

Research Article

Self-Efficacy and Perceived Communicative Competence Among Chinese EFL Learners in Central China: Unpacking the Mediating Role of Motivation

Aijing Gao^{1,*}, Yasmin Binti Hussain¹

¹City University Malaysia, Petaling Jaya 46100, Malaysia

*Correspondence: Aijing Gao, alice_gao6@163.com

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Abstract

The link between self-efficacy and PCC among EFL learners remained under-researched, especially in terms of the underlying mental processes of these two factors. This study examined the mediating effect of L2 motivation on the link between self-efficacy and PCC among 362 non-English-major undergraduates across four universities in Central China. Data were collected using an adapted version of the MSLQ self-efficacy subscale, McCroskey's SPCC scale, and an L2 motivation scale based on Dörnyei's model. Mediation analysis, carried out using Hayes' PROCESS macro (Model 4, 5,000 bootstrap samples), revealed that self-efficacy predicted PCC both directly, $\beta = .313$, $p < .001$, and indirectly via L2 motivation, indirect effect = .123, 95% CI [.069, .183]. This indirect effect accounted for 28.2% of the total effect. These findings suggest that motivational factors partially mediate the effect of self-efficacy on learners' self-reported communicative ability, carrying potential implications for EFL teaching in resource-poor inland regions.

Keywords

self-efficacy, perceived communicative competence, L2 motivation, mediation, Chinese EFL learners

1. Introduction

1.1. Research Background and Problem Statement

1.1 Research Background and Problem Statement

English proficiency in university students in Central China has consistently lagged behind that of their counterparts in eastern coastal provinces. The 2025 EF English

Proficiency Index ranked Hubei province at 482, Hunan province at 469, and Anhui province at 486, all falling within the “Low Proficiency” range, while among eastern provinces, Zhejiang recorded the highest score at 506. Many students in inland regions still lack confidence in using spoken English after ten years of formal instruction, and standardized tests fail to capture the communicative aspect of language proficiency. The psychological processes underlying these learners’ perceptions of their communicative language ability are of practical and theoretical importance.

Self-efficacy, “the judgment of one’s ability to organize and execute the actions necessary to produce desired outcomes” (Bandura, 1997), has been consistently identified as a significant predictor in language learning. An analysis of 493 effect sizes from 74 studies found that self-efficacy explained 10-18% of variance in language proficiency, while for East Asian students, effect sizes were higher than those for Western students (Wang & Sun, 2020). Another synthesis of 40 independent samples ($N = 23,050$) indicated a mean correlation of $r = .46$ between L2 self-efficacy and achievement (Goetze, Driver, & Teaching, 2022). These findings provide further evidence of the predictive value of self-efficacy beliefs. However, how these beliefs affect communicative outcomes instead of test performance is unknown.

Perceived communicative competence (PCC), according to the foundational work of McCroskey & McCroskey (1988), is the self-perceived ability of an individual to communicate effectively in different situations. PCC is differentiated from actual communicative competence; that is, a learner who performs well in grammar tests may not perceive themselves as competent communicators. The cross-validated structural equation model involving 439 university EFL students showed that speaking self-efficacy and PCC affected speaking output indirectly through willingness to communicate (WTC) mediation, and neither of these factors directly affected speaking output (Leeming et al., 2024). Thus, PCC is not an independent perception, but part of a chain of cause and effect in beliefs and communication. Most of the literature has focused on PCC as a predictor of WTC, while the antecedents of PCC itself remain underexplored.

L2 motivation, especially as conceptualized in the form of Dörnyei’s (2005, 2009) L2 Motivational Self System (L2MSS), represents a potential mechanism linking self-efficacy to PCC. The ideal L2 self is a central feature of the L2MSS and refers to the learner’s image of themselves as a competent user of the L2. In their study of 2,268 Chinese university students, Li et al. demonstrated the existence of emotions as a mediator between classroom environment and WTC in the Chinese EFL setting (C. Li, Dewaele, Pawlak, & Kruk, 2025). In a study of 427 Chinese undergraduates, Yang and Lian found that WTC mediated the effect of both self-efficacy and the ideal L2 self on pragmatic production (Yang & Lian, 2023). This

suggests a model in which self-efficacy influences motivation, and motivation influences perceived communicative competence. Specifically, no study has examined the direct mediation effect of this path from self-efficacy to L2 motivation to PCC. The setting of Central China adds to the gap, as the majority of the empirical support comes from coastal area universities or top-tier institutions.

1.2. Research Objectives, Research Questions, and Hypotheses

The present research examined whether L2 motivation mediates the relationship between self-efficacy and PCC among non-English-major university students in Central China. Three research questions guide the investigation: (RQ1) whether a significant positive correlation exists between self-efficacy and PCC; (RQ2) whether L2 motivation mediates the self-efficacy–PCC relationship; and (RQ3) whether such mediation is partial or full. Grounded in Bandura’s social cognitive theory and Dörnyei’s L2MSS, four hypotheses are proposed.

H1: Self-efficacy positively predicts PCC.

H2: Self-efficacy positively predicts L2 motivation.

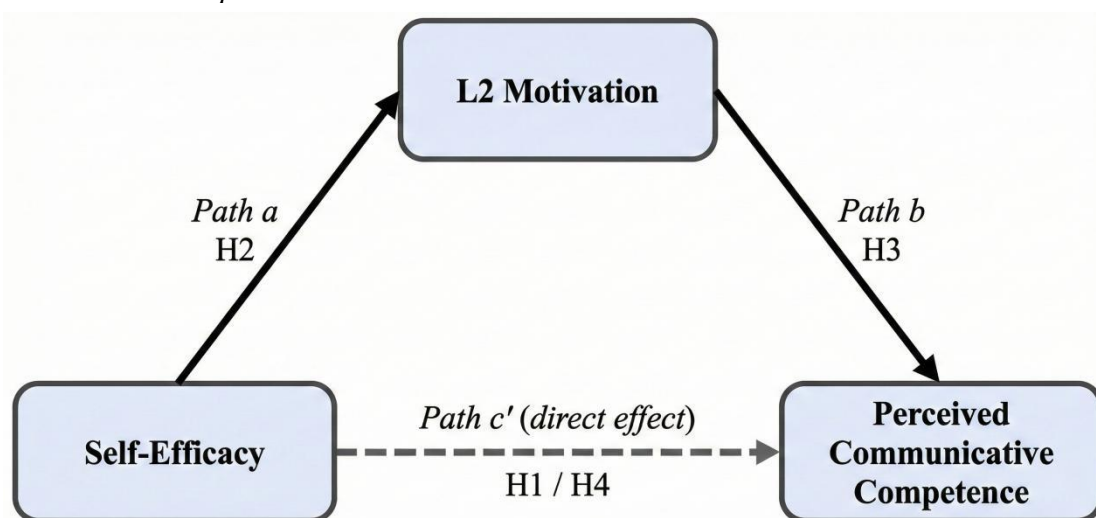
H3: L2 motivation positively predicts PCC.

H4: L2 motivation mediates the relationship between self-efficacy and PCC.

As presented in **Figure 1**, the proposed conceptual model uses self-efficacy as the independent variable, PCC as the dependent variable, and uses L2 motivation as the mediator with both direct and indirect effects.

Figure 1

Hypothesized Conceptual Model: Self-Efficacy → L2 Motivation → Perceived Communicative Competence



Note. Solid lines indicate indirect paths ($a \times b$); the dashed line indicates the direct effect (c'). H4 tests whether the indirect effect is significant.

1.3. Research Significance

Theoretically, the current study extends Bandura's self-efficacy theory to the domain of perceived communicative competence, which has received much less attention than proficiency and WTC in the context of mediation research. By integrating self-efficacy theory and the L2 Motivational Self System (L2MSS) in a single model of mediation, the current study addresses a gap that has been present in these two lines of investigation for over two decades. From a practical perspective, the data collected from the Central China region, where students have limited exposure to English and have low oral self-confidence, can be applied to inform specific interventions for these underrepresented regions. If motivation is found to be a significant mediator, interventions targeting mastery experiences and the ideal L2 self may enhance students' perceptions of communicative competence.

2. Methods

2.1. Participants and Sampling

Participants were 386 non-English major undergraduates from four public universities in the central region of China. These public universities were selected based on convenience sampling, with attention to diversity between research-oriented or teaching-oriented universities. In addition, the participants ranged from freshmen to seniors, and their mean age was 20.4 years ($SD = 1.52$). The gender distribution was reflected as 58.3% female and 41.7% male, close to the proportion of genders within non-English major cohorts at the participating institutions. All participants had learned English for at least six years prior to university enrollment. All were enrolled in English courses at the time of data collection. After applying incomplete-response and attention-check filters, 362 valid responses were retained for analysis. The effective response rate was 93.8%.

2.2. Instruments

Three measures were employed. Self-efficacy was measured using a 12-item subscale based on Pintrich et al.'s (1991) Motivated Strategies for Learning Questionnaire for English learning contexts. Responses were recorded on a 7-point Likert scale from 1 (not at all true of me) to 7 (very true of me).

Perceived communicative competence was measured through the Self-Perceived Communication Competence Scale (SPCC) developed by McCroskey & McCroskey (1988), which consists of 12 items measuring four contexts of communication: public speaking, large

groups, small groups, and dyadic interactions, and three types of receivers. The scale uses a 0–100-point system.

L2 motivation was measured using a 15-item scale based on Dörnyei's (2005) L2 motivational self-system, which has three subscales: ideal L2 self, ought-to L2 self, and L2 learning experience. The measurement scale ranged from 1 to 6 on a Likert scale of strongly disagree to strongly agree. The instruments were translated into another language and reviewed by two bilingual scholars of applied linguistics. The pilot study included 45 students. The results of the pilot study yielded Cronbach's alpha coefficients greater than .80.

2.3. Data Collection and Analysis Procedures

The questionnaires were administered during regular class sessions, with a combination of traditional paper-based and online versions (Wenjuanxing platform), depending on institutional preferences. The survey responses were anonymous, with no personal identifying information collected.

Data analysis involved four stages. First, descriptive statistics and normality were assessed. Second, reliability was evaluated via Cronbach's alpha, and construct validity was examined through confirmatory factor analysis ($CFI \geq .90$, $TLI \geq .90$, $RMSEA < .08$, $SRMR \leq .10$). Third, Harman's single-factor test addressed common method bias, followed by Pearson correlation analysis. Fourth, mediation was tested using Hayes' (2018) PROCESS macro (Model 4) with 5,000 bootstrap resamples; the indirect effect was significant if the 95% bias-corrected CI excluded zero. Good model fit was established by $CFI \geq .90$, $TLI \geq .90$, $RMSEA < .08$, and $SRMR \leq .10$. Harman's single-factor test was applied to examine CMB, followed by correlation analysis between the three variables. To examine the mediation effect, the PROCESS macro (Model 4) developed by Hayes (2018) was employed, and 5,000 bootstrap samples were used. The mediation effect was deemed significant if the 95% CI does not contain zero.

3. Results

3.1. Descriptive Statistics, Reliability, and Validity

Harman's single-factor test was performed before any substantive analysis. The initial factor without rotation explained 28.6% of the total variance, and as this was lower than 40%, common method bias was not a major concern. Confirmatory factor analysis of the hypothesized three-factor measurement model (self-efficacy, L2 motivation, PCC) produced acceptable fit indices: $\chi^2/df = 2.14$, $CFI = .92$, $TLI = .91$, $RMSEA = .056$, $SRMR = .048$. All standardized factor loadings were above .60. As shown in **Table 1**, Cronbach's alpha

coefficients ranged from .85 to .91, composite reliability (CR) ranged from .86 to .92, and average variance extracted (AVE) values were all above .50 for the three constructs. The square root of each AVE was higher than each of the inter-construct correlations.

Table 1

Reliability and Validity Results

Variable	Items	Cronbach's α	CR	AVE	$\sqrt{\text{AVE}}$
Self-Efficacy	12	.87	.88	.55	.74
L2 Motivation	15	.85	.86	.52	.72
PCC	12	.91	.92	.58	.76

Note. CR = composite reliability; AVE = average variance extracted; $\sqrt{\text{AVE}}$ = square root of AVE.

The descriptive statistics for the three variables are presented in **Table 2**. The self-efficacy score is approximately halfway through the range and its mean is 4.18 out of a possible 7. The motivation for L2 learning score is approximately halfway through the range and its mean is 3.76 out of a possible 6. The mean PCC score is 51.64 (out of 100). The standard deviations for all three variables are large.

3.2. Correlation Analysis

Pearson correlation coefficients among the three variables are displayed in **Table 2**. All bivariate correlations were positive and statistically significant at the $p < .01$ level. The strongest association was between self-efficacy and L2 motivation ($r = .487$), followed by self-efficacy and PCC ($r = .436$), and L2 motivation and PCC ($r = .412$). These moderate positive correlations provided preliminary support for H1 through H3 and justified proceeding with mediation testing.

Table 2

Descriptive Statistics and Correlation Matrix (N = 362)

Variable	M	SD	1	2	3
1. Self-Efficacy	4.18	1.03	—		
2. L2 Motivation	3.76	0.89	.487**	—	
3. PCC	51.64	16.82	.436**	.412**	—

Note. ** $p < .01$.

3.3. Mediation Effect Test

The mediation hypothesis was tested using Hayes' (2018) PROCESS macro (Model 4) with 5,000 bootstrap resamples. Regression results are reported in **Table 3**. In Step 1, self-efficacy significantly predicted PCC ($\beta = .436, p < .001$), accounting for 19.0% of its variance. In Step 2, self-efficacy significantly predicted L2 motivation ($\beta = .487, p < .001$), explaining 23.7% of variance. When both self-efficacy and L2 motivation were entered simultaneously in Step 3, self-efficacy retained a significant but reduced effect on PCC ($\beta = .313, p < .001$), while L2 motivation also predicted PCC independently ($\beta = .253, p < .001$). The combined model explained 24.2% of variance in PCC.

Table 3

Regression Analysis Results

Step	Path	β	SE	t	p	R ²
1	SE $\rightarrow$ PCC (total effect, c)	.436	.049	9.24	< .001	.190
2	SE $\rightarrow$ Motivation (path a)	.487	.043	10.56	< .001	.237
3	SE $\rightarrow$ PCC (direct effect, c')	.313	.053	5.91	< .001	.242
3	Motivation $\rightarrow$ PCC (path b)	.253	.052	4.87	< .001	

Note. SE = standard error of the coefficient; β = standardized coefficient.

As can be seen from **Table 4**, the indirect effect of self-efficacy on PCC via L2 motivation was statistically significant (effect = .123, Boot SE = .029, 95% CI [.069, .183]), thus confirming Hypothesis 4. The indirect effect accounted for 28.2% of the total effect. Although the direct effect remained significant when controlling for the mediator, it means that it is partial, thus answering Research Question 3.

Table 4

Bootstrap Test of Mediation Effect (5,000 Resamples)

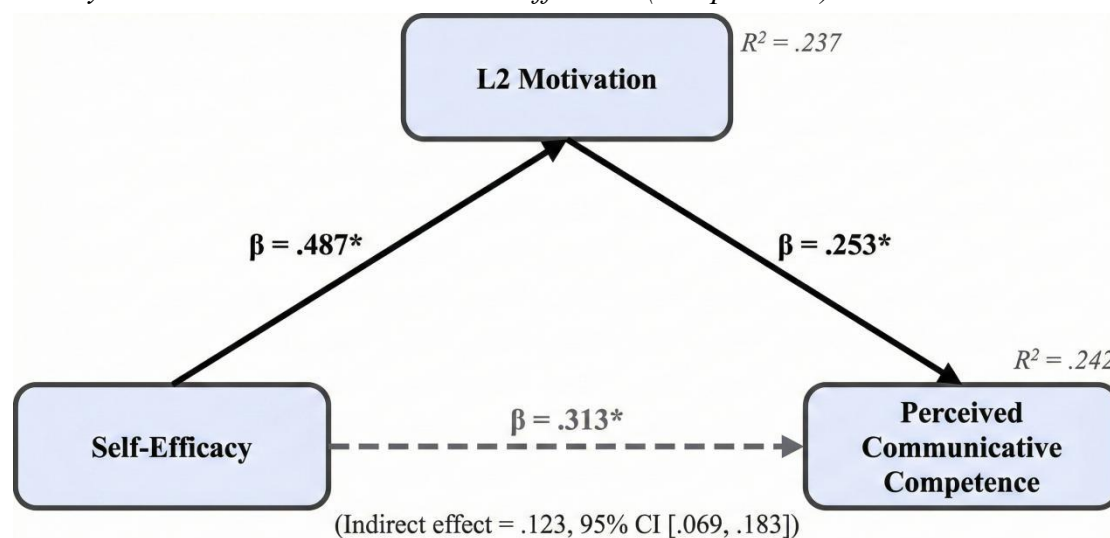
Effect	Estimate	Boot SE	95% CI Lower	95% CI Upper
Total effect (c)	.436	.049	.340	.532
Direct effect (c')	.313	.053	.209	.417
Indirect effect (a $\times$ b)	.123	.029	.069	.183

Note. Mediation ratio = indirect/total = 28.2%. CI = bias-corrected confidence interval.

The standardized path coefficients of the mediation model are illustrated in Figure 2. As shown in **Figure 2**, both the direct path ($\beta = .313, p < .001$) and the indirect path through L2 motivation ($\beta = .487 \times .253 = .123$) were significant, confirming that L2 motivation partially mediates the self-efficacy–PCC relationship.

Figure 2

*Path Analysis Results with Standardized Coefficients (***) $p < .001$*



Note. $N = 362$. Standardized coefficients reported. Solid lines represent the indirect path ($a \times b = .487 \times .253 = .123$); the dashed line represents the direct effect (c'). *** $p < .001$.

4. Discussion

4.1. Direct Effect of Self-Efficacy on Perceived Communicative Competence and the Mediating Mechanism of Motivation

The results reveal that self-efficacy has a positive predictive effect on PCC, both directly and indirectly via L2 motivation. The total effect is within the medium-to-large range as reported in previous meta-analytic studies, and the direct effect remains significant ($\beta = .313$) even after controlling for the mediator. This is consistent with the findings of Shang & Ma (2024), who examined 1,000 college students from a Central China university. Self-efficacy emerged as the most powerful predictor of English achievement, even surpassing learning motivation as a sole predictor ($\beta = .328$) (Shang & Ma, 2024). Notably, the effects reported in these two Central China studies are comparable, highlighting the power of self-efficacy in an environment with limited English exposure outside of the classroom.

The indirect effect via L2 motivation, though small (effect = .123, accounting for 28.2%), is statistically supported with bootstrap testing. Similar indirect effects have been found by Zhao et al. (2025), who examined self-efficacy and intrinsic motivation as co-mediators of WTC for Chinese English majors. The effects were found to be .208 and .213, respectively (Zhao, Li, Yu, Sin, & Zheng, 2025). The present findings extend that evidence by showing motivation mediates not just WTC but also the upstream perception of communicative competence. One possible explanation is that the learner with stronger self-efficacy beliefs possesses a more crystallized ideal L2 self, which in turn influences how they evaluate

themselves as communicators. Liu et al. (2025) found some supporting evidence for this sequence of effects with a chain mediation design, in which speaking self-efficacy was related to affective engagement before reaching WTC among 623 Chinese undergraduates (Liu, Sun, Zhang, Wang, & Yang, 2025). The present study extends this chain by positioning PCC as the dependent variable.

However, the R^2 of .242 implies that more than 75% of the variance in PCC remains unexplained. Additional predictors such as communication anxiety, classroom climate, and actual proficiency level would explain a large amount of the variance.

4.2. Pedagogical Implications

The mediation carries a practical implication: changing self-efficacy in isolation from motivation—ideal L2 self and positive L2 learning experiences—might not be sufficient to affect students' perceptions of their communicative competence. The quasi-experiment revealed that training on self-regulation strategy improved motivation, WTC, and self-efficacy simultaneously by using a 15-session training program (Zhang, 2024). Li et al. (2024) revealed that intrinsic motivation and engagement improved by using a 16-week intervention program based on Bandura's four sources of self-efficacy among Chinese EFL students (J. Li, Wang, Zhao, & Li, 2024). For instructors in Central China, where students lack access to immersive English environments, structured activities that combine mastery experiences with peer modeling and positive feedback may offer the most feasible pathway to enhancing perceived communicative competence.

5. Conclusion

The aim of the present study is to test whether L2 motivation would mediate the relationship between self-efficacy and PCC among 362 non-English-major undergraduates from four universities in Central China. The results show partial mediation effects of self-efficacy on PCC both directly ($\beta = 0.313$) and indirectly via L2 motivation, which explain 28.2% of the total effect. The total model explains 24.2% of the variance, suggesting that additional predictors warrant investigation.

Several limitations should be acknowledged. First, the associations are based on a single point in time, and it is not possible to determine whether self-efficacy is a precursor to motivation and PCC or the reverse. Second, the convenience sampling of four universities may not generalize to other institutions in Central China, particularly vocational colleges and private universities, where learners' characteristics vary greatly. All three methods used self-report, and though the Harman test for a single factor did not indicate the threshold,

method variance is still a concern. The SPCC scale, originally developed in a North American context, may not fully measure EFL students' perceptions of communicative competence in China, especially with regard to their face concern and reluctance to speak in public, which is not included in the SPCC.

Further studies should employ longitudinal or cross-lagged panel designs to explore the temporal relationships among the above factors over an academic year. Communication anxiety or classroom climate could be incorporated as another mediator or moderator to account for the unexplained 75% of PCC variance. Replication in western China would test the boundary conditions of the mediation model with limited English-language resources.

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Author contributions

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Data availability

No datasets were generated or analysed during the current study.

Declarations

Conflict of interest

The authors declare that there is no Conflict of interest.

Ethics approval

Not applicable.

Consent to participate

Not applicable.

Consent for publication

All authors have given their consent.

Additional information

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References

- [1] Goetze, J., Driver, M. J. S. i. S. L. L., & Teaching. (2022). Is learning really just believing? A meta-analysis of self-efficacy and achievement in SLA. 12(2), 233-259. <https://www.cceol.com/search/article-detail?id=1049156>
- [2] Leeming, P., Vitta, J. P., Hiver, P., Hicks, D., McLean, S., & Nicklin, C. J. L. L. (2024). Willingness to Communicate, Speaking Self-Efficacy, and Perceived Communicative Competence as Predictors of Second Language Spoken Task Production. 74(4), 917-949. <https://doi.org/10.1111/lang.12640>
- [3] Li, C., Dewaele, J.-M., Pawlak, M., & Kruk, M. J. L. T. R. (2025). Classroom environment and willingness to communicate in English: The mediating role of emotions experienced by university students in China. 29(5), 2140-2160. <https://doi.org/10.1177/13621688221111623>
- [4] Li, J., Wang, C., Zhao, Y., & Li, Y. J. T. Q. (2024). Boosting Learners' Confidence in Learning English: Can Self-Efficacy-Based Intervention Make a Difference? , 58(4), 1518-1547. <https://doi.org/10.1002/tesq.3292>
- [5] Liu, Z., Sun, D., Zhang, L., Wang, X., & Yang, Y. J. P. o. (2025). The impact of classroom interaction on willingness to communicate: The mediating roles of speaking self-efficacy and foreign language enjoyment. 20(7), e0328226. <https://doi.org/10.1371/journal.pone.0328226>
- [6] Shang, Y., & Ma, L. J. A. P. (2024). Classroom anxiety, learning motivation, and English achievement of Chinese college students: The mediating role of self-efficacy. 251, 104550. <https://doi.org/10.1016/j.actpsy.2024.104550>
- [7] Wang, C., & Sun, T. J. S. (2020). Relationship between self-efficacy and language proficiency: A meta-analysis. 95, 102366. <https://doi.org/10.1016/j.system.2020.102366>
- [8] Yang, H., & Lian, Z. J. B. S. (2023). Ideal L2 self, self-efficacy, and pragmatic production: The mediating role of willingness to communicate in learning English as a foreign language. 13(7), 597. <https://doi.org/10.3390/bs13070597>
- [9] Zhang, T. J. B. p. (2024). Effects of self-regulation strategies on EFL learners' language learning motivation, willingness to communication, self-efficacy, and creativity. 12(1), 75. <https://doi.org/10.1186/s40359-024-01567-2>
- [10] Zhao, M., Li, T., Yu, Y., Sin, K. F., & Zheng, E. J. S. O. (2025). Metacognitive Strategies and Willingness to Communicate in L2 Learning: A Mediation Model of Self-Efficacy and Intrinsic Motivation. 15(2), 21582440251340830. <https://doi.org/10.1177/21582440251340830>