principle in social exchange, one party's receipt of a substantial benefit tends to heighten its obligations to the provider (Clark & Reis, 1988). Both workers and managers tend to believe that the employer should recognize and reciprocate extra-role activities (Brock, Zmud, Kim, & Lee, 2005; MacKenzie, Podsakoff, & Fetter, 1993). Thus, we hypothesize:

Hypothesis 3: Employee contributions to the employer will be positively related to change in employees' beliefs regarding the employer's obligations. Specifically, (a) employee in-role job performance and (b) extra-role performance will be positively related to change in employee beliefs regarding the employer's obligations.

Employer Inducements: Job Rewards and Support

In parallel, workers who receive valuable resources from the employer, including personal support, skill development, career

opportunities, and monetary rewards, are likely to develop greater obligations to that employer over time (Rousseau, 2005). Employers provide a range of nonmaterial and material rewards to motivate greater employee effort and loyalty, such as performing citizenship behaviors (Aselage & Eisenberger, 2003) and accumulating skills and knowledge that the employer particularly values (Lazear, 1981). In a longitudinal study of recruits, De

Employers honor commitments to workers through the rewards and benefits they provide, while workers meet their own commitments by doing what their job requires and making extra effort on their employer's behalf.

Vos et al. (2003) found that employer inducements preceded increases in self-reported employee obligations—an effect they attributed to reciprocity.

Rewards derived from performing one's job responsibilities are a type of inducement (Lawler, 1990) that provide ways in which employers can motivate workers' future contributions and fulfill prior obligations. Extrinsic rewards such as pay and promotion—whether actually received or merely promised—affect behavior through their impact on workers' beliefs and expectations (Vroom, 1964). Intrinsic rewards such as job challenges and meaningful work are also salient to workers (Rusbult & Farrell, 1983). Employers expect such job rewards to increase employee obligations,

again as a form of reciprocity, beyond any initial obligations employees might anticipate.

Perceived organizational support (POS; Eisenberger, Huntington, Hutchison, & Sowa, 1986; Rhoades & Eisenberger, 2002) is another well-established inducement. Perceived organizational support is the bundle of valued benefits and compelling future opportunities that employers provide workers to create mutual commitment. It represents the employees' belief that the employer supports them personally (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002). Eisenberger, Armeli, Rexwinkel, Lynch, and Rhoades (2001) argued that

POS creates a perceived obligation among employees to care for the organization's future. Based on the norm of reciprocity, when employees experience high levels of POS, they tend to return this support by helping the organization reach its goals (Eisenberger, Jones, Aselage, & Sucharski, 2004). In the context of the psychological contract, POS likely motivates employees to increase their obligations to the employer. Thus, we hypothesize:

Hypothesis 4: Perceived inducements will be positively related to change in the employee's obligations to the employer. Specifically, (a) employee perceptions of job rewards and (b) organizational support will be positively related to change in the employee's beliefs in his or her obligations to the employer.

The Mediating Role of Fulfillment

Thus far, the discussion has presented fulfillment, inducements, and contributions as separate motivators of change in developing psychological contract obligations. Inducements and contributions, however, are a means of contract fulfillment too. Employers honor commitments to workers through the rewards and benefits they provide, while workers meet their own commitments by doing what their job requires and making extra effort on their employer's behalf. Thus, inducements and contributions provide the means for meeting employment-related commitments.

Thus, it seems likely that fulfillment acts as a mediator. Employer inducements should impact subsequent employee obligations to the degree the individual employee perceives the employer as having fulfilled its commitments. If inducements fail to fulfill obligations ascribed to the employer, their impact on subsequent obligations should diminish. A previous study found that employees' contributions had limited influence on their self-reported employer obligations (De Vos et al., 2003). De Vos and colleagues attributed their finding to the recruits' sense of entitlement. That study, however, failed to account for the role of contract fulfillment. Because fulfillment was not

assessed, we do not know whether the lack of observed effects for employer inducements stemmed from the absence of such an effect in reality or whether levels of employer fulfillment were insufficient for inducements to impact employees' sense of obligation. This omission is significant, and the present study remedies it. Fulfillment can both affirm existing obligations and engender a reciprocity that can reinforce or even increase future obligations. Thus, we hypothesize:

Hypothesis 5: The effects of contributions on changes in employee obligations will be mediated by employee psychological contract fulfillment.

Hypothesis 6: The effects of inducements on changes in employer obligations will be mediated by employer psychological contract fulfillment.

Method

Sample and Data Collection Procedures

This study uses a sample of college graduates in China over three periods, each 12 months apart. The year interval relates to the fact that an annual cycle of performance appraisal and reward distribution exists in many multinational firms, and researchers have found that 12 months constitute a meaningful interval in the socialization process (De Vos et al., 2003; Morrison, 1993a, 1993b).

The current study begins with the Time 1 survey, which we administered before the employees began work. Soon-to-be graduates of a top university in Shanghai who had already secured full-time employment from various enterprises (i.e., privately owned, state-owned, and Sino-foreign joint ventures) completed the survey. We mailed surveys to potential respondents ($N = 1,500$) with job offers, receiving 854 in return (56.9% response rate) within a week. The majority of respondents had job offers from manufacturing firms; most other offers were from the services sector. Participants responded to scales assessing expected obligations (both their own and those of their employers) and provided follow-up

information (home and business addresses and phone numbers). The Time 2 survey occurred at the end of the graduates' first year of employment. Of the 854 Time 1 respondents, 486 (56.9%)—successfully located via various channels—agreed to participate in the second survey. We subsequently mailed survey packets to each respondent. The packet contained separate questionnaires for the respondent and his or her supervisor. The instructions indicated that respondents should give the latter to their immediate supervisors. The cover letter explained the survey's objective to examine work-related experiences of postdegree employees, assured confidentiality, and informed respondents that participating was voluntary.

Focal individuals reported on their employee and employer obligations, job rewards, perceived organizational support, and contract fulfillment. Their supervisor rated the focal individual's in-role performance and extra-role citizenship behavior. Respondents returned completed questionnaires in stamped, preaddressed envelopes directly to the university-based survey coordinator. After one month, we had received 251 subordinate questionnaires (51.6% response rate) and 219 supervisor questionnaires (45.1% response rate). Deleting unmatched or incomplete questionnaires yielded 189 usable cases. We used this same procedure a year later to collect Time 3 data. At this point, 169 subordinates and 146 supervisors completed questionnaires, for response rates of 89.4% (subordinates) and 77.2% (supervisors). We created matched pairs by linking the data from our focal employee respondents with the data on their in-role performance and extra-role citizenship behavior as rated by their supervisor.

After matching three waves of data, the final sample size for hypotheses testing contained 143 supervisor-subordinate dyads. Of the 143 respondents, 49.0% were men; the average age was 24.2 years old ($SD = 1.23$), and the average education was 15.28 years

This study uses a sample of college graduates in China over three periods, each 12 months apart.

TABLE I Measurement Information of Key Variables

Variable	Time	Rating	Number of Items	Cronbach's α			Source
				Time 1	Time 2	Time 3	
In-role performance	2	Supervisor	6		.94		Williams & Anderson (1991)
Extra-role performance	2	Supervisor	7		.89		Williams & Anderson (1991)
Perceived organizational support	2	Subordinate	6		.82		Settoon, Bennett, & Liden (1996)
Job rewards	2	Subordinate	3		.75		Rusbult & Farrell (1983)
Employee fulfillment	2	Subordinate	2		.64		Rousseau (2000); Dabos & Rousseau (2004a)
Employer fulfillment	2	Subordinate	2		.76		Rousseau (2000); Dabos & Rousseau (2004a)
Psychological contract							Robinson et al. (1994) plus items original to this study
Employer Obligations							
Transactional	1, 2, & 3	Subordinate	3	.77	.83	.86	
Relational	1, 2, & 3	Subordinate	5	.79	.84	.86	
Employee Obligations							
Good performer	1, 2, & 3	Subordinate	4	.83	.72	.83	
Loyalty	1, 2, & 3	Subordinate	4	.69	.72	.77	

($SD = 1.00$). In terms of hierarchical position, 71.5% of focal employees held nonmanagerial positions; the remainder held low-level managerial positions. Of the supervisor sample, 72.0% were men; they averaged 37.12 years of age ($SD = 8.27$), 15.25 years of education ($SD = 1.94$), and an organizational tenure of 7.87 years ($SD = 7.25$). Thirty-four percent of them worked in state- and collective-owned, 19.9% in joint-venture, 11.8% in foreign-invested, and 14.7% in private companies.

We were unable to contact a large number of respondents who had moved during our study periods. Given the attrition in our sample over time, we applied Goodman and Blum's (1996) methodology to examine the final sample's representativeness and potential bias. Specifically, we performed two multiple logistic regressions. The first used survey time (Time 1 vs. Time 2) as the dichotomous dependent variable (DV) and demographic and obligation variables measured at Time 1 (including employee gender, major, and employee and employer obligations) as the independent variables (IVs). The second regression used survey time (Time 2 vs. Time 3) as the DV and demographic, obligation, contribution, and inducement variables measured at Time 2 as the independent variables. Results of the two logistic regressions showed that except for the extra-role performance, all coeffi-

cients were nonsignificant ($p < .05$). Thus, attrition does not appear to be a threat to representativeness. The significance of extra-role performance, however, (in the second regression equation, $\beta = .75$, $p < .01$) indicates that low performers tended to leave their employers during the Time 2 and Time 3 interval—a point elaborated upon in the Discussion section.

Measures

Table I indicates each key variable, its time(s) of measurement, Cronbach's (1951) alpha, and source. We measured psychological contract obligations and fulfillment using 5-point Likert scales and other measures using a 7-point Likert scale.

Psychological Contract Obligations: Item Development and Preliminary Test

To develop items appropriate to the Chinese context, we interviewed 30 final-year, part-time Master's in Business Administration (MBA) students who were working full-time, regarding obligations between themselves and their employers. After compiling their responses, we incorporated items developed by Robinson and Rousseau (1994). Managers and consultants then evaluated item meaningfulness. We then eliminated obligations that appeared to be inappropriate in China or

TABLE I Exploratory Factor Analysis Results of Employer Obligations

	Factor 1 Relational	Factor 2 Transactional
Collaborative work environment	.87	.10
Friendly and fun work environment	.80	.01
Interesting & challenging job	.77	.15
Respect employees	.75	.33
Good supervisor	.67	.16
Pay tied to performance	.17	.89
Bonus based on performance	.20	.86
Competitive pay	.28	.71
Variance explained (%)	41.92	28.86

for respondents with limited work experience. Thus, we used 14 employer and 13 employee obligations with good content validity. The Appendix lists the measuring items.

Investigating changes in psychological contracts (PCs) and the factors leading to those changes require conceptual equivalence within each set of employee and employer PCs. We established factorial form equivalence across our three waves prior to testing our hypotheses testing. We then conducted a series of factor analyses, performing an initial exploratory factor analysis (EFA) on Time 2 obligations, following Sutton and Griffin's (2004) suggestion that postentry responses are more likely to be stable than preentry responses. We then used Time 1 and Time 3 data to confirm the exploratory factor structure obtained from Time 2. To ensure independence of data sources, we used those responding to Time 2 but not Time 3 for the EFA (i.e., we tested hypotheses on complete cases across the three periods). We next used Time 1 (without Time 2 and Time 3 respondents) for a confirmatory factor analysis (CFA). Finally, we used Time 3 respondents in a separate CFA to test the equivalence of factorial form. We repeated Time 2 EFA and Time 1 and Time 3 CFA to remove nonequivalent items.

Table II presents results of the final EFA on Time 2 employer obligations. The analysis

indicated two distinct employer obligations, accounting for 70.8% of total variance. The CFAs conducted on Time 1 and Time 3 data accordingly resulted in acceptable fit (Time 1: $\chi^2_{(19)} = 122.65$, $p < .05$; goodness of fit index [GFI] = .96, Tucker-Lewis index [TLI] = .92; root mean square error of approximation [RMSEA] = .076; Time 3: $\chi^2_{(19)} = 36.87$, $p < .05$; GFI = .92, TLI = .89; RMSEA = .084), demonstrating stable factorial equivalence. We labeled one dimension as *transactional* and the other as *relational*. Transactional obligations, consistent with the basic monetary focus in other studies (e.g., Robinson & Rousseau, 1994), reflect a strong emphasis in the Chinese employment context on economic exchange. Chinese employees tend to stress economic factors in evaluating their employment opportunities (Chen, 1995), displaying a well-documented tendency to switch jobs for minor pay increases (Liang, Liao, & Zeng, 2005). Chinese managers also typically emphasize economic over humanistic concerns (Miller, Giacobbe-Miller, & Zhang, 1998). The second dimension, relational obligations, reflects commitments regarding a meaningful job and positive work environment, consistent with past operationalizations of the psychological contract's socioemotional concerns (Dabos & Rousseau, 2004a; Robinson & Rousseau, 1994).

TABLE III Exploratory Factor Analysis Results of Employer Obligations

	Factor 1 Good Performer	Factor 2 Loyalty
Work cooperatively with colleagues	.86	.07
Assist colleagues with their work	.76	.21
Provide good example at work	.73	.19
Exceed the performance expectations	.68	.14
Loyal to company	.02	.88
Loyal to the immediate supervisor	.25	.82
Provide advance notice if taking a job elsewhere	.26	.75
Refusal to support the company's competitors	.03	.67
Variance explained (%)	34.23	31.52

Notes: $N = 115$ (subjects who responded Time 2 but not Time 3 were examined for the analysis). Extraction method: Principal factor analysis. Rotation method: Varimax with Kaiser normalization.

We followed the same steps to analyze employees' obligations. Results suggested two distinct dimensions. Table III contains the EFA results for Time 2 employee obligation items. Time 1 CFA results ($\chi^2_{(19)} = 120.53, p < .05; GFI = .93, TLI = .91; RMSEA = .079$) and Time 3 CFA results ($\chi^2_{(19)} = 25.45, p < .05; GFI = .95, TLI = .93; RMSEA = .061$) suggested reasonable factor structure fit and equivalence. We labeled one dimension as *good performer* obligations and the other as *loyalty* obligations. Loyalty obligations, as reflected in commitment to the firm and the supervisor and protecting the firm's interests, highlight frequently reported facets of relational contracts in the Western context (Robinson & Rousseau, 1994). In contrast, good performer is not economic in nature, but includes cooperation with and support for coworkers while doing one's job well. As such, we labeled these employee obligations in a context-specific fashion reflecting their underlying facets rather than using relational and transactional categories. Other psychological contract studies (see Rousseau & Tijoriwala, 1998) have noted this context-specific character of employee obligations, in contrast to employer-oriented obligations. All other scales used come from published research as described below.

Individual Perceptions of Employer Inducements

Job Rewards, which refers to the positive outcomes workers associate with doing their job, was measured by three items from Rusbult and Farrell (1983). A sample item is "In general, to what extent do you find this job rewarding?" We measured the variable at Time 2; its reliability coefficient was .75. We measured Perceived Organizational Support using an 8-item scale at Time 2 based upon Eisenberger et al. (1986) and shortened by Settoon, Bennett, and Liden (1996). Sample items include "My organization really cares about my well-being," "My organization strongly considers my goals and values," and "Help is available from my organization when I have a problem." This factor's reliability was .82.

Supervisory Ratings of Employee Contributions

We assessed In-Role Performance at Time 2 through the supervisor's completion of Williams and Anderson's (1991) 6-item scale, previously used in China (Hui, Law, & Chen, 1999). A sample item is "Adequately completes assigned duties." Its reliability coefficient was .94. We measured Extra-Role Performance targeting the organization via supervisor

TABLE IV Confirmatory Factor Analyses (CFA) Testing Common Method Variance

Time Period ^a		χ^2 (df)	GFI	TLI	RMSEA	$\Delta\chi^2$ (Δ df)
Time 1	Normal CFA model ^b	390.52** (98)	.94	.92	.061	
	CFA model with an additional independent common method factor	373.59** (82)	.95	.93	.059	
	Model comparison					16.93 (16)
Time 2	Normal CFA model ^c	665.44** (375)	.92	.88	.083	
	CFA model with an additional independent common method factor	635.11** (344)	.93	.90	.080	
	Model comparison					35.33 (31)
Time 3	Normal CFA model ^b	138.45** (98)	.93	.89	.078	
	CFA model with an additional independent common method factor	126.95** (82)	.94	.90	.077	
	Model comparison					11.50 (16)

Notes: ^a $N_{Time 1} = 854; N_{Time 2} = 189; N_{Time 3} = 143$. ^bModeling two employer and two employee obligation factors. ^cModeling employer and employee obligations, employer and employee fulfillment of PC, job rewards, and perceived organizational support.

** $p < .01$.

T A B L E V Descriptive Statistics: Means, Standard Deviations, and Correlations

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1. Ownership: state-owned	.34	.48																										
2. Ownership: foreign-invested	.20	.40	-.36																									
3. Ownership: joint venture	.12	.32	-.27	-.18																								
4. Ownership: private	.15	.36	-.30	-.21	-.15																							
5. Employee gender	.51	.50	.16	.09	-.01	-.16																						
6. Employee position	1.38	.65	.01	-.03	.03	.02	.14																					
7. Supervisor gender	.28	.45	.11	-.01	-.12	.12	-.13	-.02																				
8. Supervisor age	37.12	8.27	.14	.08	-.13	-.02	-.09	.15	.09																			
9. Supervisor education	15.25	1.94	-.07	-.09	-.03	.03	.10	.02	.02	-.26																		
10. In-role performance (T2)	6.11	.91	.11	-.06	-.10	-.02	-.07	.02	.02	-.02	-.03																	
11. Extra-role performance (T2)	5.96	.85	.08	.01	-.17	-.07	.04	.21	.11	.04	-.03	.68																
12. POS (T2)	4.29	.90	-.07	-.02	-.01	-.08	-.05	-.07	.22	-.04	-.01	.29	.20															
13. Job rewards (T2)	4.08	1.18	-.20	.11	.08	-.09	.04	-.03	.19	.00	.12	.09	.09	.55														
14. Employee fulfillment (T2)	3.88	.53	.02	-.04	-.13	.05	.03	.10	-.16	.03	-.02	.17	.14	.02	.12													
15. Employer fulfillment (T2)	3.21	.69	.00	-.01	.04	-.09	-.06	-.07	.09	.00	-.09	.29	.33	.62	.48	.31												
16. ER transactional (T1)	2.97	.91	-.25	.11	.17	.05	-.02	-.08	.18	-.12	.13	-.02	-.08	.14	.21	.09	.11											
17. ER relational (T1)	2.86	.72	-.02	-.02	.08	-.08	-.08	-.14	.08	-.11	.08	.05	-.03	.10	.20	.05	.19	.60										
18. EE good performer (T1)	3.47	.91	-.02	-.09	-.02	.15	-.07	.11	-.01	-.08	-.03	.02	.12	-.16	-.02	-.03	-.14	.15	.21									
19. EE loyalty (T1)	3.29	.89	.02	-.14	-.16	.26	-.04	.11	-.08	-.04	.01	.09	.04	-.14	-.14	-.06	-.16	.15	.25	.62								
20. ER transactional (T2)	2.18	.89	-.16	.16	.04	.06	.04	.11	.04	-.11	.03	.10	.09	.36	.42	.03	.41	.22	.12	-.15	-.02							
21. ER relational (T2)	2.73	.85	.02	-.16	.04	.04	-.10	-.03	.07	.01	.04	.19	.05	.51	.53	.21	.46	.17	.33	.07	.12	.38						
22. EE good performer (T2)	4.01	.59	.03	-.04	-.15	.12	.07	-.05	-.14	-.16	.09	.11	.10	.16	.16	.33	.20	.02	.13	.15	.13	.02	.31					
23. EE loyalty (T2)	3.76	.84	.13	.01	-.08	-.06	-.11	.04	-.02	-.02	-.10	.15	.05	.34	.27	.26	.38	.21	.34	.18	.17	.23	.50	.34				
24. ER transactional (T3)	2.23	.98	-.34	.11	.22	.11	.19	.12	.09	-.25	.24	.03	.01	.13	.28	.05	.05	.13	-.02	-.08	-.08	.42	.23	.09	.08			
25. ER relational (T3)	2.61	.82	-.23	-.13	.13	.20	.06	.01	.08	-.11	.14	.19	.03	.25	.36	.19	.22	.14	.18	.01	.06	.24	.53	.09	.22	.55		
26. EE good performer (T3)	3.99	.67	-.04	.00	.00	.03	.03	.07	-.05	-.28	.20	.02	-.01	-.01	.06	.20	.00	.19	.19	.16	.03	.21	.35	.27	.24	.25		
27. EE loyalty (T3)	3.72	.85	-.07	-.03	.06	.04	-.05	.07	.04	-.09	.03	.13	.03	.07	.19	.25	.05	.13	.16	.25	.21	.04	.34	.25	.48	.39	.41	.55

Notes: N = 143; EE = employee; ER = employer. T1 = Time 1; T2 = Time 2; T3 = Time 3. Absolute values above .16 are significant at the .05 level ($p < .05$); above .21 are significant at the .01 level ($p < .01$).

ratings using Williams and Anderson's (1991) 7-item scale, which has a reliability of .89.

Psychological Contract Fulfillment

Individual workers reported their employer's and their own psychological contract fulfillment at Time 2 using established scales (e.g., Rousseau, 2000). The Employer Fulfillment measure included two items: "Overall, how well does your employer fulfill its commitments to you?" and "In general, how well does your employer live up to its promises?" The reliability was .76. Two items formed the Employee Fulfillment scale: "Overall, how well have you fulfilled your commitments to your employer?" and "In general, how well do you live up to your promises to your employer?" This scale's reliability was .64.

Controls

Because subordinates comprised a student cohort graduating at the same time from a single university, their backgrounds were comparable in terms of age and education level. For statistical analysis, we controlled for subordinate gender (1 = female; 0 = male) and organizational position. For supervisors, we controlled for gender, age, and education. We measured both age and education in number of years. We controlled for employer ownership because a firm's management practices impact psychological contracts.

Analyses and Results

Check for Common Method Variance and Construct Validity

Employees reported their own and their employer's psychological contract obligations and fulfillment, along with their perceptions of job rewards and POS. Because common method variance (CMV) can be a concern, we followed Podsakoff, MacKenzie, Lee, and Podsakoff (2003) by adding a latent factor estimated with all employee items to the normal CFA factor structure. We conducted "wave-by-wave" CFAs. In the first and third waves, we included all

contract measures in the CFA model; for the second wave, we also added job rewards and POS. Comparing the normal CFA model with that containing an additional CMV factor tests whether CMV is an issue (see Table IV for results). A nonsignificant chi-square comparing the two models indicates minimal threat from CMV. The normal CFA models for all three waves also fit well, suggesting acceptable construct validity among employee-rated variables.

The CFAs also assessed the construct validity of supervisory ratings. We conducted a first CFA using Time 2 and a second CFA using Time 3 in-role and extra-role performance measures. Results (Time 2: $\chi^2_{(41)} = 89.69, p < .05$; GFI = .95, TLI = .93; RMSEA = .059; Time 3: $\chi^2_{(41)} = 75.92, p < .05$; GFI = .95, TLI = .93; RMSEA = .051) indicated acceptable construct validity for these ratings.

Hypothesis Testing

Table V presents descriptive statistics for this study's variables. We tested the hypotheses using multiple regressions with Time 2 and Time 3 employer and employee obligations as outcome variables (see results shown in Tables VI and VII). To assess obligation change over time, we entered the previous year's obligations into each regression following the control variables (cf. Robinson & Rousseau, 1994).

The first set of hypotheses predicted that employee and employer fulfillment would positively relate to change in their opposing contract obligations. The data partially supported Hypothesis 1: Time 2 employee fulfillment positively related to changes in employer relational obligations (Time 2 obligations: $\beta = .21, p < .01$; Time 3 obligations: $\beta = .18, p < .05$; Table VI) and to change in employer transactional obligations at Time 3 ($\beta = .11, p < .10$; Table VI), but not the Time 2 change ($\beta = -.01, ns$; Table VI). The data also partially supported Hypothesis 2: Time 2 employer fulfillment positively related to change in employee loyalty obligations (Time 2: $\beta = .23, p < .05$; Time 3: $\beta = .21, p < .05$; Table VII) and to change in good performer obligations at

TABLE VI Regressions of Employer Obligations on Employee Contributions and Fulfillment

Independent Variables	Transactional (Time 2)	Transactional (Time 3)	Relational (Time 2)	Relational (Time 3)
Step 1: Controls				
Ownership: State-Owned	-.06	-.16*	.00	-.24**
Ownership: Joint Venture	.19*	.17*	-.15	-.17*
Ownership: Foreign-Owned	.05	.23***	.02	.07
Ownership: Private	-.11	.15*	-.01	.11
Employee Gender	.00	.16**	-.01	.13*
Employee Position	.11	.13*	-.03	-.01
Supervisor Gender	.07	.11	.12	.10
Supervisor Age	-.11	-.17**	.05	-.02
Supervisor Education (Years)	.01	.15*	-.02	.05
ΔR^2	.08	.29***	.05	.13**
ΔF	1.15	5.48	.64	2.01
Step 2: Initial Employer Obligations				
Employer Transactional ^a	.19**	.33***	--	--
Employer Relational ^a	--	--	.27***	.49***
ΔR^2	.03**	.10***	.07***	.23***
ΔF	4.07	19.04	9.45	42.40
Step 3: Employee Contributions				
In-role Performance (Time 2)	.06	.18**	.22**	.28***
Extra-Role Performance (Time 2)	.06	-.09	-.08	-.09
ΔR^2	.01	.02*	.04*	.05***
ΔF	.76	1.82	2.01	4.23
Step 4: Mediating Role of Employee Fulfillment				
In-Role Performance (Time 2)	.06	.16*	.09	.14*
Extra-Role Performance (Time 2)	.06	-.10	-.09	-.11
Employee Fulfillment (Time 2)	-.01	.11*	.21***	.18**
ΔR^2	.00	.01*	.04**	.02**
ΔF	.01	2.17	5.38	2.80

^aControlling for Time 1 obligations in predicting Time 2 outcomes and Time 2 obligations when predicting Time 3 outcomes.

* $p < .10$; ** $p < 0.05$; *** $p < 0.01$.

Time 2 ($\beta = .18$, $p < .05$), but not Time 3 ($\beta = .07$, ns). In all, fulfillment consistently related to positive change in the opposing relational contract, but not consistently in its nonrelational counterpart.

Hypothesis 3 predicted that the employee contributions of in-role and extra-role

performance would positively relate to change in employer obligations. Time 3 but not Time 2 in-role performance related to change in employer transactional obligations (Time 2: $\beta = .06$, ns ; Time 3: $\beta = .18$, $p < .05$; Table VI), whereas extra-role performance did not relate to change in transac-

TABLE VII Regressions of Employee Obligations on Employer Inducements and Fulfillment

Independent Variables	Good Performer (Time 2)	Good Performer (Time 3)	Loyalty (Time 2)	Loyalty (Time 3)
Step 1: Controls				
Ownership: State-Owned	.00	.06	.14	.03
Ownership: Joint Venture	-.03	.08	.06	.04
Ownership: Foreign-Owned	-.15	.00	-.06	.07
Ownership: Private	.04	.05	-.08	.04
Employee Gender	.07	-.04	-.14*	-.11
Employee Position	-.03	.13*	.08	.11
Supervisor Gender	-.08	.02	.01	.10
Supervisor Age	-.16**	-.27***	-.10	-.12
Supervisor Education (Years)	.05	.12*	-.11	.00
ΔR^2	.07	.10	.06	.04
ΔF	1.04	1.48	.88	.51
Step 2: Initial Employee Obligations				
Employee Good Performer ^a	.14*	.32***	--	--
Employee Loyalty ^a	--	--	.18**	.53***
ΔR^2	.02*	.09***	.03**	.26***
ΔF	2.34	13.99	3.74	45.08
Step 3: Employer Inducements				
POS (Time 2)	.09	-.01	.30***	.17**
Job Rewards (Time 2)	.20**	.14*	.12	.05
ΔR^2	.04**	.02	.11***	.03**
ΔF	3.05	1.13	8.24	2.49
Step 4: Mediating Role of Employer Fulfillment				
POS (Time 2)	.07	.01	.19**	.09
Job Rewards (Time 2)	.05	.14*	.10	.07
Employer Fulfillment (Time 2)	.18**	.07	.23**	.21**
ΔR^2	.02**	.00	.03**	.03**
ΔF	2.44	.61	4.68	4.98

^aControlling for Time 1 obligations in predicting Time 2 outcomes and Time 2 obligations when predicting Time 3 outcomes.

POS = Perceived organizational support.

* $p < .10$. ** $p < 0.05$. *** $p < 0.01$.

tional obligations at either time (Time 2: $\beta = .06$, *ns*; Time 3: $\beta = -.09$, *ns*; Table VI). Similarly, in-role performance positively related to change in employer relational obligations (Time 2: $\beta = .22$, $p < .05$; Time 3: $\beta = .28$, $p < .01$; Table VI), although extra-role performance did not (Time 2: $\beta = -.08$, *ns*;

Time 3: $\beta = -.09$, *ns*; Table VI). In all, Hypothesis 3a received good support but Hypothesis 3b did not. We thus note that although De Vos and colleagues (2003) attributed the limited influence of employees' contributions on employer obligations to entitlement, our study indicates that types

of contribution and obligation may matter. In this study, in-role performance consistently positively relates to changes in employer relational obligations.

Hypothesis 4 predicted that employer-provided inducements would share an association with positive change in employee obligations; the data marginally supported this prediction. Perceived organizational support did not relate to changes in good performer obligations (Time 2: $\beta = .09$, *ns*; Time 3: $\beta = -.01$, *ns*, Table VII), while job rewards did (Time 2: $\beta = .20$, $p < .05$; Time 3: $\beta = .14$, $p < .10$; Table VII). Perceived organizational support positively related to employee loyalty obligations (Time 2: $\beta = .30$, $p < .01$; Time 3: $\beta = .17$, $p < .05$, Table VII); job rewards did not (Time 2: $\beta = .12$, *ns*; Time 3: $\beta = .05$, *ns*, Table VII). As in the previous case of inducements, the effects on employee obligation change associated with contributions depend on the types of inducement and contribution. Perceived organizational support consistently related to changes in the employee’s obligation to be loyal to the employer. Job rewards related weakly to the Time 3 change in the obligation to be a good performer.

Next, we turn to the two mediation hypotheses. Sobel (1982) tests were conducted for all previously discussed inducement and contribution effects on obligation change. Hypothesis 5 predicted that employee contract fulfillment would mediate

the effects of contribution on changes in employer obligations. Sobel test results indicated an indirect effect of employee in-role job performance on Time 2 (and Time 3) change in employer “relational” obligations via employee fulfillment (Time 2: $t = 2.32$; Time 3: $t = 2.02$, $p < .05$). Hypothesis 6 predicted that the effects of inducements on changes in employee obligations would be mediated by employer contract fulfillment. Sobel test results indicated an indirect effect of job rewards on Time 2 change in employee “good performer” obligation via employer fulfillment ($t = 2.10$, $p < .05$). In addition, an indirect effect of POS on Time 2 (and Time 3) changes in employee “loyalty” obligation via employer fulfillment emerged (Time 2: $t = 1.99$, $p < .05$; Time 3: $t = 1.70$, $p < .10$). In all analyses in which inducements and contributions significantly affected obligation change (above), fulfillment played a mediating role, thus supporting both Hypothesis 5 and 6.

Finally, given the longitudinal nature of our study, we investigated the extent to which the magnitude of psychological contract change differed over time. We conducted multivariate analyses of variance (MANOVAs; see Table VIII). The resultant Hotelling’s T^2 (Hotelling, 1931) revealed that the mean employee obligations ($T^2 = .13$, $p < .01$) and employer obligations ($T^2 = .11$, $p < .01$) differed between Times 1 and 2, but not between Times 2 and 3 (employee obligations: $T^2 = .00$, *ns*; employer

TABLE VIII Employee and Employer Obligation Comparison Over Time

	<i>M (SD)</i>			Paired sample <i>t</i> -test		MANOVA	
	Time 1	Time 2	Time 3	Time 2–Time 1	Time 3–Time 2	Time 2–Time 1	Time 3–Time 2
Employer Obligations							
Transactional	2.97(.91)	2.18(.89)	2.23(.98)	–8.21**	–1.74	.11**	.02
Relational	2.86(.72)	2.73(.85)	2.61(.82)	–1.97*	.71		
Employee Obligations							
Good performer	3.47(.91)	4.01(.59)	3.99(.67)	6.26**	–.39	.13**	.00
Loyalty	3.29(.89)	3.76(.84)	3.72(.85)	4.95**	–.51		

* $p < .05$. ** $p < .01$.

obligations: $T^2 = .02$, *ns*). Tests comparing mean employer obligation over time indicated that both employer transactional and relational obligations decreased over the first year, while an increase in both employee good performer and loyalty obligations occurred. The following section discusses the implications of these trends.

Discussion

General Theoretical and Methodological Implications

This study provides evidence of three factors that drive change in the psychological contracts newcomers develop: inducements, contributions, and—in particular—contract fulfillment. Furthermore, it highlights the multifaceted role fulfillment plays in contract development. Employer inducements relate to contract change among newcomers to the extent that these rewards and benefits that employers provide fulfill the employers' obligations in the eyes of employees. Although the rewards employees report receiving do contribute to changes in what they think they owe the employer, the effect of rewards largely depends on whether they meet the standards reflected in the employee's psychological contract.

Contract fulfillment's centrality to changes in the psychological contracts of newcomers underscores an attribute of the contracts' schematic nature (cf. Rousseau, 2001). That is, perceptions of fulfillment serve as a form of cognitive, top-down control whereby an individual's responses to experiences with the employer (a lower-level cognition, acquiring data from one's environment) are influenced by how they compare with experiences the psychological contract anticipates (i.e., higher-order cognitions held in memory; Johnson et al., 2006). To illustrate the notion of top-down control, imagine going to a friend's house for a birthday party, and instead of cake, they served soup. Most children (and adults) have a mental model of what food accompanies a birthday party, and it is not clam chowder. The preexisting category in

the schema for birthday party (i.e., cake) shapes how guests react. At a minimum, kids and grown-ups alike are likely to be disappointed. Now consider the employer who offers employees something other than what they anticipated (e.g., one hugely challenging project) in place of another inducement they had counted on (e.g., their own choice of projects). Employees' reactions to what otherwise might have been an acceptable or even attractive arrangement are likely to range from annoyed but silent suffering to outbursts of anger. Existing obligations and commitments set the standard for gauging new experiences. Employers who fail to keep prior commitments can diminish the value of any other rewards they offer unless the employer endeavors to explain and otherwise manage how employees interpret and experience the change (Bies, 1987; Rousseau, 1995).

In the present study, previous contract beliefs (i.e., from the prior year) actively influenced employees' perceptions of their exchange over the study's 2 years. This pattern existed despite the fact that both employer and employee contract obligations changed during the second year of employment. Inducements, contributions, and fulfillment continued to predict change, even when fewer of these factors existed.

Nonetheless, we acknowledge that over time (particularly over the course of long-term employment) contract change processes may look different from what this study of newcomers observes. Newcomers are likely to undergo far more rapid contract change than workers with more established psychological contracts. Drivers of change can differ between phases of rapid contract change and those characterized by more stability. If rates of change continue to slow as newcomers become more veteran employees, it may take more extreme employment experiences—a blatant violation of a prior commitment, prolonged erosion of previous benefits, or an unusually strong inducement—to elicit change in how employees understand the obligations to

which they are party. Alternatively, subsequent change may occur, but at a more intermittent and individualized pace, due to discrete employment-related events such as completing an expatriate assignment or experiencing a wage freeze. Employees themselves may introduce changes in their own psychological contract; for example, if a worker negotiates special conditions of employment different from her peers, such

Our study indicates that contract fulfillment is central to how newcomers react to conditions of employment—despite their relatively incomplete, still underdeveloped notions of what they and their employer can expect from one another.

as reduced work hours or a more professionally challenging assignment (i.e., idiosyncratic deals; Rousseau, Hornung, & Kim, 2009).

Practice Implications

Although not surprising, it bears noting that employers need to carefully manage, and wherever possible, keep commitments to workers if they seek to motivate them effectively. Yet it may be a bit disconcerting to a manager to realize just how soon after joining a company workers begin to judge their employer's effectiveness at keeping the psychological contract. Our study indicates that contract fulfillment is central to how newcomers react to conditions of employment—despite their relatively incomplete, still underdeveloped notions of what they and their employer can expect from one another.

Employers face a real problem in fulfilling the commitments to which newcomers hold them. New employees are far less attached to the organization than longer-tenured employees. Moreover, our results, which are based on a cohort of recent college graduates born in the 1980s, may be subject to certain generational influences. Generation Y employees (born after 1980) have tended to favor an inclusive management style, dislike slowness, and desire immediate performance feedback (Eisner, 2005; Francis-Smith, 2004). They tend to perform best when work is rewarding and challenging. It is possible

that for these Generation Y employees, career advancement is a particularly important inducement. Given favorable economic conditions or alternate work options, a newcomer can readily quit if the employer seems to neglect its commitments or fails to offer sufficiently attractive rewards. These younger employees may have different expectations regarding work and their career. Rather than working hard to be promoted, they may expect organizations to offer challenging work and developmental opportunities more in keeping with the notion of a balanced psychological contract (Rousseau, 1995).

Using the initial signals recruiters and a company's reputation provide, recruits are actively making sense of their new employment arrangements. Early experiences turn into memorable events on which workers rely to learn the ropes and forecast their likely future with the firm (Gundry & Rousseau, 1984). Wanous (1980) established the importance of realistic preview to successfully retaining and motivating new recruits. Missing in many firms is actively managing the information newcomers use in developing their psychological contract with the employer.

Psychological contracts as observed in this study function in a "sticky" way. What employees once understood and relied upon affects how they interpret new employment-related information. Employers attending to existing employee understandings of their relationship will be more effective communicators than those who ignore past cues and the ways workers interpreted them. If employees seem biased toward past agreements, employers, in turn, may overly discount the past in how they relate to employees, as in the case where they introduce new practices or shifts in strategy while disregarding their implications with respect to past commitments and current contract obligations. The beliefs employees hold are a facet of the everyday workplace reality that employers must recognize and effectively manage.

Companies that explicitly detail their commitments to employees are much more likely to be able to live up to employees' expectations. Communications regarding commit-

ments often encompass multiple signals conveyed by employers and their agents. When managers and HR professionals endeavor to send newcomers (and employees in general) clear and mutually reinforcing signals, the odds of contract fulfillment go up (Guest & Conway, 2002). Otherwise, the result is either an information void or mixed signals that employees resolve or exacerbate via hallway conversations, coworker chats, and newcomer observations of how their bosses and top management behave—largely focusing on tacit signals of a more negative kind. When an employment arrangement is consistent and clear, people do not feel the need to read between the lines (Rousseau, 1995). The alternative approach works against the interests of both the employer and its employees: When peers and newcomer observations are the primary sources of contract-related information, contract breach and violation are far more likely (Tomprou, 2010).

Employers should focus particular attention on newcomer job performance—and not just for problem employees. In this study, new workers rated as doing a good job interpreted their good performance to mean that the employer owed them something. Reciprocity rules in virtually all social settings, including organizations. Moreover, performing well early in one's tenure in a firm may motivate the individual to observe how the employer responds to judge what reciprocity high contributions might generate in the future. Early responses to a newcomer's good performance can be as important as rapid feedback when performance is substandard. The careful reader may note that, in our study, the employee's job performance impacts the employer's relational obligations most. An employer's relational obligations entail showing interest in and concern for workers' well-being. Some companies have well-established incentives and career development systems that make such a response easier. Yet regardless of whether such systems characterize the employer, learning directly from good performers what resources or rewards they anticipate or particularly value (i.e., preferred inducements)

ments) makes it much easier to offer an appropriate response in a timely manner.

The kinds of resources employees actually receive matters. A job that offers high income for doing the same work repeatedly conveys a distinct arrangement compared with one that offers a moderate income and a compelling future. For example, developmental opportunities create a stronger bond between worker and employer than do adjustments in hours or other terms of employment (Rousseau et al., 2009). Furthermore, in the present study, responsiveness to relational and loyalty obligations indicates that economic factors may not be the most critical resource. Instead, salient signals regarding quality of the employment relationship are those that make the job itself rewarding, or provide employees the opportunity to create a compelling future. One particularly powerful signal may be selectively using idiosyncratic deals and other targeted individualized rewards (from development to preferred job responsibilities) to supplement the company's more standard rewards (Rousseau, 2005).

Research Implications

Contract fulfillment appears to act as an important referent point in the development of newcomer psychological contracts. To further explore the dynamics of fulfillment, future research should more thoroughly examine inducements and contributions in a way that differentiates whether they meet or exceed the referent standard incorporated in the psychological contract. For example, researchers can assess worker contributions in terms of their fulfillment of employee obligations, where the midpoint is meeting the standard and the extremes represent failing or exceeding the standard. Concomitantly, researchers can calibrate employer inducements to represent the full range—from failing to meeting and exceeding obligations.

If fulfillment is the primary basis for maintaining an existing contract, high ful-

Companies that explicitly detail their commitments to employees are much more likely to be able to live up to employees' expectations.

fillment levels can induce a greater sense of obligation to reciprocate on the part of the beneficiary. This is particularly likely for relational obligations in which fulfillment

We observe greater reactivity among our Chinese recruits to socioemotional obligations than to economic ones.

can deepen one party's attachment for the other. Our findings demonstrate that relational obligations are particularly responsive to the employer's socioemotional support for employees and a job where performance is intrinsically rewarding and extrinsically rewarded. Over time, employees are likely to interpret the employer's contributions to

the employee and vice versa with respect to relational fulfillment. Discrete exchanges of rewards for worker contributions may be less salient in the subsequent development of the psychological contract than the quality of the ongoing relationship itself. Mutual trust and joint reliance can thus perpetuate existing psychological contracts, achieving the high fulfillment that reinforces and strengthens those contracts.

The choice of time intervals is a critical issue in studying psychological contract development. A longitudinal study's use of an arbitrary assessment interval can miss natural cycles relevant to the psychological contract. Contract obligations are likely to be responsive to the temporal factors that make exchanges salient. In particular, our study used two 1-year periods based on the common practice, particularly among joint ventures, of providing annual performance reviews, raises, and incentives. The timing of such organizational practices can offer useful information in determining the intervals relevant to assessing psychological contracts. We recommend that future research pay special attention to the cycles of inducements and contributions inherent in the particular firms studied (e.g., shorter-term spot rewards or supervisory feedback, an annual performance review cycle, or the multiyear contracts of expatriates). Multiple cycles of inducements and contributions can occur within any given period. Researchers should make efforts to connect psychological contract assessments of these

points within the exchanges. They can obtain more representative information on the critical mechanisms underlying contract maintenance and change (and violation) by investigating specific exchanges and the psychological contract beliefs they impact (cf. Conway & Briner, 2005). Research in a single organization might allow appropriate firm-specific intervals in exchange cycles (e.g., quarterly profit sharing) to be studied, whereas multifirm research might target more general intervals, such as annual performance appraisal and pay increase cycles. Finally, we recommend that future research consider whether generational differences exist in employees' psychological contracts, the exchanges they involve, and their consequences.

Limitations

Methodologically, the major limitations of this study are the low alpha for employee fulfillment at Time 2 and the attrition in our participant pool over the three assessments. The low alpha did not appear to impede the sensitivity of our analyses to the theoretically expected effects. Moreover, supplementary analyses indicated no difference in the pattern of results observed using Time 1 and Time 2 data from the more complete second wave sample. Extrarole performance, however, was significantly lower for dropouts than for those who stayed. Because that contribution is particularly sensitive to worker job satisfaction, this finding suggests that turnover may account for a sizable portion of this study's dropouts. Nonetheless, we cannot directly connect sample attrition with actual company turnover—an important limitation given the role psychological contracts (in particular their violation) play in turnover (cf. Robinson & Rousseau, 1994). Thus, it is reasonable to describe our research participants as survivors of the early attrition phase common in many firms (Schneider, 1987). This study also lacks detailed information regarding the respondents' employers, including the firms' human resource practices (cf. Tsui et al., 1997).

Knowing more about the employer's practices would help illuminate the origins of their psychological contracts and the particular company practices to which employers might expose newcomers.

A potential limitation to generalizability is the study's Chinese context. Previous research has indicated that Chinese workers report broader obligations to their employers than Western workers do (Wu et al., 2006), because Chinese employees adhere to the reciprocity norm more strongly than Westerners. This pattern might lead to different inducement and contribution effects on psychological contracts among Chinese workers than one might expect for their Western counterparts. Nonetheless, our results counter the notion that the broad obligations the Chinese feel are independent of their on-the-job experiences. Instead, we observe greater reactivity among our Chinese recruits to socioemotional obligations than to economic ones. This observation is consistent with findings among Western workers (Robinson et al., 1994; Robinson & Rousseau, 1994). Both employee and employer obligations of a relational nature change in relation to contract fulfillment, which is consistent with psychological contract theory developed from research on Western populations.

In accounting for these patterns, we suspect that two forces are at work. First, in this time of transition in the Chinese economy, college recruits benefitting from the expanding economy might have had unrealistic expectations related to pay and economic concerns (Fox, 2007; Liang et al., 2005). It also is possible that employers might not have implemented the new pay-for-performance systems effectively at the

time of our study. Participants are likely to be more familiar with a relationship-based reward system, which—in the absence of effective pay-for-performance systems—is likely to have powerful effects on the employment exchange. We conclude that our findings in this Chinese sample as a whole support the basic mechanisms postulated to underlie psychological contract. These patterns suggest that our results are quite generalizable.

Conclusion

Psychological contract fulfillment appears to shape how newcomers perceive their employer and the arrangements between them. Even newcomers whose contracts are still developing rely on them as referents in judging the rewards they receive and related experiences with an employer. Indeed, contract fulfillment may exert considerable influence over workers' responses in the crucial first year with the employer. The most powerful signal regarding the quality of the employer and the value of the jobs it offers may be whether workers perceive the company as keeping its commitments.

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APPENDIX **Items Measuring Employer and Employee Obligations****Employer Obligations**

1. Friendly and fun working environment
2. Housing benefit
3. *Pay tied to performance
4. Fair treatment
5. *Interesting and challenging job
6. *Collaborative work environment
7. Support with personal problems
8. *Competitive pay
9. *Respect employees
10. Advancement and growth opportunities
11. *Bonus based on performance
12. Participation in management
13. Opportunity to use company resources (e.g., car, entertainment expenses, etc.)
14. *Good supervisor

Employee Obligations

1. *Loyal to the immediate supervisor
2. *Provide advance notice if taking a job elsewhere
3. *Refusal to support the company's competitors
4. Protection of proprietary or confidential information
5. Work extra hours if that's what is needed to get the job done
6. Protect company image
7. *Assist colleagues with their work
8. *Loyal to company
9. Provide the company with innovative suggestions for improvement
10. *Work cooperatively with colleagues
11. *Provide good examples at work
12. Willingness to accept a transfer when necessary
13. *Exceed the performance expectations

Note: *Items maintained after measurement equivalence investigation