

ORIGINAL ARTICLE

The L3 acquisition of English tense-aspect system by Uygur speakers with L2 Mandarin Chinese

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Abstract: This paper examines the role of Lexical Aspect Hypothesis (LAH) and linguistic typological similarity in the L3 acquisition of English tense and aspect among Uygur speakers with L2 Mandarin Chinese (Chinese hereafter). LAH asserts that the emerging verbal inflections at the early stage of language acquisition primarily function as markers of the lexical aspect and thus predicts universality for acquisition of tense and aspect. However, with an assumption of language transfer, the typological closer relationship of Uygur with English in terms of the tense and aspect system was expected to trigger L1 transfer in L3 acquisition. The study analyzed the English tense and aspect forms used by the participants (N = 25) for verbs of four distinct lexical aspects (50 target items) in contexts of past. The result shows that the lexical aspect influences the appropriate use of past tense—past tense marker aligned with telic predicates (achievements and accomplishments), *-ing* with activities (for inappropriate uses), and nonpast with states (for inappropriate uses), and the influence is observed at each proficiency level. The results show little evidence for language transfer in the acquisition of the English past tense, either from L1 Uygur or L2 Chinese; instead, the data suggest that L3 acquisition of tense and aspect is more subject to acquisitional universality (LAH).

Keywords: tense-aspect; Lexical Aspect Hypothesis; L3 acquisition; language

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Received: April 27, 2022; **Accepted:** June 16, 2022; **Available online:** August 23, 2022

Citation: Gu Q and Adil M (2022) The L3 acquisition of English tense-aspect system by Uygur speakers with L2 Mandarin Chinese. *Forum for Linguistic Studies* 4(1): 116–131. DOI: 10.18063/fls.v4i1.1459

1. Introduction

Previous studies on second and third language acquisition of the grammatical categories of tense and aspect have found several factors that influence the use of tense-aspect markers of the target language (e.g., Bardovi-Harlig and Reynolds, 1995; Robison, 1995; Shirai and Kurono, 1998; Eibensteiner, 2019; Vallerossa, 2021). One of those factors, which is a general factor that constantly influences the process of L2 and L3 acquisition, is the (learners' perceived) typological distance between the target language and the previously acquired languages (both L1 and L2), which could easily induce a language transfer in learning the tense and aspect system of a new language. Another

important and unique factor that has been noticed to play a role in language acquisition of tense and aspect is a semantic interaction of the lexical aspect with particular grammatical aspects or view-point aspects in Smith's (1997) term. This factor is known as the Lexical Aspect Hypothesis (LAH), which says that the tense-aspect markers used by learners, especially at the beginning of language acquisition, largely reflect the inherent lexical aspects of verbal predicates rather than their real tense meanings (Shirai and Andersen, 1995). As the learners' language proficiency increases, the influences of the two factors on the acquisition of tense and aspect begin to decline. But the influence of the lexical aspect could persist to the high level even when the learner is a native-like speaker (e.g., Salaberry, 2005).

In this study, we investigate the Uygur learners' L3 acquisition of English tense and aspect with a focus on the influence of the lexical aspect and typological similarity on the use of past tense in the L3 interlanguage. In this case of L3 acquisition, the involved languages—Uygur, Mandarin Chinese (Chinese hereafter), and English—are three typologically distinct languages. In terms of the tense system, both Uygur and English have grammaticalized tenses while Chinese is usually considered tenseless (see the discussion below). However, the results of the investigation provide no strong evidence for L1 transfer. Instead, it seems that L3 acquisition of tense and aspect is more subject to acquisitional universal (the LAH).

In the rest of the paper, Section 2 presents the background of the studies of the lexical aspect and the LAH proposed for language acquisition of tense and aspect. Section 3 reviews some studies of language transfer in L3 acquisition. Section 4 gives a brief description of the tense and aspect systems of Uygur, Chinese and English. The details of the present research are presented in Section 5, and the results are presented in Section 6 and a discussion in Section 7. Section 8 concludes the study.

2. Lexical aspect and Lexical Aspect Hypothesis

In the research area of lexical aspect, it has commonly been assumed that verbal predicates, verbs or phrases, bear a certain inherent temporal trait which establishes a temporal structure imposed on the events they describe (e.g., Vendler, 1957). Four classes of verbal predicates have been identified, namely, *achievement*, *accomplishment*, *activity*, and *state*. Each of the four classes is associated with a distinct temporal structure which is usually characterized in terms of three lexical aspectual properties, namely, dynamicity, durativity, and telicity, that is, whether the event is dynamic or stative, whether the event is instantaneous or has certain duration, and whether the verbal predicate imposes any endpoint or boundary for the event. The three binary contrasts provide the necessary features for characterizing the four verb classes as shown in **Table 1**.

Table 1. Lexical aspectual features of four verb classes

Features	Verb classes/lexical aspectual classes			
	Achievement	Accomplishment	Activity	State
Dynamicity	+	+	+	–
Durativity	–	+	+	+
Telicity	+	+	–	–

Achievement describes a dynamic, instantaneous event that has a natural endpoint, as illustrated in (1a). Accomplishment describes a dynamic event that has a process (i.e., durative) and progresses towards a specified endpoint, as illustrated in (1b). Activity describes a dynamic, durative event that has no inherent endpoint, as illustrated in (1c). State is not eventive and thus non-dynamic and atelic, but it is durative, as illustrated in (1d).

(1) a. Achievements: *notice a painting, arrive at the hotel.*

b. Accomplishments: *build a house, create a model.*

c. Activities: *walk around, ride a bike.*

d. States: *know the story, seem worried.*

The lexical aspect has been found to affect the use of tense-aspect markers in language acquisition—in second and third language acquisition as well as in first language acquisition. In the second and third language acquisition, it has been found that the emerging verbal inflections for tense and aspect function in a distinct way from their use in the target language. Language learners use a particular inflection form for a verb in accordance to its inherent lexical aspectual property while the original semantic meaning of the inflection is largely ignored. This redundant marking of the inherent aspectual property leads to a hypothesis called The Aspect Hypothesis (Andersen, 1991), Primacy of Aspect Hypothesis (Robison, 1990), or LAH (Shirai and Andersen, 1995), which says that the verb inflections function as indicators of the inherent lexical aspects of the predicates, which are different from the original functions.

One of the common errors of language learners in the use of tense and aspect markers is that telic predicates are more likely to be used with the past tense form, especially when talking about a “punctual” and “completive” situation, as in (2a); by contrast, the present participle form (*-ing*), a marker of imperfectivity (progressive), is often used when talking about a situation with no definite duration, as in (2b).

(2) a. And here, do you want something, you *buyed* it.

[In the United States, if you want something, you buy it.] (Robison, 1990: 328)

b. The one guy tell me, “I want to you *making*” one pant.

[One guy might tell me, I want you to make me a pair of pants.] (Robison, 1990: 326)

Many studies of second or third language acquisition have reported the association of verbal inflection with the lexical aspect, which is in effect even at a high level of language proficiency. For example, Salaberry (2005) studied the influence of L2 Spanish on L1 English speakers’ acquisition of L3 Portuguese. The results show that even for the learners with a high level of proficiency in L3 Portuguese, who show a sophisticated, native-like morphological system of L3 tense, there are still significant differences between those L3 learners and Portuguese native speakers in their morphological marking of static verbs. In Bardovi-Harlig and Reynolds’s (1995) investigation of L2 acquisition of English simple past tense of adult learners of various language proficiency in English, they found that the acquisition of the simple past tense undergoes a gradual process, at the beginning of which the past tense is significantly undergeneralized, and the lexical aspectual effect is attested at

each level of language proficiency.

The effect of the lexical aspect on verbal morphology is not only observed in second and third language acquisition but it has also been found in child (first) language acquisition development. Prior studies have found such effect in the early stage of child language acquisition of various languages, including English, Italian, French, and Greek (see Bardovi-Harlig and Reynolds (1995) for the relevant references). In these cases, children treat the tense markers as indicating for aspectual meanings rather than their tense meanings. In the current study, we found that the influence of the lexical aspect on the use of the past tense marker and the progressive also exists in the case of Uy-gur learners' L3 acquisition of English. Thus, it seems that the constraint captured by LAH is ubiquitous in learning a language.

3. Language transfer in third language acquisition

Studies of third language acquisition found that the prior linguistic knowledge influences the acquisition of L3, and such influence diminishes as the L3 proficiency increases. Previous studies argued for different sources of the transferred linguistic knowledge at the initial stage of L3 acquisition, including L1, L2 or both. For example, Jin (2009) investigated the language transfer problem of L1 Chinese–L2 English bilinguals in learning L3 Norwegian. Of the three languages, only Chinese allows null objects in its grammatical system; neither English nor Norwegian allows such linguistic expression. The study found that in making grammatical judgments, the participants accepted up to 72% of Norwegian sentences with null objects, while the acceptance of English sentences with null objects decreased to 57%. This study supports The L1 Factor Hypothesis which says that in learning L3 the learners transfer their L1 linguistic knowledge to their L3 system.

But it is notable that such studies cannot prove that L2 does not become a source of language transfer in the process of learning L3. In fact, many studies have found that L2 is the main source of language transfer in some aspects of third language acquisition, which prompted the researchers to put forward the hypothesis of L2 Status Factor. The main evidence for the role of L2 in L3 acquisition comes from Bardel and Falk's (2007) study of language transfer in the process of learning L3 Swedish or Dutch at an early stage. This study found that the learners' L3 expressions showed syntactic features of their L2. The two researchers explained this in terms of the distinction of procedural memory and declarative memory from the psycho-cognitive research field: L2 and L3, at least in the early stages, are stored in the declarative memory while L1 is stored in the procedural memory, thus L2 and L3 are cognitively closer, explaining why L2 has a greater influence on L3. Another explanation for the influence of L2 on L3 in the literature assumes that L1 is unconsciously suppressed by learners in the process of learning L3 and thus L2 becomes the main source of language transfer.

Moreover, there are two influential theoretical models of L3 acquisition that have received a lot of discussions in the literature. One is the Cumulative Enhancement Model (Flynn et al., 2004). According to this theoretical model, the acquired L1 and L2 provide cumulative linguistic knowledge which can be used by the learners in learning L3, thus both languages can be the source of language transfer for L3 acquisition. The evidence for this theoretical model mainly comes from the comparative study conducted by Flynn et al. (2004) on L3 and L2 learners who studied English as their target language. The results showed that trilingual learners with L1 Kazakh, L2 Russian and L3 English produced the same English restrictive attributive clauses as bilingual learners with L1 Span-

ish and L2 English, but different from bilingual learners with L1 Japanese and L2 English. Note that in terms of language types, both Russian and Spanish are head-initial languages and the modifying attributive clause is placed after the head noun. Kazakh and Japanese are the opposite. They are head-final languages and the attributive clause is placed before the head noun. The results could be explained in terms of the L2 Status Factor hypothesis; however, the researchers believed that there was a more reasonable explanation: once learners have acquired a language with an X grammatical feature, no matter L1 or L2, when learning a new language, if the new language has X feature, the learners will transfer it to the new language. In this experiment, the trilingual learners transferred the head-initial feature from L2 language (Russian), and the bilingual learners with L1 Spanish and L2 English transferred the feature from L1 language (Spanish); however, for the bilinguals with L1 Japanese and L2 English, since L1 Japanese is not a head-initial language, there is no source of transfer for them, which explains why they produced more errors in the language output.

Another theoretical model is called “The Typological Primacy Model” (Rothman, 2011, 2015). This theoretical model also assumes language transfer occurs at the early stage of L3 acquisition; however, it makes a broader hypothesis for the source of language transfer—instead of assuming the transfer is due to the similarity over a specific linguistic feature, it hypothesizes that the major motivation of language transfer is the typological similarity between the three languages. It emphasizes that it is the typological closeness relationship between languages that is perceived by learners at the psychological level that determines the source of transfer, although this may not be the case objectively. The close relationship may exist in all aspects of language: phonology, lexicology, morphology, and syntax. The research evidence for this theoretical model comes from Rothman and Cabrelli Amaro’s (2010) study of trilingual learners with L1 English, L2 Spanish and L3 French producing “null subject” expressions in French. Spanish is a language that allows null subjects, while English and French do not allow such linguistic form. The study found that the learners’ grammatical knowledge of L3 French allowed null subjects. The researchers believed that this was because the learners perceived the two Romance languages, French and Spanish, to be typologically closer and thus transferred the Spanish grammatical feature to French.

For the L3 acquisition of tense and aspect, researchers who took a language transfer perspective on the learners’ L3 tense-aspect representation also argued for different linguistic sources of the transfer. For example, Eibensteiner (2019) found that in the acquisition of perfective and imperfective aspect in L3 Spanish, the L1 German speakers transferred their L2 English aspectual knowledge—note that L1 German and L2 English are equally typologically different from L3 Spanish as both of them are Germanic languages; he argued that this transfer was due to the structural similarities between English and Spanish. Foote (2009) found that participants who were able to recur to a previously acquired Romance language, either L1 or L2, performed better in a judgment task which tested the (im)perfective knowledge of another Romance language (L3), which suggested that language transfer may occur in the tense-aspect domain.

4. Tense and aspect in Uygur, Chinese and English

Tense and aspect are two common grammatical categories that deal with two different types of temporal relations. Tense is the grammaticalized expression for indicating the deictic relation of a particular event, action or state to the speech time, which could be a precedence relation (past tense),

overlapping relation (present tense), and subsequence relation (future tense). According to Comrie (1976), aspect is about how the speaker views the internal temporal structure of a situation, which could be a totality of the situation (perfective aspect) or a partial view of the situation (imperfective aspect). The imperfective aspect is usually divided into progressive, habitual and continuous aspect. It has been found that almost all languages on the globe have grammaticalized formatives for aspect whereas most languages do not have grammaticalized tense.

Uyghur is an agglutinative language. It has grammaticalized tenses which are expressed by morphology agglutinated to the verb stem with an obligation to indicate for person. There are two types of past tense in Uyghur. One is simple past and the other one is termed distant past in the traditional grammar. The simple past tense is the common form to talk about past while the distant past tense indicates a sense of remoteness. An example is presented in (3).

(3) a. Simple past:

bardim

bar-dim

go-PST.1SG

“I went”

b. Distant past:

barganmen

bar-gan-men

go-DIST.PST-1SG

“I went”

The imperfective aspect (progressive) formally distinguishes between present and past tenses. The verb morphology of the imperfective form inflects for tense and also shows agreement in person of the subject. For example, in (4), the imperfective form o’qi-watidu indicates present tense, progressive, and third person of the subject.

(4) U hazir kitab(ni) o’qi-watidu.

U hazir kitab(-ni) o’qi-watidu

S/he now book-ACC read-PRS.PROG.3SG

“S/he is reading a book now.”

For a past tense example, consider (5). The imperfective form o’qi-ywtkan-di indicates past tense, progressive, and third person of the subject.

(5) Ahsham kechqurun u kitob(ni) o’qi-ywtkan-di.

Ahsham kechqurun u kitob(-ni) o’qi-ywtkan-di

yesterday evening s/he book-ACC read-PROG-PAST.3SG

“Yesterday evening s/he was reading a book.”

The Chinese language has received more controversy over the issue of whether it has grammaticalized tense. The common view taken in the literature is that Chinese has no tense but only aspect (Li and Thompson, 1981). The most common tense-aspect marker is the verbal suffix *-le*, which is analyzed as a perfective aspect marker and may also be used as a past tense marker (Comrie, 1976; Ross, 1995; Sybesma, 2019; Gu, 2022). What is notable about *-le* is that it has certain requirement of the verbal predicates it combines with. It requires the verbal predicate to be dynamic, that is, it is compatible with achievements, accomplishments and activities but incompatible with states, which are illustrated in (6)–(9) respectively.

(6) *wǒ rènchū-le tā.*

I recognize-PFV him

“I recognized him.”

(7) *wǒ shūjià kàn-le sān-bù diànyǐng.*

I summer vacation watch-PFV three-CLF film

“I watched three films during the summer vacation.”

(8) *tā yóu-le yǒng.*

he swim-PFV swim

“He swam.”

(9) *tā céngjīng zài Nánjīng jūzhù(*-le).*

he once LOC Nanjing live-PFV

“He once lived in Nanjing.”

It has also been pointed out that sentences with some activity verbs are less natural when they are suffixed with *-le* unless there are other modifications available in the sentences or the sentences are used in certain context which provides additional information (see the references in Sybesma, 2019). Normally such activity verbs are those VPs that have a bare noun as the object. For example, the sentence in (10) contains an activity *qí zìxíngchē* “ride a bike” suffixed with *-le*; however, the sentence sounds less natural unless *qù xuéxiào* “go to school” is used to indicate the goal of the action—in such case *-le* actually is combined with an accomplishment *qí zìxíngchē qù xuéxiào* “ride a bike to school” rather than an activity predicate *qí zìxíngchē* “ride a bike”, or the sentence is used in a context in which it is used to answer a question about the transportation.

(10) *tā qí-le zìxíngchē ?(qù xuéxiào).*

he ride-PFV bike go school

“He rode a bike to school.”

In other words, it is less common that activity verbs are suffixed with *-le*, though such expressions are not entirely ungrammatical.

There are two imperfective aspect markers in Chinese. The progressive aspect is expressed by a preverbal particle *zài* with the verb form remaining unchanged. An example is presented in (11).

- (11) *tā* (dāngshí/zhèhuì) *zài* *chī* *yī-ge* *píngguǒ*.
 he at.that.time/now PROG eat one-CLF apple
 “He was/is eating an apple (at that time/now).”

The other imperfective aspect is durative aspect, which is expressed by the verbal suffix *-zhe*. It is used to emphasize the existence, continuity or durativity of a state or activity. For example, in (12), the use of *-zhe* diminishes the dynamic meaning of the verb *fàng* “put” and gives rise to a stative interpretation.

- (12) *zhuō-shàng* *fàng-zhe* *yī-tái* *diànnǎo*.
 table-on put-DUR one-CLF computer
 “There is a computer on the table.”

English has distinct grammaticalized tenses. The past tense is expressed by the verbal suffix *-ed* with exception of some irregular forms. In the aspect system, it has a fully grammaticalized progressive aspect which is expressed in a periphrastic construction, that is, “be + V-ing”, which can be used in all tenses. The aspectual opposition is expressed by the non-progressive form (perfective aspect) and the progressive form (imperfective aspect). The former entails culmination of the denoted event if the predicate is telic (e.g., *eat an apple*) whereas the latter is a viewpoint into the internal temporal structure of the event and thus does not entail culmination when interacting with telic predicates.

5. The present study¹

5.1. Research questions

The present study investigates the following questions:

(a) In the process of the Uygur learners’ L3 acquisition of English tense and aspect, does the lexical aspect influence the use of past tense? In other words, does the LAH also apply to L3 acquisition of English with L1 Uygur and L2 Chinese?

(b) Is there any occurrence of language transfer in this L3 acquisition, either from L1 Uygur or L2 Chinese, or both?

5.2. Participants

The research subjects consisted of 25 participants who were undergraduate students at Southeast

¹ The present study largely follows the study of Bardovi-Harlig and Reynolds (1995) which investigated the role of lexical aspect in the L2 acquisition of tense and aspect.

University, 13 of which were male and 12 were female. All of them acquired Uygur as their first language and Mandarin Chinese as their second language. However, they were exposed to the three languages differently before entering the university, especially Chinese and English. For Group One (N = 11), the participants received education from elementary school to high school in Xinjiang. They studied all subjects in Uygur and learned Chinese at school as their second language. They did not study English until they went to university. By the time when they participated in the study, they had studied English for two or three years. The participants of Group Two (N = 14) received education from elementary school to high school in Chinese, and they began to learn English at primary school. Overall, their Chinese and English are better than the participants of Group One.

All the participants had taken College English Test (CET) band 4 or 6. They were classified into three levels according to their scores of the test. Level 1 (the lowest level) included those who had taken only CET-4 and the scores were below 490; Level 2 (the medium level) included those who had only taken CET-4 with a score above 520 and those who had taken CET-6 with a score below 460; Level 3 (the high level) included those who had taken CET-6 with a score above 490. The distribution of participants by their English level and education background is presented in **Table 2**.

5.3. Materials

The materials used in the current study for collecting data from the participants included a questionnaire for basic information and a short test which tested the participants' knowledge of English tense and aspect. In addition, a short interview was conducted before the participant took the test, which was for the purpose of getting a general idea about the participants' language proficiency of Chinese and English.

(a) The questionnaire included two types of information of the participants. One type was the demographic information which included gender, date of birth, current grade, and their education background prior to college. The other type of information concerned their language proficiency in Chinese and English, including their test results of MHK (test of Mandarin Chinese proficiency for ethnic minority), the years of learning English, and English level (CET-4 or 6).

(b) The test included 34 short passages which contained 74 test items with 50 target items and 24 distractors that were verb forms not under investigation here. The passages varied in length from one sentence to three sentences. For each passage, the time reference for each eventuality was established through the use of time adverbials or verb tense and the two investigators double checked that there was no ambiguity for any test item. In this task the base form of each verb was given, and the participants were asked to fill in the blank with an appropriate tense form. The verbs were tested in various person such as the first, second and third person singular and plural. The 50 items includ-

Table 2. Distribution of participants by English level and education background

Level	Number	Education background	
		Group 1	Group 2
1	14	7	7
2	8	4	4
3	3	0	3
Total	25	11	14

ed 12 achievement verbs, 12 accomplishment verbs, 14 activity verbs (with one verb being tested twice), and 12 state verbs. Two sample tests are presented as follows:

(13) Last week, John was on his way to a singing lesson in Chicago and ____ (*stop*) at Starbucks for an iced coffee. He ____ (*notice*) a young woman looking at him. John ____ (*smile*) at her, out of politeness.

(14) There is a bank in a nearby town. You ____ (*need*) to take the bus to get there.

(c) More information about the Chinese and English language proficiency of the participants was obtained by a short interviews prior to the test. During the interviews, the participants were asked about their learning experience of English and Chinese as well as their metalinguistic knowledge of the tense and aspect systems in Chinese and English. This provides more information of the participants for the current study.

5.4. Data collection

The experiment was conducted in the spring academic semester and the data of the 25 participants were collected in three weeks. First, we invited the participants to a proper environment in which there are no other interruption so as to ensure the quality of the answers. The participants first took the short interview, and then completed the questionnaire for the demographic information and information of their language proficiency levels of Chinese and English. Afterwards, they took the cloze test. No time restrictions were imposed. For each participant, the entire experiment took about 15 to 25 minutes to complete.

6. Results

The participants' answers were classified into several categories according to the morphology of the verb form they provided: (a) past, which included the simple past tense forms and regularized past tense forms for irregular verbs such as *writed*; (b) non-past, which included simple present such as *likes*, and uninflected base forms such as (he) *like*; (c) progressive, which included cases of an inflected verb (V-*ing*) with no auxiliary, present progressive, and past progressive; (d) perfect, which included perfect forms of all tenses; and (e) other forms, which included all the other remaining supplied forms. The incorrect spelling of the response was overlooked; the response was classified only based on the ending morphology of the supplied verb form. For example, the incorrect spelling *syaed*, which was intended to be the past tense form of the verb *stay*, was classified as the past category. The ungrammatical uninflected verb for perfect aspect was also ignored such as *has snow* which should be *has snowed*. The perfect progressive form for activity verbs such as *had been swimming* was classified as progressive.

6.1. The use of simple past

The participants produced 1,850 responses in total to the cloze test, and 1,250 of them were responses for the target items. Among the responses to the target items, 920 responses were in the simple past tense, which suggests overall the participants had a quite high level of acquisition of past tense. The details of the simple past responses by lexical aspectual class and English language proficiency levels are presented in **Table 3**.

Table 3. The use of simple past by lexical aspectual class and English level

Level	Number of partici- pants	States (12 items)	Activities (14 items)	Accomplishments (12 items)	Achievements (12 items)
1	14	90 (53.6%)	129 (65.8%)	144 (85.7%)	135 (80.4%)
2	8	68 (70.8%)	78 (69.6%)	80 (83.3%)	81 (84.4%)
3	3	25 (69.4%)	30 (71.4%)	30 (83.3%)	30 (83.3%)

Table 3 shows that the participants of all proficiency levels had acquired the English tense knowledge to certain degree. Even for the lowest level (Level 1), the participants were able to use the past tense for more than half of the target items of all aspectual classes. The table also shows that both the lexical aspectual property of verb predicate and the language proficiency level influence the use of simple past. First, the three levels of English proficiency exhibit a similar pattern: accomplishments and achievements have similar level of appropriate use of simple past (between 80.4% and 85.7%) and both are higher than the level of appropriate use of simple past for states and activities (between 53.5% and 71.4%). This suggests a preference to use past tense for telic predicates. Note that such preference was found for all language proficiency levels. The low level of English proficiency shows a high level of appropriate use of simple past for accomplishments (85.7%) and achievements (80.4%), which are apparently higher than states (53.6%) and activities (65.8%). Similarly, for the two higher levels, the appropriate use of simple past for accomplishments (L2: 83.3%; L3: 83.3%) and achievements (L2: 84.4%; L3: 83.3%) is apparently higher than states (L2: 70.8%; L3: 69.4%) and activities (L2: 69.6%; L3: 71.4%). This suggests that the LAH persists into the higher level of language proficiency. Second, the three levels of English proficiency show apparent differences from each other in their uses of past tense for state verbs. The low level (Level 1) produced appropriate use of past tense for only 53.6% of the states in the test whereas the higher level (Levels 2 and 3) did it for 70.8% and 69.4% of the states respectively. The medium level (Level 2) does not show apparent difference from the high level (Level 3) with respect to the use of past tense for the four lexical aspects. These suggest that the low level of language proficiency is more subject to the constraint of the lexical aspect for using past tense. In other words, the influence of the lexical aspect diminishes when the language proficiency increases.

6.2. Activity verbs

It is also worth taking a look at the participants' alternative responses to the simple past form as they also reveal that the lexical aspect plays a role in the acquisition of tense and aspect. In the case of activity verbs which were tested in contexts such as (15), the major alternative to the past tense form is progressive, as shown in **Table 4**. Note that in Bardovi-Harlig and Reynolds' (1995) study, the native speakers predominantly used the simple past tense form for the stative verb in such case, which showed the contrast between native speakers and non-native speakers in tense-aspect knowledge.

(15) Last week, James swam (swim) every day. Now he's getting bored of it.

Table 4 shows that there are three alternatives to the past tense for activity verbs that the participants of the current study might use, namely, nonpast, perfect form, or progressive with the progressive as the more common choice. This pattern holds for all of the three levels of language proficiency. As indicated by the percentages of progressive, the participants of the three levels of English

Table 4. The distribution of tense-aspect markers in activity verbs

Level	Past	Nonpast	Progressive	Perfect
1	129 (65.8%)	18 (9.2%)	37 (18.9%)	9 (4.6%)
2	78 (69.6%)	10 (8.9%)	16 (14.3%)	7 (6.3%)
3	30 (71.4%)	2 (4.8%)	8 (19.0%)	2 (4.8%)

Table 5. The distribution of various progressive forms in activity verbs

Level	θ prog.	Simple past prog.	Present prog.	Perfect prog.	
				Past	Present
1	23 (11.7%)	2 (1.0%)	0	1 (0.5%)	3 (1.5%)
2	11 (9.8%)	3 (2.7%)	0	0	2 (1.8%)
3	1 (2.4%)	3 (7.1%)	0	1 (2.4%)	0

proficiency almost have the same chances of using progressive (between 14.3% and 19.0%), though the number of L3 participants is too small to make any statistically significant conclusion.

The progressive responses by the participants show an improvement of using the correct grammatical form for progressive as the language proficiency increases. The responses consist of several forms, which show contrast between levels of language proficiency as shown in **Table 5**. In particular, the data show that as language proficiency increases, a predominant use of θ progressive forms such as θ *dancing* and θ *swimming* is gradually replaced by the use of the simple past progressive such as *was swimming*. For example, Level 1 participants produced θ progressive forms for 11.7% of their responses and 1.0% for the simple past progressive, whereas Level 3 participants produced 2.4% for the θ progressive forms and 7.1% for the simple past progressive.

According to the LAH, the progressive expresses such a meaning that the action progresses or continues at the time the speaker is referring to, which is compatible with the inherent lexical aspectual property of activity verbs, and thus learners may use the progressive for activity verbs rather than past tense.

6.3. State verbs

The alternative to the past tense for state verbs favors a different form from the one for activity verbs. An example of the discourse containing a state verb is presented in (16).

(16) John finally decided to let Mary leave because she seemed (seem) unhappy with him.

In this case, the responses of all language proficiency levels show a preference for nonpast (present tense) as an alternative to the past tense while the low uses of progressive and perfect are largely negligible, as shown in **Table 6**.

Table 6 also shows that as the participants' language level advances, the use of past tense for state verbs increases and the use of nonpast decreases, suggesting that the influence of the lexical aspect on the use of past tense weakens when the language proficiency increases.

The use of simple present tense is consistent with the durative feature of state verbs. Conceiva-

Table 6. The distribution of tense-aspect markers in state verbs

Level	Past	Nonpast	Progressive	Perfect
1	90 (53.6%)	69 (41.1%)	5 (3.0%)	4 (2.4%)
2	68 (70.8%)	25 (26.0%)	1 (1.0%)	2 (2.1%)
3	25 (69.4%)	7 (19.4%)	3 (8.3%)	1 (2.8%)

bly, a quality that is true in the past is normally true at the present. For example, if Mary was smart in the past, then it is often the case that she is smart now. Only the present tense has the meaning of “continued existence” (Andersen and Shirai, 1994) and thus we can expect that the present tense is a common alternative to past tense for state verbs.

It is also noticeable that as found in prior study (Bardovi-Harlig and Reynolds, 1995), the participants in the current study also rarely used the progressive for state verbs, although the meaning of progressive is compatible with the durative property of state verbs. This suggests that the learners of all language proficiency levels are aware of the restriction of progressive to dynamic verbs and thus do not overgeneralize it to the state verbs.

7. Discussion

The results presented above confirm that the lexical aspectual property of verbs plays an important role in the acquisition of tense and aspect. The participants of all language proficiency levels treat the telic predicates (achievements and accomplishments) as the best cases of past tense carriers but show a lower use of past tense for activity and state verbs. Thus, the data seem to suggest that L1 transfer is absent in the process of L3 acquisition of tense and aspect since the L1 Uygur is also a tensed language; instead, it is the universal acquisition constraint (the LAH) that exerts more influence on the L3 acquisition, which has also been attested for L1 and L2 acquisition.

The study found that in the process of L3 acquisition, the use of past tense is influenced by the lexical aspect of verbs even though the L1 also has grammatical tense. The performances of the participants of all English proficiency levels show a similar pattern of using past tense for the four verbal classes. They all showed a significantly higher use of past tense for the telic predicates (accomplishments and achievements) than for activity and state verbs, and for the alternatives to the past tense for activity and state verbs, they also showed the same pattern, that is, the progressive is the major tense-aspect marker alternative for activity verbs and the nonpast for state verbs. Such similarities suggest that the inherent lexical aspect is semantically related with the tense-aspect markers, and they are mainly used by learners to indicate the lexical aspectual meaning rather than to perform the tense-aspect function (the LAH). At an earlier stage of learning the tense and aspect system, the use of past tense is undergeneralized. It is not until the learners move to a higher level of language proficiency, when the past tense is used across lexical aspectual classes, the past tense is used for its real function.

The findings of the current study do not support The L1 Factor Hypothesis for L3 acquisition (Jin, 2009) which emphasizes the role of L1 in learning the grammar of L3. For the current study, the L1 Uygur, like English, is a tensed language and the verbal morphology inflects for the past tense. Thus, if L1 transfer occurred in the L3 acquisition of tense and aspect, we would expect that

the use of past tense should be highly and equally accurate for all lexical aspectual classes. But this prediction was not borne out. The use of past tense for activity and state verbs is not significantly high when compared to the use of past tense for accomplishment and achievement verbs. It does not seem to be the case that the learners transfer their Uygur tense knowledge in acquiring the English past tense.

It is hard to conclude that the results of the current study support the L2 Status Factor for L3 acquisition (Bardel and Falk, 2007). As shown in Section 4, the verbal suffix *-le* in Chinese, which is the L2 of the participants, has such a distribution that it is typically used for the accomplishments and achievements but never for the state verbs, and for the activity verbs, it is acceptable to use *-le* with them in more restricted contexts and thus a low frequency in the input. In other words, the distribution of *-le* is subject to the lexical aspect of verbs in a way that the LAH predicts for the use of past tense for languages like English. Moreover, semantically, when *-le* used with accomplishments, achievements, and activities, its default interpretation is past tense. Therefore, it seems that the use of past tense of the participants in the current study could be a result of L2 transfer. However, such an explanation cannot explain why the LAH is commonly attested for L2/L3 acquisition even when the L1/L2 has no counterpart of the Chinese *-le*.

The same argument holds for the Cumulative Enhancement Model (Flynn et al., 2004). According to this model, the use of past tense across lexical classes by the participants is a result of transferring linguistic knowledge of both L1 and L2. For example, the learners transferred the past tense knowledge from L1 Uygur and the lexical aspectual restriction on the use of *-le* from L2 Chinese. This explanation seems implausible as well since the LAH has been widely attested.

The Typological Primacy Model (Rothman, 2011, 2015) cannot explain the results of the current study either. According to this model, we might expect an L1 transfer occurs for the L3 acquisition of tense and aspect by the Uygur learners since both Uygur and English have grammatical tense and thus the learners may perceive them as typologically closer. However, like the L1 Factor Hypothesis, this cannot explain the influence of lexical aspect on the use of past tense. So, it seems that linguistic typology does not play any significant role in the L3 acquisition of tense and aspect.

The ubiquitous influence of the lexical aspectual class seems to suggest that the acquisition of tense and aspect, which undergoes a specific sequence, is something universal rather than a result of language transfer of prior linguistic knowledge. However, there might be some other explanation for it. For example, Bardovi-Harlig and Reynolds (1995) put forward a hypothesis from Andersen (1990) as an alternative explanation. Andersen hypothesized that if a particular form received a distributional bias (i.e., more common) in a certain linguistic environment against another form which occurs in the same environment, the learner might misperceive the meaning of the form. In the case of the use of simple past, the telic predicates (accomplishments and achievements) are more common than activity and state verbs, and have a completive reading, which might cause the learner to misperceive it as a perfective aspect marker. This explains why telic predicates are selected as the best carriers of simple past.

8. Conclusion

The current study investigated L3 acquisition of English tense and aspect by Uygur learners with

L2 Chinese. Specifically, it investigated whether the lexical aspectual class influences the use of simple past for verbs (the LAH), and whether the acquisition of tense and aspect shows an occurrence of language transfer, either from L1 or L2 or both. The results of the study show that the lexical aspect plays an important role in the use of past tense by the Uygur learners of all levels of English proficiency, thus it confirms the LAH. It is argued that there is no clear evidence for language transfer involved in this case of L3 acquisition. However, more evidence is needed for a definitive conclusion regarding the language transfer factor. For example, future studies may consider a comparison of the Uygur learners' English tense-aspect system (L3 Acquisition) with that of the Chinese speakers' (L2 Acquisition), which would provide more (counter)evidence for language transfer from L1 Uygur.

Conflict of interest

The authors declared no conflict of interest.

Author contribution

Both authors contributed equally to the paper and are co-first authors.

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