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journal homepage: www.elsevier.com/locate/emjLeader's relational power: Concept, measurement and validation[☆]Xinyu Zhao¹, Yufan Shang^{*1}, Jun Lin, Jia Tan, Haiyun Li, Ting Liu

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ABSTRACT

Previous research on a leader's relational power has mainly focused on the conceptualization of this emerging concept, and issues on taxonomy and measurement are not fully addressed or understood. Hence, the independence of a leader's relational power is not adequately elaborated. The present study reinterprets relational power from a taxonomic perspective and develops a reliable measurement scale. Results distinguish relational power from position and personal power and further demonstrate that relational power is an independent power source that comprises two subtypes, namely, direct and indirect relational power. We define the concept of a leader's relational power and then summarize all items related to relational power through a literature review, interviews, and semi-structured questionnaires. With the help of experts in this area, we generate the preliminary relational power scale, which includes the following steps: cataloguing, summarizing, pretesting, and revising. We then construct the formal relational power scale using item analysis and exploratory factor analysis. We verify the two-dimensional structure of relational power using confirmatory factor analysis. Finally, we apply theoretical and empirical methods to test whether relational power is independent from position and personal power.

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1. Introduction

Power is crucial in exploring the essential mechanism of an organization (Bass, 1990; Goodwin, 2003; Robbins, 2013). Studies that elucidate complex managerial phenomena from the perspective of power have been cited by numerous scholars (Raven, 2008; Fleming & Spicer, 2014; Yukl, 2006). Some scholars have reviewed the current condition of this area in major international academic journals on management and have critically discussed vital issues including conceptualization and taxonomy (Anderson & Brion, 2014; Fleming & Spicer, 2014; Sturm & Antonakis, 2015). In most power studies, researchers tend to use either the five-dimension (coercive, reward, legitimate, expert, and referent) model of French and Raven (1959) or the two-dimension (position and

personal) model of Bass (1960) as a valid interpreting tool. However, these two classic models do not adequately explain the managerial phenomena caused by complex interpersonal interactions in organizations (Fu & Liu, 2008). An example of these phenomena is why senior managers with high status (position power) encounter difficulties in ensuring compliance from their subordinates when assigning tasks even if they are highly respected (personal power). Through literature retrieval, the area of "relational power" is found to provide sound support for breaking through the aforementioned bottleneck.

In Harvard Business Essentials (2005), relational power was officially put forward as a new dyadic concept of the classic theoretical leader power system. As an emerging concept, the theory of relational power is under developed, theorizing it from a dyadic level provides an initial step to understand its conceptualization. Studies of leader's position or personal power also have several classic discussions from a dyadic level (Yukl & Falbe, 1991). In the chapter titled "Power, Influence, and Persuasion," relational power is defined as a type of power that stems from personal relationships with others and is discussed along with position and personal power. Such power could be seen as an expansion of the original leader power taxonomy system which keeps theoretical consistency with the classic research of leader's position or personal power (Harvard Business Essentials, 2005; Fu & Liu, 2008; Shang,

[☆] In order to further test the validity of the relational power scale, we tested whether the two dimensions are also independent on and distinct from position and personal power. Results indicated that direct/indirect relational power has a good discrimination with position/personal power. Structural equation modeling was used to examine the discriminant validity of the direct and indirect relational power scales. Details are shown in the APPENDIX 3, 4, 5 and 6.

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Fu, & Chong, 2012). Just as the article noted, position power is related to “official position”, personal power is related to “what you know” and “who you are”, relational power is related to “who you know”, they are three very different but closely linked sources of power in the organization (Harvard Business Essentials, 2005). However, the chapter did not provide clear answers to questions on why these relationships exist and how they function in the workplace (Shang et al., 2012). Fu and Liu (2008) theoretically expounded the relationship among the three main types of power (position, personal, and relational) and the different influence strategies. Shang et al. (2012) integrated the power dependence theory into their research on an indigenous Chinese construct *guanxi*, developed an original scale of relational power (affection-based), and empirically examined the independent existence of this emerging concept. They also proposed theoretical explanations on how relational power is generated and what the sub-dimensions of relational power are from a *guanxi* perspective. Using the scale developed by Shang et al. (2012), Chong, Ping Fu, and Fan Shang (2013) tested the hypothesized link between power sources (position, personal, and relational) and influence strategies (persuasive, assertive, and relationship-based). However, previous research tended to unwittingly consider relational power as a taken-for-granted reality. Critical analyses on the independent existence of relational power are scarcely based on the knowledge of power. In addition to this observation, items in the relational power scale used in the current research have been developed by either directly borrowing from the *guanxi* scales or compiling them from the strength or quality perspective in *guanxi* studies, which appears to be insufficient and overlooked. First, the concept of *guanxi* and relational power are different. In most *guanxi* studies, researchers consider *guanxi* as a kind of special tie or relationship between two individuals (Xin & Pearce, 1996; Tsui & Farh, 1997; Chen, Chen, & Xin, 2004; Fu, Tsui, & Dess, 2006). The definition of *guanxi* emphasizes the description of the state of personal connections rather than the influence of personal connections. Nevertheless, power has been conceptualized as a kind of ability or asymmetric dependence (Sturm & Antonakis, 2015). Defining properties of power are discretion, means, and enforced wills (Sturm & Antonakis, 2015). Second, the design logic of previous relational power scale did not fully correspond to the classic power scale. By reviewing the classic discussion of power (Dahl, 1968; Martin, 1971; Partridge, 1963; Wrong, 1979) and the core measurement scale of power (e.g., Rahim, 1988; Hinkin & Schriesheim, 1989; Yukl & Falbe, 1991), we find that items and relevant descriptions in the classic power scale are inclined to highlight valuable resources or capacities possessed by the power holder or the reason of the object’s compliance to reflect the connotation of power. The effect suffered by the target object is often recognized as an important criterion in identifying the kind of power involved. The previous relational power scale was based on the taxonomy of *guanxi* suggested by Chen and Chen (2004); items of this scale do not present the abovementioned features. Simplifying the design of the measurement scale by equating relational power to the strength or quality of *guanxi* may introduce a hidden flaw. On the one hand, merely grafting items of the *guanxi* scale onto relational power research will blur the boundary between these two research fields and in turn cause confusion for succeeding researchers. On the other hand, excessively focusing on a specific nature of *guanxi* while ignoring the characteristics of power limits further research on the coverage and application of relational power. In this case, the resulting leader power studies would become confined to the surface phenomena in organizations. Given that research on relational power is becoming increasingly abundant, a reliable instrument must be developed from the perspective of power to depict relational power effectively (Bacon, 2011; Chong et al., 2013; Fu &

Liu, 2008; Harvard Business Essentials, 2005; Shang et al., 2012). Only when a reliable instrument is established can we properly examine the legitimacy of relational power and lay a solid foundation for further research (Shang et al., 2012).

The present study attempts to contribute to the leader power literature in three ways. The primary theoretical contribution of this work is the clarification of the concept, characteristics, and components of relational power. This contribution lays the foundation for introducing *guanxi* and social capital research to the power field. Second, we develop a dyadic level measurement scale with high reliability and validity which is consistent with the theoretical system of traditional leader power studies. Such scale will not only enable scholars to verify the independence of relational power, but will also provide a useful instrument for further study. Finally, the study offers new insights for both academicians and practitioners by opening the “black box” of leadership, which complements the classic power models.

The structure of the paper is as follows. First, the theoretical background of power sources is reviewed, and the connotation and specific characteristics of relational power are clarified. Second, a relational power scale is developed through the combination of qualitative and quantitative approaches, and the independence of this emerging power source is verified through a series of empirical tests. Third, the connotation differences, interactive characteristics, and other aspects of the three power sources (relational, position, and personal) are theoretically analyzed.

2. Power taxonomy review

2.1. Sources of power

The varying views on power have resulted in an array of taxonomies for categorizing such construct. Among the frameworks of power, the five-dimension taxonomy proposed by French and Raven (1959) and the two-dimension taxonomy proposed by Bass (1960) are the most widely known and used (Sturm & Antonakis, 2015; Yukl, 2006). French and Raven (1959) divided power into coercive, reward, legitimate, expert, and referent. Coercive power stems from the threat of punishment. The target object will suffer from negative sanctions if he/she does not obey the commands of the power holder. Reward power stems from the capacity to control and provide valued rewards. The target object believes that his/her compliance will lead to corresponding rewards, such as pay raises, promotions, and special work privileges. Legitimate power stems from the position of the power holder in an organization. The compliance of the target object comes from the approval of the organizational institution instead of the contents of a specific requirement. Expert power stems from expertise, skills, and knowledge. The compliance of the target object comes from the faith that he/she can benefit from the superior insight of the power holder. Referent power stems from the admiration for the referent. The compliance of the target object comes from his/her willingness to favor the power holder. Bass (1960) categorized power in an organization into two higher order factors, namely, position and personal power. Position power is derived from the position that a supervisor holds in an organization. This type of power emphasizes the principles and norms inherent in an organizational system. Personal power is derived from the ability and characteristic of a supervisor. This type of power emphasizes the influence of the attributes, experience, and skills of the power holder. Unlike the power model of French and Raven, the classification of Bass (1960) exhibits a high level of abstraction (Rahim, 1988). Several studies have provided empirical evidence for the reclassification of power sources (Steensma & Van Milligen, 2003; Yukl & Falbe, 1991). The two models described are not mutually exclusive; position power

includes the coercive, legitimate, and reward sources of power, whereas personal power includes expert and referent sources (Wexley & Yukl, 1977; Yukl & Falbe, 1991). Some scholars suggested that the two-dimension model offers a relatively clear and logical structure and, thus, avoids the partial overlapping of each power source (Rahim, 2009; Yukl & Falbe, 1991).

Over the years, a number of researchers have made extensive efforts to expand the original five-dimension power model. Raven and Kruglanski (1975) added information power as the sixth power source. Hersey, Blanchard, and Natemeyer (1979) proposed connection power as the seventh power source. Generally, this seven-dimension taxonomy is believed to contain the main types of power. Information power stems from the control of information that is valuable to others. The compliance of the target object comes from the supervisor's possession of or access to information (Raven & Kruglanski, 1975; Yukl, 2006). Connection power stems from personal relationships with influential or important persons. The compliance of the target object comes from the consideration of threats or benefits caused by the powerful connection (Hersey et al., 1979). We found that information power can be classified as an aspect of the position power of a supervisor (Yukl & Falbe, 1991), but connection power (power based on personal relationships) cannot be included under position or personal power. In fact, based on the definition of relational power, connection power could be seen as a kind of relational power that stems from power holder's relationship with a third-party. Unfortunately, research evidence on empirical testing and scale development is scarce. Thus, ample attention should be paid to these areas.

The effects of personal and position power weaken as organizations become increasingly flat and functional (Gordon, 2011), whereas the effects of interpersonal connections are gradually highlighted (Bal, Campbell, Steed, & Meddings, 2008; Pfeffer, 2011; Bacon, 2011). Thus, we should not only concentrate on the traditional power types, but we should also pay more attention to this emerging power concept. According to Bal et al. (2008), the power of relationships has become an effective tool that managers frequently leverage today. Conducting a systematic and in-depth exploration on the power of relationships is necessary (Fu & Liu, 2008; Shang et al., 2012). Scholars have already taken actions in this area. They have proposed the concept of "relational power" on the basis of previous studies, and suggested considering relational power as an independent power source from position and personal power (Fu & Liu, 2008; *Harvard Business Essentials*, 2005). Integrating this new power source into the traditional taxonomy will provide a comprehensive perspective in understanding the dynamic process of management practices.

2.2. Relational power: an extension of power typology

Relational power has been officially introduced as a new concept in a chapter of *Harvard Business Essentials* (2005). The article states that power in organizations is derived from positions, relationships, and personal factors. Relational power was defined as a special power source that depends on interpersonal connections and was discussed along with position and personal power. Given that the typical behavior (Brass, Burkhardt, 1993; Gioia and Sims, 1983) or relationship status (Kilduff & Krackhardt, 1994; Krackhardt, 1992) of a leader might convey signals of power to subordinates; clues of relational power had already been embedded in previous studies. On the one hand, relational-oriented behavior has been identified in the Ohio State and the Michigan leadership studies more than a half century ago (Cartwright & Zander, 1960; Likert, 1961). Similar descriptions are also included in the discussions on empowering (Conger, 1989; Srivastava, Bartol, & Locke, 2006), participative (Kahai, Sosik, & Avolio, 1997), and democratic (Gastil, 1994)

leadership. On the other hand, Krackhardt (1992) pointed out that people central to the philos network (a particular type of friend network of close friendship) is likely to derive power from reciprocal social interaction. Strong ties and intimate ties are more likely to provide emotional social support for a person (Wellman, 1992; Wellman & Frank, 2001). Considerable efforts have been devoted to this emerging concept in recent years. As an initial attempt, van den Brink (1994, p. 104) defined relational power in hierarchical organization as "the potential influence that the agent has on the economic processes that take place within the organization resulting from his position in the hierarchical structure of the organization". However, this definition is exploratory, and the author did not clearly distinguish leader's position power from leader's relational power. To enrich this line of understanding, Fu and Liu (2008), Shang et al. (2012), and Chong et al. (2013) proposed that relational power can be regarded as a power source developed essentially from ties of affection among persons. In a survey-based report by Bal et al. (2008), they defined "the power of relationships" as "the influence that leaders gain through their formal and informal networks both inside and outside of their organizations." This description is very similar to the concept of relational power. They also indicated that the power of relationships is among the top three most frequently leveraged sources of power, and that investing time and effort in existing relationships is necessary to develop relational power in the workplace. In *The Elements of Power: Lessons on Leadership and Influence*, Bacon (2011) clearly explained the power of relationships from the view of shared history and discussed this special power source under the web environment. Given the aforementioned viewpoints, we hold that the relational power of a leader can be considered a kind of power stimulated by his/her personal relationships. Relational power is effective because the strength of a personal relationship enables the power holder to control the access to a significant person, who may be influential or important to the achievement of goals. This kind of relational power is different from position or personal power. Position power links closely with a leader's legitimacy of position (Chong et al., 2013). Personal power links closely with a leader's task expertise, and leaders who have personal power tend to rely on their own expertise to persuade others to accept their ideas (Chong et al., 2013). In contrast, relational power is an attribute of the relationship between actors, and relies on the exchange of feelings between a leader and a subordinate, rather than leader's position, experience or expertise (Chong et al., 2013). The specific characteristics of relational power are as follows. The first characteristic is dynamics. The force generated from relational power will vary with the changes in the environment (Fu & Liu, 2008), in which case a close link is created between the effect of this force and specific situations. The second characteristic is hierarchy. During the interactive process of power, strong relational bonds stimulate stable but small-scale influences, whereas the indirect bonds developed from strong ones stimulate diversity with large-scale effect. The third characteristic is transitivity. The foundation of relational power is constructed on the target object's acceptance of the power holder's relational bonds; such acceptance extends the use of relational power to unfamiliar or unknown individuals (Bacon, 2011). Therefore, relational power can realize the following effect: "Even though I do not know him/her, my compliance to you will ensure my obedience to him/her." Personal and position power fail to achieve this effect. Compared with those from position and personal power, the influences originating from relational power is considerably complex and unpredictable (Fu & Liu, 2008) because this power is developed between two objects, but can be implicitly extended to one or more parties within the same network (Shang et al., 2012). To study this concept comprehensively, we should develop reliable measuring tools rather than simply equating

relational power to the strength or quality of the Chinese guanxi.

3. Measurement of relational power

We measured relational power by (a) generating a preliminary relational power scale and (b) conducting item analysis and exploratory factor analysis (EFA) of this preliminary relational power scale. To generate the preliminary relational power scale, we constructed a scale pool by collecting representative descriptions from in-depth interviews and large-scale open-ended questionnaire surveys based on the definition of relational power. The reliability of the filtered items was examined through several rounds of discussion and evaluation. The item analysis and EFA of the preliminary relational power scale were conducted as a pretest to simplify the items in the scale pool and to develop a prototype of the relational power scale.

3.1. Generation of the preliminary relational power scale

Based on previous scale development studies (Hinkin, 1998; Farh, Zhong, & Organ et al., 2004; Liang & Farh, 2008), we adopted an inductive approach for the generation of the scale items to identify the major dimensions of relational power instead of directly compiling and modifying certain items from scales of relevant concepts (e.g., guanxi, relational capital etc.). The current theoretical system of relational power is not fully developed. Hence, an inductive approach is more suitable than a deductive approach for developing the scale of an emerging or complex concept (Hinkin, 1998; Liang & Farh, 2008). This approach requires the collection of behavioral incident descriptions from respondents and the classification of these descriptions into several categories through qualitative and quantitative techniques. The research design, to a certain extent, follows a pragmatism-oriented paradigm, which can be viewed as a part of the mixed methods approach. Such approach suggests that the research question is the basic foundation and multiple methods should address the research question to provide an enhanced understanding (Creswell, 2013). The basic process is as follows.

Step One: Through in-depth discussions with three experts in the field of leader power, we designed an open-ended questionnaire on relational power to obtain typical examples and expressions of a leader's relational power. The questionnaire was composed of three main sections, namely, demographic information, leader power introduction and illustration, and core open-ended questions. Leader power refers to position, personal, and relational power. The core open-ended questions included "How do you understand relational power?" "Do you consider relational power important? Please provide rationale." "Please give two or three typical examples of an experience when your direct superior leveraged relational power at work. Please explain how and why." To confirm whether relational power could exist and play a key role in different organizations, we interviewed five in-service staff members from state-owned firms, private companies, foreign enterprises, public institutions, and government units. These five respondents are MBA/EMBA students from five different classes and two grades. We interviewed them separately. Two of the co-authors are teachers of these five respondents, whereas the other co-authors are entirely unknown to them. We then modified the original open-ended questionnaire according to the interviews. Every respondent affirms the existence and importance of leader's relational power. The revised open-ended questionnaire was then validated by a succeeding small-group survey (approximately 15 participants), which indicated that the questionnaire was ready for large-scale survey. Subsequently, we conducted a survey among 354 in-service staff members from Eastern China (Qingdao, Beijing,

and Shanghai), Central China (Hubei, Hunan, and Inner Mongolia), and Western China (Xi'an, Sichuan, and Tibet) through field distribution and e-mail. Participants mainly came from MBA/EMBA students who were admitted to our university through the national unified examination, so that samples of our research could come from several provinces of China and hardly belong to the same company and the same department. A total of 316 questionnaires (valid return rate was 89.3%) were accepted as valid. The results of the analysis of variance (ANOVA) revealed that there was no significant difference in gender, years of working, and educational level across two surveys.

Step Two: The descriptions given by the respondents were converted to text. A research group comprising two experts in the power field and four PhD students reviewed the descriptions and then split and fine-tuned the items that did not meet the criterion of oneness. Among the 316 valid questionnaires, 722 relevant demonstrations and descriptions were obtained. Based on the item-by-item discussion, we screened all items in accordance with a set of specific standards. The standards were as follows: (1) The items must be focused on the influence of the interpersonal connections of a leader. (2) The target object of leader power must be subordinates rather than enterprises or departments. (3) The cases that present the relational power of the subordinate should be eliminated. (4) The cases that evidently belong to position or personal power categories should be abandoned. (5) The items that are not representative and typical should be removed. After the screening process, we obtained 153 specific descriptive items that were highly relevant to the description of relational power. We coded the 153 specific descriptions according to "influence of a leader's personal connections" and developed 153 initial codes. By considering the criterion of behavioral similarity (Liu, 2013; Morrison, Phelps, 1999), we classified these 153 initial codes into different groups. Codes with high frequency of occurrence or similar content were clustered into the same group and further coded such that we could extract and purify key descriptions of relational power with a high accuracy. Regardless of coding and clustering, the inconsistent portions were discussed among team members to reach a consensus (Charmaz, 2014; Miles, Huberman, 1985). Using the qualitative analysis software ATLAS.TI 6.0, we proceeded with several rounds of inductive process that culminated in 18 relational power dimensions (see Appendix 1). After extracting 18 core descriptions, we conducted two additional small-scale surveys to check for omissions. We found that all follow-up data could be classified into the existing taxonomy. We concluded that the collection reached a theoretical saturation, which prompted us to finish the survey distribution. To guarantee the reliability of the obtained dimensions, we randomly selected two items as training and practice materials, respectively. We invited three business management graduates (with different research directions) to conduct a re-induction using the remaining 117 description items after training. Compared with our team's induction, the consistency ratio of the graduates' induction reached up to 90.6%. This result ensures the face and content validities of the item generation process.

Step Three: To further validate the face and content validities of the questionnaire items, we invited another two experts with dominant authority in the area of power study to re-evaluate the 18 items from the item pool using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) and re-examine the extent to which these items could reflect the concept of relational power. After analysis via SPSS 20.0, we determined that the evaluation scores provided by the two experts were between "can reflect" and "fully reflects." The Kappa coefficient was 0.852, which met the significance level. This result indicated that the 18 items could be confirmed as the original measurement items. The measurement

items were then developed into a pretest scale with a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree).

3.2. Sample characteristics

To collect the data, we distributed the relational power survey mainly to MBA and EMBA students and to in-service staff members in various training classes via direct distribution or e-mail. The final sample consisted of 240 participants with varied job functions from different types of organizations. After initial screening, a total of 211 valid questionnaires were retained (valid return rate was 87.9%). Among the respondents who submitted valid survey forms, 55.9% were male, 87.7% had at least two years of work experience, and 62.2% had worked with their superior for more than three years. In terms of age, 9.5% of the participants were under 25 years, 65.9% were between 26 and 30 years, 21.8% were between 31 and 35 years, and 2.8% were above 36 years. In terms of education, 15.2% had education level lower than a bachelor's degree, 51.7% finished a bachelor's degree, and 33.2% attained a master's degree. Thus, our sample was highly diverse.

3.3. Item analysis and exploratory factor analysis (EFA)

Item analysis of the preliminary relational power scale. We adopted “critical value,” “correlation coefficient of the item score and total score,” and “coefficient of internal consistency” to filter the items (Wu, 2010). After data analysis using SPSS 20.0, we found that the *t* values of all items reached a significant level in the critical value test, which demonstrates good discriminate validity. The correlation coefficient between the total score of relational power and the scores of 16 out of the 18 items reached a significant level of 0.5, except for the second (R2) and 15th items (R15), which yielded correlation coefficients of 0.405 and 0.454, respectively. The Cronbach's alpha of the pretest scale was 0.884. The correlation coefficient between the second item (R2) and the other items was 0.32 (<0.4). The reliability of the entire scale could be improved (0.885 > 0.884) if the second item (R2) is deleted. This result emphasized the need to remove the second item. The correlation coefficient between the 15th item (R15) and the other items was 0.366 (<0.4), but the reliability of the entire scale would decline (0.883 < 0.884) if the 15th item (R15) is deleted. Thus, the 15th item was temporarily retained.

Exploratory factor analysis (EFA). To further simplify the items and reveal the internal structure of relational power, we conducted EFA using principal component analysis with Promax rotation to determine construct validity (Wu, 2010). The criterion of factor extraction entails that the characteristic root should be greater than 1 and the cumulative variance proportion is greater than 60%. The following standards determined whether an item should be kept: (1) the loading of the item on one factor is greater than 0.50 and (2) the item has no crossing load, in which the loadings of two factors cannot be both greater than 0.35.

The Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity were used to ensure that the data attained sufficient inherent correlations for the EFA. The KMO index was 0.797, and the Bartlett's test of sphericity yielded 310.217 and $P < 0.01$, which justified the use of EFA. After gradual factorial exploration, the maximum loads of eight items (R1, R3, R4, R7, R13, R15, R16, and R18) were less than 0.50, whereas the loads of three items (R5, R14, and R17) were greater than 0.35 in both factors. All 11 items failed to meet the standard and were deleted. The remaining items (R6, R8, R9, R10, R11, and R12) were examined for identifying the underlying factors using EFA with Promax rotation. Two common factors were extracted during this process. These common factors explained the different ratios of variance with item loadings

exceeding 0.55 (57.5% and 74.2%). The eigen values were 1.959 and 1.920 (>1) after extracting the two common factors. The cumulative variance contribution rate was 64.648%. Both common factors met the basic qualifications. As shown in the component matrix (see Table 1), the first common factor comprised three items (R8, R9, and R11). These three items reflected leader power that stems from a leader's direct personal connection with the target object. We named this leader power as the “direct relational power” of a leader. The second common factor also comprised three items (R6, R10, and R12), which reflected leader power that stems from a leader's direct personal connection with an external third party. We named this leader power as the “indirect relational power” of a leader.

In conclusion, the streamlined relational power scale included two subscales, namely, the direct and the indirect relational power. Each subscale included three items. The reliability of the entire scale was 0.779, whereas the reliability values of the subscales were 0.729 and 0.707, respectively, all of which met the basic qualifications. The correlation coefficients among the three items of each subscale were greater than 0.4 and could not be promoted after deleting any item. This finding implies high homogeneity in the items of the subscales. Therefore, the design of the relational power scale was reasonable and valid.

4. Validation of relational power

The validation of relational power included the following: (a) item analysis and confirmatory factor analysis (CFA) of the relational power scale; (b) independence test on the relational, position, and personal power; and (c) test on the correlation between the three power sources and leader power. Item analysis and CFA of the relational power scale were conducted to identify the internal construction of relational power. Furthermore, an independence test on the three power sources and a test on the correlation between each power source and leader power were conducted to verify the discrimination and correlation among relational, position, and personal power. Presumptive models (“relational power–position power” and “relational power–personal power”) were established to verify the discriminant validity among these three power sources. A second-order three-dimension (relational, position, and personal power) model was then tested through confirmatory analysis.

4.1. Sample characteristics

To collect the data, we distributed the relational power survey mainly to MBA and EMBA students and to in-service staff members in various training classes via direct distribution or e-mail. The final sample consisted of 302 participants with varied job functions from different types of organizations. A total of 248 valid questionnaires were retained after initial screening (valid return rate was 82.1%). Among the respondents who submitted valid survey forms, 49.6% were male, 89.1% had worked for at least two years, and 81% had worked with their superior for more than three years. In terms of age, 11.3% were under 25 years; 45.6% were between 26 and 30 years; 29.0% were between 31 and 40 years; and 14.1% were above 40. In terms of education, 29.9% had education level lower than bachelor's degree, 52.0% finished a bachelor's degree, and 18.1% attained a master's degree. Thus, our sample was highly diverse.

4.2. Item analysis and confirmatory factor analysis (CFA)

Item analysis of formal relational power scale and its subscales. A series of item analyses were performed using SPSS 20.0 to assess the appropriateness of the data in the formal relational power scale.

Table 1
Rotated component matrix^{abc} and communality (N = 211).

Item and item description	Component		Communalities
	1	2	
R8 His/Her personal relationship with me makes me willing to share risks and responsibilities with him/her.	0.862	-0.105	0.671
R9 His/Her personal relationship with me prevents me from quitting even if I am unsatisfied with work.	0.828	-0.005	0.681
R11 His/Her personal relationship with me makes me attach great importance to the work he/she assigned.	0.688	0.170	0.609
R10 He/She is able to acquire the resources needed at work through his/her interpersonal relationships.	-0.156	0.922	0.742
R12 His/Her interpersonal relationship facilitates the successful completion of work that needs multi-coordination.	0.072	0.722	0.575
R6 He/She is able to create additional opportunities at work by resorting to his/her interpersonal network.	0.144	0.698	0.601

Note: a. Extraction method: principal component analysis; b. Rotation method: Promax with Kaiser normalization (Kappa = 4); c. Rotation converged in three iterations.

The t values of each item reached significant levels with satisfactory distinction during the critical value examination. The correlation coefficient between the total score of the relational power scale and each item score, as well as the correlation coefficient between the total score of the subscale and its own item score, ranged from 0.729 to 0.868 (>0.7). This result indicates the high standard of internal homogeneity of each scale. The Cronbach's alpha of the relational power scale was 0.879, which denotes high consistency. The correlation coefficient between each item in either subscale was above 0.4, and the reliability of the subscale decreased with the deletion of any item. This result indicates the reasonability of the item design. The coefficient of internal consistency of the items in the direct relational power scale was 0.785, whereas that of the items in the indirect relational power scale was 0.812. The correlation coefficient between the two subscales was 0.749. The Spearman–Brown coefficient was 0.856, and the Guttman split-half coefficient was 0.852. These results indicate the high stability and robustness of the relational power scale.

Confirmatory factor analysis (CFA). CFA was conducted using AMOS 17.0. The composite reliability coefficients of the two-dimension model were 0.811 (direct relational power) and 0.793 (indirect relational power) (>0.6), which indicates the high inherent quality and enhances construct reliability of the model. When the fit index of the single-factor model was compared with that of the two-factor model, the root-mean-square error of approximation (RMSEA) of the single-factor model was 0.087 (>0.08), which did not satisfy the fit criteria. By contrast, the multiple criteria of the two-factor model were superior to those of the single-factor model, with all items almost reaching the optimal standard. This result indicated that the two-factor model showed the best fit indices among the other estimated models, thus reaffirming the superiority of the two-factor model (see Table 2).

Standard factor loading and average variance extraction (AVE) were adopted to further evaluate the convergent validity of the two-factor model. Table 3 shows that the standard factor loadings of all items ranged from 0.657 to 0.839, which were above the standard value of 0.4 (Ford, MacCallum, & Tait et al., 1986). The t test values of the standard factor loadings were greater than 2.58 and significant at 0.001 level. The AVE values of the model were all above the standard value of 0.5. The two examination results indicated the good convergent validity of each subscale.

Table 2
Confirmatory factor analysis for relational power.

	χ^2	Df	χ^2/df	RMSEA	GFI	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Reference value			<3	<0.08	>0.90	>0.90	>0.90	>0.90	>0.90	>0.95
Two-factor model	19.25	8	2.40	0.075	0.97	0.973	0.949	0.984	0.969	0.984
Single-factor model	25.63	9	2.85	0.087	0.96	0.963	0.939	0.976	0.960	0.976

Note: Single-factor model: relational power. Two-factor model: direct relational power and indirect relational power.

Structural equation modeling (SEM) was used to examine the discriminant validity of the scales. The chi-square value of “direct relational power–indirect relational power” in the unrestricted model was 19.251 and the degree of freedom (df) was 8. The chi-square value of the restricted model was 60.800 and the df was 9. The D-value of the chi-square values of the two models was 41.548 and the D-value of the df was 1. From the significance test table of the chi-square D-value, the significance of the chi-square difference of the two models was $p = 0.000 < 0.05$, which indicated a significant difference between the “restricted” and “unrestricted” models. Compared with the “restricted model”, the “unrestricted model” showed lower chi-square value. These findings provide solid evidence for the discriminant validity between “direct relational power” and “indirect relational power.”

Organizational commitment and subordinate compliance were selected as predictive variables in testing the criterion-related validity of the newly created relational power scale. The organizational commitment scale was developed by Meyer, Allen, and Smith (1993), it includes three dimensions, namely, affective commitment ($\alpha = 0.82$), continuance commitment ($\alpha = 0.74$), and normative commitment ($\alpha = 0.83$). The scale of subordinate compliance was based on the work of Nesler, Aguinis, Lee and Tedeschi (1999) ($\alpha = 0.81$). Table 4 shows that relational power ($r = 0.616$, $p < 0.01$), direct relational power ($r = 0.620$, $p < 0.01$), and indirect relational power ($r = 0.525$, $p < 0.01$) exhibited significant positive correlations with organizational commitment. These power types also showed significant positive correlations with the three sub-dimensions of organizational commitment. Relational power ($r = 0.520$, $p < 0.01$), direct relational power ($r = 0.490$, $p < 0.01$), and indirect relational power ($r = 0.482$, $p < 0.01$) showed significant positive correlations with subordinate compliance. These results indicate the excellent criterion-related validity of the developed relational power scale.

4.3. Independence test on the relational, position, and personal power

The power scale developed by Yukl and Falbe (1991) was used as reference in testing the independence of relational power. This power scale comprises two sections, namely, position power ($\alpha = 0.89$) and personal power ($\alpha = 0.92$). The presumptive models

Table 3
Convergent validity test.

Item		Factor loading	t value	AVE
R8	← Direct Relational Power	0.761		0.589
R9	← Direct Relational Power	0.757	11.812***	
R11	← Direct Relational Power	0.784	11.716***	0.564
R6	← Indirect Relational Power	0.657		
R12	← Indirect Relational Power	0.745	9.749***	
R10	← Indirect Relational Power	0.839	10.531***	

Note: ***p < 0.001.

Table 4
Criterion-related validity test.

	Organizational commitment	Affective commitment	Continuance commitment	Normative commitment	Compliance
Relational Power	0.616**	0.528**	0.559**	0.479**	0.520**
Direct Relational Power	0.620**	0.506**	0.574**	0.495**	0.490**
Indirect Relational Power	0.525**	0.624**	0.560**	0.394**	0.482**

Note: **p < 0.01.

of “relational power–position power” and “relational power–personal power” were established to verify the discriminant validity among these three power types. SEM was employed to verify the discriminant validity of the “relational power–position power” model. The chi-square value of the two-dimension unrestricted model was 75.728 and the *df* was 34. The chi-square value of the two-dimension restricted model was 136.449 and the *df* was 35. The D-value of the chi-square of the two models was 60.721 and the D-value of the *df* was 1. The significance of the chi-square difference of the two models was $p < 0.01$, which demonstrated the significant difference between the “restricted” and “unrestricted” models. The “unrestricted model” exhibited a chi-square value lower than that of the “restricted model.” This result indicated the significant discriminant validity between relational power and personal power.

In verifying the discriminant validity between relational power and position power, we yielded the following SEM results. The chi-square value of the two-dimension unrestricted model was 65.784, and the *df* was 34. The chi-square value of the two-dimension restricted model was 132.827 and the *df* was 35. The D-value of the chi-square of the two models was 67.043 and the D-value of the *df* was 1. The significance of the chi-square difference of the two models was $p < 0.01$, which denotes a significant difference between the “restricted” and “unrestricted” models.” The “unrestricted model” exhibited a chi-square value lower than that of the “restricted model. This result indicates the significant discriminant validity between relational power and personal power.

4.4. Correlation test between the three power sources and leader power

To further investigate the independence of relational power and

the correlation between each power base and the integrated concept leader power, a first-order three-dimension (relational, position, and personal power) model was tested using CFA. As shown in Table 5, the correlation coefficient between relational and position power was 0.691, the correlation coefficient between position and personal power was 0.744, and the correlation coefficient between relational and personal power was 0.736. The *t* values reached significant levels, which indicate the strong correlativity among the three latent variables and the possibility of integrating them into a higher-level common factor (Hou, Wen, & Cheng, 2010). This result emphasized the need to verify the second-order three-dimension model.

The second-order three-factor CFA model is shown in Fig. 1. This integrated model of leader power demonstrated a good fit with the sample data and was free from any negative error variation. According to the factor loadings and error variations related to relational power, the square root of its AVE was 0.775, which is greater than the correlation coefficient between relational and position power ($r = 0.691$, $p < 0.01$) or personal power ($r = 0.736$, $p < 0.01$). The result indicated the significant discriminant validity between relational power and the other two kinds of power (position and personal) as well as the independence of relational power. Further analysis showed that the standardized factor loadings of the latent variables (relational, position, and personal power) were 0.83, 0.84, and 0.89, respectively (> 0.71). This result indicates that every latent variable could be given a significant explanation on the higher-level common factor (leader power). The reliability index values were 0.68, 0.70, and 0.79. Table 6 shows that the absolute fit indices ($\chi^2/df = 1.81 < 2$, RMSEA = 0.057 < 0.08, RMR = 0.038 < 0.05, GFI = 0.926 > 0.90), incremental fit index (NFI = 0.911, IFI = 0.958, TLI = 0.948, CFI = 0.957), and parsimonious goodness-of-fit index (PGFI = 0.653) meet the standard levels. Thus, the second-order

Table 5
Correlation coefficient among relational, position and personal power.

		Correlation coefficient	t value	
Relational Power	↔	Position Power	0.691	6.217***
Position Power	↔	Personal Power	0.744	5.446***
Relational Power	↔	Personal Power	0.736	5.412***

Note: ***p < 0.001.

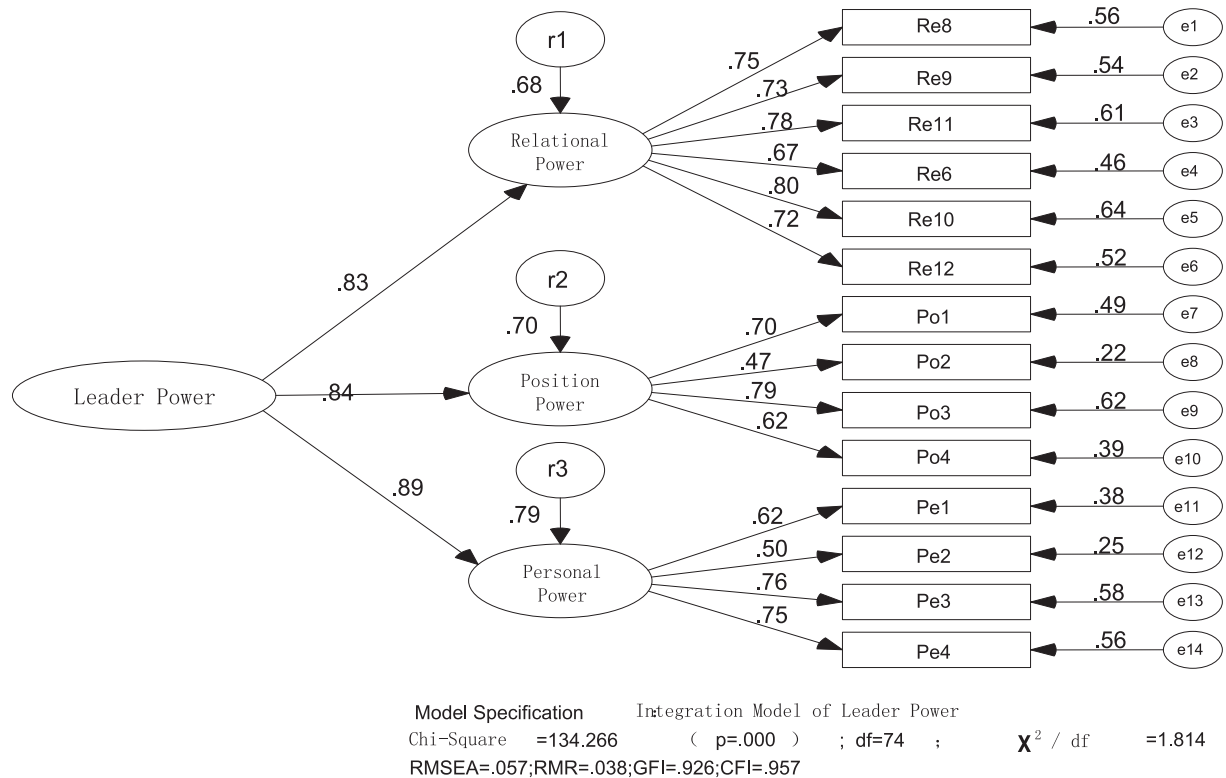


Fig. 1. Integration model of leader power.

Table 6
 Goodness-of-fit index of integration model of leader power.

	χ^2	df	χ^2/df	RMSEA	GFI	NFI Delta1	IFI Delta2	TLI rho2	CFI	PGFI
Reference value			<3	<0.08	>0.90	>0.90	>0.90	>0.90	>0.95	>0.50
Integration model of leader power	134.26	74	1.81	0.057	0.926	0.911	0.958	0.948	0.957	0.653

three-dimension CFA model was well supported by the sample data. This finding means that relational, position, and personal power exist independently and they all fall under leader power.

5. Discussion and conclusion

By focusing on “relational power,” this research expands the two-dimension taxonomy of power in organizations. The study also probes into the three theoretical issues of this emerging concept, namely, definition, measurement scale, and independence. First, after reviewing the classic power models, we point out that the relationship-based power source is neither contained in the original taxonomy nor subjected to full empirical tests. We then explore the possibility of the existence of relational power and its correlated characteristics by referring to previous research. Second, we design the relational power scale (see Appendix 2) by combining qualitative and quantitative methods with the goal of providing an effective tool for follow-up study. The results of the EFA indicate that the concept of relational power comprises two subtypes, namely, direct relational power and indirect relational power. This result is consistent with the theoretical discussion of Shang et al. (2012) on the classification of relational power. Direct relational power may be based on the strength of the relationship between leader and subordinate. This kind of relationship emphasizes affection and felt obligation between two parties. The leader and

his/her subordinate may socialize with each other after work; discuss personal problems and exchange advice on personal issues (Shang et al., 2012). Indirect relational power may be related to the use of social or relational capital to exert influence on the subordinate’s behavior. If target object wants to share the social or relational capital of the leader, he/she needs to become a core member of the leader’s network first. Finally, we verify the correlation and independence among relational, position, and personal power. The empirical test results strongly prove that relational power can be regarded as the third major power source in organizations.

Compared with previous relational power scale, our scale shows its advantages in three aspects. First, our scale could preferably reflect the connotation and characteristics of relational power by following the principle and logic behind the classic power scale. Second, we adopted a rigorous scale development approach based on three stages and confirmed the validity of our scale using multiple methods. Third, our scale exhibits good construct validity with the classic personal/position power. Analyzing management phenomena and issues by integrating these power scales would greatly benefit scholars.

5.1. Discriminate relational power from position and personal power

The conceptualization and scale development of relational power contribute to the dynamic and diverse descriptions of the interactive processes of power in organizations. This process also strengthens the connection between leadership and organizational situations. Relational interaction and interdependence among members are increasingly intensified, especially in modern, complex, and ever-changing organizational environment. A large number of relational cues are embedded in such aspects as job characteristics, performance feedback, mutual cooperation, and leader behaviors (Johnson, Selenta, & Lord, 2006). This observation highlights the role of interpersonal relationship and the difficulty in conducting an in-depth exploration of the nature of relational effects (Ferris et al., 2009). In studying relational power, researchers must possess a clear understanding of the differences among power sources (relational, position, and personal). In the present work, we distinguish these power sources in terms of connotation characteristics and interaction features (see Table 7).

Connotation Characteristics: Position power stems from a formal position in the organization. An individual who holds a concrete position in an organization has the legal authority within the organization to dominate corresponding organizational resources. Objectively guarded by institutions and norms, the power holder suffers from relatively few challenges when exercising authority. Position power has the firmest foundation, but has the most de-individualized influence process. Personal power stems from the ability and characteristic of a person. The compliance of a target object comes from his/her identification of and admiration for the personal attributes of the power holder. Although the perception and evaluation of personal attributes are primarily based on the subjective experience of the target object, the majority of people in the same culture hold similar and stable attitudes toward excellent attainment or morality, which can be demonstrated significantly in statistics. Therefore, even though personal power shows some degree of individualization, the foundation of legitimacy remains relatively stable. Relational power originates from the personal relationships formed by the accumulation of shared history between the power holder and the target object (Bacon, 2011). Relational power is also judged by subjective perception rather than objective facts. However, it is a unique source of power because the strength of history is derived from processes, which include common feelings, familiarity, and trust, mixed with emotional, moral, and social situational factors. The formation of shared history objectively calls for time and emotional involvement. Hence, relational power between the same power holder and different targets may vary because of the nuance of shared history. Thus, relational power cannot reveal itself independently without the presence of either participator. Relational power manifests increased individualized features and its foundation is

highly dynamic and diverse.

Interaction Features: (1) Interaction process: The effect of position power is guarded by the organizational system and is highly relative to organizational hierarchy. In this case, interests and resources may automatically flow to the power holder in an organization. This condition renders hierarchy and asymmetry inherent in position power. The application of position power from top to bottom is supported by organizational structures and systems and is imposed on target subordinates by leaders. In this interactive process, subordinates can hardly impose position power to their superiors, i.e., its inverse process can hardly achieve legal guarantees. Thus, power interaction exhibits a low level of permeability. By contrast, the effect of personal power does not absolutely depend on structure. The influence of relational power is mainly based on the subjective perception of target objects. Although the excellent qualities possessed by the power holder also enable the interactive process of power to present a relatively obvious asymmetry, permeability is high because of the subjective factors of the target objects. As interaction increases in frequency, it will either promote power effects by increasing the degree of admiration by the target objects or render power effects unsustainable because of the loss of charm of power holders. Given the personal relationship between the two parties, relational power heavily emphasizes reciprocity in the interaction process. Similar to personal power, relational power depends on the subjective ranking of importance in the psychological space of the target object rather than on objective organizational hierarchy. The differences between the two kinds of power are enumerated in the following. First, relational power focuses on reciprocity and mutual benefit, whereas the interactive process of power presents low asymmetry. The consolidation of the quality of relationship may promote relational capital. Second, the effect of personal power is established based on the identification and admiration of the target object, whereas relational power only needs familiarity and acceptance during interaction. Thus, relational power presents a higher level of permeability. (2) Time involvement: The effect of using position or personal power is strongly correlated with the situation. The compliance of the target object is based on the position or personal ability of a power holder at the time. The target object does not participate or consider the duration that the power holder secures the position, accumulates experience, and cultivates temperament. By contrast, the effect of using relational power is strongly related to the shared history between the power holder and the target object (or significant person). The requirements or desires of the power holder are accepted and fulfilled only when the target object (or significant person) and the power holder shared an experience in the past. Hence, the target object (or significant person) must be someone whom the power holder knows well and labels effectively. Therefore, although the interaction triggered by relational power is instant, it originates from the past. (3) Power transfer and transmission: The power holder with position power (e.g., CEO) should transfer his/her power to

Table 7
Differences among relational power, position power, and personal power.

	Relational power	Position power	Personal power
Source	Relational Tie	Position	Ability and Characteristic
Stability	Low	High	Medium
Degree of individualization	High	Low	Medium
Asymmetry	Low	High	Medium
Permeability	High	Low	Medium
Time involvement	Historical	Present	Present
Transfer and transmission	Difficult	Easy	Easy

a certain target object (e.g., a certain project leader) through empowerment, which objectively reduces power. The power holder with personal power (e.g., master) should transfer his/her power to a certain target object (e.g., disciple) through teaching or coaching. His/her own personal skills do not migrate objectively; rather, the growth of the target object reduces his/her dependence on the power holder to some extent. Therefore, the emphasis on sharing and autonomy in a modern organizational environment weakens the effect of traditional leader power (position and person) during the process of transfer and transmission. To some extent, this effect can be seen as a decomposition of the influence of the leader. When the power holder with relational power (e.g., A) transfers his/her power to a certain target object (e.g., A introduces his/her friend B to target object C), the power holder extends the strength of his/her relational power to two unfamiliar and/or even unknown persons (B and C) by becoming a node of shared history among the others (e.g., B–A–C). In addition, intersections and accumulation of relational capital will increase during this process because the target object (C) actively participates in the daily life of the power holder (A). The relational power of the power holder (A) will not be directly reduced because of specific power interactions. The popularity of Internet technology intensifies the virtuality of communication and bridges space boundaries. Organizational members in different locations can connect with one another using the Internet, in which case information and feelings can be shared simultaneously; this condition intensifies the extension of relational power (Bacon, 2011).

5.2. Theoretical and managerial implications

This work integrates and refines the connotation and characteristics of relational power based on previous studies. This study verifies the existence of relational power from an empirical perspective and demonstrates that relational power can be classified into two sub-types, namely, direct relational power and indirect relational power. We discuss the rationality of relational power as a third type of leader power, which is theoretically and empirically proven to be independent from position and personal power. As a type of power, we believe that relational power exists universally; this assumption is demonstrated not only in the discussion on the prevalence of *guanxi* relationships in the Oxford Handbook of Chinese Psychology by Smith (2010), but also in other previous cross-cultural research (e.g., Fu et al., 2004). We hope that our conclusions can assist in enriching our understanding of relational power by serving as reference for exploring functional mechanisms, expounding dynamic features, and finding relevant influence strategies. The results of this work could also contribute to solutions of some popular topics in the area of *guanxi*.

This study also offers new insights that could guide leaders in real life to better understand the power typology and features in the workplace. Not all managers possess sufficient personal/position power, especially those who do not hold top-level management positions or those who lead a cross-departmental project (Chong et al., 2011). To handle complex matters effectively, leaders should not only rely on traditional sources of power, but also on relational power, especially in an age of flatter hierarchies and empowered knowledge-workers (Helgesen, 2008). According to the elaboration of Shang et al. (2012), relational power can be cultivated through open communication and interaction between leaders and subordinates, and it can facilitate the smooth operation of an organization because it has the properties of emotion and responsibility. Leaders should invest more time and energy in existing relationships to gain power through interpersonal

relationships. Soft power and relevant influencing strategies become increasingly important, especially when modern organizations become flat (Nye, 2008; Hughes, 2010). In this case, the ability to develop good interpersonal relationships with others becomes the most essential quality a leader needs in order to obtain power (Bal et al., 2008; Hughes, 2010). The importance of a leader's relational power is also unanimously approved by all respondents during our interviews. One interviewer mentioned, "Sometimes, my leader will assign tasks that should be originally taken by others, I usually take these tasks and try my best to accomplish them well. Because of my good relationship with my leader, I cannot bear to refuse." Considering this point, "spending more time with others", "keeping in touch with others", "socializing on non-work-related topics", and "sharing more about themselves with others, and to also listen and learn more about others" are principal activities that a leader should pay closer attention to in daily work (Bal et al., 2008). Leaders need to change their thoughts from solely relying on authority and position to leveraging flexible and sensible interpersonal relationships (Helgesen, 2008). We should remember that relational power is neutral and its effect is mostly determined by the motives and purposes of the power holder. When used for good purposes, relational power is likely to promote organizational development and goal achievement, but it will lead to undesirable effects when abused. Therefore, leaders should initiate learning relevant knowledge and skills to effectively practice relational power.

5.3. Limitations and opportunities for further research

Given the limitations of the data source, the investigation objects in this study are limited to in-service staff members from mainland China. Although the cross-regional data collection method was adopted to enhance the abundance of samples to the greatest extent, avoiding the limited application of the scope of this scale was difficult. Therefore, future research must focus on the differences in the internal structure of relational power in various societies and cultures. The data used in the study were sectional data collected from subordinates. Hence, future research on the dynamics of relational power must involve systematic data collection from both the leader and the subordinate to develop and improve the measurement scale designed in this study.

In closing, we hope that this research will inspire the exploration of this important topic, offer our research colleagues with several interesting perspectives, and provide managers with useful knowledge for operating their own organizations.

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Appendix 1

Preliminary relational power scale

Item	Item description
R1	His/Her personal relationship with me motivates me to dedicate my efforts to working within or beyond my duty.
R2	His/Her interpersonal relationships affect my decision making at work.
R3	His/Her personal relationship with me facilitates me willing to deal with his/her personal matters.
R4	He/She is able to affect my work by virtue of his/her interpersonal network.
R5	His/Her personal relationship with me always makes me willing to consider his/her position.
R6	He/She is able to create additional opportunities at work by resorting to his/her interpersonal network.
R7	He/She has an extensive interpersonal network that could have a considerable effect on my work and life.
R8	His/Her personal relationship with me makes me willing to share risks and responsibilities with him/her.
R9	His/Her personal relationship with me prevents me from quitting even if I am unsatisfied with work.
R10	He/She is able to acquire the resources needed at work through his/her interpersonal relationships.
R11	His/Her personal relationship with me motivates me to attach great importance to the work he/she assigned.
R12	His/Her interpersonal relationship facilitates the successful completion of work that needs multi-coordination.
R13	His/Her personal relationship with me makes it difficult for me to shirk the work that I am reluctant to do.
R14	His/Her interpersonal relationship could enhance my confidence to handle work affairs.
R15	His/Her personal relationship with me makes me identify potential problems without reservation.
R16	His/Her personal relationship with authority figures empower him/her to influence me effectively.
R17	His/Her personal relationship with me makes me take the lead in important events.
R18	His/Her interpersonal relationships could affect my effectiveness and efficiency in handling matters without complete clauses to follow in the organization.

Appendix 2

Leader's relational power scale

Dimension	Item	Item description
Direct relational power	R8	His/Her personal relationship with me makes me willing to share risks and responsibilities with him/her.
	R9	His/Her personal relationship with me prevents me from quitting even if I am unsatisfied with work.
	R11	His/Her personal relationship with me makes me attach great importance to the work he/she assigned.
Indirect relational power	R6	He/She is able to create additional opportunities at work by resorting to his/her interpersonal network.
	R10	He/She is able to acquire the resources needed at work through his/her interpersonal relationships.
	R12	His/Her interpersonal relationship facilitates the successful completion of work that needs multi-coordination.

Appendix 3

Summary of Model Comparison (direct relational power–personal power)

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI Delta-2	TLI rho2
restricted model	1	64.516	0.000	0.109	0.111	0.160	0.166

Appendix 4

Summary of Model Comparison (indirect relational power–personal power)

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI Delta-2	TLI rho2
restricted model	1	85.394	0.000	0.148	0.151	0.217	0.225

Appendix 5

Summary of Model Comparison (direct relational power–position power)

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI Delta-2	TLI rho2
restricted model	1	52.578	0.000	0.091	0.094	0.132	0.137

Appendix 6

Summary of Model Comparison (indirect relational power–position power)

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI Delta-2	TLI rho2
restricted model	1	73.332	0.000	0.132	0.136	0.192	0.200

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