

## Self-regulative changes in psychological contracts over time

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### **Abstract:**

**Purpose** This study focuses on the effect of an employer's psychological contract fulfillment on an employee's self-regulative corrective actions. In particular, the study investigates the effect of gaps between the level of an employer's fulfillment and an employee's desires concerning expectations (revision), fulfillment (balancing), and intent to leave the organization (desertion).

**Design/methodology/approach** A two-point survey was conducted involving 2,514 Japanese employees in a large pharmaceutical company. Hierarchical regression analyses were performed to analyze the existence and relative effects of several self-regulative actions.

**Findings** Employees compare the perceived level of fulfillment with their levels of expectation, and they make self-regulative changes to their expectations, level of fulfillment, and intent to leave when they experience a discrepancy. Additionally, employees who have changed jobs before tend to engage in revision, and employees in their first three years of employment are more likely to engage in balancing. Desertion is the least popular option chosen by employees.

**Originality/value** Our results revealed the self-regulative nature of psychological contracts as well as the moderating effects of job change experience and an employee's career stage.

**Keywords** Psychological contract, Fulfillment, Expectation, Self-regulation, Longitudinal study, Japanese company

## **Introduction**

According to Abegglen's famous but often misinterpreted book, in Japanese companies, it is generally accepted that an employee makes a career-long commitment to his employer upon entrance to a company, and it is expected that the employer will not discharge the employee (Abegglen, 1958). Abegglen called this mutual expectation "lifetime commitment." In Japan, important components of psychological contracts such as "lifetime commitment" are preserved through unwritten mutual expectations, although such components have historically been safeguarded at a cost to each party.

Historically, such mutual expectations have been stable, although there are differences in the mutual expectations of today's Japanese companies. For example, in a large-scale survey of Japanese companies, (Japan Institute for Labor Policy and Training, 2008) it was found that there are several discrepancies between employees' expectations toward their employer and the employer's beliefs about those expectations. For example, many employees expect "high pay" (67.3%), "support from my boss" (47.4%), and "adequate allocation" (42.3%) from their employer. However, they did not think that their employer fulfills all of these expectations. In the surveyed sample, relatively few employees responded that their employer provided the following items: "high pay" (5.0%), "support from my boss" (17.6%), and "adequate allocation" was (12.2%).

Some previous studies regard employees as active agents. This means that when an employee feels a cognitive gap between their expectation and current conditions, they are spontaneously motivated to decrease that gap. Other existing studies regard employees as subjective agents. This means that employees are motivated to take action to decrease the gap between their expectations and the current state of affairs when they recognize inconsistencies. Recently, many organizational behavior studies have focused on these actions; they are called self-regulation studies. However, there have been few self-regulation studies of the cognitive gaps in relationships between employees and employers (Adams, 1965; Brief & Hollenbeck, 1985; Frayne, 1991; Frayne & Geringer, 2000; Latham & Budworth, 2006; Lyons, 2008).

The purpose of the current study is to examine employees' responses toward the differences in mutual expectations from the perspective of psychological contracts. In particular, we will investigate employees' self-regulative actions concerning gaps between the level of employee's expectations and the level of employers' actual incentives.

## **Review of existing research**

### Psychological contract defined

Rousseau defined a psychological contract as “an individual belief regarding the terms and conditions of a reciprocal exchange agreement between the focal person and another party” (1989, p. 123). However, Rousseau did not view psychological contracts as involving the perspectives of two interconnected parties. Instead, she conceived of them as an individual-level, subjective phenomenon. In other words, agreement in psychological contracts “exists in the eye of the beholder” (p. 123). This holds true irrespective of whether or not the contract is legal/written or unwritten. All types of promises are deemed psychological contracts. In other words, a psychological contract can be an employee’s feeling of obligation/expectation<sup>(1)</sup> to make particular contributions in exchange for particular benefits (Schalk & Roe, 2007). As Rousseau (1995) said, once a psychological contract is established at a certain point in time, there seems to be a mental model that provides cues to employees with regard to the types of events they can expect and how they should interpret them.

In previous studies, the components of psychological contracts are often classified into theoretically and statistically meaningful typologies (Conway & Briner, 2002; Robinson et al., 1994). Transactional contracts involve highly specific exchanges that are narrow in scope and take place over a finite period. Relational contracts, in contrast, are broader, more ambiguous, and open-ended, and they occur over a long term.

Most studies that came after Rousseau (1989) focused on breaches of psychological contracts. Psychological contract breach is a subjective experience, referring to one’s perception that another has failed to adequately fulfill the promised expectations of the psychological contract (Rousseau, 1989). In other words, contract breach involves perceived discrepancies between the levels of expectation and fulfillment. Given that psychological contract breach affects the feelings, attitudes, and behavior of an employee, it is not surprising that almost all psychological contract studies following Rousseau (1989) have focused on this issue (Conway & Briner, 2005). Existing research in the West (Conway & Briner, 2002) and Japan (Hattori, in press) has posited that breaches of contract by employers have occurred frequently. Moreover, these studies demonstrated that these breaches are associated with serious negative outcomes such as reduced effective commitment, trust, and satisfaction (Zhao et al., 2007).

The important point, however, is that although psychological contracts can be frequently breached and result in employees’ negative attitudes, the contracts themselves still exist and work in many cases. In case of a discrepancy between expectation and fulfillment, employees still believe that a contract still exists and do not abandon it. In addition, breach of a psychological contract is not always the fault of the employer. Unrealistic expectations of an organization might create a perceived psychological contract breach. In that case, such unrealistic expectations need to be adjusted to more realistic ones.

Schein (1978), who was a pioneer in this area of study, said that in order to continue a career in organization, we need to build fine-tuned psychological contracts. To build fine-tuned psychological contracts and maintain their relationship, employees and employers need to uninterruptedly readjust their expectations of one another. In doing so, the subjective validity of the party is established. In any case, continual adjustments between employees and employers will be made throughout a long career.

Although we know a great deal about the effects of contract breach on employees' attitudes, we know little about its effect on an employee's perception of the psychological contract itself. Although the findings of previous studies are important and useful, they have overlooked the dynamic nature of psychological contracts.

#### Self-regulative change of psychological contracts

In order to explain the way psychological contracts change as a result of employer's fulfillment, we rely on self-regulation theory (Bandura, 1989, 1991; Zimmerman & Schunk, 2001). Bandura (1991) postulated that people compare a variable state with a desired state, and they undertake action to correct any discrepancy. The reason why people perform corrective action is that a discrepancy between a desired state and a variable state means the existence of cognitive dissonance (Festinger, 1957).

Previous studies have shown that self-regulation processes consist of three phases: (1) self-observation, (2) self-evaluation, and (3) self-reaction (Kanfer and Hagerman, 1987). In the self-observation process, employees monitor their current states. In the self-evaluation phase, they compare the situations they have observed with the situations they desire. In case of a significant discrepancy between the actual and desired situation, they experience emotional changes (e.g., satisfaction or dissatisfaction). In the case of a negative feeling and cognitive gap between their current and desired situations, employees are motivated to take self-regulative actions that decrease the dissatisfaction and cognitive gap. In the self-reaction process, the employees perform actions to change their current situations and reduce discrepancies between the results of self-observation and their goal level.

In employment relationships, the desired state is equal to the employee's perception of expectation for an employer, and variable states are the employer's level of fulfillment of those expectations. Employees observe the employer's fulfillment and compare the level of fulfillment (of course subjective one) with their idea about level of expectation that is implied in the psychological contracts. Employees observe and evaluate deviations from the agreed-upon expectations within the framework of their perceived psychological contracts (Schalk & Roe, 2007).

According to Schalk and Roe (2007), employees engage in three different types of

self-regulative strategies in psychological contracts: revision, balancing, and desertion. Revision involves altering expectations. The information that employees obtain from observing an employer's behavior may alter their beliefs about what they can expect from their employer. Balancing involves the adjustment of an employee's fulfillment level to achieve balance with that of their employer. This is very similar to social exchange and game theorists' notions that one person who receives (did not receive) benefits from another will provide (will not provide) the giver with an equal benefit (Axelrod, 1984; Homans, 1958). Although revision involves self-control, this implies retaliation. Finally, desertion involves the employee's departure from their employer. In this case, employees lose their commitment to their employer and no longer feel obligated to keep their promise (Schalk & Roe, 2007).

#### **Hypothesis 1a: Revision**

If there is a gap between the level of an employer's fulfillment and an employee's expectation, the employee will self-regulate their expectation. Specifically, a gap between the level of relational/transactional contract fulfillment in t2 and expectations in t1 will have a positive effect on the rate of change of the expectation.

#### **Hypothesis 1b: Balancing**

If there is a gap between the level of an employer's fulfillment and an employee's expectation, the employee will self-regulate their fulfillment. Specifically, a gap between the level of relational/transactional contract fulfillment in t2 and expectations in t1 will have a positive effect on the rate of change of fulfillment.

#### **Hypothesis 1c: Desertion**

If there is a gap between the level of an employer's fulfillment and an employee's expectation, the employee will self-regulate their intent to leave. Specifically, a gap between the level of relational/transactional contract fulfillment in t2 and expectations in t1 will have a positive effect on the rate of change of intent to leave.

As Schalk and Roe (2007) said, employees will choose the revision option in an ordinal situation, i.e., when the deviation is moderate. Regarding an employer's fulfillment level, employees have a particular range of acceptable experience; in Rousseau's words, there is a "zone of acceptance" (Rousseau, 1995, pp. 148-149). According to Rousseau (1995), this refers to the perceived variety of behavior that an employee will accept from an employer without question. In case of extreme events or changes where the deviation is quite large, employees will consider reducing their fulfillment and possibly leaving the employer. Therefore, in general,

employees will choose the revision option rather than the balancing or desertion options.

**Hypothesis 2:** The explanative power of a gap between the level of relational/transactional contract fulfillment and expectations is stronger for revision than balancing or desertion.

The moderating effects

Although self-regulation may be conducted throughout a long career (Schalk & Roe, 2007; Schein, 1978), the choice of the above three options (revision, balancing, and desertion) will be affected by an employee's career stage and other career-related factors. Therefore, we built in two career-related factors as moderator.

(1) Career stage

According to Katz (1980), during an employee's initial years in an organization, they are primary concerned with establishing and clarifying their own identity within the new organization. In this initial career stage, employees try to adapt by tailoring their expectations of the employer and their expected behavior from the employer to fit the new environment by seeking information about the organization (Ashford, 1986). Similarly, Thomas and Anderson (1998) found that new recruits heightened their expectations regarding job security, social and leisure time, effects on their family, and accommodation within the first eight weeks of employment. More importantly, their perceived level of expectation was closer to that of senior employees over time. Furthermore, employee's expectations during their initial years are often unrealistic. Socialization theorists found that recruits' expectations concerning their jobs and the organization are inflated prior to becoming employed as a result of typical recruiting practices (Louis, 1980). These inflated expectations often result in a high rate of turnover. Therefore, their expectations must be adjusted to the reality of the organization (Wanous, 1976). As discussed above, an employee's utilization of the three types of self-regulative corrective actions will be quite active during the first few years at an organization.

**Hypothesis 3a:** Being not long after joining the graduate employee will positively moderate the relationship between the level of relational/transactional contract fulfillment in t2 compared to past (t1) expectations and the level of expectation.

**Hypothesis 3b:** Being not long after joining the graduate employee will positively moderate the relationship between the level of relational/transactional contract fulfillment in t2 compared to past (t1) expectations and the level of an employee's fulfillment.

**Hypothesis 3c:** Being not long after joining the graduate employee will positively moderate the relationship between the level of relational/transactional contract fulfillment in t2 compared to past (t1) expectations and the level of intent to leave.

(2) Job change experience

Employees who have changed jobs are primarily concerned with establishing and clarifying their own identity within a new organization. Just as employees at the initial career stage, job-changing employees seek information to adapt themselves to their new environment. They have to forget their old contracts with former employers and build new contracts with their current employer. Experienced employee's who have changed jobs will actively utilize the three types of self-regulative corrective actions while they adjust to their new employer.

**Hypothesis 4a:** Job change experience will positively moderate the relationship between the level of relational/transactional contract fulfillment in t2 compared to past (t1) expectations and the level of expectation toward their new employer.

**Hypothesis4b:** Job change experience will positively moderate the relationship between the level of relational/transactional contract fulfillment in t2 compared to past (t1) expectations and the level of fulfillment at the new firm.

**Hypothesis4c:** Job change experience will positively moderate the relationship between the level of transactional contract fulfillment in t2 compared to past (t1) expectations and the level of intent to leave.

## **Method**

### **Sampling**

The sample population used in this study consisted of 6,380 employees from a large Japanese pharmaceutical company. We conducted a two-point longitudinal web-based survey. On July 18, 2008 (t1), we surveyed all of the employees of the company. A total of 3,789 (response rate of 59.4%) employees responded to the first questionnaire. On July 28, 2008 (t2), we conducted another survey in the same way. A total of 3,926 (response rate of 61.3%) employees responded to the second questionnaire. The 2,514 (39.2%) respondents who responded to both questionnaires provide the sample for this study. At t1, the average participant age at the time of the study was 39.81 years (S.D.=8.716), their average tenure was 12.46 years (S.D.=9.14), and the percentage of women was 17%.

## Questionnaire

### *Rate of expectation change (revision)*

At t1 and t2, we measured the employee's expectations of their employer. We used the Japanese version of the psychological contract scale developed by Hattori (in press). This scale uses 24 items related to an employee's expectations of their employer (as perceived by the employee) and 15 items pertaining to an employer's expectations of their employees (as perceived by the employee). To operationalize revision, we used employee's expectations. The participants were asked to indicate the extent to which their employer was expected to provide them with a set of items. They were asked to indicate their response using a five-point Likert-type scale, ranging from "1. not at all obligated" to "5. highly obligated" for each item.

The result of our exploratory factor analysis using the principal factor method of promax rotation is reproduced in Table 1 (below). Two factors emerged from these items, which replicated existing research findings from the West. The first factor included items such as "good career prospects" and "good work atmosphere." These patterns were consistent with the notion that employment can be characterized by relational issues involving the creation and maintenance of the relationship between an employee and employer; in other words, a "relational contract" (Rousseau 1995). The second factor included items such as "performance-based pay," and "high pay." Because these items reflect high extrinsic inducements (Rousseau 1995), the second factor was defined as a "transactional contract."

To obtain the "rate of expectation change," we divided the "expectations at t2" by the "expectations at t1." This resulting synthetic value is the change rate in expectations from t1 to t2. A value of 1 indicates no change, a value of greater than 1 indicates an upward revision of expectations, and a value of less than 1 indicates a downward revision of expectations.

Table1: Factor analysis

items	Factors	
	Relational contract	Transactional contract
Good career prospects	0.87	-0.05
Participation in career-related decision making	0.85	-0.02
Support with personal problems	0.81	0.01
Development of marketable skills	0.80	-0.02
Job assignments based on my experience	0.74	0.10
Good work atmosphere	0.70	0.12
Benefits for my family	0.69	0.07
Participative decision making	0.66	0.15
Adequate job support	0.65	0.23
Adequate opportunity for OJT	0.60	0.29
Frequency of feedback	0.59	0.14
Flexibility in working hours	0.58	0.05
Interesting work	0.55	0.30
Provision of adequate training	0.50	0.31
Significant task for society	0.50	0.33
Adequate job status	0.48	0.23
Adequate allocation	-0.03	0.89
Adequate difficulty of work	-0.02	0.85
Performance-based pay	-0.03	0.83
Meaningful tasks for me	0.19	0.68
High pay	0.18	0.63
Career development	0.28	0.47
Eigenvalue	12.36	11.10

1: Shading means factor loading above 0.4.

2: Factor correlation is 0.83.

#### *Rate of employees' fulfillment change (balancing)*

We also measured employees' fulfillment at t1 and t2 using the psychological contract scale mentioned above. For rate of employees' fulfillment change, 15 items pertaining to an employer's expectations of their employees (as perceived by the employee) were used. The participants were asked to indicate the extent to which they were expected to provide employers with a set of items (e.g. following instructions, long tenure of service, and association with superiors outside of work). They were asked to respond according to each item using a five-point Likert-scale ranging from "1. not at all fulfilled" to "5. totally fulfilled." To obtain the "rate of employees' fulfillment change," we divided "fulfillment expectations at t2" by "fulfillment at t1." The resulting synthetic value indicates the change rate of employees' fulfillment from t1 to t2. A value of 1 indicates no change, a value of greater than 1 indicates an upward change, and a value of less than 1 indicates a downward change.

#### *Rate of employees' intent to leave (desertion)*

Additionally, we measured employees' intent to leave at t1 and t2. We used original items such as "I often think about quitting my job at my current organization" and "I want to stay with this organization for a long time (reverse)," which ranged from "1. strongly disagree" to "5. strongly agree." To obtain the "rate of employees' intent to leave," we divided "intent to leave at t2" by "intent to leave at t1." The resulting synthetic value indicates the change rate in employees' intent to leave the organization from t1 to t2. A value of 1 indicates no change, a value of greater than 1 indicates an upward change of intent, and a value of less than 1 indicates a downward change. Although "intent to leave" is different from actually "leaving," it might precede such an occurrence.

#### *Fulfillment weighted by t1 expectation*

In t1 and t2, we measured the employee's expectations of their employer. For each item (same as expectation), participants were asked to indicate the extent to which their employers actually fulfilled. Participants were asked to respond to each item using a five-point Likert-scale, ranging from "1. not at all fulfilled" to "5. totally fulfilled." A high score indicated high perceived fulfillment, and a low score indicated little or no fulfillment. We divided "fulfillment at t2" by "expectations at t1" to obtain "fulfillment weighted by t1 expectations." The resulting synthetic value represents the rate at which the degree of fulfillment at t2 is higher than the level of expectations at t1. A value of greater than 1 indicates that an employee's perception of an item being "fulfilled," and a value of less than 1 indicates that their expectations were "breached."<sup>(2)</sup>

#### *Career related variables*

We measured other demographic and career-related variables such as employees' sex (0=female; 1=male), job change experience (0=no; 1=yes), whether they were a manager (0=no; 1=yes), job function, and tenure. For job functions, organizational records were used to code the respondents' job functions into binary codes. We coded two functions: medical representative (*MR\_d*) and research and development (*RandD\_d*). For the MR dummy (*RandD*), the MR (*RandD*) represents one, and others represent zero. Finally, newly graduated employees who had an organizational tenure of three years or less was coded as 1, and all others were coded as 0.

### *Analytical models*

We conducted a three-step hierarchical regression analysis. The rates of change of expectations/fulfillment/intent to leave for each contract (relational and transactional) were set as the dependent variables in this study. Demographics (step1), fulfillment weighted by t1 expectations (step2), and the interaction term of fulfillment weighted by t1 expectations  $\times$  several career variables (step3) were regressed onto the rate of expectation change to investigate the self-regulative changes in expectations.

## **Results**

The means, standard deviations, and inter-correlations of the study variables are presented in Table 2. The results of the hierarchical regression analysis concerned with revision are shown in Table 3. The second column from the left in Table 3 indicates a relational contract and the right column indicates a transactional contract. The results of step 3 found a significant *F* statistic ( $F=419.803$ ,  $p < 0.001$ ) with a high coefficient of determination (adjusted  $R^2=0.607$ ). The results of hierarchical regression analysis concerning transactional contracts are shown in the right column of Table 3. The results of step 3 found significant *F* statistic ( $F=465.252$ ,  $p < 0.001$ ) with a high coefficient of determination (adjusted  $R^2=0.632$ ). Hypothesis 1a predicted that the level of fulfillment at t2 compared to past (t1) expectations was positively related to the changing rate of expectations. In order to support this hypothesis, fulfillment weighted by t1 expectations had to have a significant impact. Table 3 shows that the fulfillment of relational contracts weighted by t1 expectations had a significant impact on the rate of expectation change ( $\beta = 0.782$ ,  $p < 0.001$ ). Additionally, Table 3 shows that the fulfillment of transactional contracts weighted by t1 expectations had a significant impact on the rate of expectation change ( $\beta = 0.785$ ,  $p < 0.001$ ). Employee's perception of the rate of the degree of fulfillment at t2 was higher (lower) than the level of expectations at t1, which means that employees revised their expectations upward (downward). Therefore, Hypothesis 1a is supported.

The results of the hierarchical regression analysis concerning balancing are shown in Table 4.

The second column from the left in Table 4 indicates a relational contract and the right column indicates a transactional contract. The results of step 3 found a significant  $F$  statistic ( $F=48.880$ ,  $p < 0.001$ ) with a high coefficient of determination (adjusted  $R^2=0.150$ ). The results of the hierarchical regression analysis concerning transactional contracts are shown in the right column in Table 4. The results of step 3 found significant  $F$  statistic ( $F=41.005$ ,  $p < 0.001$ ) with a high coefficient of determination (adjusted  $R^2=0.129$ ). Table 4 indicates that the fulfillment of relational contracts weighted by t1 expectations had a significant impact on the rate of fulfillment change ( $\beta = 0.278$ ,  $p < 0.001$ ). Additionally, the fulfillment of transactional contracts weighted by t1 expectations had a significant impact on the rate of expectation change ( $\beta = 0.229$ ,  $p < 0.001$ ). Therefore, Hypothesis 1b is supported.

Table 2: Descriptive statistics

	Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1	Sex dummy (0 = female; 1 = male)	.90	0.30	1										
2	Job change dummy (0 = no; 1 = yes)	.17	0.38	.017	1									
3	MR dummy (0 = other; 1 = MR)	.64	0.48	.113	.174	1								
4	R and D dummy (0 = other; 1 = R and D)	.20	0.40	-.048	-.118	-.683	1							
5	Manager dummy (0 = other; 1 = manager)	.38	0.48	.190	-.059	.009	-.053	1						
6	Initial 3year_dummy	.033	.178	-.062	.099	-.042	.065	-.076	1					
7	Rate of expectation change (relational)	1.06	.279	-.031	.003	.038	-.025	.023	-.028	1				
8	Rate of expectation change (transactional)	1.063	.307	-.018	.007	.022	-.022	.006	.008	.753	1			
9	Rate of fulfillment change	1.045	.217	-.042	-.001	-.019	.002	-.014	-.006	.385	.363	1		
10	Rate of intent to leave change	1.028	.402	-.028	-.039	-.021	-.029	-.026	-.043	-.40	-.06	-.100	1	
11	Fulfillment weighted by t1 expectations (relational)	.917	.268	-.021	.012	.038	-.005	.044	-.009	.774	.614	.369	-.080	1
12	Fulfillment weighted by t1 expectations (transactional)	.913	.931	-.038	.008	.016	.001	.048	.014	.607	.792	.341	-.110	.774

Given the sufficiently large sample size, extremely small and non-notable differences can be found to be statistically significant in our data. So, we omitted the information about the statistical significance of correlation.

Table3: Hierarchical regression analysis: Rate of expectation change

	Rate of expectation change (relational)						Rate of expectation change (transactional)					
	Step1		Step2		Step3		Step1		Step2		Step3	
Intercept	1.071	***	.339	***	.359	***	1.064	***	.310	***	.333	***
Sex dummy	-.042	**	-.010		-.010		-.013		.022		.022	
Job change dummy	.001		-.005		-.139	***	.002		-.003		-.087	**
MR dummy	.027		-.004		-.003		.015		-.009		-.009	
R and D dummy	.007		-.017		-.016		-.002		-.025	*	-.022	*
Manager dummy	.018		-.006		-.006		.006		-.024	**	-.024	**
Initial 3year_dummy	-.043	*	-.030		-.021		.017		-.006		-.085	
Fulfillment weighted by t1 expectations			.805	***	.782	***			.810	***	.785	***
Fulfillment weighted by t1 expectations × Initial 3year_dummy					-.013						.079	
Fulfillment weighted by t1 expectations × Job change dummy					.146	***					.090	*
Adjusted R <sup>2</sup>	.002		.605		.607		-.002		.630		.632	
F value	1.769		534.197	***	419.803	***	.362		592.652	***	465.252	***

\*\*\* p< .01, \*\* p< .05, \* p< .10

Table4: Hierarchical regression analysis: Rate of fulfillment change

	Rate of fulfillment change (relational)						Rate of fulfillment change (transactional)					
	Step1		Step2		Step3		Step1		Step2		Step3	
Intercept	1.081	***	.804	***	.827	***	1.081	***	.845	***	.868	***
Sex dummy	-.025		-.013		-.012		-.025		-.014		-.014	
Job change dummy	.001		-.001		-.077	*	.001		.000		-.054	
MR dummy	-.015		-.026	**	-.026	**	-.015		-.022	*	-.022	*
R and D dummy	-.013		-.022		-.020		-.013		-.020		-.017	
Manager dummy	-.002		-.011		-.012		-.002		-.012		-.012	
Initial 3year_dummy	-.005		.000		-.307	***	-.005		-.012		-.168	**
Fulfillment weighted by t1 expectation			.304	***	.278	***			.254	***	.229	***
Fulfillment weighted by t1 expectation × Initial 3year_dummy					.337	***					.161	**
Fulfillment weighted by t1 expectation × Job change dummy					.081	*					.057	
Adjusted R <sup>2</sup>	-.001		.131		.150		-.001		.123		.129	
F value	.694		58.327	***	48.880	***	.694		49.833	***	41.005	***

\*\*\* p< .01, \*\* p< .05, \* p< .10

Table5: Hierarchical regression analysis: Rate of intent to leave change

	Rate of intent to leave (relational)						Rate of intent to leave (transactional)					
	Step1		Step2		Step3		Step1		Step2		Step3	
Intercept	1.112	***	1.214	***	1.201	***	1.112	***	1.243	***	1.242	***
Sex dummy	-.014		-.019		-.019		-.014		-.021		-.021	
Job change dummy	-.037	*	-.036		.033		-.037	*	-.036		.011	
MR dummy	-.058	**	-.054	*	-.054	**	-.058	**	-.054	**	-.054	**
R and D dummy	-.081	*	-.078	**	-.079	**	-.081	**	-.077	**	-.077	**
Manager dummy	-.030	*	-.027		-.026		-.030	*	-.025		-.025	
Initial 3year_dummy	-.081	*	-.083	*	-.016		-.081	*	-.077	*	-.170	
Fulfillment weighted by t1 expectations			-.112	***	-.097	**			-.141	***	-.139	***
Fulfillment weighted by t1 expectations × Initial 3year_dummy					-.072						.100	
Fulfillment weighted by t1 expectations × Job change dummy					-.074						-.051	
Adjusted R <sup>2</sup>	.005		.011		0.01		.005		.016		.016	
F value	3.113	**	4.695	***	4.795	***	3.113	**	6.729	***	5.345	***

\*\*\* p< .01, \*\* p< .05, \* p< .10

The results of the hierarchical regression analysis concerning desertion are shown in Table 5. The second column from the left in table 5 indicates a relational contract and the right column indicates a transactional contract. The results of step 3 found a significant  $F$  statistic ( $F=4.795$ ,  $p<0.001$ ) with a high coefficient of determination (adjusted  $R^2=.01$ ). The results of hierarchical regression analysis concerning transactional contract are shown in the right column of table 5. The results of step 3 found a significant  $F$  statistic ( $F=5.345$ ,  $p<0.001$ ) with a high coefficient of determination (adjusted  $R^2=.016$ ). Table 5 shows that the fulfillment of relational contracts weighted by t1 expectations had a significant impact on the rate of fulfillment change ( $\beta=-0.097$ ,  $p<0.005$ ). Additionally, the fulfillment of transactional contracts weighted by t1 expectations had a significant impact on the rate of expectation change ( $\beta=-0.139$ ,  $p<0.001$ ). Therefore, Hypothesis 1c is supported.

By comparing the explanative power of each self-regulation pattern, it can be seen that the adjusted  $R^2$  of step 3 is largest in Table 3, i.e., desertion (0.607 for relational contracts and 0.632 for transactional contracts). This result indicates that the explanatory power of a gap between the level of relational/transactional contract fulfillment and expectations on revision is stronger for revision than for balancing or desertion. With regard to balancing, the adjusted  $R^2$  is quite low. Therefore, Hypothesis 2 is supported.

An examination of Tables 3, 4, and 5 shows that the interaction term of fulfillment weighted by t1 expectations  $\times$  initial 3year only had a significant impact on the dependent variables in Table 4, i.e., balancing ( $\beta=0.337$ ,  $p<0.001$  for relational;  $\beta=0.161$ ,  $p<0.05$  for transactional). Therefore, Hypothesis 3b is supported, but 3a and 3c are not supported. The interaction term of fulfillment weighted by t1 expectations  $\times$  job change experience only had a significant impact on the rate of expectation change for relational contracts in Table 3, i.e., balancing ( $\beta=0.146$ ,  $p<0.001$ ). Therefore, Hypothesis 4a is supported, but 4b and 4c are not supported.

## **Discussion**

### *Conclusion and discussion*

The purpose of this paper was to investigate the effect of employer's psychological contract fulfillment on employee's self-regulative corrective actions. As discussed above, although existing studies mainly focused on the effects of contract fulfillment/breach on employees' attitudes, we know little about the dynamic self-regulative nature of psychological contracts. The important point is that although psychological contracts can be breached frequently, which will result in employees' negative attitudes, the contracts themselves still exist and continue to work in many cases. In this paper, we revealed the mechanism from the perspective of self-regulation. This paper investigated the effect of a gap between the level of an employer's fulfillment and an employee's desires concerning their expectations (revision), fulfillment (balancing) and intent to leave the organization (desertion).

The results show that employees compare a level of fulfillment with a level of expectation, and that they perform three self-regulative changes (revision, balancing and desertion) to address discrepancies. Concerning the three self-regulative actions, revision was the most commonly chosen option, and desertion was the least popular option among the surveyed sample. As Schalk and Roe (2007) stated, employees will choose desertion only in case of extreme events or changes where the deviation is quite large.

The interaction term of fulfillment weighted by t1 expectations  $\times$  initial 3year had a significant impact on the dependent variables, but only when applied to balancing. Additionally, the interaction term of fulfillment weighted by t1 expectations  $\times$  job change experience had a significant impact on the rate of expectation change, but only for relational contract concerning balancing. These results indicate that employees in their initial three years with an organization are more likely to engage in reducing their fulfillment levels rather than reducing their expectations or intent to leave; on the other hand, employees with job change experience are

likely to reduce their expectation levels. The results may reflect employees' self-regulation skills. In order to revise expectations affected by a discrepancy, employees need some self-control skills. However, it is easier to choose the balancing option. Employees with job change experience tend to have better developed self-control skills because they may have had self-regulative experiences in a previous organization. In comparison, employees that are new graduates have relatively poor self-control skills.

The key theoretical contributions made by this paper are the suggestion of the existence of three self-regulative changes and the moderating effects of job change experience and an employee's career stage. We can conclude that employees surely conduct three types of self-regulative corrective actions when confronting an employers' fulfillment/breach of contract. The choice between these three options, however, is affected by career-related factors such as career stage and job change experience.

### *Limitations*

The first limitation is our operationalization of "desertion." As discussed above, "intent to leave" is quite different from actually leaving. Second, the survey respondents were employees in a large and stable company. We must conduct research with other sample populations to confirm the generalizability of our results. Finally, we need more scrutiny of the employee's choice of three self-regulative options. It is still not understood why employees with job change experience are more likely to engage in revision and employees in their initial three years of employment are more likely to engage in balancing. We must also understand the conditions that cause employees to choose the option to desert an organization. These limitations should be addressed in future research.

- (1) In defining and operationalizing psychological contracts, some researchers strictly distinguish between terms such as "expectation," "obligation," and "promise" and state that psychological contracts are not perceived expectations but obligations (Rousseau, 1995) or promises (Conway & Briner, 2005). However, we take the position that distinguishing between the terms expectation, obligation, and promise is not so important (Thomas and Anderson, 1998). Employees in their initial years in an organization tend to have unrealistic expectations toward their employer (Wanous, 1976). Such expectations, indeed, are objectively naïve, because they have not been reconciled with the employers'. According to Rousseau (1989), psychological contracts are subjective. So in the case where an employee thinks that an agreement exists, a psychological contracts does exist. We use the terms expectation, obligation, and promise interchangeably.
- 2) Self-regulation refers to the process in which people compare a variable state with a desired state and then perform an action to correct any discrepancy. We can also use the synthetic value that subtracts "expectation in t1" from "fulfillment in t2." This synthetic value represents the amount of discrepancy between fulfillment in t2 and expectation in t1. However, as Lambert et al. (2003) suggested, using such a different score in regression analysis is problematic. Therefore, we avoided using a different score.

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