

## **Does COVID-19 Matter? - A Quantitative Study on Chinese L2 Learners' Motivation**

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### **Abstract**

With current fast-changing Sino-US relations, and particularly considering the effects of COVID-19, there is a concern about Chinese language learners' motivation. Using the L2 Motivational Self System (L2MSS) as the theoretical framework, this study examined data from an anonymous online survey collected from 120 Chinese learners in 13 United States universities. The results show that a proposed new factor, COVID-19, as an example of a societal change factor, was relevant to L2 Chinese learning motivation. Of the three dimensions in L2MSS, Ought-to L2 self appears to be significantly predictive of a societal change factor. On the other hand, Ideal L2 self has a weak correlation with the COVID-19 factor, while Learning Experience appears irrelevant. Further, the results show that Chinese-major/minor students have different learning motivations from non-Chinese-

major/minor students during the ongoing COVID-19 pandemic. Also, participants share similar motivations regardless of years of learning Chinese.

**Keywords:** Motivation; Chinese as a Foreign Language; L2 Motivational Self System; COVID-19

## Introduction

Currently, Sino-US relations have become complicated. Notably, the American people have held an even less favorable opinion of China since the COVID-19 pandemic (Jones, 2020). This fast-changing sociopolitical context of the United States has caused concern, particularly among CFL (Chinese as a Foreign Language) educators, about whether and to what degree the ongoing pandemic has impacted student motivation to learn Chinese. Therefore, investigating CFL learner motivation to address such concerns within this challenging context appears necessary.

Motivation, one of the critical factors impacting language learning, has been explored in many L2 theoretical frameworks. Language learning motivation research has recently shifted towards a socio-dynamic model, represented by the L2 Motivational Self System (L2MSS) (Dörnyei, 2005, 2009). Many researchers have adopted this model to examine language learning motivation between different cultural and ethnic groups in various contexts (e.g., Campbell & Storch, 2011; Csizér & Kormos, 2009; Kim, 2009; Ryan, 2009; Taguchi, Magid, & Papi, 2009; Wen & Piao, 2020; Yashima, 2009). Furthermore, language learning is no longer considered a simply cognitive psycholinguistic but also a sociocultural and

sociohistorical situated process. Language learning motivation is always associated with individual learners' inner mental world while also being shaped by surrounding sociopolitical, economic, and language-ideological issues (Thompson, 2017a; Ushioda, 2009). However, as Ushioda (2009, 2020) points out, while the larger sociopolitical and ideological structures where learners are situated play a vital role in shaping individual learners' motivation, fewer L2 motivation studies have addressed this issue.

While L2 motivation studies have primarily focused on EFL/ESL learners, languages other than English in the United States have received limited attention (Thompson, 2017b). For example, motivation research using L2MSS on Chinese is scant (Wen & Piao, 2020). Therefore, using L2MSS as the theoretical framework, this study sought to understand current student motivation to learn Chinese in US universities and investigated the possible impact on student motivation posed by the COVID-19 pandemic in the context of complicated Sino-US relations.

## Literature Review

### The L2 Motivational Self System (L2MSS)

Influenced by Markus and Nurius' (1986) possible selves theory and Higgins's (1987) self-discrepancy theory, Dörnyei's (2009) L2MSS proposes that language learning motivation primarily consists of three components: the Ideal L2 self, the Ought-to L2 self, and the L2 Learning Experience. Dörnyei (2009) defined the Ideal L2 self as "the L2-specific facet of one's 'ideal self': if the person we would like to become speaks an L2, the 'ideal L2 self' is a powerful motivator to learn the L2" (p. 29). The Ought-to L2 self concerns "the attributes that one believes one ought to possess to meet expectations and to avoid possible negative outcomes" (p. 29). Finally, the L2 Learning Experience concerns situated, 'executive' motives related to the immediate learning environment and experience (e.g., the impact of the teacher, the curriculum, the peer group, the experience of success)" (p. 29). Under this theoretical framework, motivation can be understood as one's inner desire to reduce the discrepancy between one's actual self and the projected behavioral standards of the ideal/ought-to selves.

A proliferation of studies (e.g., Csizér & Kormos, 2009; Papi, 2010; Ryan, 2009; Taguchi, Magid, & Papi, 2009; Ushioda, 2009; Xie, 2014) have explored L2MSS in a variety of

contexts. For example, Taguchi et al. (2009) validated L2MSS across three Asian contexts: Japan, China, and Iran. The results confirmed the notion of integrativeness as part of the Ideal L2 self in L2MSS. In addition, previous studies demonstrated that the Ideal L2 self and the Ought-to L2 self, conceptualized as future-self guides, are reliable predictors of motivated learning behavior. Moreover, these studies also identified that L2MSS, besides the three core components, involves international posture (Yashima, 2009), attitude to learning L2 and the L2 community (Taguchi, Magid, & Papi, 2009). Collectively, these factors produce motivational power for language learning.

In addition to the L2 Learning Experience, which is considered an immediate learning environment (Dörnyei & Ryan, 2015), Ushioda's (2009, 2020) Person-in-Context Relational View of Motivation highlights the agency of individual learners with cultural and historical contexts where learners are embedded. For example, based on a large-scale longitudinal survey of language learning attitude and motivation in the sociopolitical transformation of post-communist Hungary, Dörnyei and his colleagues (Dörnyei & Csizér, 2002; Dörnyei et al., 2006) found a declining interest in learning German and other languages coupled with increased motivation in learning English. As a result, English has become the default choice of L2 learning due to the "Englishisation"

process (Dörnyei & Csizér, 2002). Thompson (2017a) also reports the case of an Arabic learner, Rachel, whose motivations were reshaped by the larger societal context. Rachel started to learn Arabic because she enjoyed the challenge of learning a non-European language. However, her attitude and motivation changed because of 9-11 when Arabic suddenly became a “smart” and marketable skill. As a result, she felt more motivated and did not “want to give up Arabic.” These studies illustrate a possible impact on language learning motivation of a society’s attitudinal change about particular languages.

Situated in a larger societal context with the fast-changing Sino-US relationship and general American people’s attitudes towards China, the COVID-19 pandemic might play a role in reshaping the motivation of CFL learners in the US. Therefore, the present study explores the relationship between the COVID-19 pandemic and Chinese language learner motivation in the US.

### **Chinese language learning motivation**

Because L2 motivation studies have primarily focused on EFL/ESL learning, less-commonly taught languages such as Chinese received less attention in the US (Thompson,

2017b). Moreover, few studies have applied L2MSS to the L2 Chinese context (Wen & Piao, 2020). Nevertheless, a few studies have confirmed that L2MSS can be applied to research on the motivation for learning Chinese. For example, Liu (2014) argues that L2MSS is an effective means toward understanding language learners' motivation across different contexts, including Chinese as a foreign language. Xie (2014) also supports the L2MSS framework's effectiveness when examining the motivations of heritage and non-heritage Chinese learners.

In addition to the three components of L2MSS, Ideal L2 self, Ought-to L2 self, and L2 Language Learning Experience, previous studies also identified several other factors shaping CFL learner motivation and investigated the interrelationship between the factors. For example, Lin (2018) included six factors: Ideal L2 self, Ought-to L2 self, Language Learning Experience, family influence, instrumentality (China and Mandarin), and intended effort. The study concluded that the Ideal L2 self has a strong positive relationship with the L2 Learning Experience, intended effort, and instrumentality (China and Mandarin). Furthermore, the Ought-to L2 self has a strong positive relationship with family influence but little or no relationship to the intended effort. Finally, the L2 learning



experience has a strong positive relationship with intended effort.

Several studies in L2 Chinese motivation also investigated the similarities and differences between students with different years of study. Wen (2013) found that Chinese language learners at different proficiency levels have different motivations. For example, students in elementary- and intermediate-level classes are more motivated by instrumentality, while self-confidence is the most vital motivational factor for advanced-level students. She argues that learner motivation changes from more extrinsic motivation, such as instrumental, to more intrinsic motivation, such as self-confidence, as proficiency levels improve. Liu (2014), however, found that Chinese language learners at different levels share similar motivations. Furthermore, no motivational factors were associated with a specific group.

Academic status seems to be another variable related to language learning motivation. Ryan (2009) investigated three EFL academic status groups in Japan (secondary school students, non-English-major university students, and English-major university students) and explored the differences between Ideal L2 self, integrativeness, and intended learning efforts across those groups. The findings supported the

assumption that English-major university students are likely to be more motivated than the other groups. The English-major group had consistently higher scores regarding their Ideal L2 self, integrativeness, and intended learning efforts. In addition, significant differences were identified between the English-major group and the other two groups. Along these lines, we can assume that students majoring or minoring in Chinese might be more motivated than other students. However, to our knowledge, whether and how Chinese major/minor students are different from other students regarding their motivation to learn Chinese has not been explored.

To sum it up, L2 Chinese motivation research has confirmed the validity of L2MSS in the L2 Chinese context and identified several motivational factors in addition to the three components of L2MSS. Campbell and Storch (2011) argue that the fast-changing status of China requires further motivation studies about learning Chinese as a second/foreign language. However, CFL learner motivations during the era of the COVID-19 pandemic are unclear. Though Thompson (2017a) suggests that learner motivations can be impacted by societal change, whether this COVID-19 pandemic has influenced CFL learner motivations needs exploration. Further, conflicting findings regarding the relationship between motivation and years of learning Chinese exist in the literature

(Liu, 2014; Wen, 2013). Finally, the impact of pursuing a major/minor in Chinese on learners' motivations is not clear.

Thus, to address these gaps in the literature, the present study adopted the framework of the L2MSS and a quantitative approach to explore CFL learner motivations at universities in the United States. The following research questions guided the present study:

- 1) In the current societal context, what factors influence CFL learners' motivations to study Chinese? Can COVID-19, as a societal factor, impact CFL learners' motivations?
- 2) How do the motivational factors interact with each other?
- 3) Are there differences in motivation...
  - a. Between Chinese major/minor students and non-Chinese major/minor students?
  - b. Between students with different years of learning Chinese?

## **Data and Methodology**

### **Participants**

Data were collected through an anonymous online questionnaire using Qualtrics. Invitations for participation

were sent out to CFL learners in eight public and five private universities in the United States. A total of 129 students responded. After screening, 120 students completed all the questions; the nine incomplete questionnaires were deleted. See Table 1 for the participants' information.

Table 1. Demographic Information of Participants (n=120)

Demographic variables	Number of respondents	Percentage of respondents
<b>Chinese Major/Minor</b>		
Chinese Major	21	17.5
Chinese Minor	46	38.3
Non-Chinese Major/Minor	53	44.2
<b>Heritage Learner</b>		
Heritage Chinese Learner (Self-report)	38	31.7
Non-heritage Chinese Learner (Self-report)	82	68.3
<b>Years of learning Chinese</b>		
Less than six months	20	16.7
Six months to one year	9	7.5
1-2 years	12	10
2-3 years	18	15
3-5 years	33	27.5
More than five years	28	23.5
<b>Institution Type</b>		
Private University	34	28.4
Public University	86	71.6

## Instruments

The questionnaire consisted of two sections: The first section consisted of five demographic questions: Chinese language learning backgrounds, including institution type,

years of learning Chinese, major/minor, and heritage background.

The second section consisted of 39 randomly arranged items measuring motivations. Based on the theoretical framework of L2MSS (Dörnyei, 2005, 2009), the first 25 questions were adopted and modified from the published motivational scales of language learning (Lin, 2018; Liu, 2014; Taguchi, Magid, & Papi, 2009). Only questions explicitly related to the present study were selected. In addition, since the present study investigated whether and to what degree the COVID-19 pandemic affects CFL learner motivations, 14 COVID-related questions were created because of the lack of existing studies on this topic.

All questions in the second section utilized a six-point Likert scale, ranging from 1=strongly disagree to 6=strongly agree. The second part of the survey asks questions along seven dimensions, including the Ideal L2 Self (ILS), Ought-to L2 Self (OLS), Learning Experience (LE), Instrumentality-Promotion (INSPRO), Intended Effort (IE), Attitude Toward Language Community (ATLC), and COVID-19 (See Table 2).

Table 2. The Questionnaire Category

Name of the Factor	Purpose	Item
1. Ideal L2 Self (ILS)	Investigate the imagined personally desired self of participants as future L2 users	Q5, Q6, Q7, Q8, Q17
2. Ought-to L2 Self (OLS)	Measure “the attributes that one believes one ought to possess (i.e., duties, obligation, responsibility) to avoid possible negative outcomes (Dörnyei, 2009, p. 29).”	Q10, Q11, Q12, Q13
3. Learning Experience (LE)	Measure participant perceptions of the actual language learning process and environment	Q1, Q2, Q3, Q4
4. Instrumentality-Promotion (INSPRO)	Measure participant-specific practical aspirations for using the Chinese language and hopes for future career development	Q8, Q11, Q14, Q15, Q16, Q23
5. Intended Effort (IE)	Used as the criterion measure to determine participant perceptions of the effort put into Chinese learning	Q18, Q19, Q20
6. Attitude Toward Language Community (ATLC)	Investigate learner attitudes toward the Chinese language community	Q9, Q21, Q22, Q24
7. COVID-19	Investigate if COVID-19 as a societal change factor affects learning motivation	Q26 to Q39

## Data collection and analysis

The online questionnaire was administered from late October to late November 2020. Invitation emails were sent to Chinese language instructors at 13 United States universities, and instructors distributed the emails to their students. Participation in the study was voluntary and anonymous. An online consent form and the right to withdraw participation were presented at the beginning of the questionnaire. The data obtained from the questionnaire was examined with SPSS 27.

Three major tests were used to analyze the data: 1) principal component analysis (PCA) was conducted to identify

the new constructs, and the coefficient of internal consistency (Cronbach  $\alpha$ ) of all factors was computed to test the reliability; 2) correlation analysis (Pearson) and multiple regression analysis were conducted to identify the relationship within factors and to reveal the predictive effects; 3) a one-way multivariate analysis of variance (MANOVA) test was administered to test the group difference between Chinese major/minor and non-Chinese major/minor as well as learners with different years of learning Chinese.

## **Results**

### **RQ1: COVID-19 as a societal change factor**

Initially, the factorability of the 39 items was examined. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .84, above the commonly recommended value .6. The Bartlett's test of sphericity was significant,  $\chi^2(465) = 2419.33$ ,  $p < .001$ . The communalities were all above .3, confirming that each item shares some common variance with other items. Given these overall indicators, factor analysis was suitable for all 39 items.

Principal component analysis (PCA) with varimax rotation was conducted to assess how the 39 items clustered

because RQ1 was to identify and compute the underlying factors between the newly-designed 14 questions. A total of eight items (Q1, Q5, Q14, Q17, Q22, Q25, Q35, and Q39) were eliminated because they were either found to have more than one significant loading or failed to meet the minimum criteria of having a primary factor loading of .4 or above. Table 3 displays the rotated factor loading matrix, with loading less than .4 omitted to improve clarity.

Results suggest that there are seven factors in the questionnaire as expected. Seven factors were rotated based on the over 1 criterion and the screen plot. After rotation, the first three factors accounted for 33.5% (COVID-19), 11.9% (INSPRO), and 7.4% (LE) of the variance, respectively. The fourth (ATLC), fifth (ILS), sixth (IE), and seventh (OLS) factors had eigenvalues just over one, which explained the variance's 5.6%, 4.7%, 4.2%, and 3.3%. COVID-19, as a new design factor, is substantially related to the other measures.



Table 3. Rotated Factor Loadings and Communalities for 31 items (N=120)

Factor 1: COVID-19	Factor loading							
	1	2	3	4	5	6	7	Com muna lity
Q29. Since the start of the COVID-19 crisis, I have become more interested in being a competent speaker	.88							.81
Q32. Since the start of the COVID-19 crisis, I feel more likely to continue learning Chinese	.88							.79
Q31. Since the start of the COVID-19 crisis, I feel it more necessary to learn Chinese in modern life	.82							.79
Q26. Since the start of the COVID-19 crisis, I feel more encouraged for Chinese language study	.82							.76
Q34. Since the start of the COVID-19 crisis, I would like to spend more time learning Chinese	.81							.72
Q27. Since the start of the COVID-19 crisis, I feel more attached to the Chinese learning community	.78							.69
Q28. Since the start of the COVID-19 crisis, I have become more interested in living abroad and using Mandarin effectively for communicating with the locals	.77							.72

Q33. Since the start of the COVID-19 crisis, I have wanted to major/minor in Chinese	.74							.63
Q38. Since the start of the COVID-19 crisis, I have been more interested in studying abroad in China	.73							.70
Q37. Since the start of the COVID-19 crisis, I have been more confident that speaking Chinese will help my future career opportunities	.73							.75
Q36. Since the start of the COVID-19 crisis, I have become more interested in Chinese people	.72							.72
Q30. Since the start of the COVID-19 crisis, my parents/ friends/peers have wanted me to learn the Chinese language	.67							.68
Factor 2: Instrumentality-Promotion (INSPRO)								
Q15. I am learning Chinese because speaking Chinese will help my future career opportunities		.82						.81
Q16. I am learning Chinese because having Chinese is a stepping stone to more life opportunities		.79						.79
Q11. Although English is the international language, speaking Chinese is going to be increasingly necessary for modern life		.76						.68
Q23. Learning Mandarin is important to me because China has an important role in the world		.64						.75

Q8. I can see myself using Chinese in my future career		.61						.77
Factor 3: Learning Experience (LE)								
Q2. I have good Mandarin teachers to help me with my Mandarin study			.81					.71
Q4. My Chinese learning experience so far has been encouraging for my future Chinese study			.76					.67
Q3. I feel I have a supportive community for my Chinese study			-.69					.53
Factor 4: Attitude Toward Language Community (ATLC)								
Q21. I am learning Chinese because I would like to know more about Chinese people				.73				.71
Q9. I am interested in knowing more about Chinese-speaking countries				.68				.70
Q24. I pay attention to the current affairs of China/Chinese speaking countries				.65				.59
Factor 5: Ideal L2 Self (ILS)								
Q7. I can imagine myself living abroad and using Chinese effectively for communicating with the locals					.84			.85
Q6. I can imagine myself being a competent speaker of Chinese in the future					.71			.70
Factor 6: Intended Effort (IE)								
Q20. If my Chinese teacher gave our class optional work, I'd choose to do it						.75		.61

Q18. I work hard at learning Chinese outside class						.75		.76
Q19. I am prepared to expend a lot of effort in learning Mandarin						.67		.69
Factor 7: Ought-to L2 Self (OLS)								
Q13. I learn Chinese to fulfill the foreign language requirement							.73	.62
Q12. I study Mandarin because my parents/friends/peers think it is important							.67	.70
Q10. Studying Mandarin is important to me in order to gain the approval of the society							.65	.61
Eigenvalues	7.94	3.40	2.36	2.28	2.09	2.06	1.87	
% of variance	33.50	11.94	7.43	5.69	4.77	4.27	3.35	

After accurately defining the constructs of each factor, the next step was to test the reliability of each factor. The coefficient of internal consistency of all factors was measured. The reliability analysis showed that all factors obtained acceptable Cronbach's alpha values and met the standards for social science research (e.g.,  $\alpha$  must be above 0.6) (Pallant, 2010). Therefore, the questionnaire items attained internal consistency ( $\alpha=.72$ ). Based on Pallant (2010), all the skewness and kurtosis figures were within the acceptable range (the values do not exceed 2.0 for skewness and 7.0 for kurtosis), and most data are normally distributed (See Table 4).

As shown in Table 4, the mean values for six of the seven motivational factors exceed the midpoint (3 out of 6), ranging from 3.4 to 5.1. Only the OLS mean is below the midpoint. The data suggest that most participants in this study had good Chinese learning experiences (M=5.1) and were highly motivated to learn Chinese (M=4.9). They aspire to use Chinese practically (M=4.8), and they are willing to invest efforts in learning Chinese (M=4.7). They generally have a positive image of the Chinese language-speaking community (M=4.6). During the COVID-19 pandemic, their motivation for learning Chinese is moderate (M=3.4). However, their belief in learning Chinese because of an external obligation is relatively low (M=2.8).

Table 4. Reliability and Comparative Analysis of Each Motivational Factor

Names of the factor	Mean	Standard Deviation	Cronbach's alpha value	Skewness	Kurtosis
LE	5.1	.7	.69	-.60	-.26
ILS	4.9	1.0	.71	-.84	.18
INSPRO	4.8	.9	.77	1.29	2.35
IE	4.7	.8	.74	-.24	-.64
ATLC	4.6	.8	.81	-.52	-.23
COVID	3.4	1.2	.95	-.10	-.38
OLS	2.8	1.3	.64	.64	-.31

## RQ2: Interaction among motivational factors

After defining the constructs and testing the reliability of each factor, correlation analysis and regression analysis were

administered to investigate the strength of the linear relationship between the seven motivational factors.

First, the data were analyzed using Pearson  $r$  multiple correlations. As suggested by Cohen (1988), if the correlation coefficient value exceeds .5, the strength of the correlation can be regarded as strong. The correlation strength is moderate if the correlation coefficient value is between .3 and .5. In our analysis, we focus more on the constructs with coefficient values above .4.

The results reveal that the factor, COVID-19, has a moderate correlation with INSPRO (.45), ATLC (.43), and OLS (.41), a weak correlation with ILS (.26) and IE (.24), and does not have a correlation with LE (.06) (See Table 5). The design of COVID-19-related questions aimed to determine if COVID-19, as an example of a societal change factor, can affect learner motivations. Such correlation suggests that students who believe in using Chinese tend to address the positive aspects of language learning since the pandemic. Students who study Chinese because of more extrinsic factors, such as career goals and practical aspirations, also seem more motivated. In addition, students who have positive attitudes toward the Chinese-speaking community also tend to be more motivated to learn Chinese. However, student learning experiences appear to be unaffected by the COVID-19

pandemic. Although the correlation between COVID-19 and Ideal L2 self is relatively weak in our analysis, an implication of a relationship exists.

Table 5. Pearson Correlation Coefficient Values for Each Motivational Factor

	Factor	1	2	3	4	5	6	7
1	LE	---						
2	ILS	.33*	---					
3	OLS	-.02	.05	---				
4	INSPRO	.10	.33*	.36*	---			
5	IE	.35*	.34*	.17	.35*	--		
6	ATLC	.18*	.41*	.07	.52*	.43*	---	
7	COVID-19	.06	.26*	.41*	.45*	.24*	.43*	---

*Notes:* LE=learning experience; ILS=ideal L2 self; OLS=ought-to L2 self; INSPRO=Instrumentality-promotion; IE=intended effort; ATLC=attitude to language community. \*= $p < 0.05$

The Attitude Toward Language Community (ATLC) items investigate a learner's attitude toward the Chinese-speaking community. ATLC has a moderate linear correlation with ILS (.41), IE (.43), and COVID-19 (.43). Of all the factors, ATLC has the strongest linear correlation relation with INSPRO (.52), suggesting that participants who tend to have a positive attitude toward the Chinese-speaking community also believe in the positive instrumentality of learning Chinese. The correlation between INSPRO and COVID-19 was the second strongest among all the factors (.45), suggesting that those with

higher instrumentality motivation tend to have higher motivation for learning Chinese during the COVID-19 pandemic.

Since one of the purposes of this study is to study the impact of COVID-19 on learner motivation to learn Chinese, the follow-up regression analysis attempts to answer what existing factors can contribute to predicting the proposed one.

First, the assumption of multicollinearity and normality was tested, and the data showed that these were not violated. The data also showed no significant deviation in normality values, and no outliers needed to be excluded. Then a multiple linear regression analysis was conducted to identify possible predictors of the COVID-19 out of the six candidate variables: INSPRO, OLS, ATLC, ILS, IE, and LE.

Table 6 shows that 35.2% of the variance can be accounted for the six predictors,  $R^2=.352$ ,  $F(6,113)=10.213$ ,  $p<0.001$ . The results show that only OLS ( $\beta=.34$ ,  $p<0.001$ ) and ATLC ( $\beta=.30$ ,  $p=0.003$ ) positively predict COVID-19. These results suggest that students whose OLS is high and who have a more positive attitude toward the Chinese language community are more motivated to learn Chinese during the COVID-19 pandemic.



Table 6. Multiple Regression Coefficients and Significance of Predictors for COVID-19

COVID-19	B	SEB	$\beta$	t	<i>p</i>
ATLC	.38	.12	.30	3.09	.003*
OLS	.32	.08	.34	4.04	<.001*
INSPRO	.20	.13	.15	1.57	.120
ILS	.11	.11	.09	1.05	.295
LE	-.06	.14	-.03	-.39	.698
IE	-.03	.13	-.02	-.20	.845

\*=  $p < .05$

### **RQ3: Difference between Chinese major/minor and non-Chinese major/minor students and differences among students in different years of learning Chinese**

A one-way MANOVA was implemented to examine significant differences in the motivational factors regarding major/minor status and years of learning Chinese. Students majoring or minoring in Chinese were grouped (N=67); those not majoring or minoring in Chinese constituted another group (N=53). According to the nonsignificant result of Box's test (.12), the assumption of homogeneity was met. The descriptive statistics of the seven factors for major/minor groups can be seen in Table 7. The results show a statistically significant difference between the Chinese major/minor and non-Chinese major/minor groups among all motivational factors,  $F(7,112)=3.648$ ,  $p=.001$ , Wilk's  $\Lambda=.814$ , partial

$\eta^2=.968$ . The follow-up one-way ANOVA initially indicated that there were significant differences only with COVID-19 ( $p=.003$ ). No significant difference was found with LE ( $p=.771$ ), ILS ( $p=.189$ ), OLS ( $p=.705$ ), INSPRO ( $p=.139$ ), IE ( $p=.067$ ), and ATLC ( $p=.143$ ). This result suggests that whether students majored or minored in Chinese affected their motivation to learn Chinese during the COVID-19 pandemic. Students with a Chinese major/minor tend to be more motivated than non-Chinese major/minor students.

Table 7. Descriptive Statistics and ANOVA Results for Major/Minor groups

	Major/Minor		Non-Major/Minor		ANOVA Results			Observed power
	N=67		N=53		F	$\eta^2$	p	
	M	SD	M	SD				
LE	5.2	0.7	5.1	0.8	.09	.001	.771	.060
IDS	5.0	0.9	4.7	1.1	1.74	.015	.189	.258
OLS	2.7	1.3	2.8	1.3	.14	.001	.705	.066
INSPRO	4.9	0.8	4.7	1.1	2.22	.018	.139	.315
IE	4.6	0.9	4.9	0.8	3.41	.028	.067	.449
ATLC	4.7	0.9	4.5	1.1	2.18	.018	.143	.310
COVID	3.8	1.2	3.1	1.2	10.05	.079	.002	.882

When examining the differences between years of Chinese language learning, to make the groups comparable in terms of the number of participants, students who reported learning Chinese less than three years were grouped (N=59), and students who reported learning Chinese for more than three years were grouped (N=61). The results reveal no statistically significant difference between years of learning Chinese in

terms of all motivational factors,  $F(7,111)=.620$ ,  $p=.739$ , Wilk's  $\Lambda=.962$ , partial  $\eta^2=.38$ .

## **Discussion**

### **The L2MSS and COVID-19 as a societal change factor**

This quantitative research was conducted to examine the motivational factors of Chinese learners in the ongoing COVID-19 pandemic societal context. The present study aimed to understand if COVID-19 affects CFL learner motivation as an example of a societal change factor.

Consistent with previous studies (e.g., Dörnyei, 2005, 2009; Lin, 2018; Liu, 2014; Ryan, 2009; Taguchi, Magid, & Papi, 2009), the findings of the present study confirm that all six factors (Ideal L2 self (ILS), Ought-to L2 self (OLS), Learning Experience (LE), Instrumentality-Promotion (INSPRO), Intended Effort (IE), and Attitude Toward Language Community (ATLC)) are critical dimensions of L2MSS and play essential roles in foreign language learnings. The results of RQ1 also indicate that COVID-19, as an example of a societal change factor, could influence CFL learner motivation and could be an underlying tenet worth exploring in L2MSS. Thompson (2017a) suggests that changes

in the societal environment can reshape language learner motivation. The findings of this study provide support to Thompson's (2017a) argument.

The results of RQ2 further indicate that COVID-19 as a societal change factor is related to the other factors in L2MSS. The present study found the highest coefficients between COVID-19 and ATLC, OLS, and INSPRO. The findings reveal that perceptions of ATLC and OLS can predict how changes in the social environment affect CFL learners' motivations (see Table 6). First, ATLC was the best predictor of a societal change factor, which means students who have a positive attitude toward the Chinese language community would likely be motivated to learn Chinese during the pandemic. On the other hand, a CFL learner who does not wish to engage with the Chinese-speaking community is less likely to be devoted to learning the Chinese language during the pandemic.

Ought-to L2 Self (OLS) is the second factor that can predict learners' perceptions of learning motivation during social environment changes. RQ2 results suggest that students who study Chinese because of extrinsic factors tend to be more motivated to learn Chinese during the pandemic. According to the profiles of the study participants, most participants scored

low in OLS and scored high in ILS. The results indicate that most learners in our research study Chinese not from external obligations or pressures but are driven by how they would like to be imagined as an L2 language user. According to the mean scores ( $M=3.4$ ) of COVID-19 related questions, participants reported neither significantly increased motivation nor decreased motivation during the pandemic.

Furthermore, Instrumentality-Promotion (INSPRO) is the third factor related to motivation during societal change. Although INSPRO cannot predict the COVID-19 factor, it is positively associated with the societal change factor. This finding suggests that students who believe in the practicability of Chinese are also likely to maintain motivation to learn Chinese during the pandemic.

Besides discussing the factors related to COVID-19, it is still worthwhile to explore the factors that are not associated with it. Based on our findings, only Learning Experience (LE) is not correlated with the COVID-19 factor (see Table 5). Interestingly, LE has the highest mean score ( $M=5.1$ ), which means that participants in our study generally have an encouraging Chinese language learning environment, including teachers and learning community. L2 Learning Experience (LE) concerns situation-specific motives related to the

immediate learning environment and experience (Dörnyei, 2019). Therefore, the societal change factor in our study could be considered a non-immediate learning environment for learners. The findings indicate that the non-immediate learning environment does not affect learners' immediate learning environment. If learners have an engaging and encouraging learning experience, societal changes will not influence their learning motivation.

### **Group difference between Chinese major/minor and non-Chinese major/minor students**

RQ3 results suggest that Chinese major/minor or non-Chinese major/minor students have different motivations to learn Chinese during the ongoing COVID-19 pandemic. The findings indicate that Chinese major/minor students are more motivated to learn Chinese. RQ2 results have revealed that motivation is related to both intrinsic and extrinsic factors. Understandably, a Chinese major/minor student is more committed to Chinese language learning, more likely to have positive attitudes to the L2 Chinese language community, and more willing to use the Chinese language in their future career development. Our findings echo Ryan (2009)'s research on EFL learners and provide further evidence that foreign

language majors have different motivations from non-major learners.

In addition, no group difference was found regarding the years of language learning. Wen (2013) claimed that the most robust motivation of advanced level students is self-confidence, which is related to integrativeness motives and Ideal L2 self. In contrast, instrumentality is the strongest motivation for elementary- and intermediate-level students. However, Liu (2014) reported that no specific motivational factor dominates in the groups with different years of Chinese language learning. Our results are in alignment with Liu's (2014) findings. CFL learners' Ideal L2 self and Instrumentality-Promotion were both found to be consistent between the two groups with different years of learning Chinese.

## **Teaching Implications**

### **Cultivate students' positive attitude toward the target language community**

There is a doubt and worry among CFL instructors that learner motivations are negatively affected because of the political and social environment change in the United States.

However, our findings provide evidence that the COVID-19 pandemic may not demotivate students' language learning but instead encourages students to learn Chinese, especially those with a positive attitude toward the Chinese-speaking community.

Karahan (2007) argues that a successful learner possesses positive attitudes towards the target language. Although instructors cannot control how students imagine the Chinese-speaking community outside the classroom, some strategies can be adopted to encourage and lead students to possess a positive attitude toward the target community.

- 1) Opportunities for US college students to interact with Chinese native speakers remain limited. Therefore, creating different opportunities for students to interact with the Chinese language-speaking community outside the classroom is vital. For example, more Chinese international students are coming to the US, making communications between CFL learners and Chinese international students accessible. In addition, instructors can help connect students with language partners in China by taking advantage of internet technology. Instructors can also lead cultural field trips to provide students with opportunities to interact with local Chinese



communities. Studying abroad is another golden opportunity for students to interact with native Chinese speakers. Therefore, instructors should promote and encourage students to study overseas. When abroad, it is crucial to encourage students to walk out of their comfort zone and emphasize the importance of interacting with local people.

- 2) Connecting current affairs with textbook material in the class is another strategy that can be appealing to students. Students scored high in the survey when asked to evaluate “I pay attention to the current affairs of China/Chinese-speaking countries.” Bringing students’ attention to what is currently happening in the Chinese-speaking community can help build a bond. Once such a bond is established, students seem not to be demotivated easily.
- 3) Culture is another aspect that can be used to build the connection. Although this is not a new idea for language instructors, nurturing the cultural interest of L2 learners is essential in fostering a positive attitude toward the Chinese language community. Engaging students in cultural practice

and teaching courses grounded in cultural context is the key.

### **Keep improving students' learning experience.**

As discussed, students' learning experiences are not related to the COVID-19 societal change. Knowing that societal change minimally affects student motivations if they have a helpful teacher, creating an encouraging learning environment, and having a supportive learning community should be inspiring findings for CFL instructors. Previous empirical studies have found that learning experience is commonly the most potent predictor of motivated behavior. School context, teaching materials, learning tasks, peers, and teachers are the meaningful facets that can increase student engagement in the learning process (e.g., Csizér & Kormos, 2009; Dörnyei, 2019; Papi 2010; Papi & Teimouri, 2012; Taguchi, Magid & Papi, 2009). In addition, most participants in our study reported being satisfied with their Chinese learning experience ( $M=5.1$ ), which is indeed a recognition of CFL instructors' hard work. Therefore, instead of being concerned about the negative influence of COVID-19, instructors should focus on ensuring a highly satisfactory learning experience for students, including providing an engaging, encouraging, and supportive learning environment.

## Program-level Consideration

Based on our results, the extrinsic factors (e.g., Instrumentality-Promotion and Ought-to L2 Self) of learners' motivation are positively related to the social-environment change. Students in various types of schools may require different career goals and development. Understanding and tailoring students' actual needs are helpful for the Chinese program to increase learner commitment to learning the language. Following are some suggestions regarding program-level operation:

- 1) Considering that the Instrumentality-Promotion factor is positively associated with the societal change factor, students' practical aspirations for using language are essential. Therefore, providing clear career guidance regarding the Chinese language is beneficial in motivating students to learn Chinese. Learners need to realize career opportunities, and instructors should publicize employment opportunities requiring Chinese language proficiency. Inviting Chinese program alumni to introduce personal career stories is also helpful for encouraging current students to continue learning Chinese.
- 2) In our findings, students with higher Ought-to L2 self (e.g., learn languages because of certain obligations,

duties, and requirements) are likely to maintain language motivation during social-environment changes. Although it is not up to the instructors to decide school-level foreign language requirements or set up Chinese major/minor programs, it is worthwhile for them to advocate foreign languages as a curriculum requirement to school administrators. Learning a foreign language is a critical part of preparing learners to be global citizens, and thus, inclusion into curriculum requirements is highly recommended.

## **Conclusion**

Does COVID-19 affect CFL learner motivation? The simple answer to this question: Yes, it can affect learners' motivation, but the impact is nuanced. This study is an initial inquiry in investigating the position of the societal change factor in the L2MSS. The proposed new factor, COVID-19, as an example of a societal change factor, was relevant to L2 Chinese learning motivation. Between the three main dimensions in L2MSS, Ought-to L2 self is the primary predictor of the societal change factor COVID-19. Ideal L2 self has a weak correlation with the COVID-19 factor, while Learning Experience seems irrelevant. Attitude toward L2

Language Community and Instrumentality-Promotion are two other factors related to the societal change factor. In addition, Chinese major/minor students have different learning motivations from non-Chinese major/minor students during the ongoing COVID-19 pandemic. No significant difference was found between students with varying years of learning Chinese.

Our findings are not without limitation. First, this study is among the first to investigate the effect of social-environment change in language learning motivation. Because of the small sample size, only correlation analysis was used. A structural equation modeling (SEM) analysis must be conducted using a larger sample size for future study. Second, the COVID-19 pandemic is still ongoing, and this survey was conducted in the middle of the pandemic. CFL learner perceptions may change as the pandemic continues. Therefore, it would be worthwhile to conduct a longitudinal study to track how learner perceptions of motivation shift with political and environmental changes.

Finally, our study only reached out to college students currently learning Chinese. It will be interesting to see how the societal change factor affects the group of students planning to learn Chinese but who have not started yet or who have

learned Chinese but dropped out because of the COVID-19 pandemic. The relationship between certain societal change factors and nationwide declining trends in Chinese class enrollment is also worth exploring.

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## Appendix

### Questionnaire

#### Section 1

1. Please select the type of institute(s) where you are/were studying now

- Four-year Private University/College
- Four-year Public University /College
- Others

2. What proficiency levels of Chinese language course are you taking?

- Beginning level
- Intermediate level
- Upper intermediate level
- Advanced level
- Others

3. How long have you been learning Chinese?

- <6 months
- 6 months to 1 year
- 1 - 2 years
- 2 - 3 years
- 3- 5 years
- >5 years

4. Are you majoring or minoring (or did you major) in Chinese language or Chinese studies?

- Yes-1 I am majoring in Chinese
- Yes-2 I am minoring in Chinese
- No-I am not majoring/minoring in Chinese language
- Not applicable- We don't offer Chinese major in the school
- Not applicable- We don't offer Chinese minor in the school

5. Do you consider yourself of Chinese heritage?

- Yes
- No

## Section 2

Following are a number of statements with which some people may agree and others may disagree. Please read them carefully and indicate your opinion to each of them by putting an X on the 6-points scale to best reflect the extent to which you agree or disagree with the statement. Note that 1=strongly disagree 6= strongly agree

- I find learning Chinese really interesting.
- I have good Mandarin teachers to help me with my Mandarin study.

- I feel I have a supportive community for my Chinese study.
- My Chinese learning experience so far has been encouraging for my future Chinese study.
- Learning Chinese is important for my own personal satisfaction.
- I can imagine myself being a competent speaker of Chinese in the future.
- I can imagine myself living abroad and using Mandarin effectively for communicating with the locals.
- I can see myself using Chinese in my future career.
- I am interested in knowing more about Chinese-speaking countries.
- Studying Mandarin is important to me in order to gain the approval of society.
- Although English is the international language, speaking Chinese is going to be increasingly necessary in modern life.
- I study Mandarin because my parents/friends/peers think it is important.
- I learn Chinese to fulfill the foreign language requirement.

- I am learning Chinese because speaking Chinese will help me when traveling abroad.
- I am learning Chinese because speaking Chinese will help my future career opportunities.
- I am learning Chinese because having Chinese is a stepping stone to more life opportunities.
- I am learning Chinese because I like to challenge myself.
- I work hard at learning Chinese outside class.
- I am prepared to expend a lot of effort in learning Mandarin.
- If my Chinese teacher gave our class optional work, I'd choose to do it.
- I am learning Chinese because I would like to know more about Chinese people.
- Learning Mandarin is important to me because Mandarin is one of the most important languages in the world.
- Learning Mandarin is important to me because China has an important role in the world.
- I pay attention to the current affairs of China/Chinese speaking countries.
- Studying Mandarin is important to me because I am planning to study abroad.

### Section 3

Following are a number of statements with which some people may agree and others may disagree. Please read them carefully and indicate your opinion to each of them by selecting on the 6-points scale to best reflect the extent to which you agree or disagree with the statement. Note that 1=strongly disagree 6=strongly agree

- Since the start of COVID-19 crisis, I feel more encouraged for Chinese language study.
- Since the start of COVID-19 crisis, I feel more attached to the Chinese learning community.
- Since the start of COVID-19 crisis, I have become more interested in living abroad and using Mandarin effectively for communicating with the locals.
- Since the start of COVID-19 crisis, I have become more interested in being a competent speaker.
- Since the start of COVID-19 crisis, my parents/friends/peers have wanted me to learn the Chinese language.
- Since the start of COVID-19 crisis, I feel more necessary to learn Chinese in modern life.
- Since the start of COVID-19 crisis, I feel more likely to continue learning Chinese.

- Since the start of COVID-19 crisis, I have wanted to major/minor in Chinese.
- Since the start of COVID-19 crisis, I would like to spend more time learning Chinese.
- Since the start of COVID-19 crisis, I have paid more attention to the current affairs of China/Chinese speaking countries.
- Since the start of COVID-19 crisis, I have become more interested in Chinese people.
- Since the start of COVID-19 crisis, I have been more confident that speaking Chinese will help my future career opportunities.
- Since the start of COVID-19 crisis, I have been more interested in studying abroad in China.
- Since the start of COVID-19 crisis, I have experienced challenges in my Chinese language studies.