Japanese Work Ethic and Culture: A New Paradigm of Intrinsic Motivation

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Abstract: Takahashi (2004) advocates the Japanese-style seniority-based system, particularly the idea of “new work in reward for work,” which is termed as the Work–Work Theory. This paper highlights the characteristics of the Work–Work Theory system in comparison with the idea of “pay in reward for work,” which is termed as the Work–Pay Theory. According to the Work–Work Theory system (i) differentiation of work accelerates differences in promotions and pay; (ii) as workers are dissatisfied with their current work situations, they may want to change their work situations by coming up with new and better ways of doing things, that is, challenging the status quo; (iii) supervisors select the right personnel for a job; (iv) implement regular changes in personnel to reward workers with their new work; (v) working together enables the company to grow; and (vi) under the Work–Work Theory, work assignments that gradually become more challenging provide intrinsic motivation, which becomes exciting (*waku-waku* in Japanese). If it is not exciting, it cannot be called intrinsic motivation. Thus, the Work–Work Theory drastically changes the motivational approaches derived from the self-determination theory to the honest practice of intrinsic motivation.

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Introduction

According to Takahashi (2004), the essence of the Japanese-style personnel system is that (i) it is not a system that rewards work with pay, but instead rewards work with new work. The content of one's expected new work in itself functions as a motivation, and this is the most natural model in the theory of intrinsic motivation. On the other hand, (ii) the pay system at Japanese firms has not been designed merely for motivation; the wage curve has been designed from the perspective of guaranteeing living expenses. The type of wage curve based on a so-called age-based living expense guarantee was designed to be merely a baseline or mean with a wide range. The combination of (i) and (ii) has supported the growth of Japanese firms. This is clearly not a seniority system; it is a system that differentiates based on seniority.

Takahashi (2004) referred to this as the *Japanese-style seniority-based system*. In particular, (i) the theory of new work in reward for work is termed as the *Work–Work Theory*. In contrast, the generally assumed theory of pay in reward for work is termed as the *Work–Pay Theory*.

In the Work–Pay Theory, performing one's job well simply leads to a higher pay, whereas not performing one's job well leads to a lower pay. If such a system merely differentiated pay with no change in job content, pay would continue to fluctuate within the same range throughout one's career. This is because regardless of the years of work experience one accumulates, one's job content would remain

unchanged. For example, a situation would never arise in which those responsible for making photocopies could do their job so well that their pay would skyrocket above the rewards earned by the company's president. They would only be paid an amount commensurate with the copying duties. In other words, the Work-Pay Theory does not encompass promotions or advancement, and it only raises pay for good performance and lowers pay for poor performance. Thus, the initial "work" differential continues until retirement. In a society run under the Work-Pay Theory, people who want to advance above a certain pay level must change their jobs. If they do not change their jobs, the situation would never arise in which their company would give them an advancement, a promotion, or even a real raise. Thus, the company would never commit such a folly of employing new hires if both veterans and new hires were employed at the same pay level, with the same pay given for the same work, regardless of job seniority. The unemployment rate among youth in European countries would inevitably be high compared with the unemployment rate of youth in Japan.

In contrast, under the Work-Work Theory system, the work on which employees' performance evaluation is based becomes increasingly challenging, and their pay increases as they advance to higher wage brackets. Because competition within the firm accelerates the differentials in work content, while it may sound contradictory, pay differentials over the long run are actually much easier to increase under a system that operates according to the Work-Work Theory than under the system following the Work-Pay Theory. This paper discusses the characteristics of the Work-Work Theory that can generally be observed in Japanese firms.

For this, let us now focus on actual system operation, rather than on the formal setup of Japanese firms. For example, considering the cases of several factories, Abegglen (1958) states that although the pay systems of those working in the factory and of those working in

the office differ, “the output generally exceeds the standard figure, the productivity allowance remains remarkably stable in amount and is taken to be a regular part of the worker’s income. The pay system rests on the base-pay formula, which is a function of age and education” (Abegglen, 1958, pp. 50–54). In other words, Japanese seniority-based pay was not originally considered to be a pay system; it was considered to be a system operation. Therefore, one characteristic of Japanese firms is that “all systems depend on system operation.” In fact, as we will see in the following section, whether the Work–Work Theory is being applied cannot be confirmed by the existence of any particular system.

Accelerated Differentials

In the 1980s, Japanese firms were ridiculed for having seniority systems. In a 1986 Japan Productivity Center (JPC) Survey of 366 people at seven large corporations, 60% of the people in their early 20s said that their firm had a seniority system, while 78% of those in their 40s and above responded that their firm had a merit system. In fact, if one examines a distribution of job positions of those in their 40s at the firms surveyed and compares only male university graduates in white-collar positions, he or she may find some intriguing facts. The positions of those in the same cohort ranged from officers at the top to rank-and-file employees at the bottom at firms where the range was broad, and their positions ranged from general manager at the top to deputy section head at the bottom at firms where the range was narrow. In other words, even in the late 1980s, clear differences existed in promotion, advancement, and pay within the cohort of those in their 40s. In fact, almost all presidents internally promoted in Japanese firms have somewhere along the way advanced those who are older than they are; otherwise, they would have never become a president before reaching the retirement age.

Then, why did 60% of those in their early 20s reply that their firms had a seniority system? In fact, at the companies surveyed, most university graduates aged around 30 had been promoted to the level of subsection chief at almost the same time and received almost the same range of pay hike at that time. Given the timing and the amount of money, they probably thought that it was a seniority system. However, for instance, this person, one of the most capable people in a cohort, seems not to be promoted any time soon. Then, one day the most critical subsection chief position opens up for replacement—the position being so important that the entire firm would be thrown into a crisis if the person in it was an utter failure, and the predecessor was rumored to be a future candidate for the president—that person gets that position and promotion. It will then appear to them that all subsection chiefs do not have equal importance.

In other words, already some differences exist in importance between jobs at the level of subsection chief. These differences in jobs will lead to different outcomes that are at par for the course. These differences will largely determine the subsequent career course. In short, the timing of promotions or the range of the hike is not important, but the content and significance of the work is important. Thus, youth who look only at timing of promotions or the range of the hike lose sight of the real picture.

The essence of the Japanese-style seniority-based system is not that it is a system of pay in reward for work, but that it is a system for granting new work in reward for work. In short, accomplishing one job leads to a bigger job, and accomplishing that job leads to an even bigger job. This type of system has instilled motivation. Here, “bigger job” has two meanings. One meaning is a bigger job in terms of budget; the other is a bigger job in terms of people involved.

First, entrusting someone to a job with a bigger budget means that person will be able to achieve greater results or bigger numbers in

terms of sales or profits. Increasing differentiation in the size of the work budget accelerates differences in the outcomes.

Second, taking on a bigger job in terms of people involved signifies the so-called promotion. If one is not assigned to a higher position through promotion, one cannot retain more subordinates. In contrast, positions and authority are determined by the size of the work.

Thus, in the Work-Work Theory, differentiation eventually progresses in the content of work based on internal competition and performance evaluation. Consequently, differentials accelerate in terms of promotion, advancement, pay, and results.

Stoic Workers

In seminars and other forums targeted at Japanese firms, a concern regarding job satisfaction based on American-style theories constantly emerges during question-and-answer time and at social events. The question is, “Should I be satisfied with my current job? Nevertheless, if I was dissatisfied with the status quo and desired more, I would be motivated to challenge the status quo, wouldn’t I?”

For a long time, it has been a relatively well-known fact that the level of job satisfaction is lower in Japan than in other countries. Nevertheless, this is a different problem from the question of whether Japanese people are unhappy (as they were described in the January 13, 1997 issue of *Fortune*). In fact, in the 1990–2000 JPC Survey of 10,861 people responding to the question

Q1: Are you satisfied with your job?

48.4%, or less than half, answered “yes.” In Japanese firms, dissatisfaction with the status quo leads people to challenge the status quo and aim for “Kaizen” (improvement) (Imai, 1986). In fact, the JPC Survey data reveal that the employees of Japanese firms who

have the guts to challenge the status quo and keep their high “body temperature” have the lukewarm feeling by the effective temperature in the low “system temperature” status quo (Takahashi, 1989, 1993a, 2001, 2013; Takahashi, Ohkawa, & Inamizu, 2014c).

In logical terms as well, the Work–Work Theory does not require satisfaction with one’s current job. It requires the motivation to challenge the status quo and improve the existing situation by getting a bigger job, thereby leading to an even bigger job. In fact, Takahashi (2014) employs the 1992–2000 JPC Survey data, an annual survey of approximately 9,000 employees of Japanese firms to show that even when viewed from a future perspective, people who are not satisfied with their current job (those who responded “no” to Q1) are not planning to resign from the firm. Even in past surveys conducted by the author, part-time employees had a higher job satisfaction ratio. When one thinks of it, it is obvious that part-timers, who would not be employed for the long term, can easily change jobs if they are dissatisfied with their current work.

The Right Person at the Right Place

Nevertheless, even if competition leads to differences, the Work–Work Theory does not mean that people are rewarded based on their merit. The personnel department places the right person at the right place, not to reward people based on their merit. As proposed in the Peter Principle, people who are competent at one level in a hierarchy are not necessarily competent at a higher level in that hierarchy. Rather, it is more probable that they are incompetent. Peter and Hull (1969) provide many examples in which people who were competent as teachers and technicians on the shop floor (in Japanese, “gemba”) were promoted to be managers, but then proved to be incompetent as managers. In fact, competence required of a rank-and-file employee is not the same as competence

required of a manager. Intuitively, the top leader would require special competence and temperament. Regardless of the achievement of people in their current position, there is no guarantee that they will be able to continue on that path after being promoted. Therefore, the personnel department should not engage in giving rewards based on merit. Pluchino, Rapisarda, and Garofalo (2010) won an Ig Nobel Prize in 2010 for using a computer simulation of an agent-based model to confirm this.

In fact, a general manager at a Japanese megabank on the Work–Work Theory stated, “If I were given a big job, how would I accomplish this job and which members would I include in my team? If I had even an idea of who to include in the team, I would be able to do a job of any big size. That is why I am always looking at young people.” (Takahashi, 2010, p. 8). This person was later promoted to the executive ranks. This exemplifies the differential in the size of job assignments between those who can really come up with ideas for suitable team members and those who cannot.

Regular Changes in Personnel

The smooth implementation and further promotion of “new work in reward for work” under the framework of the Work–Work Theory usually entails opportunities for regular changes in personnel every year. In large Japanese firms, these regular changes are a powerful tool for directly reducing personnel turnover. This is because turnover is defined as officially exiting from a specific organization (e.g., firm). For instance, leaving a manufacturing job to take a marketing job is classified as turnover if it entails changing firms, but it is not turnover if it does not involve changing firms. In other words, “a substantial amount of what would be called turnover in smaller firms is classified as ‘interdepartmental transfer’ in larger firms” (March & Simon, 1958/1993, p. 118). In large companies, job

changes that are tantamount to turnover can be implemented through regular changes in personnel within the firm.

Firms would refuse to reveal their turnover data in public, and it is especially difficult to identify the actual turnover situation as it relates to job satisfaction. Therefore, the 1993 JPC Survey did not investigate overall corporate turnover, which is difficult to publicize, but instead looks at turnover in some departments of a firm (Takahashi, 1997b, chap. 2). Specifically, this paper investigated turnover in white-collar jobs in large firms, examining the organizational units of Companies A to F, finding the annual mean number of people who actually resigned of their own accord going back several years prior to the time of the survey (1993), and subsequently dividing that by the number of employees composing that organizational unit. The results are shown in Table 1.

This survey also included a complete survey of all the organizational units in these companies, asking them the following question in addition to the previously discussed Q1:

Q2: If given a chance, would you like to change jobs?

The *job satisfaction ratio* is the ratio of respondents who answered “yes” to Q1, while the *turnover candidate ratio* is the ratio of respondents who answered “yes” to Q2. Using these definitions and examining the relation with real turnover as shown in Table 1, no explicit relation is detected between real turnover and the turnover candidate ratio or between real turnover and the job satisfaction ratio.

However, for Companies C and E, which had especially low real turnover, the post-survey interviews conducted following the 1993 JPC Survey revealed that regular changes in personnel—in which people were moved to different departments within the organization every three years—had become the norm. Because of this perspective, even if there were some turnover candidates, they would

Table 1. Real annual turnover

	Job satisfaction ratio*	Turnover candidate ratio*	Real annual turnover
Company A	60.9% (110)	25.7% (109)	Approximately 5%
Company B	31.2% (109)	59.8% (107)	Approximately 20%
Company C	62.2% (143)	28.7% (143)	Less than 1%
Company D	48.1% (27)	59.2% (27)	Approximately 5%
Company E	41.8% (553)	54.1% (549)	Less than 1%
Company F	60.1% (213)	40.3% (211)	Approximately 5%

Note: *Numbers of effective samples are in parentheses.

Source: Takahashi (1997b) p. 40, Table 1

not show up in the turnover numbers. In other words, even if employees were dissatisfied with their current jobs and some of them were turnover candidates, they would remain in the firm if they had the perspective that they could transfer internally.

In fact, at Company B, which had a high real turnover of approximately 20%, very few regular personnel changes among departments or workplaces occurred. Even if there was a transfer system, it was not regularly employed as a system operation. Consequently, employees had no perspective on transferring. Whether the Work-Work Theory is being applied cannot be confirmed by the existence of a particular system.

In contrast, at Company E, personnel were being rotated regularly to different workplaces every three years. Because of this, many managers did not possess the specific knowledge regarding new workplaces. According to a section manager at Company E, “Whenever a new department head is rotated in, I am my own boss for the first year. This is because the new department head doesn’t know anything about the department.” If things don’t go well, the

department head or I will be rotated in another three years. It is only necessary to work with someone for two years at most, and for only a year at the least” (Takahashi, 2007, p. 180). Even if the boss raises many burdensome issues, the storm will pass if one just waits till decision by flight occurs. This type of decision-making style is quite frequently observed in Japanese firms, where it has been termed “the phenomena of decision making by flight” (Takahashi, 1992b, 1997a).

Concealed Investment

When a firm is profitable, or when it has been able to accumulate a certain level of capital as retained earnings, except for payment to shareholders as dividends, (i) this capital surplus is not merely a source of employees’ pay (raises and bonuses). (ii) It is also a source for investing in expanding the scale of the existing business and in developing new business (including research and development). Personnel and labor relations consultants and experts who adhere to the Work–Pay Theory think only about wages, as in (i), but allocating such capital in the form of investment, as in (ii), is far more important in terms of management. Moreover, the distribution of work inevitably accompanies this allocation. This is another aspect of the Work–Work Theory.

Investing not only in new business but also in the expansion of existing business leads to new work and more employment—most of whom will be new hires and/or one’s subordinates in an organization. Even if it only comprises new hires, both the workplace and those in it should be energized. This in turn will boost the firm. In the half century following World War II, this is how Japanese firms were able to remain vigorous.

Penrose (1959) discusses the significance of allocating capital in the form of investments, as in (ii), from a theoretical standpoint. For example, an organization’s actions would have no consistency unless

one person was constantly in control of every detail. If this is the case, constraints exist as to how much one person can control, meaning that bounds constraints exist on the scale of a firm. However, this phenomenon is not actually seen at firms that have become large because the organization is controlled not by one person but by what Penrose calls the management team. The management team is the group of top executives who have had experience in working together.

Candidates to become team members must have work that requires them to work with others, even if it is time consuming. This is because “although people may not share meaning, they do share experience. This shared experience may be made sensible in retrospect by equivalent meanings” (Weick, 1995, p. 188). Therefore, the rate of growth of a firm has a managerial limit because a management team that has experience in working together can only get larger gradually. However, there is no managerial limit on growth (scale). Penrose uses the term “concealed investment” to refer to those expenses needed for team member candidates to acquire experience in working together. In addition, Penrose indicates that the greater part of necessary expenses of large firms have investment-like nature compared with small firms. In short, under the framework of the Work–Work Theory, apparently the expenses necessary to conduct normal everyday activities are in effect investments necessary for growth. As in spinning a thread—taking a fiber of cotton, wool, or silk and twisting it into a thread—working together through investments will gradually create organizational capability (Takahashi, 2010).

In many Japanese firms that have successfully achieved growth by the Work–Work Theory, the group called the management team does not merely comprise a handful of people. It also comprises those in middle management and lower ranks, as well as individual factory workers at plants, in some firms. In fact, veteran factory workers in Japanese firms, whether major corporations or medium-sized

manufacturers, have created “start-up expert” services (Takahashi, 2002b, 2015a) and have established bases worldwide. Those who have gone to China and other Asian countries to start up local plants have not been the elite managers, but often veteran factory workers. They are the ones who have established Japanese companies’ bases worldwide.

Work–Work Theory and Intrinsic Motivation

Incidentally, the Work–Work Theory engenders a major concept change in the practice of intrinsic motivation. Inherently, “intrinsically motivated activities are ones for which there is no apparent reward except the activity itself” (Deci, 1975, p. 23). Nevertheless, Deci makes a more in-depth assertion regarding intrinsic motivation. He restates his assertion, stating that “intrinsically motivated behaviors are behaviors which a person engages in to feel competent and self-determining” (Deci, 1975, p. 61). Here, “competent” and “self-determining” are considered to be the same. This is because a person who is able to deal effectively with his surroundings feels that he is competent (White, 1959). In addition, Deci states the proposition that “if a person’s feeling of self-determination is enhanced, his or her job satisfaction will increase and vice-versa” (Deci, 1975, Proposition II), which later came to be called the self-determination theory (Ryan & Deci, 2000).

Certainly, Takahashi (1993a, 1993b, 2002a) defines the degree of self-determination (*DSD*) and tests the 1990–2000 JPC Survey data, an annual survey of approximately 11,000 employees of Japanese firms to determine if it has a linear relation with job satisfaction. However, Takahashi, Ohkawa, Inamizu, and Akiike (2013, Figures 5 & 6) and Takahashi, Ohkawa, and Inamizu (2014a, Figure 5, 2014b, Figure 2) show that correlation between the *DSD* and the job satisfaction ratio is spurious. As shown in Figure 1, *DSD*

Figure 1. Annual transitions in degree of self-determination and job satisfaction ratio by occupational category/rank category

Note: Survey X data taken from fiscal years 2004 to 2013, $N = 13,019$.
Source: Takahashi, Ohkawa, and Inamizu (2014b), Figure 2.

is limited by occupation, particularly by rank. The band of the *DSD* is set for each occupation and rank, and the job satisfaction ratio varied within the band. In contrast, Figure 2 shows that the perspective index is more capable as an explanatory variable for job satisfaction. In other words, it is highly likely that there is a relationship between occupation/rank and *DSD*, but there is no direct correlation between the job satisfaction ratio and *DSD*. Thus, efforts to increase the degree of self-determination as the application of intrinsic motivation appear valid at first glance; however, in reality, it is problematic and doubtful.

In contrast, the “new work in reward for work” proposed in this

Figure 2. Perspective index by occupational and rank categories and annual transitions in job satisfaction ratio

Note: Survey X data taken from 2004 to 2013, $N = 13,034$.

Source: Takahashi, Ohkawa and Inamizu (2014a) Figure 5.

paper is the most honest application of the definition of intrinsic motivation as “there is no apparent reward except the work itself.” Nevertheless, even saying that satisfaction can be gained from one’s work does not imply that merely repeating the same work is fun. Thus, the Work–Work Theory introduces the idea that as work gradually becomes more challenging, “people seem to be engaged in the general process of seeking and conquering challenges which are optimal for them” to spur intrinsic motivation (Deci, 1975, p. 62). Nevertheless, work should be exciting (*waku-waku* in Japanese). If not, it cannot be considered intrinsic motivation. The Work–Work Theory—in which work itself gradually becomes more

challenging—is therefore appropriate for intrinsic motivation, and it will eventually lead to a *waku-waku* feeling.

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References

- Abegglen, J. C. (1958). *The Japanese factory: Aspects of its social organization*. Glencoe, IL: Free Press.
- Deci, E. L. (1975). *Intrinsic motivation*. New York, NY: Plenum Press.
- Imai, M. (1986). *Kaizen (Ky'zen): The key to Japan's competitive success*. New York, NY: Random House Business Division.
- March, J. G., & Simon, H. A. (1958/1993). *Organizations* (1st ed.). New York, NY: John Wiley & Sons; (2nd ed.). Cambridge, MA: Blackwell.
- Penrose, E. T. (1959). *The theory of the growth of the firm*. Oxford, UK: Basil Blackwell.
- Peter, L. J., & Hull, R. (1969). *The Peter principle*. New York, NY: William Morrow & Company.
- Pluchino, A., Rapisarda, A., & Garofalo, C. (2010). The Peter principle revisited: A computational study. *Physica A: Statistical Mechanics and its Application*, 389(3), 467–472.
- Ryan, R. M., & Deci, E. L. (2000) Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
- Takahashi, N. (1989). Nihon kigyō no nurumayuteki taishitsu [A lukewarm constitution of Japanese firms]. *The Japanese Journal of Behaviormetrics*, 16(2), 1–12 (in Japanese). doi: 10.2333/jbhmk.16.2_1
- Takahashi, N. (1992a). An evaluation of organizational activation. *Omega*, 20, 149–159.

- Takahashi, N. (1992b). *Nihon kigyo ni okeru yarisugoshi* [Decision making by flight in Japanese firms]. *Soshiki Kagaku* [Organizational Science], 26(3), 21–32 (in Japanese).
- Takahashi, N. (1993a). *Nurumayuteki keiei no kenkyu* [A study of lukewarm management]. Tokyo, Japan: Toyo Keizai Shinposha (in Japanese).
- Takahashi, N. (1993b). *Soshiki no nakano ketteiron* [Decision theory in organizations]. Tokyo, Japan: Asakura Shoten (in Japanese).
- Takahashi, N. (1997a). A single garbage can model and the degree of anarchy in Japanese firms. *Human Relations*, 50(1), 91–108.
- Takahashi, N. (1997b). *Nihon kigyou no ishikettei genri* [Principles of decision-making in Japanese firms]. Tokyo, Japan: University of Tokyo Press (in Japanese).
- Takahashi, N. (2001). Effective temperature hypothesis and lukewarm feeling in Japanese firms. *International Journal of Management Literature*, 1(1), 127–142.
- Takahashi, N. (2002a). The degree of self-determination and job satisfaction of white-collar workers in Japanese firms. *Annals of Business Administrative Science*, 1, 1–7. doi: 10.7880/abas.1.1
- Takahashi, N. (2002b). *Penrose Kaisha seichou no riron wo yomu* [On Penrose's *The theory of the growth of the firm*]. *Akamon Management Review*, 1(1), 105–124 (in Japanese).
- Takahashi, N. (2003). *Nurumayuteki taishitsu no kenkyu ga dekirumade: Tatarareru kotode mezameru* [Making process of lukewarm constitution study: Beat my brains out]. *Akamon Management Review*, 2(6), 247–277 (in Japanese).
- Takahashi, N. (2004). *Kyomou no seikashugi* [Performance-based pay system of false and fancy]. Tokyo, Japan: Nikkei Business (in Japanese).
- Takahashi, N. (2007). *Keieigaku nyumon* [Introduction to management]. Tokyo, Japan: Shinseisha (in Japanese).
- Takahashi, N. (2010). *Soshikiriyoku* [Organizational capability]. Tokyo, Japan: Chikuma Shobo (in Japanese).
- Takahashi, N. (2013). A hypothesis about lukewarm feeling in Japanese firms. *Annals of Business Administrative Science*, 12, 237–250. doi:

10.7880/abas.12.237

- Takahashi, N. (2014). Future parameter explains job satisfaction and turnover candidates in Japanese companies. *Annals of Business Administrative Science*, 13, 129–140. doi: 10.7880/abas.13.129
- Takahashi, N. (2015a). An essential service in Penrose's economies of growth. *Annals of Business Administrative Science*, 14, 127–135. doi: 10.7880/abas.14.127
- Takahashi, N. (2015b). Shigoto no hoshu wa tsuginoshigoto [New work in reward for work]. *Akamon Management Review*, 14(7), 357–386 (in Japanese).
- Takahashi, N., Ohkawa, H., & Inamizu, N. (2014a). Perspective index in Company X from 2004–2013. *Annals of Business Administrative Science*, 13, 231–242. doi: 10.7880/abas.13.231
- Takahashi, N., Ohkawa, H., & Inamizu, N. (2014b). Spurious correlation between self-determination and job satisfaction: A case of Company X from 2004–2013. *Annals of Business Administrative Science*, 13, 243–254. doi: 10.7880/abas.13.243
- Takahashi, N., Ohkawa, H., & Inamizu, N. (2014c). Lukewarm feeling in Company X from 2004–2013. *Annals of Business Administrative Science*, 13, 343–352. doi: 10.7880/abas.13.343
- Takahashi, N., Ohkawa, H., Inamizu, N., & Akiike, A. (2013). Soshiki no dashin chousahou [Percussive methods of organization studies]. *Soshiki Kagaku* [Organizational Science], 47(2), 4–14 (in Japanese).
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage Publications.
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66, 297–333.

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