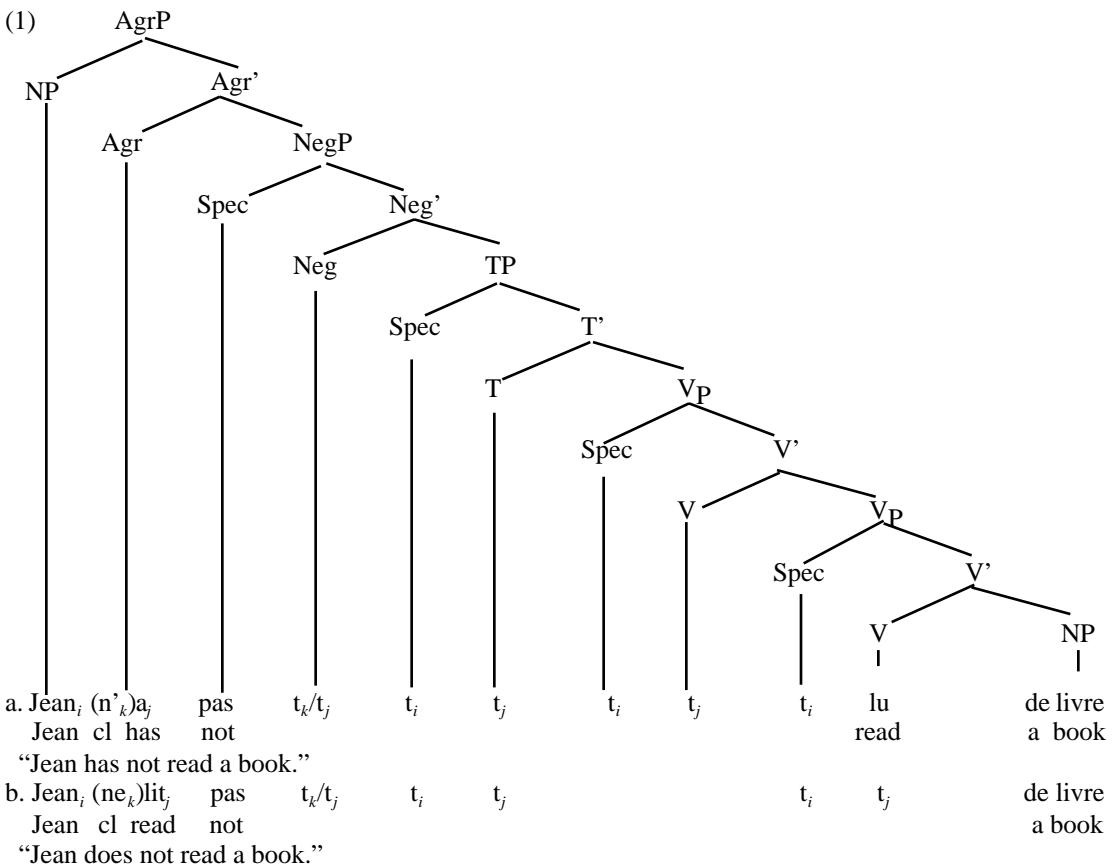# The Syntax of Clausal Negation in French and English Speakers' L2 Chinese

Boping Yuan
University of Cambridge

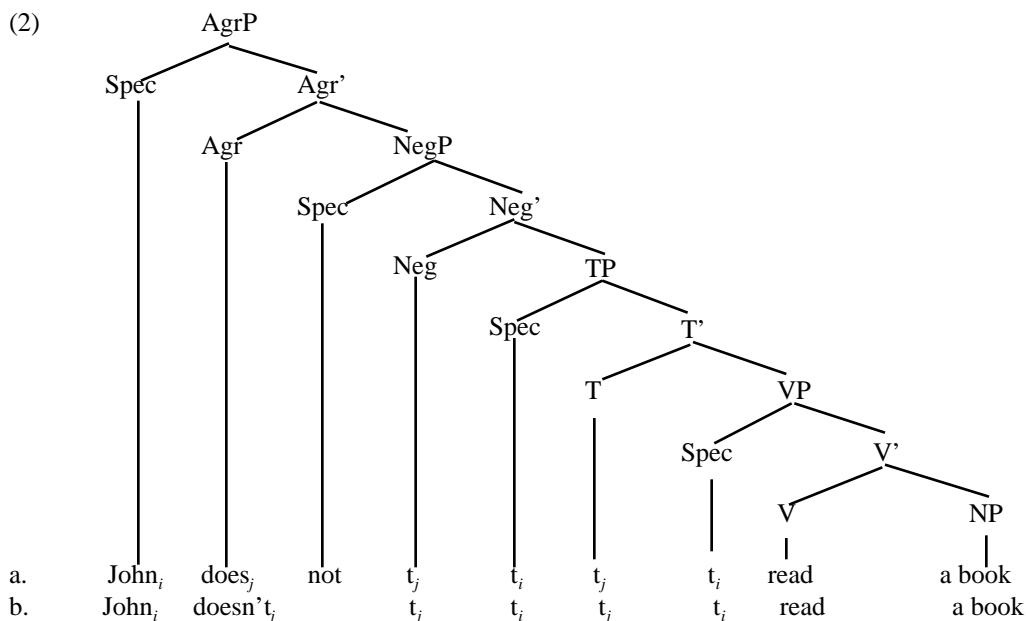## 1. Syntactic Analyses of Clausal Negation in French, English and Chinese

Belletti (1990) and Haegeman (1992, 1994) have argued that AgrP dominates TP and that the Negative Phrase, i.e. NegP, is positioned between AgrP and TP in the clausal negation in French and English. In French, negative clauses contain a NegP, and finite verbs, whether thematic verbs or auxiliaries, move to Agr, via Tense and Neg in negative clauses, as shown in (1).

(1)

```
                  AgrP
                 /    \
               NP      Agr'
               |      /    \
               |    Agr     NegP
               |     |     /    \
               |     |   Spec    Neg'
               |     |    |     /    \
               |     |    |   Neg     TP
               |     |    |    |     /   \
               |     |    |    |   Spec   T'
               |     |    |    |    |    /  \
               |     |    |    |    |   T    VP
               |     |    |    |    |   |   /  \
               |     |    |    |    |   | Spec  V'
               |     |    |    |    |   |  |   /  \
               |     |    |    |    |   |  |  V    VP
               |     |    |    |    |   |  |  |   /  \
               |     |    |    |    |   |  |  | Spec  V'
               |     |    |    |    |   |  |  |  |   /  \
               |     |    |    |    |   |  |  |  |  V    NP
               |     |    |    |    |   |  |  |  |  |    |
```

a. Jean$_i$ (n'$_k$)a$_j$ pas   t$_k$/t$_j$ t$_i$ t$_j$ t$_i$ t$_j$ t$_i$ lu   de livre
   Jean cl has   not   read   a book
   "Jean has not read a book."
b. Jean$_i$ (ne$_k$)lit$_j$ pas   t$_k$/t$_j$ t$_i$ t$_j$ t$_i$ t$_j$ de livre
   Jean cl read   not   a book
   "Jean does not read a book."

The subject NP is base-generated in Spec of VP and moves to the specifier of AgrP to enter into an agreement relation with the nominal features of the Agr node. The finite verb is base-generated as the head of VP and moves to Agr via T. As can be seen from (1), French clausal negation is bipartite and consists of an element "ne", which can be omitted in colloquial French, and an element "pas". As "ne" is attached to the finite verb with which it moves to Agr (and to C in French questions), and since "pas" is not affected by the movement of the finite verb, "ne" is considered an affix heading a projection of NegP whose specifier is occupied by the negative operator "pas". When the finite verb raises to the head of NegP, "ne" cliticizes to the verb, which forms one complex head before raising further up to Agr. It is suggested (cf. Pollock 1989, Chomsky 1993, 1995) that the nature of functional

categories determines the possibility of verb-movement. As the French inflection is strong, the finite verb is required to move out of the VP at Phonetic Form (PF) and raise to Tense, Neg and to Agr for the purpose of feature checking, the result of which is that the finite verb appears to the left of "pas" in French.

Unlike French, English is widely considered a language with weak inflection. Consequently, raising the thematic verb from its base position to Tense and Agr is prohibited at PF and the thematic verb must remain *in situ* inside VP. This results in a word order with the negation "not" preceding the thematic verb in English clausal negation, as in (2). That is, thematic verbs in English never appear to the left of negation. In English, the negation "not" occupies the specifier of NegP like "pas" in French (Zanuttini 1997), and the head of the NegP can be realized by an abstract head [Neg], as in (2a), or by the negative affix "-n't", as in (2b). Like the French "ne", the abstract head [Neg] and the negative affix "-n't" must attach to another head.

(2)

```
              AgrP
          ┌────┴────┐
        Spec       Agr'
                ┌───┴────┐
              Agr       NegP
                    ┌────┴────┐
                  Spec       Neg'
                         ┌────┴────┐
                       Neg        TP
                              ┌────┴────┐
                            Spec       T'
                                   ┌────┴────┐
                                  T         VP
                                        ┌───┴────┐
                                      Spec      V'
                                             ┌──┴───┐
                                             V     NP
```

| a. | John$_i$ | does$_j$ | not | t$_j$ | t$_i$ | t$_j$ | t$_i$ | read | a book |
| b. | John$_i$ | doesn't$_j$ | | t$_j$ | t$_i$ | t$_j$ | t$_i$ | read | a book |

As is shown in (2), English negative sentences with thematic verbs are characterized by the insertion of the auxiliary "do". The do-insertion serves as a morphological support for the abstract [Neg] feature and the negative affix "-n't", both of which have to be attached to another head. As the thematic verb does not move up in English, the auxiliary "do" is inserted under T and moves to Agr via Neg, picking up "-n't" or the abstract [Neg] on its way (cf. Haegeman and Guéron 1999).

While thematic verbs in English cannot raise to Tense, Neg and Agr, finite auxiliaries do undergo movement. They move to Agr and appear to the left of the negation, as in (3). As auxiliaries do not assign thematic roles, they are considered semantically "light" and therefore can be attracted by a weak inflectional head (Haegeman and Guéron 1999). English Agr and Tense are too weak to attract the "heavy" thematic verbs, but they are strong enough to attract the "light" auxiliaries. As a result, auxiliaries appear to the left of the negation in English.

(3) a. John has not read the book.
   b. John is not reading the book.
   c. John will not read the book.

Chinese expresses clausal negation mainly by means of two negation markers "bu" (=not) and "mei(you)" (=have not, did not). According to Li and Thompson (1981), the negative marker "bu" is the neutral negation, while "mei(you)" is to negate the completion of an event. As can be seen in (4), both "bu" and "mei" precede the verb in Chinese clausal negation. This is believed to be due to the fact that Chinese has weak inflection and does not allow the verb to raise out of VP. Consequently, the

negation marker always occurs to the left of the thematic verb in Chinese clausal negation, which is similar to English, but different from French.

(4)   a. Zhangsan bú   kàn shu.
            Zhangsan not read book
          "Zhangsan does not read books."
      b. Zhangsan méi kàn shu.
            Zhangsan not read book
          "Zhangsan did not read the book."

Here, we put aside the negation marker "mei(you)" and concentrate on the syntactic analysis of the Chinese neutral negation "bu". "Bu" is analysed as a clitic-like element in the literature (Huang 1988, Ernst 1994, 1995). Huang (1988) uses a number of facts to support the clitic status of "bu". First, Chinese is a tonic language and the tone of "bu" varies with the tone of the following morpheme. When the following morpheme has a falling tone, "bu" has a rising tone, and when the following morpheme has a level tone, a rising tone or a rising-falling tone, "bu" has a falling tone. Huang believes that the variation is due to the clitic status of "bu". Some examples are given in (5) to illustrate the point.[1]

(5)   bù tī   (= not kick)
        bù lái   (= not come)
        bù mǎi   (= not buy)
        bú xiào   (= not laugh)

(6)   a. bie (bú +yào)   (= don't)
      b. beng (bú+yòng) (= needn't)

(7)   A: "Ni xihuan tiyu ma?"
          You like   sports Q
         "Do you like sports?"
      B: *"Wo bù."   B: "Wo bù xǐhuān."
         I   not   I   not like
          "I don't"   "I don't."

(8)

Secondly, in forming the negative imperative, "bu" is optionally fused with certain auxiliaries as shown in (6). The other fact that Huang points out is that "bu" cannot occur alone (except as the bare answer "No" to a question), as shown in (7). According to Huang, "bu" is cliticized to the verb or a modal verb as in (8). This implies that the negation marker "bu" would always be adjacent to the verb, as it must cliticize to the latter. However Huang's account runs into difficulty when it is used to analyse sentences like those in (9), where "bu" is separated from the verb by an adverb, a prepositional phrase or a reciprocal.

(9)   a. Zhangsan bù jīngcháng youyong.
          Zhangsan not often   swim
          "Zhangsan does not often swim."
      b. Zhangsan bú zài Běijīng gongzuo.
          Zhangsan not in Beijing work
          "Zhangsan does not work in Beijing."

---

[1] The tone mark "-" stands for a level tone, "/" a rising tone, "v" falling-rising tone and "\" falling tone.

c. Tamen bú hùxiāng bangzhu.
 They not each other help
 "They do not help each other."

(10)

(11)
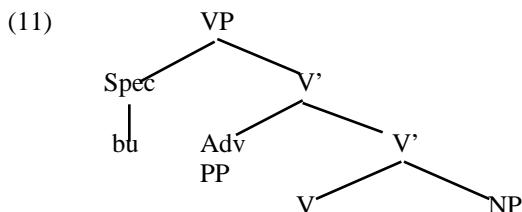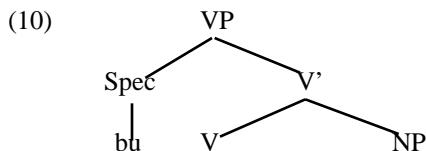
Like Huang, Ernst (1995) also takes "bu" as an affix-like element. However, Ernst suggests that "bu" should be cliticized to the following word rather than just to the verb. According to Ernst, "bu" is positioned in Spec of VP and must be cliticized to the following word.[2] In a VP, "bu" attaches to the main verb as in (4a) and (10), or to an intervening adjunct, as in (9a-c) and (11).

In this paper, I follow Huang (1988) and Ernst (1995) by treating "bu" as an affix-like element. However, unlike Huang (1988) and Ernst (1995), I would propose that "bu" can be in Spec of AP, AdvP, PP as well as VP. Chinese negation has a tendency to focus the item closest to it in its c-commanding domain. Given the close relationship between the specifier and the head in the X'-theory, it is natural to assume that the negative feature of the head is checked under such a Spec-head relationship and that the affix "bu" is cliticized to the head, of which "bu" is the specifier. This analysis is supported by the phonological data in (9), where "bù" in (9a) has the falling tone because of the level tone of the first morpheme in "jīngcháng" (=often), and "bú" in (9b-c) has the rising tone because of the falling tone of the first morpheme in "zài Běijīng" (=in Beijing) and "hùxiāng" (=each other). Obviously, none of the verbs in these sentences determines the tone of the negative marker "bu".

It is a quite common view in second language research that L2 grammars can be influenced by parametric settings transferred from the learner's native language. Following the hypothesis of L1 transfer and given the differences between French on the one hand and English and Chinese on the other, and given the similarities between English and Chinese with regard to clausal negation, we could predict that it would be easier for English-speaking learners than for French-speaking learners to acquire clausal negation in Chinese. However, this prediction is not confirmed by the empirical study.

2. The Empirical Study
2.1 The subjects

The subjects for the empirical study consist of 48 French speakers and 67 English speakers. There were also 10 native Chinese who served as controls in the group of native speakers of Chinese (NS Group). All non-native subjects were divided into groups according to the year that they were studying Chinese at university. Information about the subjects is given in Table 1.

---

[2] Ernst (1995) argues that with aspect or modals, "bu" is generated in the specifier position of an aspect phrase.

356

Table 1 Information about the subjects in each group

Groups	Number of subjects	Average Age	Average length of studying Chinese	Average stay in China or Taiwan
F1 Group	15	25	6 months	1 week
F2 Group	16	36	1.5 years	2 months
F3 Group	17	25	3 years	8 months
E1 Group	24	19	4 months	1.5 weeks
E2 Group	15	20	1.5 years	1 month
E3 Group	16	22	2.5 years	6 months
E4 Group	12	23	3.5 years	8 months
NS Group	10	39	N/A	N/A

2.2 The procedure

Two tasks, an oral production task and a judgement task, were administered to all subjects. The oral production task was administered before the judgment task in order to minimise the subject's awareness of the focus of the experiment. In the oral production task, subjects were asked to give an oral presentation of what activities some people do not do in their daily life on the basis of information provided in a table in Chinese. They were also asked to present orally how frequently some people do certain activities in their daily life. In the first row of the table were listed names of four people and in the first column were listed four activities, that is, *to buy English newspapers*, *to go to Chinese restaurants*, *to listen to Japanese music* and *to watch American films*. In the slots under the names of the four people listed in the first row (i.e. in Columns 2-5) were signs of "X" as well as frequency expressions in Chinese, such as *three times per month*, *once per week*, *five times per year*, etc. Subjects were asked to convert the signs of "X" and the frequency expressions in the table into negative sentences and sentences with appropriate Chinese frequency adverbs, such as *often, sometimes, rarely* or *seldom* in their oral description about whether and how frequently each of the four people did the activities listed in the table. Subjects were told that the aim of the experiment was to find out their interpretations of the Chinese frequency adverbs. In this way, the subject's attention was focused on the meaning of the adverb rather than the positions of the negation "bu" in relation to the verb.

The judgement task consisted of 18 pairs of sentences. Of them, six had the negation in different positions in the pair of sentences (i.e. S-Neg-V-XP vs. *S-V-Neg-XP), six differed in the position of the adverb (see Yuan (2001) for the result of the adverb placement) and six were distracters. The subject had to indicate whether the sentences in the pair were correct or not by putting a tick or a cross in the box next to the sentence. To obtain potential data concerning optionality of the verb raising over the negation in L2 Chinese, subjects were told that they could mark both sentences as correct if they thought that was the case. Conversely, they could also mark both as incorrect if they believed the two sentences were wrong. There was also a choice of "I don't know". A pair of sentences used in the judgement task are given in (12) as an example.[3]

(12)   a. Wo baba xihuan bu Zhongguo cha.   ☐
            my father like   not Chinese   tea
          "My father does not like Chinese tea."
        b. Wo baba bu xihuan Zhongguo cha.   ☐
            my father not like   Chinese   tea
          "My father does not like Chinese tea."
        c. I don't know.   ☐

---

[3] The gloss and English translations are provided here for the reader of the paper, and they were not available to the subjects in the experiment. All test sentences were given in Chinese characters but all instructions were given in the subjects' L1s respectively

2.3 Results

Table 2: The total number and the percentage of Neg-V-XP and *V-Neg-XP sentences produced by each group in the oral production task. (Percentages are in brackets.)

Groups	Neg - V- XP			* V – Neg - XP	Total no. of
	bu+V	bushi+V	mei+V		instances
F1 Group	84 (93%)	6 (7%)	0 (0%)	0 (0%)	90
F2 Group	96 (100%)	0 (0%)	0 (0%)	0 (0%)	96
F3 Group	102 (100%)	0 (0%)	0 (0%)	0 (0%)	102
E1 Group	138 (96%)	6 (4%)	0 (0%)	0 (0%)	144
E2 Group	85 (94%)	0 (0%)	5 (6%)	0 (0%)	90
E3 Group	96 (100%)	0 (0%)	0 (0%)	0 (0%)	96
E4 Group	72 (100%)	0 (0%)	0 (0%)	0 (0%)	72
NS Group	60 (100%)	0 (0%)	0 (0%)	0 (0%)	60

Table 3: The total number and the percentage of Neg-V-XP and *V-Neg-XP sentences judged as correct by each group in the judgement task. (Percentages are in brackets.)

Groups	Neg-V	*V-Neg	Both Neg-V and *V-Neg	Neither Neg-V nor *V-Neg	No. of attempts made	"I don't know"
F1 Group	83 (97%)	1 (1%)	1 (1%)	1 (1%)	86	4
F2 Group	91 (96%)	2 (2%)	0 (0%)	2 (2%)	95	1
F3 Group	101 (99%)	1 (1%)	0 (0%)	0 (0%)	102	0
E1 Group	140 (97%)	2 (1%)	1 (0.6%)	1 (0.6%)	144	0
E2 Group	90 (100%)	0 (0%)	0 (0%)	0 (0%)	90	0
E3 Group	95 (99%)	0 (0%)	1 (1%)	0 (0%)	96	0
E4 Group	71 (99%)	0 (0%)	1 (1%)	0 (0%)	72	0
NS Group	60 (100%)	0 (0%)	0 (0%)	0 (0%)	60	0

As expected, the sentences that the native speakers produced in their oral production task all have the word order of S-Neg-V-XP (see the last row of Table 2). In the judgement task, they judged the S-Neg-V-XP sentences as correct also at the rate of 100% (see the last row of Table 3). Interestingly, non-native groups are very similar to the native group in doing the two tasks; the seven non-native groups, whether they are French-speaking or English-speaking, all gave native-like performance in both the oral production task and the judgement task. This is the case across all groups at different proficiency levels of the Chinese language. These data provide clear evidence that verbs do not raise past the negation in L2 Chinese.

As can be seen in Table 2, some subjects in non-native groups used different forms of negation in the oral production task, such as "mei+V" and "bushi+V". The former means "have not" or "did not", the latter is normally used to make a contrast, as in (13).

(13)   Ta bushi qu Beijing, ta shi qu Shanghai.
        He not be go Beijing ta be go Shanghai
        "He is not going to Beijing. He is going to Shanghai."

Although the use of "mei+V" and "bushi+V" is semantically incorrect for the sentences in the oral production task, they are in conformity with the Chinese word order syntactically. No case is found in the oral production task where the verb occurs to the left of the negation (see Column 5 in Table 2). This is the case not only among English-speaking learners of Chinese whose L1 prohibits thematic-verb passing over the negation, but also among French-speaking learners whose L1s require the finite verb to move out of the VP and raise past the negation. In the judgement task, there are occasional cases where the incorrect word order of *S-V-Neg-XP is accepted (see Column 3 in Table 3) and where both the S-Neg-V-XP word order and the incorrect word order of *S-V-Neg-XP are judged as correct (see Column 4 in Table 3), a possible indication of optionality. However, as can be seen in Table 3, the total numbers of these anomalous cases are so insignificant that they can safely be

neglected. What the data in Table 3 clearly show is that subjects overwhelmingly accepted the correct word order of S-Neg-V-XP.

3. Discussion

The findings in the empirical study suggest that with regard to Chinese clausal negation, L2 Chinese grammars are not influenced by L2 learners' native languages, and that the verb in L2 Chinese grammars is prohibited from moving out of VP and raising past the negation. This is the case not only in L2 Chinese grammars of learners with different L1s, such as French and English, but also the case among learners at different stages of L2 acquisition of Chinese, including those at the initial stage of L2 acquisition of Chinese. These findings provide clear evidence against the Full Transfer/FullAccess (FT/FA) hypothesis proposed by Schwartz and Sprouse (1994, 1996), the Minimal Trees (MT) hypothesis put forward by Vainikka and Young-Sholten (1994, 1996a, 1996b), and the Valueless Features (VF) hypothesis proposed by Eubank (1993/4, 1994, 1996). These models of L2 acquisition would make wrong predictions for the present study and would have difficulty accounting for the findings in the study.

How can L2 Chinese grammars be informed of the non-raising status of the verb in the target language? There seems to be plenty of evidence in the Chinese input data which can play such a role. Chinese is a language with no morphological inflection at all for *phi* features. This can be a clear indication to the L2 grammars that inflection in Chinese is too weak to make verb-raising possible. Of course, the position of negation in relation to the verb can be very informative in this respect, but sentences like those in (14), where the frequency/manner adverb appears to the left of the verb, a clear indication to the L2 grammars that the verb in Chinese remains *in situ* inside VP, can also be enlightening to L2 Chinese grammars regarding the raising status of the verb in Chinese.

(14)   a. Ta henshao he   pijiu.
           He seldom drink beer
          "He seldom drinks beer."
        b. Wo hen kuaide xie wan le   zuoye.
            I   very quickly write finish PFV homework[4]
           "I quickly finished writing the homework."

In addition, the absence of auxiliaries and copulas in Chinese can make L2 Chinese grammars aware of the strength or more precisely the weakness, of the abstract features associated with Chinese Agr and T. Auxiliaries and copulas are used in French, and they have distinct forms for tense and agreement. It has been argued in Ouhalla (1991) that the English copula "be", like auxiliary verbs but unlike thematic verbs, cannot assign theta roles and is therefore unable to take arguments; it is inserted in the English sentence to "bear" the tense and agreement features. However, Chinese does not employ copulas and auxiliaries in sentences like (15), which can serve as clear evidence for setting Agr and T to the [weak] value in L2 Chinese.

(15)   a. [Wo]   [hen gaoxing].
            I   very happy
          "I am very happy."
        b. [Ta]   [shiwu sui].
            He   fifteen age
          "He is fifteen years old."
        c. [Changcheng] [zai Zhongguo].
            Great Wall   in China
          "The Great Wall is in China."

---

[4] PFV stands for perfective aspect marker.

    d. [Xueshenmen]   [lai   le].
       Students   come PFV
       "The students have come."

4. Conclusion

As we have seen, there is no motivation for the verb to raise to Tense and Agr in L2 Chinese grammars. On the basis of the data in this study, I would argue that the verb never moves out of VP in L2 acquisition of Chinese. This argument is supported by findings in Yuan (2001), where French and English speakers almost never produce or accept Chinese sentences with the adverb positioned between the verb and its complement. The verb in L2 Chinese grammars does not undergo any movement. No trace of L1 transfer is found in either French or English speakers' L2 Chinese. These findings support the argument that L1 transfer is a relative rather than absolute phenomenon in second language acquisition.

References

Belletti, A. 1990: *Generalized Verb Movement.* Turin: Rosenberg and Sellier.

Chomsky, N. 1993: A minimalist program for linguistic theory. In K. Hale and S. J. Keyser (eds.). *The View from Building 20,* Cambridge, MA: MIT Press, *1-52.*

Chomsky, N. 1995: *The Minimalist Program*. Cambridge, MA: MIT Press.

Ernst, T. 1994: Functional categories and Chinese Infl. *Linguistics* 32, 191-212.

Ernst, T. 1995: Negation in Mandarin Chinese. *Natural Language and Linguistic Theory* 13, 665-707.

Eubank, L. 1993/1994: On the transfer of parametric values in L2 Development. *Language Acquisition 3,* 183-208.

Eubank, L. 1994: Optionality and the initial state in L2 development. In T. Hoekstra and B. Schwartz (eds.). *Language Acquisition Studies in Generative Grammar: Papers in honour of Kenneth Wexler from the 1991 GLOW workshop,* Amsterdam: John Benjamins, 369-388.

Eubank. L. 1996: Negation in early German-English interlanguage: More valueless features in the L2 initial state. *Second Language Research 12*, 73-106.

Haegeman, L. 1992: *Theory and Description in Generative Grammar: A Case Study in West Flemish*. Cambridge: Cambridge University Press.

Haegeman, L. 1994: *Introduction to Government and Binding Theory* (2nd edition). Oxford: Blackwell.

Heagemand, L. and Guéron, J. 1999: *English Grammar: A Generative Perspective.* Oxford: Blackwell.

Huang, C.-T. J. 1988: Wo pao-de kuai and Chinese Phrase Structure. *Language 64*, 274-311.

Li, C. and Thompson, S. 1981: *Mandarin Chinese: A Functional Reference Grammar*. Los Angeles, CA: University of California Press.

Marantz, A. 1995: The Minimalist Program. In G. Webelhuth (ed.). *Government and Binding Theory and the Minimalist Program,* Oxford: Blackwell, 349-382.

Ouhalla, J. 1991: *Functional Categories and Parametric Variation*. London: Routledge.

Pollock, J.-Y. 1989: Verb movement, Universal Grammar, and the structure of IP. *Linguistic Inquiry 20,* 365-424.

Schwartz, B. and Sprouse, R. 1994: Word order and nominative case in non-native language acquisition: A longitudinal study of (L1 Turkish) German Interlanguage. In T. Hoekstra and B. Schwartz (eds.). *Language Acquisition Studies in Generative Grammar: Papers in honour of Kenneth Wexler from the 1991 GLOW workshop,* Amsterdam: John Benjamins, 317-368.

Schwartz, B. and Sprouse, R. 1996: L2 cognitive states and the full transfer/full access model. *Second Language Research 12,* 40-72.

Vainikka, A. and Young-Scholten, M. 1994: Direct access to X'-Theory: Evidence from Korean and Turkish adults learning German. In T. Hoekstra and B. Schwartz (eds.). *Language Acquisition Studies in Generative Grammar: Papers in honour of Kenneth Wexler from the 1991 GLOW workshop,* Amsterdam: John Benjamins, 265-316.

Vainikka, A. and Young-Scholten, M. 1996a: Gradual development of L2 phrase structure. *Second Language Research 12*, 7-39.

Vainikka, A. and Young-Scholten, M. 1996b: The early stages in adult L2 syntax: Additional evidence from Romance speakers. *Second Language Research 12,* 140-176.

Yuan, B. 2001: The status of thematic verbs in the second language acquisition of Chinese: against inevitability of thematic-verb raising in second language acquisition. *Second Language Research 17*, 248-272.

Zanuttini, R. 1997: Negation and Clausal Structure: A Comparative Study of Romance Languages. Oxford: Oxford University Press.

Proceedings of the 6th Generative Approaches to Second Language Acquisition Conference (GASLA 2002): L2 Links

edited by Juana M. Liceras, Helmut Zobl, and Helen Goodluck

Cascadilla Proceedings Project   Somerville, MA   2003