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Construction of a Motivational Self-System Instrument for the Learning of Persian as a L2

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Abstract

The purpose of the study was to develop a motivational Self-System instrument for learning Persian language as a second language (L2) with an acceptable validity and reliability. To do so, first of all, based on existing literature especially Zoltán Dörnyei's works and also qualitative methods, a six-factor Persian questionnaire was prepared which comprised: L2 Ideal self, L2 Ought-to self, L2 Learning experience, L2 self-efficacy, International posture & L2 learning experience items. The population of the study consisted of foreign students of Imam Khomeini International University, Persian learning faculty of the 2015-16, second semester (N=100). The sampling method was done through a census survey and sample size was (n=73). The reliability of the questionnaire items were measured in terms of Cronbach's alpha & bisection method. A descriptive research design, was used with Confirmatory factor analysis (CFA) for construct validity, as well as experts' input for face validity and content validity ratio (CVR) for content validity. The results from the 73 participants demonstrated that all items had an acceptable factor loading except in International posture in item no.27 which was removed from the questionnaire. The Cronbach's alpha for the questionnaire was 0.947. The estimated significance levels were more than 0.05 for each item which demonstrated the normality of all the study variables. It can be concluded that the Persian researcher-developed questionnaire on motivational self-system has both acceptable variability and reliability.

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Keywords: Motivational Self System ; Second language(L2); Learning Persian.



1. Introduction

Motivation plays a key role in human behaviors, and is defined as our reason and motivations to do or even not to do something. Motivation has been always been a very interesting and applicable topic of research in learning. Keller (2010) refers to motivation as one's desires, choices and actions.

In a similar way, motivation has been considered a critical factor in human behaviour and actions such as in L2 learning; As Dörnyei (2005) notes, motivation as an important factor in learning generally and mastering a second language. Despite its importance, L2 motivational studies is still in its infancy and the complex construct of motivation needs to needs to be further investigated.

In the case of learning Persian as a L2, this necessity is more critical, as this specific area lacks investigation as evidenced by the authors who could not find any literature on Persian L2 motivational factors and models. Hence, no acceptable instrument could be found to investigate learners' motivational variables and their relationship. As a result of this gap, Persian language instructors have no attainable instrument to analyze their instructional motivational factors and make necessary modifications to improve their insructional practices. Although there are various accessible motivational models for the teaching and learning of English Language as Foreign Language (EFL) they need a picture-like model for learners' motivational factors which has been designed especially for their context and appropriate for Persian learning. However, Taguchi, Magid, & Papi, (2009) prepared a Persian questionnaire on learning EFL for Iranian learners, based on Dörnyei (2003), who examined a motivational *self-system* with a Persian questionnaire, but not for learning Persian as L2. In this regard, the present study will be a milestone and the first step to design future Structural equation modeling related to this topic.

Considering the literature in EFL learning and other languages, the authors selected a *motivational self-system* model as the framework of their inspiration which will be described in the next section. Some motivational variables based on the literature have been added to examine their relationship in the learning of Persian as an L2 context.

1.1 What is L2 Motivational Self-System

According Dörnyei (2009), the creator of the self system, *motivational self system* has three items of *Ought to self*, the *ideal self* and the *L2 learning experience*. But what do these items mean? The Ideal L2 Self has been defined as one's ideal self-image regarding mastering an L2 and the Ought-to self has been considered as the one's idea on the obligations and necessities which necessitate him/her to learn an L2. Finally, the L2 Learning experience is related to a complex network of personal experiences of learning L2, involving multiple factors like L2 teachers' impact, L2 curricula, instructional methods and even the individual's own experience of failure or success in the L2 learning process (Dörnyei, 2005).

1.1.1 International Posture(IP):

Yashima (2002), describes international posture as a tendency to favor international subjects, being interested in travelling other countries, working abroad or in an international environment, openness toward foreign cultures, languages and persons and even being interested in international news and events.

1.1.2 Motivated learning behavior (MB)

This is a variable considered to operationally define the construct of motivation and has been described as the learner's levels of practical effort to learn the L2 (Dörnyei, 2005; Dörnyei et al., 2006).

1.1.3 L2 self efficacy(SE)

Self-efficacy has been described as individuals' beliefs in their abilities to perform a task (Bandura, 1986). Self-efficacy in learning a second/foreign language has been defined as the ways in which self-efficacy affects language learning (Raofi, 2012)

In 2010, Papi added the L2 anxiety & intended effort (operating on a similar definition of motivated behavior) to the self-system model. Takeuchi and Ueki (2013) present a model of perceived amount of information, L2 ideal self at micro & macro levels, L2 self-efficacy, L2 learning motivated behavior and L2 anxiety. Aubrey's (2014) model also has items comprising Ideal self, Ought-to self, Motivated behavior, Learning experience and International posture.

2. Problem Statement

Although motivation is a key factor in L2 learning and a complex construct with multiple factors, there is to date, no appropriate questionnaire to measure learning Persian as an L2 in the related literature.

3. Research Question

This study investigates if the six-factor researcher-developed Motivational Self-System questionnaire has acceptable validity and reliability to measure Persian as an L2 learners' perceptions on their motivational self?

4. Study Purpose

The purpose of the study was to develop a Motivational Self-System instrument to investigate Persian as an L2 learning.

5. Research Methods

5.1. Participants

The study population consisted of foreign students of Imam Khomeini International University, in Iran(Qazvin), in the Persian language learning faculty in the 2015-16 second semester. The sample was selected based on a census survey method. The sample size at the onset of the study was N=100. However, the sample size was estimated to be sufficient at n=79 with Cochran's formula, but for more accuracy the questionnaires were distributed to all the 100 identified sample. After acceptable questionnaires specification, the final sample size was defined at n=73. Table 1 below shows some demographic characteristics of participants.

Table 1.Participants' Demographic Information

Participants' Demographic Characteristics(n=73)		
Age/Mean		23.15(2.78)
Sex		
	Male	39(53.4%)
	Female	34(46.6%)
Mother Tongue		
	Chinese	10(13.7%)
	Tajik	5(6.8%)
	Arabic	48(65%)
	Non answer	10(13.7%)
Persian language proficiency		
	Basic	6(8.2%)
	Intermediate	9(12.3%)
	Advanced	22(30.1%)
	None answer	36(49.3%)
Other foreign languages		
	Yes	34(46.6%)
	None	39(53.4%)

5.2. Instruments

A six-factor Persian questionnaire developed by the authors based on existing literature especially Zoltán Dörnyei's works and also qualitative methods. The six-factor Persian questionnaire comprised L2 Ideal self (IS), Ought-to self (OS), Learning experience (LE), L2 self-efficacy(SE), International posture(IP) & L2 motivated behavior (MB) items. The preliminary questionnaire contained 34 items using a Likert response scale. The items of IP,SE & MB were added to the original items proposed by Dörnyei's self-system, based on their relationship to the current study variables as presented in the literature.

5.3. Procedure

Face validity was determined through some surveys and interviews with experts on questionnaire items. The number of experts who were interviewed was 12 who according to Lawshe's table is minimum of acceptable CVR must be 0.56. After questionnaire distribution to 100 students, 85 questionnaires were returned of which 73 acceptable questionnaires were selected. A descriptive research design using Confirmatory factor analysis (CFA) for construct validity, experts' input used for

face validity and content, and validity ratio (CVR) for content validity. The reliability was measured in terms of Cronbach's alpha & bisection method questionnaires.

5.4. Analysis

The data was analyzed using SPSS21. A confirmatory factor analysis (CFA) was used to specify the proper questions for each item of the questionnaire. The results showed that all items were acceptable except item no 27 which was discarded. Additionally, Cronbach's alpha was applied to estimate the questionnaire reliability. Following that, the items correlation were calculated based on *Pearson Correlation* after which the items mean score was estimated. The *Friedman Test* was used to compare these means.

6. Findings

The experts affirmed that all questionnaire items were valid and understandable, hence the instrument has face validity. Regarding the content validity, the CVR results are shown in table 2 below. The P.M & N.P abbreviations mean 'proper question must be modified' & 'not proper' respectively.

Table 2. CVR values for each item questions

	P	M	N.P	CVR		P	M	N.P	CVR
Question. 1	10	1	1	0.67	Question .18	10	1	1	0.67
Question. 2	11	1	0	0.83	Question.19	11	0	1	0.83
Question .3	12	0	0	1.00	Question.20	10	1	1	0.67
Question.4	11	1	0	0.83	Question.21	10	1	1	0.67
Question.5	10	2	0	0.67	Question. 22	11	0	1	0.83
Question.6	10	2	0	0.67	Question .23	12	0	0	1.00
Question .7	10	1	1	0.67	Question .24	11	0	1	0.83
Question. 8	11	1	0	0.83	Question .25	10	1	1	0.67
Question .9	10	1	1	0.67	Question. 26	11	1	0	0.83
Question.10	12	0	0	1.00	Question .27	10	2	0	0.67
Question.11	12	0	0	1.00	Question28	10	2	0	0.67
Question.12	11	1	0	0.83	Question29	11	0	1	0.83
Question.13	10	1	1	0.67	Question.30	12	0	0	1.00
Question.14	10	2	0	0.67	Question. 31	10	2	0	0.67
Question.15	10	2	0	0.67	Question. 32	10	2	0	0.67
Question.16	10	2	0	0.67	Question.33	11	1	0	0.83
Question.17	11	0	1	0.83	Question.34	12	0	0	1.00

The results of CFA and t values for each item is illustrated in table 3 which are indicators for construct validity.

Table 3. Factor loading & t-values

Items	Questions No	Factor loading	t -values
IS	Q1	0.68	6.45
	Q2	0.43	3.69
	Q3	0.88	9.24
	Q4	0.81	8.14
	Q5	0.45	4.20
	Q6	0.64	5.91
OS	Q7	0.93	0.26
	Q8	0.87	9.17
	Q9	0.83	8.49
	Q10	0.82	8.36
	Q11	0.65	6.02
	Q12	0.82	8.36
LE	Q13	0.69	6.70
	Q14	0.81	8.36
	Q15	0.80	8.16
	Q16	0.62	5.87
	Q17	0.90	9.77
	Q18	0.82	8.52
SE	Q19	0.79	7.80
	Q20	0.51	4.42
	Q21	0.89	9.36
	Q22	0.85	8.65
	Q23	0.57	5.02
IP	Q24	0.63	5.75
	Q25	0.51	4.54
	Q26	0.58	5.21
	Q27	0.23	1.90
	Q28	0.76	7.25
MB	Q29	0.56	5.22
	Q30	0.56	5.23
	Q31	0.63	6.06
	Q32	0.80	8.28
	Q33	0.78	7.98
	Q34	0.78	7.98

Table 3 shows all items for each factor, except the question 27 in IP, are acceptable with an acceptable factor loading. The factor loading and t-value for question no.27 were respectively 0.23 & 1.90 resulting in the item being discarded.

The Cronbach's alpha for the questionnaire was 0.947. The Cronbach's alpha values for each item are demonstrated in table. 4.

Table 4. Chronbach's alpha for each item

Items	Questions number	Cronbach's alpha
IS	6	0.823
OS	6	0.919
LE	6	0.899
SE	5	0.824
IP	4	0.666
MB	6	0.846
Total	33	0.947

According to the Kolmogorov-Smirnov test results indicated in table 5, the significance levels are more than 0.05 for each item which demonstrates the normality of all study variables.

Table 5. Kolmogorov-Smirnov normality test

	IS	OS	LE	SE	IP	MB
Kolmogorov-Smirnov	1.169	1.016	1.298	1.199	1.197	1.188
Significance level	0.130	0.253	0.069	0.113	0.114	0.119

The Pearson correlation coefficient and P- values between all items are shown below in table 5. These results demonstrate a significant relationship between all variables except between OS & SE and also IP & SE with 0.151 & -0.006. Thus, there is no significant relationship between these variables. The maximum relationship was reported for LE & MB variables and the minimum one for SE & MB respectively with the 0.905 & 0.413 values.

Table 6. Pearson correlation coefficient results and P-values between questionnaire items

	IS	OS	LE	SE	IP	MB	
IS	r	1					
	P	---					
OS	r	0.447	1				
	P	0.000	---				
LE	r	0.783	0.563	1			
	P	0.000	0.000	---			
SE	r	0.613	0.151	0.436	1		
	P	0.000	0.203	0.000	---		
IP	r	0.643	-0.006	0.580	0.705	1	
	P	0.000	0.962	0.000	0.000	---	
MB	r	0.780	0.673	0.905	0.413	0.459	1
	P	0.000	0.000	0.000	0.000	0.000	---

The values in table 7 show items score means, with the minimum mean=4.13 for OS & maximum mean=5.98 for SE.

Table 7. Mean, median, standard deviation, skewness, kurtosis, min and max scores for items of questionnaire

	IS	OS	LE	SE	IP	MB
Mean	5.21	4.13	5.11	5.98	4.92	4.99
Median	5.33	4.50	5.33	6.00	5.00	5.17
Standard Deviation	1.12	1.67	1.26	1.00	1.16	1.14
Skewness	-0.71	-0.38	-1.03	-1.64	-0.32	-0.69
Kurtosis	0.33	-0.99	1.23	1.82	0.90	0.15
Min	1.83	1	1.67	2.00	1.25	1.67
Max	7.00	6.83	7.00	7.00	7.00	6.83

The results of the Friedman test, illustrated in table 8 demonstrate a statistical significant relationship ($p < 0.05$) between various items in the questionnaire.

Table 8. Items ranking based on Friedman test

	Mean rank
SE	5.13
LE	3.84
IS	3.64
MB	3.28
IP	2.97
OS	2.14
Friedman test	
No	73
χ^2	106.42
df	5
Significance	0.000

Figures 1& 2 below illustrate a schematic view of the study results.

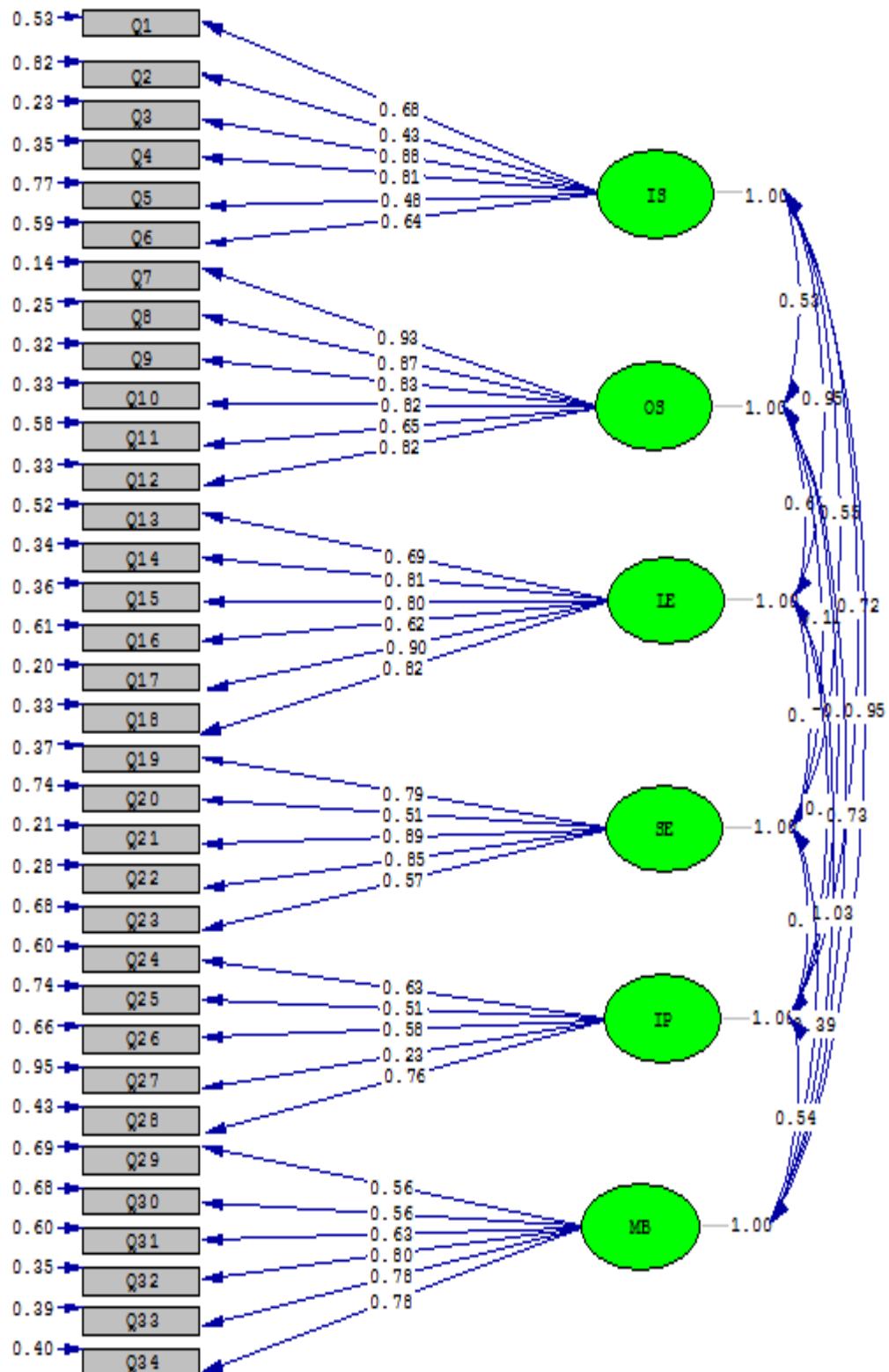


Figure1. Standard Estimations for items of IS,OS,LE,SE,IP,MB

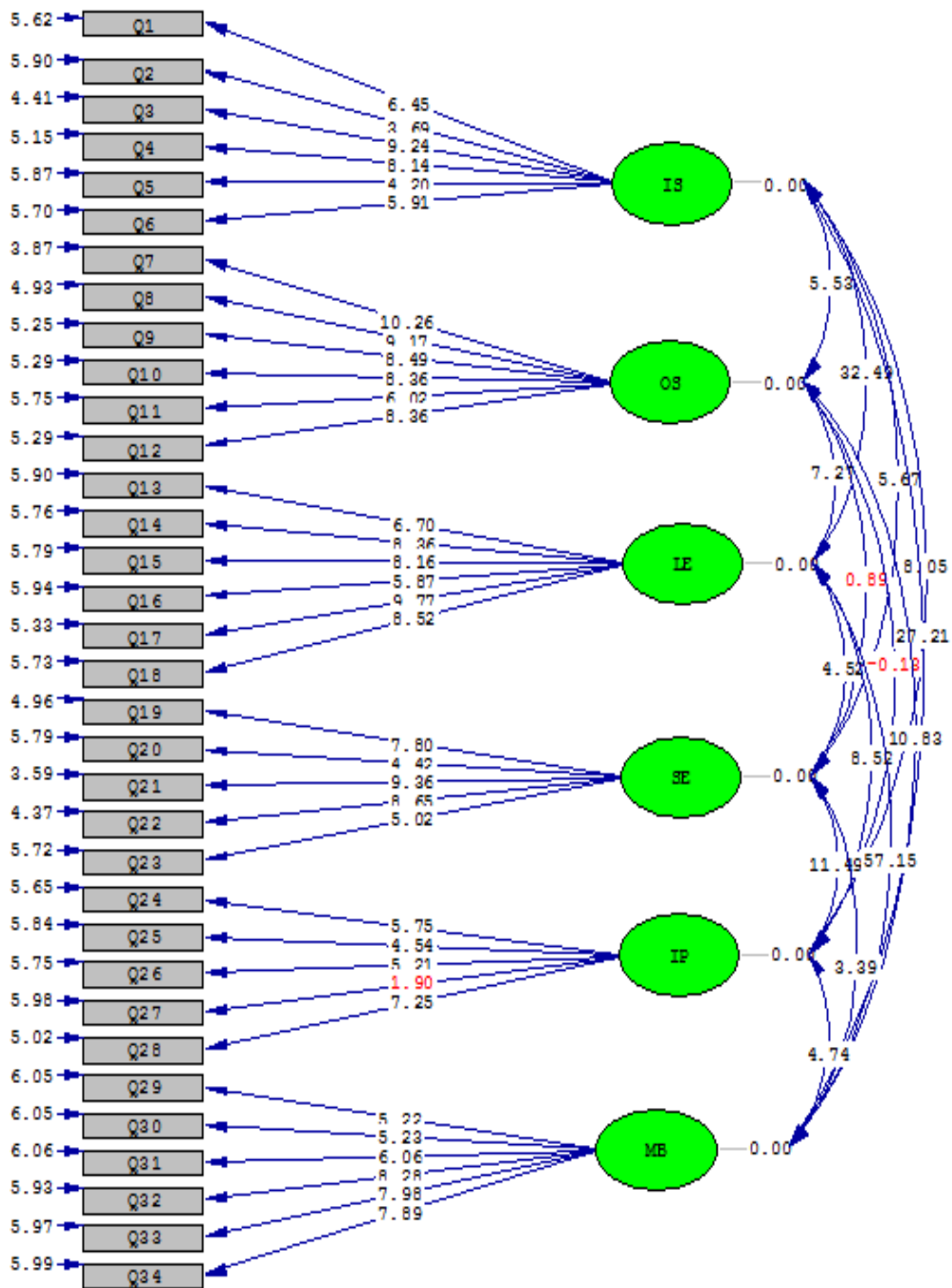


Figure 2. t-values for factor loading significance

7. Conclusion

The present study examined the construction of a new motivational self-system instrument to investigate Persian as an L2 learning. The instrument contains six factors: L2 Ideal self (IS), Ought-to self (OS), Learning experience (LE), L2 self-efficacy (SE), International posture (IP) & L2 motivated behavior (MB) items. According to the study findings, it can be concluded that the Persian researcher developed questionnaire on motivational self-system is acceptable based on its variability and also reliability and can be used in other Persian as an L2 learning contexts.

The study results concur with Papi's (2010) findings, indicating the establishment of a relationship between IS & LE, IS & OS, IS & MB, LE & OS, LE & MB, OS & MB. The relationship between IS, OS & LE with MB has been confirmed by other studies (Czier & Kormos, 2009; Taguchi et al., 2009). In addition, the strongest correlation was established between LE & MB which aligns with Papi's (2010) results which also notes LE as the strongest predictor of MB (Intended effort in his study). Furthermore, Takeuchi and Ueki (2013) claim the existence of a relationship between SE and MB and also IS as Micro & Macro Ideal selves in the case of Japanese EFL learners, which again confirms the study findings. The evidence established in this study and supported by previous research, conclusively position the new motivational self-system instrument developed by the researchers to investigate Persian as an L2 learning as a valid and reliable instrument to fill the gap in the important area of teaching and learning of Persian as an L2, providing instructors with an appropriate instrument to measure and identify potential motivational strategies to enhance this particular group of learners' language learning experiences.

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