

Verb Copying and Situation Delimiters in Chinese

Hyeson Park & Lan Zhang

(Keimyung University, Louisiana State University)

Park, Hyeson & Zhang, Lan. 2006. Verb Copying and Situation Delimiters in Chinese. *The Linguistic Association of Korea Journal*, 14(2), 115-131. Chinese has the verb copying construction, in which a verb is copied after a non-referential/non-specific object in the presence of adverbial elements such as duration and frequency phrases, or the complex stative construction. Several analyses have been proposed for this construction from both formal and functional perspectives. Among the formalists, Yi (1990) proposes that verb copying occurs to assign case to the adverbial, which is an NP in Chinese. In this paper, incorporating Yi's case approach and Wechsler and Lee's (1996) theory on 'situation delimiters', and in comparison with Korean accusative marked adverbials, we propose a new analysis of the verb copying construction. Wechsler and Lee (1996) propose that accusative marked adverbials in Korean are situation delimiters and they get accusative case due to the universal principle, Case Domain Generalization (CDG), which states that the domain of direct case for a predicate may be extended to include a situation delimiter. Contrary to Wechsler & Lee, however, we propose that CDG is not a universal principle; rather, it is parameterized depending on whether multiple accusative case checking is allowed or not in a language. Since Chinese does not allow multiple case checking, verb copying is utilized to license the situation delimiters.

Key Words: verb copying, situation delimiters, case

1. Introduction: data

Chinese has the verb copying construction, and some characteristics of this construction are: first, a verb is copied after a direct object in the presence of certain adverbial elements such as duration, frequency, directional phrases, and the complex stative construction, as shown in

examples (1)-(4). The word order of this construction is: S+ V+O + V+ adverbial element (Li & Thompson, 1981).

- (1) a. * wo shui-le jiao wu-ge zhongtou
 I sleep-PERF¹⁾ sleep five-CL hour
 b. wo shui-jiao shui-le wu-ge zhongtou
 I sleep sleep sleep-PERF five-CL hour
 'I slept for five hours.'
- (2) a. * wo pai-le shou liang ci
 I clap-PERF hand two time
 b. wo pai-shou pai-le liang ci
 I clap-hand clap-PERF two time
 'I clapped (my) hands twice.'
- (3) a. * women zou-lu dao shichang le
 we walk road to market CRS
 b. women zou-lu zou dao shichang le
 we walk road walk to market CRS
 'We walked to the market.'
- (4) a. *ta jiang gushi de women dou men le
 s/he tell story CSC we all bored CRS
 b. ta jiang gushi jiang de women dou men le
 s/he tell story tell CSC we all bored CRS
 'S/He told storied until we were all bored.'

For example, the presence of a durational phrase in (1) and a frequency phrase in (2) require verb copying. Without verb copying these sentences are ungrammatical.

Second, verb copying is obligatory when the object is non-referential/non-specific, while a definite object does not require verb

1) Abbreviations used in this paper:

| | |
|-----------------------------------|-------------------------------|
| ACC: accusative case | BA: ba |
| CL: classifier | CRS: currently relevant state |
| CSC: complex stative construction | DECL: declarative |
| NOM: nominative case | PAST: past |
| PERF: perfective aspect | TOP: topic |

copying, as the contrast in (5) and (6) shows (Li and Thompson, 1981. cf. Sybesma, 1999):

- (5) * ta da-le ren liang ci
 s/he hit-PERF person two time
 'S/He hit one person twice.'
- (6) ta da-le yi ge ren liang ci
 s/he hit-PERF one CL person two time
 'S/He hit a person twice.'

In (5), the direct object is the non-referential and non-specific *ren* 'person', and the sentence is ungrammatical without the verb copying. In contrast, in (6), the direct object, *yi ge ren* 'one-CL- person' is referential and specific and verb copying is optional.²⁾

In this paper, we propose an analysis of the verb copying construction based on the case theory and event semantics. We argue that verb copying is a strategy utilized to license situation delimiters, such as frequency, duration, directional adverbials, and the complex stative construction. The paper is organized as follows: in section 2, we review previous studies on verb copying, both functional and formal approaches. Section 3 presents a new analysis developed in comparison with Korean adverbials marked with accusative case. A brief summary in section 4 concludes the paper.

2. Previous studies

2.1. Functionalist approaches

Studies conducted within the functionalist framework have focused on the functional motivation of the verb copying construction. Tsao

2) It should be pointed out that native speakers' judgments on these sentences vary. Some speakers we consulted judged (6) ungrammatical, while some others found it grammatical. The judgment of our data is based on Li and Thompson's, and the second author's intuition as a native speaker of Mandarin.

(1987) analyzed verb copying as a topicalization construction, in which the first copy of a verb and the noun phrase together function as some sort of topic, and the second verb and its complement function as a comment. For example, in the following sentence, *shui-jiao* is the topic, while *shui-le wu-ge zhongtou* functions as the comment.

- (7) wo shui-jiao shui-le wu-ge zhongtou
 I sleep sleep sleep-PERF five-CL hour
 'I slept for five hours.'

Another functional analysis is found in Hsieh (1992), in which she proposes that verb copying applies for the purpose of topic continuation, saying:

When a sentence involves three arguments, the verb in the first clause is copied onto the second or even third clause to indicate, by such a means of copying, that the same discourse topic, here realized as the subject in the first clause is continued in the second or third clause (Hsieh, 1992, p. 84).

According to Hsieh, sentence (8) is ambiguous:

- (8) ta qi- lei-le ma
 he ride-tired-PERF horse
 'He rode a horse, and (as a result) he was tired.'
 'He rode a horse, and (as a result) the horse was tired.'
- (9) a. ta qi ma qi lei le.
 he ride horse ride tired PERF
 'He rode a horse, and (as a result) he was tired.'
- b. ta ba ma qi lei le.
 he BA horse ride tired PERF
 'He rode a horse, and (as a result) the horse was tired.'

However, if this sentence is made a verb copying construction, as in

(9a), then the ambiguity disappears: *lei* refers only to the state of the subject – that is, the topic of the resultative clause is clarified via verb copying. On the other hand, if this sentence is changed to the *ba*-construction, as in (9b), *lei* refers to the state of the object. Thus, according to Hsieh, the function of verb copying is to clarify the topic of the subordinate event which follows the main event. Hsieh's proposal, however, cannot account for all the cases of verb copying since verb copying occurs even when a sentence is mono-clausal and is not ambiguous, as shown in examples (1)–(3).

2.2. Formalist approaches

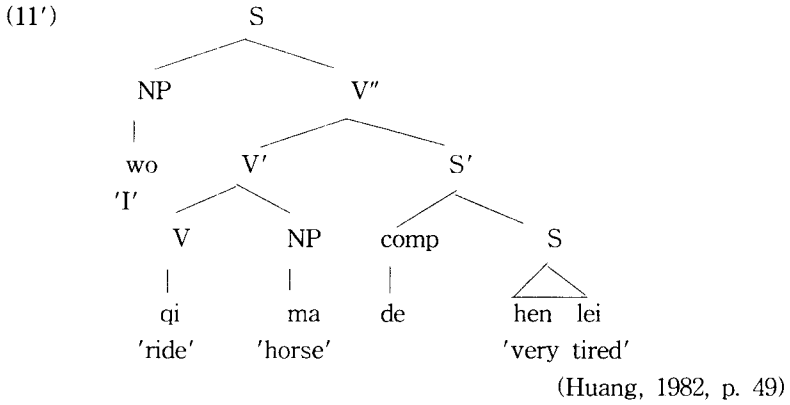
Huang (1982) suggests that verb copying is utilized in order to satisfy a language specific rule regarding word order in Chinese, which according to him, has the following form:

- (10) The X' structure of Chinese is of the form:
 a. [_xⁿ Xⁿ⁻¹ YP*] iff n=1 and X ≠ N
 b. [_xⁿ YP* Xⁿ⁻¹] otherwise (Huang, p. 41)

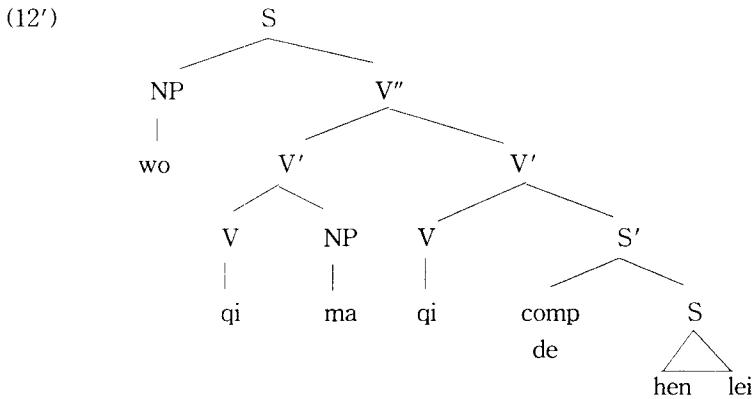
This rule states that the major word order of Chinese is that the lowest level, except noun phrases, uses the head initial order, while other higher levels require the head final order. According to Huang, verb copying is a good example of the application of this rule. Consider the contrast between (11) and (12):

- (11) * wo qi ma de hen lei
 I ride horse till very tired
 'I rode a horse until I got very tired.'
 (12) wo qi ma qi de hen lei
 I ride horse ride till very tired
 'I rode a horse until I got very tired.'

The tree diagram of (11) is (11'):



This is ungrammatical because it violates the proposed word order rule: the word order is head initial at the V' level, consistent with Huang's rule; however, the word order at the V'' level is also head initial (V'+ S'), which violates the word order rule in (10). Verb copying rescues this sentence from violating the rule, as the tree diagram in (12') shows.



According to Huang, this sentence meets the requirements of the word order rule at all levels: at the V'' level, the V' on the right *qi de hen*

lei is the head, while the *V'* on the left *qi ma* functions more like an adverbial indicating the manner in which one gets tired. Thus, the meaning of the sentence is "I got tired by riding a horse." The fact that the perfective aspect marker *le*, when present, accompanies the second verb, according to Huang, strengthens the proposal that the second *V'* is the head of *V''*.

Another study which pays attention to the verb copying construction is Li (1990). Li points out some weaknesses in Huang's account of Chinese word order. Theoretically, Huang's word order rule requires language specific stipulations concerning the levels and categories that have different head directions. Li says that this word order rule is more a description of the data than an explanation. Empirically, there are cases which Huang's rule cannot account for. For example, sentences (13) and (14), though they have the head initial word order at the *V'* level, are ungrammatical, contrary to Huang's prediction.

- (13) *zhei jian shi, ta shuo dui wo le
 this CL matter he say to me PERF
 'This matter, he has said to me.'
- (14) *ta jie xiang wo le
 he borrow from me PERF
 'He borrowed (it) from me.'

Li proposes an alternative rule to account for the word order variation in Chinese:

- (15) The Chinese word order constraint
- a. Chinese is head-final except under the requirements of case assignment.
 - b. Case is assigned from left to right in Chinese.
 - c. A case assigner assigns at most one case.

(Li, 1990, p. 11)

According to this constraint, only case receivers occur immediately to

the right of the head; otherwise, the head occurs finally. Li argues that this constraint can account for the following contrast:

(16) ta qi le santian/sanci
 he ride-PERF three days/three times.
 'He rode for three days/three times.'

(17) *ta qi ma santian/ sanci
 he ride horse three days/three times
 'He rode the horse for three days/three times.'

In (16), the duration/frequency phrase occurs after the verb though it is not a subcategorized complement of the verb. (17) shows that when a duration or frequency phrase occurs after the verb, the object of the verb cannot co-occur. Li proposes that the duration/frequency phrases are NPs, which need to get case. Since Chinese verbs can assign one case only, according to the constraint, object and frequency or duration phrases cannot occur together after the verb. In order to make sentences like (17) grammatical, verb copying is required so that the duration/frequency NP can get a case from the duplicated verb.

Cheng (2005) analyzes the verb copying construction based on the copy theory of movement, which assumes that phonetic realization of traces results in copying. Let us consider how Cheng explains verb copying in the presence of a frequency or duration adverbial.

(18) ta kan shu kan-le san-ge xiaoshi
 he read book read-PERF three-CL hour
 'He read a book for three hours.'

As a first step to account for the derivation of (18), Cheng assumes the existence of a covert particle *you* 'have' in analogy with a sentence with an overt particle *you*, as shown in (19).

(19) ta kan nei-ben shu you san-ge xiaoshi
 he read that-CL book have three-CL hour

'He read the book for three hours.'

(20) is the structure she assumes for sentences with frequency/duration expressions.

(20) [IP [VP v [VP read [HAVE three hours]

In deriving (18), first the verb 'read' is copied and merges with the non-referential object 'book', forming a separate VP₁. The newly formed VP₁ is then adjoined to the original VP, resulting in a structure similar to the one proposed by Huang (1982).

(21) [IP [VP v [VP₁ read₁ book [VP read₂ [HAVE three hours]

'Read₁' in the adjoined position does not c-command 'read₂' in the original VP, which means that they do not form a chain; hence, there is no chain reduction and both the verbs are pronounced. To account for the fact that the object 'book' triggers verb copying instead of merging in the spec of VP, Cheng adopts the affected object condition, which states that spec of VP is for an affected object, which is usually a definite NP. The copying of the verb, according to Cheng, is triggered by the Last Resort condition, in this case, checking of theta features.

Cheng's new analysis utilizing copy theory raises a couple of questions: first, Cheng argues that the verb has a theta role to check and since a non-referential object cannot appear in the spec of VP, the verb is copied and merges with the object and adjoins to the original VP. As a result of this process, there are two copies of the same verb and Cheng seems to assume that only one of them needs to check its theta role. The other verb with no theta role doesn't seem to have any role to play in the sentence. The question is then, why it has to be phonetically realized at all in the sentence. A more serious problem with Cheng's analysis is her assumption that a non-referential object cannot appear in the spec of VP. Contrary to her assumption, a non-referential

object does appear in the spec of VP when it is not followed by frequency, duration or directional adverbials. It is the presence of these expressions that requires verb copying, not the presence of a non-referential object.

To summarize, previous approaches to verb copying, both from the functionalist and formalist framework which we have reviewed so far, have left the following questions unanswered: 1) why do only certain types of phrases, such as duration and frequency phrases, and the complex stative construction appear in the verb copying construction? What is common among these expressions? 2) Why is verb copying affected by the (non)-referentiality/(non)-specificity of the object?

3. New analysis

3.1. Korean data

We suggest that Li's (1990) proposal for verb copying based on case is in the right direction despite its shortcomings, and propose a new approach to verb copying, incorporating Li's case-based approach and Wechsler and Lee's (1996) theory of 'situation delimiters', which they developed to account for accusative marked adverbials in Korean. In Korean, adverbials of duration and frequency can have accusative case as shown in (22)–(23):

- (22) a. Na-nun cam-ul tases sikan-tongan-ul ca-ss-ta.
 I-TOP sleep-ACC five hours-period- ACC sleep-PAST-DECL.
 'I slept for five hours.'
- b. Tom-i kongpwu-lul twu sikan-tongan-ul hay-ss-ta.
 Tom-NOM study-ACC two hours-period-ACC do-PAST-DECL
 'Tom studied for two hours.'
- (23) a. Na-nun son-ul twuben-ul cheo-ss-ta.
 I-TOP hand-ACC two times-ACC clap-PAST-DECL.
 'I clapped (my) hands twice.'
- b. Na-nun onul hemsim-ul twuben-ul mek-ess-ta.

I-TOP today lunch -ACC two times-ACC eat-PAST-DECL.
 'Today I ate lunch twice.'

In (22a) the duration adverbial *tases sikan-tongan* 'five hours period' has the accusative case, and in (23) the frequency adverbial *twuben* 'twice' does. As Wechsler and Lee illustrate, manner adverbials or punctual temporal adverbials reject the accusative case, as shown in (24). In (24a) the manner adverbial *coyonghi* 'silently' and (24b) the punctual temporal adverbial *sesi-ey* 'at three o'clock' cannot have accusative case.

- (24) a. Tom-i coyonghi (*-lul) wa- ss- ta
 Tom-NOM silently (-ACC) come-PAST-DECL.
 'Tom approached silently.'
- b. Tom-i sesi-ey (*-lul) wa-ss-ta
 Tom-NOM three o'clock-at-ACC come-PAST-DECL
 'Tom came at three.'

They consider the possibility that the accusative case marked adverbials might actually be NPs, which was also proposed for Chinese duration/frequency phrases by Li (1990). However, the following examples made them reject this possibility.

- (25) a. Yeki-nun mayil-mayil-i cikyep-ta
 here-TOP each. day-NOM boring-DECL.
 'Everyday is boring here.'
- b. Tom-i mayil-mayil- (*ul/*i) wa-ss-ta.
 Tom-NOM each.day (ACC/NOM) come-PAST-DECL
 'Tom came each day.'

In (25a), the adverbial *mayil-mayil* 'each day' has nominative case, while in (25b) *mayil-mayil* cannot have case. This shows that the resistance of accusative case does not depend on the category of the adverbial phrase.

In order to account for the accusative case marking on the adverbial phrases, Wechsler and Lee (1996) propose Case Domain Generalization, which states:

The lexically specified domain of direct case for a predicate may be extended to include a situation delimiter.

(Wechsler and Lee, 1996, p. 634)

Wechsler and Lee state that duration and frequency adverbials are situation delimiters which 'delimit' the situation expressed by the predicates, where the situation can be either events or states. For example, in (22a) the durative adverbial *tases sikan-tongan-ul* 'for five hours' delimits the duration of sleeping. In (23a) the frequency adverbial *twuben-ul* 'twice' delimits the event of clapping. An essential semantic property of these situation delimiters is, according to Wechsler and Lee, that they satisfy the condition of additivity. One example of situation delimiters which shows the additivity effect is a duration phrase. Consider the following sentences:

- (26) a. John drove for an hour at the speed of 50 miles an hour.
- b. Tom drove for two hours at the speed of 60 miles an hour.

In this case the total driving hours of both John and Tom are $1+2=3$ hours, hence a duration expression satisfies the additivity condition. However, the average speed of John and Tom cannot be $50+60=110$, which shows that the average speed cannot be a situation delimiter. A noun phrase can also be a situation delimiter. A well-known contrast like (27) illustrates a case in which the same predicate has a delimited or a non-delimited interpretation depending on the object.

- (27) a. John drank a glass of wine.
- b. John drank wine.

In (27a) the object satisfies the additivity condition. The event of

drinking a glass of wine progresses through time until the endpoint is reached. Parts of the event of drinking wine accumulate and become the whole. As opposed to this, the object of (27b) does not satisfy the additivity condition. According to Tenny (1994), this kind of object does not 'measure out' the event, and hence is not a situation delimiter. In English mass and bare plural objects usually do not function as situation delimiters.

According to Wechsler and Lee's Case Domain Generalization, the way situation delimiters are licensed is universal. That is, situation delimiters get licensed via the domain extension of direct case of a predicate. However, Chinese verb copying construction illustrates that there can be parametric differences in the way languages choose to license situation delimiters.

3.2. Chinese verb copying

Let us consider the Chinese verb copying construction again from the perspective of the theory of situation delimiters. We argue that Chinese verb copying occurs to license the situation delimiters such as duration, frequency, directional phrases, and the complex stative construction. In the case of complex stative construction, we suggest that the state or event triggered by the main predicate progresses through time and ends in the result which is stated by the complex predicate construction. Thus, the event which is expressed by verb copying sentences is delimited.

A similar idea was proposed by Liu (1997) regarding the *ba*-construction. Liu argues that the *ba*-construction expresses a bounded event, which is reflected in the following syntactic structure:

- (28) V+complement
- a. V+ *de*
 - b. V+ perfect marker *le*
 - c. V+ PP (durative or locative)
 - d. V+ quantified phrase

e. V+ durative marker *zhe*

According to Liu, all the patterns in (28) except those with aspect markers *le* and *zhe* contain complements which express bounded situations. That is, a resultative complement, directional complement, durational and frequency phrases provide a boundary to the event expressed by the main predicate. For example, in (29) the frequency expression 'three times' provides a terminal point for the action of kicking.

- (29) wo ba ta ti sanxia/sanjiao
 I BA he kick three times/three kicks
 'I kicked him three times/three kicks.'

If Liu's proposal is correct, then, according to our analysis, the main verb assigns case to the situation delimiters and *ba* assigns case to the object; thus, the function of *ba* is as a case assigner, though Li (2001) disagrees with the *ba* as a case assigner view, saying that it is too simplistic a solution for such a complex phenomenon as the *ba*-construction.

Now let us consider the question of why Chinese uses verb copying to license the situation delimiter while Korean uses accusative case marking. We consider that Li's (1990) proposal that Chinese verbs can assign only one case provides an answer. If we interpret Li's proposal within Chomsky's (1995) Minimalist Program, it means that Chinese does not allow multiple feature checking in contrast to Korean, which does allow multiple feature checking, as the following examples with multiple accusative case illustrate:

- (30) Thomas-ka Mary-lul panchi-lul twu pen-ul senmwul-ul
 Thomas-NOM Mary-ACC ring-ACC twice-ACC gift-ACC
 hay-ss-ta.
 do-PAST-DECL
 'Thomas presented Mary with a ring twice.'

- (31) Mary-ka cip-ul pheyntu-lul ithul- tongan- ul
 Mary-NOM house-ACC paint-ACC two days-period-ACC
 chilhay-ss-ta.
 brush-PAST-DECL.
 'Mary-ka painted the house for two days'

Since Chinese does not allow this kind of multiple case checking but only one-to-one checking, the verb copying is used to license the situation delimiter, which needs to be licensed in syntax. Let's consider examples (5) and (6) again, which we repeat here as (32) and (33):

- (32) *ta da-le ren liang ci
 s/he hit-PERF person two time
 'S/He hit one person twice.'
- (33) ta da-le yi ge ren liang ci
 s/he hit-PERF one CL person two time
 'S/He hit a person twice.'

The fact that when the object is non-referential verb copying is required, as in (32), supports our proposal. According to Tenny (1994), a plural non-referential/non-specific object cannot function as a situation delimiter, as the contrast in (34) shows:

- (34) a. He built the/a house.
 b. He built houses.

The situation described in (34b) is unbounded due to the non-referential object. Likewise, in (32) the non-referential/non-specific object cannot delimit the situation; the frequency adverbial is a possible candidate to delimit the situation, but to function as a situation delimiter it needs to be licensed at the syntactic level. This requirement is satisfied when the verb is copied and functions as the licenser of the delimiter. The language specific restriction on the one-to-one licensing condition necessitates the verb copying.

4. Summary and Conclusion

In this paper, we have attempted to provide an explanation for the verb copying construction in Chinese. Building upon Li's (1990) proposal that Chinese verbs can assign one case only, and Wechsler and Lee's (1996) theory of situation delimiters, we have proposed that verb copying is a strategy the Chinese language utilizes to license situation delimiters such as frequency, duration, and directional adverbials. The verb copying construction shows that event semantics has some syntactic consequences, and that the way languages license situation delimiters at the syntactic level is parameterized: case marking and verb copying. The Chinese verb copying is a construction that needs further research in order to understand the interaction of event semantics and syntactic operation.

References

- Cheng, L-S. (2005). Verb copying in Mandarin Chinese. ms. Leiden University.
- Chomsky, N. (1995). *The Minimalist Program*. Cambridge, MA: MIT Press.
- Hsieh, M-L. (1992). Analogy as a type of interaction: The case of verb copying. *Journal of Chinese Language Teachers Association*, 28(3), 75-92.
- Huang, C-T. (1982). *Logical relations in Chinese and the theory of grammar*. Unpublished doctoral dissertation. MIT. Boston, MA.
- Li, C. N. & Thompson, S. (1981). *Mandarin Chinese: A functional reference grammar*. Berkeley: University of California Press.
- Li, Y-H. (1990). *Order and constituency in Mandarin Chinese*. Dordrecht: Kluwer Academic Publishers.
- Li, Y-H (2001). The ba-construction. ms. University of Southern California.
- Liu, F-H. (1997). An aspectual analysis of ba. *Journal of East Asian*

- Linguistics* 6(1), 51-99.
- Sybesma, R. (1999). *The Mandarin VP*. Dordrecht: Kluwer Academic Publishers.
- Tenny, C. (1994). *Aspectual roles and the syntax-semantics interface*. Dordrecht: Kluwer Academic Publishers
- Tsao, F-F (1987). On the so-called 'verb-copying' construction in Chinese. *Journal of Chinese Language Teachers Association*, 22(2), 13-43.
- Wechsler, S. & Lee, Y-S. (1996). The domain of direct case assignment. *Natural Language and Linguistic Theory* 14, 629-664.

Hyeson Park
Department of English Language and Literature
Keimyung University
1000 Shindan-Dong, Dalseo-Gu
Daegu, 704-70, Korea
Phone: 053-580-5091
Email: parkhy@kmu.ac.kr

Lan Zhang
Department of Foreign Languages and Literatures
Hodges Hall 316
Louisiana State University
Baton Rouge, LA 70803
Email: zhanglan1127@hotmail.com

Received: 30 Mar, 2006

Revised: 16 Jun, 2006

Accepted: 19 Jun, 2006