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The indirect effect of autonomy on job satisfaction through collective psychological ownership: The case of social workers in China

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Declaration of Conflicting Interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Ethics approval statement & consent form

All procedures performed in studies involving human participants were in accordance with the ethical standards of the Research Ethics Committee of the East China University of Science and Technology and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. All participants were well informed about the objectives of the research and signed a consent form before joining the research.

Data availability statement

The dataset used for this manuscript belongs to the China Social Work Longitudinal Study 2019.

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Abstract

Design/methodology/approach: This study used a nationally representative random sample of social workers ($N=3,896$) collected from a cross-sectional study of the First Wave of the China Social Work Longitudinal Study in 2019.

Purpose: This study examined the indirect effect of autonomy on job satisfaction through the mechanism of collective psychological ownership (CPO) characterized by sharedness.

Findings: The results showed that autonomy had a positive association with CPO, and that CPO had a positive association with job satisfaction. The results also revealed that autonomy influenced job satisfaction indirectly through the psychological mechanism of CPO.

Research implications: The discussion of findings provides insights into the research and practice of a less-territorial notion of collective psychological ownership theory.

Practical implications: The findings will inspire organizational management in terms of enhancing the job satisfaction of social workers through strengthening their autonomy and CPO.

Originality/value: The existing territorial notion of psychological ownership (PO) has shown its negative outcomes such as groupthink and resistance to sharing and changes in organizational contexts. Emphasizing the importance of sharedness, CPO embodying two specific factors, namely, shared decision-making and shared hardship endurance, is an emerging concept in organizational management. This is the first study examining the impact of a less-territorial notion of CPO in organizational contexts with a nationally representative sample.

Keywords: collective psychological ownership, sharedness, autonomy, job satisfaction, social worker

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There has been an increasing amount of literature discussing the psychological phenomenon of ownership in organizational contexts (Avey et al., 2009; Mustafa et al., 2016; Peng & Pierce, 2015; Pierce & Jussila, 2010; Su, 2020; Su & Ng, 2018, 2019; Van Dyne & Pierce, 2004). There are two different streams for conceptualizing the psychological phenomenon of ownership: a territorial notion of psychological ownership and a less-territorial notion of co-ownership characterized by sharedness. Territorial ownership theory denotes that people formulate individual psychological ownership (IPO) or collective psychological ownership (CPO) over a target of possession based on their innate needs to possess and control (Pierce et al., 2001; Pierce & Jussila, 2010). With a critique on the negative side of the territorial ownership theory such as groupthink (Pierce et al., 2018), a less-territorial notion of collective psychological ownership has emerged to redefine CPO in organizational contexts by highlighting a shared sense of decision-making and hardship endurance (Ng & Su, 2018; Su & Ng, 2018, 2019). It remains a research gap to investigate the antecedents and outcomes of CPO characterized by sharedness. This study aimed to investigate the indirect effect of autonomy on job satisfaction through the mechanism of CPO with a first-ever nationally representative sample of social workers in China, which is followed by a discussion of findings and its implications to the practice and research around this emerging notion of CPO.

The territorial notion of psychological ownership phenomenon

Early academic interest concerning psychological ownership as a phenomenon emerging in organizational contexts can be traced back to the psychology of mine and possession (Altman,

1975; Pierce et al., 2001), and collective psychology of possession (Brown & Crossley, 2008; Pierce et al., 2018). Based on the premise that human beings have innate needs to possess, to control, and to define themselves by what they own, IPO and CPO were developed in psychological theories concerning human's territorial behaviors (Pierce et al., 2001; Pierce & Jussila, 2010; Pierce et al., 2018). According to the territorial notion of ownership, people opt to extend their self-identity by an exclusionary sense of possessiveness (Pierce et al., 2001; Pierce & Jussila, 2010). Originally IPO was defined as an individual's feeling of possessiveness regarding a certain target (Brown et al., 2014; Pierce et al., 2001; Van Dyne & Pierce, 2004), whereas CPO was focused on the shared sense of possessiveness held by group members (Pierce & Jussila, 2010, 2011). Pierce and Jussila (2010, 2011) conceived IPO and CPO as a single-domain concept, which was a sense of possessiveness held by individuals or co-held by group mates. Compared with IPO, which is individual-based, CPO is group-based, as it refers to a collective sense of possessiveness and is expected to associate with some positive group behaviors, such as sharing of information, mutual recognition of each member's investment and fostering team cohesiveness (Pierce & Jussila, 2010). Viewed from this territorial perspective, it seems that CPO can help overcome some of the shortcomings of over-possessive individualism implied by IPO.

However, the territorial notion of ownership theory cannot avoid critiques regarding the possible negative side of IPO and CPO, which has been revealed in early studies about violent, sentimental and exclusionary behaviors of street gangs (Thrasher, 2013; Yablonsky, 1962) with both inside and outside conflicts under evolving circumstances of power struggles and interests. Conceptually defining the psychological ownership phenomenon merely as an extension of self-identity built on individual or group possessions (Dittamar, 1992; Tian & Belk, 2005; Pierce et al., 2001), IPO and CPO may lead to manipulation of distribution of knowledge and social recognition,

excessive stress regarding responsibilities, perpetuation of groupthink and territorial behaviors, and resistance to sharing and changes in organizational contexts (Pierce & Jussila, 2017; Pierce et al., 2001; Pierce & Jussila, 2010; Pierce et al., 2018).

In view of the possible alienations of IPO and CPO resulting from its single domain of IPO and CPO defined by the territorial notion of ownership theory, a new stream of CPO has emerged to develop by emphasizing the notion of sharedness (Su & Ng, 2018; Su et al., 2021), which is to be further discussed below. The point is to expand the core idea of a less-territorial notion of co-ownership by emphasizing the character of non-exclusionary sharedness to inform the practice and research of CPO in organizational contexts. Finally, the territorial conceptualization of IPO and CPO informed by the ownership theory was formulated in Western cultures, and it is doubtful whether it is applicable to non-Western cultures without some modification by taking into consideration the importance of sharedness.

The rise of collective psychological ownership characterized by sharedness

A new stream for conceptualization of psychological phenomenon has recently emerged in non-Western cultures in redefining CPO in organizational contexts (Su & Ng, 2018, 2019; Ng & Su, 2018; Su, 2020). Su and Ng (2018) redefined CPO as a shared sense of ownership held by co-workers that they jointly own the organization. According to Su and Ng (2018), this shared sense of ownership is characterized by the shared experience of co-workers working for the same organization. The core questions asked and answered by CPO are ‘How much do we feel that we share the ownership of the organization?’ and ‘To what extent does our shared experience in an organization characterize our co-ownership of the organization?’

To develop a less-territorial sense or non-exclusionary notion of psychological ownership, Su and Ng (2018) have developed a bi-factor structure of CPO, which on the one hand keeps the

shared sense of ownership as a general factor of CPO but on the other hand emphasizes two specific factors as important characters of CPO: shared decision-making and shared hardship endurance. According to Su and Ng (2018), shared decision-making highlights the rights and responsibilities of co-owners with regard to the organization, while shared hardship endurance signifies members' commitment and emotional bonding to the organization even in challenging times. As the bi-factor structure can explicitly cover both the general factor and each of the specific factors simultaneously (Jeong & Lee, 2016), the notion of co-ownership characterized by non-exclusionary sharedness can be sharpened. This redefinition echoes well an old Chinese saying of '*Feng Yu Tong Zhou*' which literally means that co-owners hold on to the same boat on windy and rainy days. With a shared sense of ownership, coworkers will share decision-making and endure hardship together for the organization (Su & Ng, 2018). This notion of CPO is characterized by its emphasis placed on the collective values of non-exclusionary sharedness promoted among individuals, groups or departments within the organizations (Schmid et al., 2013), and is open to evolving learning and continuous reflections for the collective benefits.

The conceptualization and operationalization of CPO developed by Su and Ng (2018) showed two strengths in relation to research and practice of organizational management. First, the two specific factors may mitigate the territorial attribute of the sense of possessiveness and thus develop a less-territorial character of CPO and may prevent the potential negative outcomes of groupthink and resistance to sharing and changes from taking place in organizational contexts. Second, the two specific factors of CPO may avoid misunderstanding from participants with regard to the operationalization of shared sense of ownership in organizational context and thus reduce the sense of entitlement.

Collective psychological ownership as a proximal mechanism to explain the relationship between autonomy and job satisfaction

Autonomy emphasizes the degree to which the individual may enjoy substantial freedom, independence, and discretion in scheduling work and determining the procedures to carry out their jobs (Hackman & Oldham, 1976), whereas job satisfaction refers to the extent to which people judge their job favorably (Acker, 2004). People enjoy a higher level of autonomy at work may opt to judge their job more favorably. A considerable amount of literature has supported the positive association between autonomy and job satisfaction (Novaes et al., 2018; Poulin & Walter, 1992; Van den Tooren & de Jong, 2014), yet the psychological mechanisms explaining how autonomy could enhance one's job satisfaction still demand more theoretical and empirical studies.

Understanding the relational attribute of autonomy may be conducive to examining how it influences job satisfaction. As argued by Honneth (1996, 2014), autonomy is not only individual but also intersubjective and relational, and individuals' autonomy in workplace is associated with mutual recognition of each other's contribution. As mutual recognition of investment of effort is a route to the formulation of CPO (Su & Ng, 2018), autonomy may be positively associated with CPO. Workers who are working in an autonomous working environment may develop a higher level of shared sense of ownership with their co-workers.

Moreover, a non-exclusionary sense of shared ownership may contribute to a higher level of job satisfaction as workers feel a higher sense of oneness with and belongingness to the group (Jeanson & Michinov, 2020) particularly if they are supported by a healthy work environment with an emphasis on sharedness in relation to decision-making and mutual support in going through challenging time (Ng & Su, 2018). Studies have revealed that CPO is positively associated with positive work-related state such as work engagement (Su & Ng, 2019) and work engagement is

positively associated with job satisfaction (Lu et al., 2016). In this connection, CPO may be positively associated with job satisfaction.

In non-Western cultures such as China where collective values and collective actions are emphasized, individuals may be more likely to subordinate their personal interests to the goals of the collective; and thus their fulfillment and self-respect may depend on knowing and accepting their place in a social structure (Lodge, 1987; Wagner & Moch, 1986). Besides, teamwork and social identity, as important conditions for the formation of CPO, are more valued in these societies (Markus & Kitayama, 1991; Triandis, 1989, 1993). Theoretically, based on the distal-proximal framework (Kanfer, 1990, 1992), a distal motivational force influences behaviour outcomes through proximal performance motivation variables. Following this framework, autonomy as a distal motivational force shaping a more stable facet of work environment may function by influencing job satisfaction through CPO, a proximal state of work environment emphasizing two specific domains in relation to sharedness: shared decision-making and shared hardship endurance. In this connection, CPO characterized by sharedness may function as a mechanism through which autonomy leads to job satisfaction. Therefore, this study aimed to investigate the indirect effect of autonomy on job satisfaction by means of CPO in the context of China.

Collective psychological ownership of social workers in Chinese context

Social work is a value-driven human helping profession, and social workers have to undertake emotion-bearing responsibilities to serve different marginalized and vulnerable populations groups, such as people with mental or physical challenges, children in need of protection, youth in unemployment, single parents with both tangible and intangible difficulties, and older people in poverty and isolation, etc. The issue of job satisfaction concerning the extent to which social workers judge favorably of their work has warranted much attention in the field of

social work (Baldschun et al., 2019; Djupvik et al., 2019; Gómez García et al., 2018). A shared sense of ownership is important for social workers' job satisfaction particularly in terms of shared decision-making and shared hardship endurance with their coworkers, as social workers are facing different emotional burdens from their daily work (Kim et al., 2011). Empirical studies on the impact of CPO characterized by sharedness in relation to job satisfaction of social workers are still lacking.

The profession of social work in China has experienced a fast-growing but challenging time since 2006, when the government declared its determination to support the development of the profession (Gao & Yan, 2015). Many factors are jeopardizing the development of the profession in China, such as a lack of clear guidance to ensure the quality of service provision, the dominant role played by the government in relation to the funding schemes, and low public recognition toward the profession, which lead to the ambiguity of professional identity among social workers (Niu & Haugen, 2019). Some prevalent issues of the social work profession in China, such as the turnover issues and psychological wellbeing of social workers, are attracting increasing academic interest (Jiang, et al., 2019; Mo & Lai, 2018; Su, 2020). As social service organizations employing social workers are unevenly distributed across the country, to investigate the role of CPO for social workers with a nationally representative sample from China may draw insights for solving relevant social issues.

The purpose of the study and research hypothesis

The objectives of the study aimed to investigate the indirect effect of autonomy on job satisfaction through the mechanism of CPO using a nationally representative sample of social workers from China. Based on the discussion about links among autonomy, CPO and job

satisfaction and the social work profession in Chinese context, we proposed the following hypothesis:

Autonomy will influence job satisfaction among social workers indirectly through the psychological mechanism of CPO while controlling for demographic characteristics and job position.

Method

Sample

This study used cross-sectional data from the First Wave of the China Social Work Longitudinal Study in 2019 (hereafter the CSWLS 2019). As a first national survey for the social work profession in China, the CSWLS 2019 aimed to explore and track the development of the social work profession in China by establishing a large, comprehensive and longitudinal dataset about workplace attitudes and behaviors of social workers and the workplace conditions in social service organizations (SSOs) by three-rounds of data collection. The dataset is open to support the research and policy making for developing the social work profession and social work education in the country. The first round of data collection for the CSWLS 2019 was implemented from June to October in 2019 (for more details, see Yuan et al., 2021).

The CSWLS 2019 received 5,965 individual questionnaires, which were filled in by professional social workers who were employed by 979 SSOs located in 56 major cities all over China. As it takes time for social workers to develop a mature sense of CPO, autonomy and job satisfaction in their working organization, all sampled participants of the study fulfilled all the following three criteria: i) employment in a social service organization, ii) working in a specific social service field such as elderly service, youth work, medical social work, etc., and iii) length

of employment in the current organization lasting for one year or above. Questionnaires with valid data for the items measuring autonomy, CPO, and job satisfaction were included for the study ($N=3,896$). Table 1 presents the descriptive characteristics of the participants. The sample consisted of 21.3% of male social workers and 78.7% females. The mean of age is 31.06 ($SD=7.89$). More than half of the participants had a Bachelor's degree (56.7%). Around sixty percent (58.5%) of the participants were social workers with a management or supervisory role, and the rest (41.5%) were frontline social workers without any management or supervisory roles.

<Insert Table 1 about here>

Instruments

Collective psychological ownership was measured by the seven-item Chinese version of a bi-factor scale developed by Su and Ng (2018), which consists of a general factor of a shared sense of ownership, and two specific factors of shared decision-making and shared hardship endurance. The general factor has seven items and each of the two specific factors has three items. In other words, six of the seven items have loadings on the general factor and on one of the two specific factors, but one item has loading solely on the general factor. The item solely loading on the general factor was 'I feel like we are co-owners of the organization'. An example item for the shared decision-making factor was 'My colleagues feel they are involved in decision-making' and an example item for the shared hardship endurance factor was 'The organization is keen to keep staff even in tough times'. Participants were asked to respond by a four-point Likert-type scale ranging from 1 (I hardly feel this way) to 4 (I strongly feel this way). The total scores of the six

items for the two specific factors are taken as the value of CPO. The item specifically loading on the general factor will be used for concurrent, criterion validity checking. The Cronbach's alpha for the six items in the sample was .82.

Job satisfaction was measured by the Chinese version of the Brief Index of Affective Job Satisfaction, which was validated in Chinese context (Thompson & Phua, 2012). The index consists of seven items, among which three items are distracter items. The four valid items were used to calculate the score for job satisfaction. Participants were asked to respond by a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's alpha for the scale in the sample was .85.

Autonomy was measured by two items extracted from the subscale of decision authority in the job content questionnaire (JCQ) which was developed by Karasek et al. (1998). These two items used in this study were 'I have a lot to say about what happens on my job' and 'On my job, I have freedom to decide how I do my work'. Participants need to respond by a five-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's alpha for the two items in the sample was .75.

In addition, the study also built in some controlled variables consisting of three basic demographic factors: age, gender and educational attainment and one job-related factor, i.e. job position. We classified job positions into two ranks, which were frontline social workers (0) and social workers with a management or supervisory role (1). We excluded income as a controlled variable because income of social workers in China is determined by the rank of job positions and income of frontline social workers is much lower than that of social workers with a management or supervisory role (Su, 2020).

Procedures

The CSWLS 2019 survey covered 56 cities from 22 provinces, four autonomous administrative regions and four municipalities in China. An expert panel consisting of eight scholars from a university in Shanghai was established to coordinate the survey. The panel was responsible for questionnaire design, sample selection, and interviewer training. According to the sampling design, all SSOs in these 56 cities established before June 2019 were in the list of selection pool. The panel used multistage random sampling method and selected social workers and organizations from the selection pool in three steps. First, they classified the 56 cities into two categories: Category 1 cities (e.g. Shanghai, Guangzhou, Shenzhen, Beijing, etc.) with bigger resident population size and more SSOs of large scale ≥ 200) and Category 2 cities (Hangzhou, Dongguan, Tianjin, etc.) with smaller resident population size and fewer SSOs. Second, they randomly selected 33 SSOs from each of the Category 1 cities and 11 from each of Category 2 cities from the selection pool. Finally, for each of the selected SSOs, they randomly selected 10 social workers from a list of codes for all staff of the selected organizations. To handle some challenges for sampling in some cities, Category 1 cities with less than 33 SSOs and Category 2 cities with less than 11 SSOs, all SSOs in these cities were included in the survey. For those SSOs with less than 10 social workers, all social workers were included for the survey. In the data collection process, when a selected SSO declined to join the survey, the panel would select the SSO listed right after it. Similarly, when a selected social worker declined to join the survey, another social worker whose staff number listed right after him/her would be selected. In total, 3,071 SSOs were approached for the survey and 979 organizations turned out to join the survey, and thus the response rate for SSOs was 31.88%, with a 100% response rate for social workers.

Prior ethical approval for the survey submitted by the panel of the CSWLS 2019 was granted by the research ethics committee of the university that the panel is affiliated with. The panel including the third author as one of its members worked with one or two local supervisor(s) in the selected cities to implement the survey; the latter was responsible for data collection in their city. For each selected city, local supervisors contacted the selected SSOs and assigned interviewers for data collection. The trained interviewers brought the questionnaires to the selected organizations. The interviewers supported the person-in-charge of the organizations to finish the organizational questionnaires by face-to-face interviews; whereas each of the selected social workers was invited to fill in an individual questionnaire in a self-report manner. Participants were well informed about the aims, objectives and framework of the survey and assured that their individual responses would be kept strictly anonymous and confidential and only aggregate findings would be published. Written informed consent was obtained from each of the participants before data collection. To reduce the common method variance, a strategy of separating the measurement of dependent and independent variables (Podsakoff et al., 2003) was adopted: some question items measuring variables (e.g. knowledge about professional ethics and social contexts, and self-reported mental health state) which were not included in the study were inserted to separate those items measuring autonomy and job satisfaction.

Data analysis

First of all, Harman's single-factor test (Podsakoff et al., 2003) was adopted to statistically assess the extent to which common method variance may be a problem. To gain a preliminary understanding of how the variables (i.e., autonomy, CPO, and job satisfaction) related to each other, we conducted Pearson's correlation analyses among participants. We next used the PROCESS macro in SPSS developed by Hayes (2017) to test the hypothesis and in particular the significance

of CPO as a psychological mechanism in the relationship between autonomy and job satisfaction. Following the procedures outlined by Hayes (2017), the 5000 bootstrapping resamples were used to test the effects of autonomy on job satisfaction, both directly and indirectly through CPO. According to Hayes (2017), indirect effect is considered significant if the 95% bias corrected and accelerated CI for the indirect effect do not include zero. Autonomy, CPO, and job satisfaction are mean-centered to avoid multicollinearity (Aiken et al., 1991).

Results

The results of Harman's single factor test showed no problem with common method bias in this data since the total variance extracted by one factor is 37.76% and it is less than the recommended threshold of 50%. Table 2 showed the results of Pearson's correlation analyses. The results of bi-variate correlations suggested that autonomy was positively and moderately correlated with CPO and job satisfaction, positively and weakly correlated with educational attainment. Besides autonomy, CPO was also positively and moderately correlated with job satisfaction, positively and weakly correlated with age and educational attainment. Besides CPO and autonomy, job satisfaction was positively but weakly correlated with age, and also negatively but weakly correlated with educational attainment. Autonomy, CPO and job satisfaction were all associated with gender and job position: Male social workers reported slightly higher autonomy, CPO and job satisfaction than females whereas social workers with a management or supervisory role reported slightly higher autonomy, CPO and job satisfaction than frontline workers.

<Insert Table 2 about here>

Bootstrap test results are presented in Table 3. Autonomy was a significant predictor of CPO ($a = .26, SE = .08, p < .001$) after controlling for demographic characteristics and job position. The coefficient a reflected the direct effect of autonomy on CPO within the path model. In the pathway process, both autonomy ($c' = .14, SE = .01, p < .001$) and CPO ($b = .35, SE = .00, p < .001$) were significant predictors of job satisfaction after controlling for demographic characteristics and job position. The coefficient c' reflected the direct effect of autonomy and b reflected the direct effect of CPO on job satisfaction within the path model. The indirect effect of autonomy on job satisfaction through the mechanism of CPO was tested by using bootstrap standard errors and confidence intervals (CI). Zero does not fall between the lower and upper bound of the 95% CI (lower 95% CI = .07 and upper 95% CI = .09). The indirect effect of autonomy (ab) on job satisfaction was .09, while the total effect ($c = ab + c'$) was .23. Therefore, the proportion of indirect effect of autonomy on job satisfaction through the mechanism of CPO, named as the variance accounted for (VAF) was 39.13%, which was larger than 20% (Hair et al., 2016). Collectively the results supported for the existence of an indirect effect for the hypothesis. Figure 1 presents the regression coefficients for the different relationships in the pathway model.

<Insert Table 3 about here>

<Insert Figure 1 about here>

Discussion

Using nationally representative data of social workers from the CSWLS 2019, this study empirically investigated whether CPO conceptualized in a less-territorial notion operationalized as a bi-factor structure played the role of psychological mechanism in the relationship between autonomy and job satisfaction among social workers in China. The results suggested that the three major study variables (i.e. autonomy, CPO, and job satisfaction) were positively correlated with each other and autonomy influenced job satisfaction indirectly through the psychological mechanism of CPO. Therefore, the hypothesis was supported by the results. The findings of the study are able to draw insights for the theoretical development of the non-exclusionary ownership theory, inspire future research and shed lights on organizational management for the social work profession.

The first and most important finding of the study is that autonomy influenced job satisfaction in social workers indirectly through the mechanism of CPO while controlling for demographic characteristics and job position, which provides empirical support for the proposed hypothesis. As a considerable amount of evidence (Abu-Bader, 2005; Acker, 2018; Kim et al., 2019) has supported that autonomy was positively associated with job satisfaction in the social work profession, this study provided empirical evidence to reveal CPO as a psychological mechanism through which autonomy influences job satisfactions of social workers. This finding revealed that social workers who enjoy the freedom to decide and structure their work would perceive themselves as co-owners of their organizations and then they would feel satisfied about their work. As the adopted less-territorial conceptualization of CPO in the study emphasized shared decision-making and shared hardship endurance among social workers, this finding provides a pathway to enhance social workers' job satisfaction in an autonomous work environment through enhancing their shared decision-making and shared hardship endurance.

The second key finding is on the positive correlation between autonomy and CPO. This finding supported the argument by Honneth (1996, 2014) that autonomy is not only individual but also relational and intersubjective. It appears that workers who are enjoying high level of autonomy will care for their own benefits, as well as care for the collective interest of their organization given shared decision-making and shared hardship endurance are secured. Informed by this finding, to provide freedom to social workers to make decisions about what to do and how to finish their job tasks may be conducive to cultivating a shared sense of ownership and developing a sense of shared decision-making and shared hardship endurance. Theoretically, autonomy may lead to the emergence of CPO through the three routes to CPO: sharing knowledge, sharing a sense of control of the organization, and mutual recognition of their shared investment into the organization (Su & Ng, 2018). When workers enjoy a high level of autonomy, they may be able to see their own impact in their organization, therefore, they may be more likely to share knowledge with their colleagues, share the sense of control of their organization, and recognize the investment of others in their organization. Yet empirical studies are still needed to examine through which mechanisms, autonomy empirically leads to the formulation of CPO.

Another important finding is that less-territorial CPO characterized by sharedness is positively associated with job satisfaction among social workers. This finding is perceived important as it enlightens that sharing a sense of ownership among workers will lead to their positive judgement of their job. It may be important to cultivate a less-territorial sense of collective ownership in organizational context to foster a positive work attitude of colleagues. As social support has been revealed as important predictor of job satisfaction of social workers (Acquavita et al., 2009), workers perceived themselves as co-owners with a perspective of non-exclusionary

sharedness may act more proactively, go extra miles at work, and offer support to their colleagues, which may foster their job satisfaction.

Theoretical implications of the study

The study provides empirical evidence to support the refinement of the ownership theory by revealing the role played by CPO characterized by sharedness with two specific domains: shared decision-making and shared hardship endurance in the organizational contexts in relation to autonomy and job satisfaction. Some pioneer research studies using snowball sampling method have revealed the role of CPO in social work organizations (Ng & Su, 2018; Su & Ng, 2018, 2019). Ng and Su (2018) have found that CPO is positively related to membership identification and work engagement but negatively related to work burnout with a sample of social workers from the Guangdong province of China. A recent study (Su, 2020) has also reported a negative association between CPO and turnover intention in social workers. This study extended the findings of these studies on the impact of CPO in organizational contexts by using a nationally representative sample, which supported the “utility” of the concept and the relevant theory (Corley & Gioia, 2011) for organizational management. The findings of the study provided empirical evidence to support the important role played by the less-territorial notion of CPO characterized by sharedness in organizational contexts, which will pave the way for future development of CPO and the less-territorial notion of ownership theory. More empirical studies are anticipated to investigate the antecedents and consequences of CPO in organizational contexts.

As CPO conceptualized in a less-territorial notion is both value- and sharedness-driven, cautions are still needed to address some potential alienation in the name of sharedness for promoting collective benefits (Holzner, 1967). In view that the study only focused on the positive side of CPO, it remains unknown about any negative side of CPO characterized by sharedness. In

this connection, the study can inform the inclusion of other available scales such as organizational citizenship behavior (Podsakoff et al., 1990) and groupthink (Riccobono et al., 2016) to see if the bi-factor CPO will have positive relationship with the former and negative relationship with the latter. Also, unlike studies (Bernhard & O’Driscoll, 2011; Lee & Suh, 2015) examining the indirect effect of autonomy on job satisfaction through the mechanism of territorial psychological ownership in Western cultures, this study was conducted in non-Western context. In this connection, cultural difference is an important concern when drawing conclusions based on these findings. It remains unclear concerning about the comparative impacts of the territorial notion and less-territorial notion of psychological ownership in the same cultural background such as China. Future research is suggested to compare the respective influence of psychological ownership characterized by two different notions, i.e. a territorial notion and a less-territorial notion embedded with sharedness in organizational settings within a specific national or cultural context. Moreover, this study is confined to the value- and ethics-driven social work profession whereas studies concerning the mediating role played by territorial IPO in relation to autonomy and job satisfaction were focused on commercial organizations driven by profits. Professional difference is therefore another concern. More studies are recommended to investigate the impact of the less-territorial notion of psychological ownership in social service organizations as well as in commercial organizations.

Practical implications of the study

To date, this is the first study to support the role of CPO in social service organizations with data collected from a nationally representative sample of social workers. The findings of the study based on a nationally representative sample of social workers in China could provide valuable information for identifying future directions to foster the development of social work

profession in China or in other countries where the development of the social work profession is in the stage of indigenization or localization in particular (Gray et al., 2008). The findings of this study may provide a clear model to enhance social workers' job satisfaction through enhancing their autonomy and CPO, which may turn out to be conducive to keeping the workers in the profession. CPO is theorized to be more emphasized in a collective-oriented context than in an individual-oriented context (Pierce & Jussila, 2010). China is a country where collective-value is highly appreciated and where the social work profession is still at its early stage of professional development. Practical implications may be derived for different stakeholders in the social work profession as follows: First, cultivation of CPO in terms of shared sense of participation in decision-making and undertaking hardship is considered important for promoting positive work attitudes. Social workers may need to be trained up with a non-exclusionary mindset for sharedness with their colleagues in organizational context. Second, at organizational level, the findings of the study may lead to advocate on changes of organizational policies by giving social workers more autonomy and involving them in decision-making for their organizations and fostering their intention to share responsibilities for and with the organization. Third, it is important to develop the professional bodies of the profession in different cities of China, such as social work associations that may advocate for the benefits of social workers and SSOs and support social workers to develop a less-territorial notion of CPO characterized by sharedness for the profession. Finally, different levels of Chinese government positioning themselves as the major funders of the SSOs opt to dominate the policy development and distribution of resources for the social work profession (Gao & Yan, 2015; Su, 2020), the practice of which may go against the vision of establishment of a less-territorial notion of CPO. In view of this, they may need to adjust their policies for developing a more autonomous environment for SSOs and social workers.

Limitations of the study

This study also has some limitations. First, the findings of the study drawn from a nationally representative sample were confined to data collected from a cross-sectional survey in the first wave of CSWLS 2019. That is, the power of a longitudinal study is yet to be materialized in foreseeable second and third waves of the study. Second, the scales used to measure the major variables in the study were self-reported tools, which may lead to common method bias in the findings. Although Harman's single-factor test was adopted to assess the extent of common method variance of the study, yet the sensitivity of the test is still doubted (Podsakoff et al., 2003). Third, this study on social work profession was conducted in non-Western cultural context, which will limit the generalization of the findings to other professions and in other cultural contexts. Finally, the mechanisms through which autonomy may enhance CPO are still unclear. Therefore, future empirical studies are needed to investigate whether autonomy enhances CPO through the mechanisms of the aforementioned three routes to CPO.

Conclusion

To conclude, this study showed that autonomy was positively associated with CPO, CPO was positively associated with job satisfaction, and autonomy influenced job satisfaction through the mechanism of CPO among social workers in China. The findings may inspire practice on enhancing social workers' job satisfaction and CPO, shed light on researching the role of CPO in relation to occupational wellbeing in different types of cultural, professional and organizational contexts, and inform the future theoretical development of ownership theory conceptualized in a less-territorial manner.

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Table 1Sociodemographic characteristics of the sample ($N=3,896$).

Sociodemographic characteristics	N (%) / Mean (SD)
Gender	
<i>Male (1)</i>	829 (21.3)
<i>Female (0)</i>	3067 (78.7)
Age	31.06 (7.89)
Education attainment	
<i>Junior secondary or below (1)</i>	38 (1.0)
<i>Senior secondary (2)</i>	264 (6.8)
<i>Associate degree (3)</i>	1005 (25.8)
<i>Bachelor's degree (4)</i>	2286 (58.7)
<i>Master or above (5)</i>	303 (7.8)
Job position	
<i>Worker with a management or supervisory role (1)</i>	2279 (58.5)
<i>Frontline worker without management or supervisory roles (0)</i>	1617 (41.5)
Autonomy (1-5)	3.62 (.72)
CPO (6-24)	13.32 (3.81)
Job satisfaction (1-5)	3.66 (.63)

Table 2Intercorrelations for the variables under study ($N=3,896$).

Variables	1	2	3	4	5	6	7
1. Autonomy (1-5)	1						
2. Gender (0=female)	.05***	1					
3. Age (years)	-.02	.04*	1				
4. Educational attainment (1-5)	.10***	.02	-.27***	1			
5. Position (0=frontline workers)	.19***	.10***	.10***	.19***	1		
6. CPO (6-24)	.30***	.14***	.14***	.04*	.22***	1	
7. Job satisfaction (1-5)	.25***	.05**	.20***	-.06***	.14***	.42***	1

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3

Model coefficients for testing the indirect effect of autonomy on job satisfaction through CPO ($N=3,896$).

Correlates	Consequent							
	M (CPO)			Y (Job satisfaction)				
	Coefficient	SE	<i>p</i>	Coefficient	SE	<i>p</i>		
X (Autonomy)	a	.26	.08	<.001	c'	.14	.01	<.001
CPO	—	—	—	b	.35	.00	<.001	
				Covariates				
Gender		.11	.14	<.001		-.01	.02	.40
Age		.13	.01	<.001		.14	.00	<.001
Educational attainment		.02	.08	.29		-.06	.01	<.001
Job Position		.15	.12	<.001		.03	.02	.02
		$R^2 = .144$				$R^2 = .220$		
		$F(5, 3890) = 130.80$				$F(6, 3889) = 181.53$		
		$p < .001$				$p < .001$		

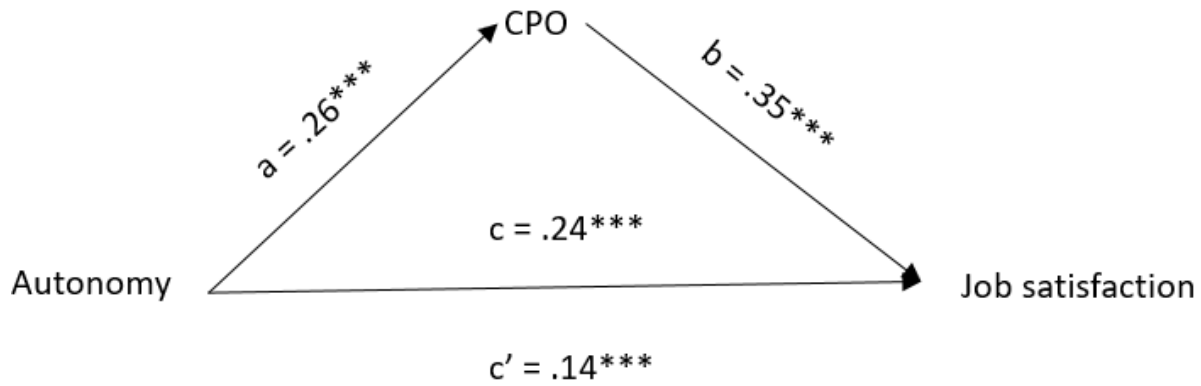


Figure 1. Regression coefficients for the different relationships in the pathway model.