Chinese EFL Learners' Acquisition of Alternating Unaccusatives in Lexical and Periphrastic Causative Structures

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Abstract: Unaccusatives pose difficulties for L2 English learners from various L1 backgrounds, and alternating unaccusatives, or unaccusatives that participate in causative alternation, are a type of unaccusatives that are highly focused upon in language acquisition research. This study aims to investigate how well advanced Chinese EFL learners have acquired the use of alternating unaccusatives in terms of linguistic competence. Specifically, this study aims to answer the following question: in terms of linguistic competence, to what extent have advanced Chinese EFL learners acquired the use of English alternating unaccusative verbs? In other words, has their interlanguage restructured accordingly, or do they also struggle with acquiring the rule of unaccusatives? This study adopted a quantitative approach. Through the application of an acceptability judgement task, the study collected acceptability ratings of 40 advanced Chinese EFL learners and English native speakers each on 6 causative constructions featuring unaccusatives. The acceptability judgement task was administered via Gorilla.com. Data from Chinese participants were collected in person, and data from English native speakers were collected via Prolific.com. After collection, data were analysed using R. The findings revealed that advanced Chinese EFL learners accepted both structures of causative alternation, though they showed a preference for the transitive structure over the intransitive one, unlike English native speakers who accepted both equally. Overpassivization was observed in not only Chinese EFL learners but also English speakers. Moreover, Chinese EFL learners accepted the Make-NP-V$_{PastParticiple}$ construction, which English native speakers strongly rejected. This suggests Chinese EFL learners undergoing the restructuring phase in their interlanguage regarding the unaccusative rule despite their acceptance of other unaccusative sentence forms. Overall, Chinese EFL learners demonstrate proficiency in various grammatical structures compared to English native speakers, yet their acceptance of Make-NP-V$_{PP}$ indicates incomplete acquisition of the unaccusative rule.

1. Introduction

The Unaccusative Hypothesis suggests that intransitive verbs are not homogeneous but can be

further divided into unergatives and unaccusatives (Burzio, 1986; Perlmutter, 1978)[1][2]. The sole Noun Phrase (NP) of an unergative verb assumes the agent role and is the subject of both surface and deep structures. However, the only NP of an unaccusative verb appears subject at the surface but assumes the semantic role of a theme and is thus mapped to the object at the deep structure. Some unaccusative verbs can be used transitively where "NP1 V-transitive NP2" can mean roughly "NP1 caused NP2 to V-intransitive", which is called inchoative/causative alternation (Haspelmath, 1993)[3] or causative alternation (Levin & Rappaport Hovav, 1994)[4]. In short, intransitives are divided into unergatives and unaccusatives, which are further divided into alternating unaccusatives, also called anticausatives, (e.g. break) and non-alternating unaccusatives (e.g. fall; Schäfer, 2009)[5].

Alternating unaccusatives are causative verbs when used transitively, corresponding to the lexical causative structure; they can also be used in the periphrastic structure, which is the expression of causation with the use of an auxiliary verb, the most widely used of which is "make" (for more on periphrastic causative structures, see Gilquin, 2016)[6].

English unaccusatives pose difficulties to L2 learners with varying L1 backgrounds (Bowerman & Croft, 2007; Cai, 2000; Chung, 2014; Huang et al., 2019; Mo & Cai, 2022; Montrul, 2001a; Oshita, 2001; Zibin & Altakhaineh, 2016)[7]-[14]. Montrul (2005)[15] summarized four common errors attested in L2 English acquisition of unaccusatives. The first error is overpassivization, or the production and acceptance of passive unaccusatives (*An accident was happened). The second error is the unacceptance of grammatical NP-V sentences (I left) in acceptability judgement tasks. The third error is the production of V-NP with the expletive it (*It exists a town). The final error is the production and acceptance of causative errors with unaccusative and unergative verbs in experimental tasks (e.g. *The magician disappeared the dove, *Peter jumped me).

The Unaccusative Trap Hypothesis proposed by Oshita (2001)[13] to account for the developmental trends of acquiring unaccusative verbs observed crosslinguistically posits that L2 English learners from various L1 backgrounds initially assume all intransitive verbs to be unergatives and adopt the single argument linking rule which is sensitive only to the number of arguments and not semantic notions; in this phase, learners do not overpassivize unaccusative verbs. However, as learners advance in their proficiency, they discover that there are two types of intransitive verbs and "restructure" their interlanguage accordingly, in the phase of which all the nontarget phenomena appear (e.g., overpassivization and reluctance to accept the NP-V structure). L2 learners discover that linking rules are sensitive to semantic notions, and link the arguments of unaccusatives and unergatives to the internal argument and external argument respectively. Therefore, learners may use the passive structure to morphologically mark the movement of the internal argument from the object to the preverbal subject position; furthermore, learners discovering that the NP is an object prefer to leave it in that position, resulting in unacceptance of grammatical NP-V structures.

In this restructuring process, various errors such as those summarized by Montrul (2005)[15] are observed in the interlanguage of L2 learners with different L1 backgrounds. For example, in Montrul (2001a)[12], the results from a picture judgement task showed that L2 English learners with native languages of Spanish and Turkish discovered the semantic and syntactic constraints of alternating unaccusatives in the causative alternation, but accepted transitivity errors. While these errors could possibly be attributed to morphological differences between learners' L1 and target L2 (e.g., Montrul, 2001b)[16], it does not account for similar errors that are observed among learners of different L2s and with different L1 backgrounds (e.g., see Montrul, 2005 for errors made by English-speaking learners of Spanish)[15]. For instance, while both English and Chinese have predominantly zero-morphology when expressing the causative alternation (in contrast to morphological markers distinguishing the inchoative/causative use of unaccusative verbs in languages such as Spanish and Turkish), such errors persist in the acquisition of L2 English by Chinese speakers.

Also using an acceptability judgement task, Ju (2000)[17] investigated the influence of

conceptualizable agents in discourse on Chinese EFL learners' acceptance of overpassivization errors, and she found that advanced Chinese EFL learners accepted the passive use of alternating unaccusative verbs. She proposed that alternating unaccusatives are inhomogeneous, but can be further characterized by the presence of conceptualizable agents, with a stronger pragmatic conceptualizable agent resulting in the learners' greater tendency to overpassivize an unaccusative verb.

Mo and Cai (2022)[11] also found that Chinese EFL learners had difficulties with acquiring unaccusative verbs. Through a combination of acceptability judgment and production tasks and an investigation of English textbooks, they observed transitivity errors among Chinese high school students learning English, concluding that textbook material as a major input in EFL learning caused high-school Chinese EFL learners to be more accepting of verbs in the forms presented in textbooks.

However, from current literature, the acquisition of alternating unaccusative verbs in L2 English learning remains underexplored. While Mo and Cai (2022)[11] investigated the acquisition of alternating unaccusatives by intermediate Chinese EFL learners, advanced-level Chinese EFL learners' acquisition of such verbs remain unstudied. Considering that advanced-level learners may seldom exhibit errors in production for reasons such as avoidance, this present study aims to investigate advanced L2 English learners' acquisition of alternating unaccusative verbs from the perspective of competence, selecting Chinese L1 speakers as the research subjects to restrict the interference of morphological differences between L1 and L2 on the acquisition of these verbs. The research question of this study is: in terms of linguistic competence, to what extent have advanced Chinese EFL learners acquired the use of English alternating unaccusative verbs? In other words, has their interlanguage restructured accordingly, or do they also struggle with acquiring the rule of unaccusatives? The author hypothesises that advanced Chinese EFL learners correctly accept both the transitive and intransitive use of alternating unaccusatives, and their interlanguage has restructured accordingly.

2. Methods

2.1 Participants

For Chinese EFL learners, 40 (male = 19) undergraduate and graduate students studying at a university in Chinese mainland were recruited. All participants are of a high proficiency level as they had obtained a Good (70 to 79 out of 100) or Excellent (no less than 80 out of 100) grade in the Test for English Majors-4 (TEM-4) test, a test administered in Chinese mainland to determine the test takers' proficiency level of English. Based on the error rate of distracter sentences, eliminating those who had answered more than three incorrectly, 39 participants (male = 18, age range = 19 to 23, mean age = 20.78) were included in the final analysis. Their majors varied from Computer Science and Technology to Translation and Interpreting and languages such as English, Arabic, and Japanese. Participants did not study linguistics extensively upon their participation in this study.

Forty English native speakers (male = 15) residing in the United Kingdom or the United States at the time of the experiment were recruited via Prolific. Based on the error rate of distracter sentences, eliminating those who had answered more than three incorrectly, 30 English monolinguals (male = 9, age range = 18 to 30, mean age = 24.73) were included in the final analysis. Twenty-five participants were from the United Kingdom, and five came from the United States. Their education level at the time of data collection were secondary education (1 person), high school diploma/A-levels (8 people), technical/community college (3 people), undergraduate degree (BA/BSc/other, 12 people), and graduate degree (MA/MSc/MPhil/other, 6 people).

2.2 Materials

The author applied an acceptability judgement task to collect data. The task was conducted on Gorilla.

This study selected its target verbs from the 12 alternating unaccusatives verbs used in Ju (2000)[17]: break, change, close, decrease, dry, freeze, melt, roll, turn, bounce, drop, and sink. Each target verb was presented in six constructions: NP1-V-NP2, NP-V, NP-Be-V$_{PastParticiple (PP)}$, NP1-Make-NP2-V, NP1-Make-NP2-V$_{PP}$, and NP1-Make-NP2-Be-V$_{PP}$. To investigate advanced Chinese EFL learners' acquisition of English alternating unaccusative verbs, in addition to the transitive, intransitive, and passive use investigated in Hwang (1999)[18] and Mo and Cai (2022)[11], three possible structures of periphrastic causation were also presented, all of them selected from Gilquin (2016)[6] representing Make$_{Active}$V$_{Active}$, Make$_{Active}$V$_{Passive}$ without a *be* auxiliary, and Make$_{Active}$V$_{Passive}$ with a be auxiliary respectively.

In addition to the test sentences, 18 pseudo-passive sentences (e.g. *The desk damaged during the move*) from Ju (2000)[17] were also included as distracters. These distracter sentences served two purposes: 1) They directed participants' attention to passives instead of causative constructions, and 2) following Ju (2000)[17], more than three wrong answers to distracter sentences marked the participant's response as invalid because qualified subjects should have acquired the rules of the English passive voice.

All test sentences and distracter sentences were mixed and randomized so that test sentences with the same target verb did not appear in adjacency. Participants were randomly assigned to two groups and completed the experiment in order or reverse order.

2.3 Procedure

In each trial, participants were asked to rate an acceptability score on a 5-point Likert scale (1 = Completely unacceptable, 5 = Completely acceptable) for the sentence within the time limit of 20 seconds. The judging content was in bold form. Furthermore, they were asked to correct the sentence when they provided an unacceptable judgement (i.e., a score of 1 or 2), which was untimed. A sample of the acceptability judgement task is shown below.

He bounced the ball a few times.						
Completely unacceptable	1	2	3	4	5	Completely acceptable

In the experiment, participants first filled in their demographic data. Then, they were shown the instructions, after which they completed two trials to familiarize themselves with the process, and then proceeded to the actual experiment. There were 90 sentences in total, evenly divided into three blocks with two one-minute breaks which the participants can choose to skip. After all tasks of one sentence were completed (assigning a score when the score assigned was 3, 4, or 5, or correcting the sentence when the score assigned was 1 or 2), a blank screen was shown for one second, and then the score-assigning task for the next sentence was shown.

2.4 Data Cleaning and Analysis

Data cleaning and analysis were conducted using Python and R. By using Python, incorrect answers from distracter sentences were counted; excluding three distracter sentences that over 50% of the participants of both speaker groups answered incorrectly, 11 participants (Chinese = 1, English = 10) with over three incorrect answers were marked as invalid and their data were eliminated from the subsequent analysis. Then, participants' corrections of the sentence were manually checked by the author. This is to ensure that all participants identified causative errors successfully when rating unacceptable scores.

2.5 Statistical modelling

For acceptability judgement, the author fitted a mixed-effects linear regression model, with acceptability judgment score being the dependent variable, and the independent variables are speaker groups and construction type. The author also included individual participant and trial as the random effect. Our model compared the scores of the causative constructions within the same language group. The author used dummy coding for the analysis.

3. Results

3.1 Descriptive Statistics

The means and standard deviations of the causative constructions (six in total) and types of causative constructions (lexical vs. periphrastic) are presented in Table 1. For brevity, each causative construction is represented with a letter: A represents NP1-V-NP2, B represents NP-V, C represents NP-Be-V$_{PP}$, D represents NP1-Make-NP2-V, E represents NP1-Make-NP2-V$_{PP}$, and F represents NP1-Make-NP2-Be-V$_{PP}$.

Table 1: Descriptive Statistics of Original Data

L1	Construction	Mean	SD
Chinese (N=39)	A (N=462)	4.522	0.938
	B (N=467)	3.904	1.506
	C (N=467)	3.734	1.539
	D (N=463)	3.337	1.575
	E (N=464)	3.573	1.496
	F (N=464)	1.830	1.080
English (N=30)	A (N=370)	4.722	0.744
	B (N=368)	4.598	0.893
	C (N=370)	4.246	1.237
	D (N=372)	3.973	1.420
	E (N=370)	1.465	0.946
	F (N=371)	1.663	1.114

The comparisons of scores of causative constructions within the English and Chinese language groups are summarized in Table 2 and Table 3 respectively.

Table 2: Summary of the Linear Model of English Data

	Estimate	Std. Error	df	*t* value	Pr(>|*t*|)
Construction A as intercept					
(Intercept)	4.685	0.083	147.987	56.341	< 2e-16 ***
Construction B	-0.095	0.095	439.628	-1.009	0.313
Construction D	-0.707	0.090	763.159	-7.879	1.14e-14***
Construction B as intercept					
(Intercept)	4.590	0.086	148.940	53.668	< 2e-16 ***
Construction C	-0.359	0.091	575.930	-3.933	9.41e-05 ***

Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1.

The estimate value shows the predicted score. In Table 2, the predicted score for the intercept (i.e., Construction A), is 4.685, meaning that English participants' acceptance of the construction (NP1-V-NP2) was predicted to be 4.685. The predicted score of another level is the sum of the estimate of

that level and the base level. For instance, compared to the score of the lexical causative (Construction A), the score of the periphrastic causative construction (Construction D) was less by 0.707, which is a significant difference (β = -0.707, SE = 0.090, t = -7.879, p < 0.001), but the lexical causative use (Construction A) and the intransitive use (Construction B) did not receive significantly different scores (β = -0.095, SE = 0.095, t = -1.009, p = 0.313). This suggests that English natives found lexical causative constructions more acceptable than periphrastic causative constructions in this study and found both structures of the causative alternation as equally acceptable. In addition, a significant difference was also found between the predicted scores of Construction B (NP-V) and Construction C (NP-Be-V$_{PP}$) (β = -0.359, SE = 0.091, t = -3.933, p < 0.001), suggesting a higher acceptability of alternating unaccusatives used in the active voice than the passive voice on the part of English native speakers.

Table 3: Summary of the Linear Model of Chinese Data

	Estimate	Std. Error	df	t value	Pr(>|t|)
Construction A as intercept					
(Intercept)	4.700	0.104	238.637	45.303	< 2e-16 ***
Construction B	-0.665	0.120	811.195	-5.561	3.63e-08 ***
Construction D	-1.338	0.109	1528.702	-12.305	< 2e-16 ***
Construction E	-1.259	0.110	1333.861	-11.407	< 2e-16 ***
Construction B as intercept					
(Intercept)	4.035	0.109	236.637	37.119	< 2e-16 ***
Construction C	-0.482	0.113	1025.156	-4.264	2.19e-05 ***
Construction D as intercept					
(Intercept)	3.362	0.106	250.173	31.726	< 2e-16 ***
Construction E	0.079	0.113	1211.397	0.703	0.482

Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1.

As shown in Table 3, the intercept is Construction A (NP1-V-NP2). Regarding the data produced by Chinese native speakers, a significant difference was found between the predicted scores of Construction A (NP1-V-NP2) and Construction B (NP-V) (β = -0.707, SE = 0.090, t = -7.879, p < 0.001). In other words, while Chinese EFL learners find both constructions acceptable, they prefer Construction A (NP1-V-NP2) over Construction B (NP-V). A significant difference was also found between the predicted scores of Construction A (NP1-V-NP2) and Construction D (NP1-Make-NP2-V) as well as between those of Construction A (NP1-V-NP2) and Construction E (NP1-Make-NP2-V$_{PP}$) (β = -1.338, SE = 0.109, t = -12.305, p < 0.001; β = -1.259, SE = 0.110, t = -11.407, p < 0.001), suggesting that Chinese EFL learners also found lexical causative constructions more acceptable than either periphrastic causative construction (or so they considered) in this study, which is in part similar to the result from English native speakers. Still similar to the results from English native speakers, a significant difference was also found between the predicted scores of Construction B (NP-V) and Construction C (NP-Be-V$_{PP}$) (β = -0.482, SE = 0.113, t = -4.264, p < 0.001), also suggesting a higher acceptability of alternating unaccusatives used in the active voice than the passive voice on the part of Chinese EFL learners. Finally, no significant difference was found between the predicted scores of Construction D (NP1-Make-NP2-V) and Construction E (NP1-Make-NP2-V$_{PP}$) (β = 0.079, SE = 0.113, t = 0.703, p = 0.482), which means that both periphrastic constructions are equally acceptable to Chinese EFL learners.

Finally, the linear models summarized in Table 4 compare the scores of each causative construction between language groups, with English as the intercept.

From Table 4 it can be inferred that there are significant differences between the two groups' predicted scores in Constructions A (β = -0.206, SE = 0.101, t = -2.037, p < 0.05), B (β = -0.697, SE

= 0.142, t = -4.901, p < 0.001), C (β = -0.515, SE = 0.151, t = -3.416, p < 0.01), and D (β = -0.636, SE = 0.194, t = -3.284, p < 0.01), where Chinese EFL learners consistently find each construction less acceptable than English speakers, though both language groups find these constructions acceptable with predicted scores over 3. However, Chinese EFL learners find Construction E (NP1-Make-NP2-V$_{PP}$) acceptable while English speakers find them highly unacceptable, with predicted scores over 3 and under 3 respectively, and this difference is significant (β = 2.092, SE = 0.176, t = 11.86, p < 0.001). Finally, both language groups consider Construction F (NP1-Make-NP2-Be-V$_{PP}$) as unacceptable, and there is no significant difference between their predicted scores (β = 0.173, SE = 0.157, t = 1.105, p = 0.273).

Table 4: Summary of the Linear Models of Each Construction between Language Groups

Group	L1	Estimate	Std. Error	df	t value	Pr(>|t|)
A	(Intercept)	4.726	0.089	73.415	52.846	<2e-16 ***
	Chinese	-0.206	0.101	66.825	-2.037	0.046 *
B	(Intercept)	4.568	0.137	62.098	33.419	< 2e-16 ***
	Chinese	-0.697	0.142	67.238	-4.901	6.32e-06 ***
C	(Intercept)	4.249	0.162	54.427	26.217	< 2e-16 ***
	Chinese	-0.515	0.151	67.585	-3.416	0.001 **
D	(Intercept)	3.939	0.173	70.256	22.758	< 2e-16 ***
	Chinese	-0.636	0.194	67.329	-3.284	0.002 **
E	(Intercept)	1.480	0.147	78.624	10.10	7.57e-16***
	Chinese	2.092	0.176	66.850	11.86	<2e-16 ***
F	(Intercept)	1.650	0.130	75.302	12.735	<2e-16 ***
	Chinese	0.173	0.157	67.870	1.105	0.273

Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1.

4. Discussion

In this study, Chinese EFL learners found both constructions of the causative alternation acceptable but showed a preference for the transitive use of alternating unaccusatives over the intransitive use, unlike English native speakers who equally preferred both constructions. They also favored lexical causative constructions over periphrastic constructions, similar to English native speakers. Also similarly to English native speakers, Chinese EFL learners had a higher acceptability of alternating unaccusatives in the active voice compared to the passive voice. Additionally, Chinese EFL learners consistently rated each legitimate construction as considered by English native speakers as less acceptable compared to the natives, and NP1-Make-NP2-Be-V$_{PP}$ was considered unacceptable by both language groups. Most surprisingly though, Chinese EFL learners differed greatly from English native speakers in their acceptance of the NP1-Make-NP2-V$_{PP}$ structure, which was as unacceptable as NP1-Make-NP2-Be-V$_{PP}$ to English native speakers.

This study yields interesting results worthy of discussion. Evidence showed that advanced Chinese EFL learners have acquired the intransitive use of alternating unaccusative verbs, as can be deduced from their accepting scores in the acceptability judgement task. Despite this acceptance, however, the hypothesis was not proven true as these advanced Chinese EFL learners continue to struggle with acquiring the rule of unaccusatives, especially in the case of alternating unaccusatives that are used in causative alternation; their interlanguage has not yet restructured accordingly, which should occur to L2 English learners who no longer produce transitivity errors regarding alternating unaccusatives as Oshita (2001)[13] claims. This can be inferred from Chinese EFL learners' acceptance of NP1-Make-NP2-Be-V$_{PP}$, a structure that was under-studied before, possibly because English speakers never considered such a structure grammatical in the case of alternating unaccusatives. The reason why

Chinese EFL learners find this construction acceptable is not addressed in this study, but may be worth investigating in future studies.

Findings of this study also provide evidence supporting or contradicting previous studies. Unlike Montrul (2005)[15], L2 learners of English in this study did not incorrectly reject the grammatical use of unaccusative verbs in NP-V sentences. This is probably because participants of this study are advanced L2 English learners and know the correct use of alternating unaccusatives. However, differently from English native speakers, who accepted both transitive and intransitive uses of alternating unaccusatives equally, Chinese EFL learners preferred the transitive use over the intransitive use of such unaccusatives, possibly because the transitive sentence presents the agent of the causative situation while the intransitive sentence is lacking in this information.

In addition, this study found support for the first error in Montrul (2005)[15], that L2 learners of English may accept passive unaccusatives in judgement tasks. However, not only do English native speakers also accept this construction, they find it more acceptable than Chinese EFL learners. Therefore, while overpassivization may be a problem for L2 learners of English (e.g. Ju, 2000; Montrul, 2005)[17][15], that English native speakers did not find NP-Be-V$_{PP}$ entirely unacceptable (as they did NP1-Make-NP2-V$_{PP}$) partly justifies the use of passivization for alternating unaccusatives. What should be paid attention to, though, is that all of the NP1-V-NP2 structures corresponding to each passive NP2-Be-V$_{PP}$ structure appeared to the participants, and therefore participants may find semantic justification for the passive use of unaccusatives by accepting the NP1 from NP1-V-NP2 as a conceptualizable agent, which may influence the acceptability of passive causative constructions, as pointed out by Ju (2000)[17].

5. Conclusions

Through an acceptability judgement task, this study investigated advanced Chinese EFL learners' acquisition of alternating unaccusatives in lexical and periphrastic constructions in addition to causative alternation and passivization constructions. Findings indicate that while Chinese EFL learners accept both structures of causative alternation, they show a preference for the transitive structure over the intransitive one, unlike English native speakers who accept both equally. Overpassivization is observed in not only Chinese EFL learners but also English speakers. Moreover, Chinese EFL learners accept the Make-NP-V$_{PP}$ construction, which English native speakers strongly reject. This suggests Chinese EFL learners undergoing the restructuring phase in their interlanguage regarding the unaccusative rule despite their acceptance of other unaccusative sentence forms. Overall, Chinese EFL learners demonstrate proficiency in various grammatical structures compared to English native speakers, yet their acceptance of Make-NP-V$_{PP}$ indicates incomplete acquisition of the unaccusative rule.

In addition to discussing the results of this study, the limitations of this study should also be recognized. Most importantly, all participants in this study are at an advanced level and are not further sorted, which is necessary in order to control the scale of this research. Moreover, this study did not further inquire into the reasons behind Chinese EFL learners' acceptability judgement scores, which can be realized through other means such as interviews. Lastly, the competence of Chinese EFL learners is investigated, but their performance is not. This can be investigated by using production tasks.

Notably, this study finds an unidiomatic acceptance the NP1-Make-NP2-V$_{PP}$ construction by advanced Chinese EFL learners, which was previously understudied. Why Chinese EFL learners find this construction acceptable in this study is highly worth investigating as it could reflect the actual mapping between the thematic roles and syntactic elements in causative constructions by learners of English, and see whether it corroborates that in the Unaccusative Trap Hypothesis (Oshita, 2001) [13].

If that is indeed the case, future studies can further study the acquisition of unaccusative rules by Chinese EFL learners of more refined proficiency levels and tentatively determine the level of language proficiency at which Chinese EFL learners can finally add the unaccusative rule to their interlanguage, or if they never do, whether fossilization occurs and why.

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