การศึกษาการใช้โครงสร้างสกรรมกริยาของผู้เรียนภาษาอังกฤษ ในฐานะภาษาต่างประเทศ จากคลังข้อมูลภาษา โดยใช้แนวทางภาษาศาสตร์ปริชาน

นายเหนิง ฉาย

มหาวิทยาลัยเทคโนโลยีสุรนารี

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาปรัชญาดุษฎีบัณฑิต
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A CORPUS-BASED STUDY ON EFL LEARNERS' USE OF TRANSITIVE CONSTRUCTIONS USING A COGNITIVE LINGUISTICS APPROACH

Neng Chai

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in English Language Studies

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เหนิง ฉาย : การศึกษาการใช้โครงสร้างสกรรมกริยาของผู้เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศ จากคลังข้อมูลภาษา โดยใช้แนวทางภาษาศาสตร์ปริชาน
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คำกริยาในภาษาอังกฤษมีความยืดหยุ่นในการใช้ทั้งในรูปแบบสกรรมกริยา และอกรรมกริยา การใช้โครงสร้างคำสกรรมกริยาเป็นเรื่องที่ยากลำบากสำหรับผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศ ในทางภาษาศาสตร์ปริชาน คำสกรรมกริยาถือเป็นหน่วยความคิดหลายระดับ และคำสกรรมกริยาที่เป็นต้นแบบแสดงให้เห็นถึงความแตกต่างอย่างสูงสุดระหว่างผู้กระทำ (agent) และผู้รับการกระทำ (patient) ด้วยวิธีการทางภาษาศาสตร์ปริชาน ผู้เขียนสืบค้นลักษณะการใช้โครงสร้างทางภาษาศาสตร์ของคำสกรรมกริยาจากผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศชาวจีน เพื่อศึกษาลักษณะทางมโนทัศน์ (conceptual features) และกลไกทางมโนทัศน์ที่เป็นรากฐานภายใต้ลักษณะทางภาษาของผู้เรียน

การศึกษานี้ได้ทำการศึกษาด้วยชุดการเปรียบเทียบ ซึ่งประกอบไปด้วย 2 ส่วน คือ 1) การเปรียบเทียบระหว่างคลังคำศัพท์ ลอคเนสส์ (LOCNESS) ซึ่งเป็นชุดคลังคำศัพท์ที่ได้มาจากเจ้าของภาษา และ คลังคำศัพท์สับเว็คล์ (SUBWECCL) ซึ่งเป็นชุดคลังคำศัพท์ที่ไม่ได้มาจากเจ้าของภาษา 2) การเปรียบเทียบภาษาของผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศชาวจีน ที่มีความแตกต่างกันทางภาษา 3 ระดับ ทั้งนี้ ทำการศึกษากับโครงสร้างคำสกรรมกริยาจำนวน 6 ประเภท ประกอบด้วย การใช้โครงสร้างคำสกรรมกริยากับคำสกรรมกริยาต้นแบบ (prototypical transitive verbs) กับแอฟเฟ็กเต็ด อเจนท์ (affected agents), กับโวลิชันนอล อันเดอร์โกเออร์ (volitional undergoers), กับนิวทอล พาทิซิแพนท์ (neutral participants), กับแอฟเฟ็กเต็ด แพเทียนท์ (effected patients) และ กับเออร์กาทีฟ เวิร์ฟ (ergative verbs) โดยทำการเปรียบเทียบทั้งรูปแบบโครงสร้างประโยค (syntactic patterns) และข้อคิดเห็นที่แสดงการโต้แย้ง (arguments) ในการใช้โครงสร้างคำสกรรมกริยา ผลการวิจัยพบว่า มีความแตกต่างอย่างชัดเจนในการใช้โครงสร้างคำสกรรมกริยาระหว่างผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศชาวจีนและเจ้าของภาษา ผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศชาวจีนได้รับการอิทธิพลจากต้นแบบโครงสร้างคำสกรรมกริยาเมื่อใช้คำสกรรมกริยา การเปรียบเทียบผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศชาวจีน ในระดับที่แตกต่างกันแสดงให้เห็นถึงความคล้ายคลึงกันในการใช้โครงสร้างคำสกรรมกริยาเป็นจำนวนมาก ซึ่งแสดงให้เห็นถึงการเปลี่ยนแปลงเพียงเล็กน้อยในการสร้างมโนทัศน์เกี่ยวกับคำสกรรมกริยา

ผู้เขียนแย้งว่าลักษณะการใช้โครงสร้างคำสกรรมกริยาของผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศชาวจีน เป็นผลอันเนื่องมาจากโครงสร้างต้นแบบนั่นเอง ผู้เรียนภาษาจะยึดต้นแบบเป็นหลักและถูกจำกัดโดยกรอบมโนทัศน์ซึ่งนำไปสู่การใช้ต้นแบบโครงสร้างคำสกรรมกริยามากยิ่งขึ้น การที่ผู้เรียนภาษาที่สองยึดติดกับต้นแบบมากเกินไปสามารถนำไปสู่การใช้ภาษาผิดอย่างถาวร (fossilization) ในการเรียนภาษาอังกฤษ ผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศชาวจีนควรได้รับการกระตุ้นให้ใช้โครงสร้างสกรรมกริยาอย่างยืดหยุ่นในรูปแบบประโยคที่แตกต่างกัน เพื่อที่จะนำไปจุดมุ่งหมายในการมีความสามารถทางภาษาเช่นเดียวกันกับเจ้าของภาษาในที่สุด

มหาวิทยาลัยเทคโนโลยีสุรนารี

สาขาวิชาภาษาต่างประเทศ ลายมือชื่อนักศึกษา_____

ปีการศึกษา 2557 ลายมือชื่ออาจารย์ที่ปรึกษา_____

ลายมือชื่ออาจารย์ที่ปรึกษาร่วม_____

NENG CHAI : A CORPUS-BASED STUDY ON EFL LEARNERS' USE OF TRANSITIVE CONSTRUCTIONS USING A COGNITIVE LINGUISTICS APPROACH. THESIS ADVISOR : ASSOC. PROF. ANCHALEE WANNARUK, Ph.D., 274 PP.

TRANSITIVE CONSTRUCTIONS/ COGNITIVE LINGUISTICS/ CORPUS/ CONCEPTUALIZATION/ PROTOTYPE

As most English verbs are flexible and they can be used both transitively and intransitively, using transitive constructions can be difficult for EFL learners. In cognitive linguistics, transitivity is considered as a gradable concept and the prototypical transitivity represents the maximal distinction between the agent and the patient. Taking a cognitive linguistics approach, the author seeks to discover the linguistic features in the uses of transitive constructions by Chinese EFL learners, and to study the conceptual features and mechanisms that underlie their linguistic features.

The study is conducted through a series of comparisons, which consists of two parts: 1) the comparison between LOCNESS, a NS corpus, and SUBWECCL, a NNS corpus; 2) the comparison between three different levels of Chinese EFL learners. There are six types of transitive constructions studied, including: transitive constructions with prototypical transitive verbs, with affected agents, with volitional undergoers, with neutral participants, with effected patients and with ergative verbs. The comparison involves both the syntactic patterns and their arguments in transitive constructions. The findings reveal that there are major differences in the use of transitive constructions between Chinese EFL learners and native speakers. In comparison with native speakers,

Chinese EFL learners are constrained by the prototypical transitive construction in their uses. The comparison between different levels of Chinese EFL learners shows a large amount of similarities in their uses of transitive constructions, suggesting little change in their conceptualization of transitivity.

The author argues that the features in Chinese EFL learners' use of transitive constructions are the result of prototypical effects. They are more dependent on prototypes and are bound by them in conceptualization, leading to a more prototypical use of transitive constructions with less deviations and flexibility. Their heavy reliance on prototypical transitive constructions can lead to fossilization in English learning. Chinese EFL learners should be encouraged to use transitive constructions flexibly with different syntactic patterns so that they can gain a native-like proficiency.

มหาวิทยาลัยเทคโนโลยีสุรนารี

School of Foreign Languages

Academic Year 2014

Student's Signature_____

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Neng Chai

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LIST OF ABBREVIATIONS

ABS	absolutive case
ACC	accusative case
AFF	affected
EFL	English as a foreign language
ERG	ergative case
ICLE	international corpus of learners of English
INST	instigating
IOD	indefinite object deletion
L1	first language
L2	second language
LAD	language acquisition device
LOCNESS	Louvain Corpus of Native English Essays
NNS	non-native speaker
NOM	nominative case
NP	noun phrase
NS	native speaker
SUBWECCL	subpart of written English corpus of Chinese learners
SWECCL	spoken and written English corpus of Chinese learners
TC	transitive construction
TCAA	transitive construction with affected agents
TCEP	transitive construction with effected patients
TCEV	transitive construction with ergative verbs
TCNP	transitive construction with neutral participants
TCPV	transitive construction with prototypical transitive verbs
TCVU	transitive construction with volitional undergoers
VOL	volitional

CHAPTER 1

INTRODUCTION

The current research aims at investigating the use of transitive constructions by Chinese EFL learners and revealing their conceptualization of transitivity. This chapter provides an introduction and background to the research. It starts with the importance of transitive constructions and a lack of such research in the EFL field. After that, the research problem, rationale, objectives of the research, research questions and significance of the research are presented. Lastly, several important and frequently used terms in the current study are defined.

1.1 Background of the Research

The current research arises out of the author's general concern with EFL learners' conceptual systems, how EFL learners construct concepts in a foreign language, and how these concepts are coded into linguistic forms. As a general problem, this is a task beyond this thesis. However, in the current research the author puts his focus on one phenomenon in English, namely, transitive constructions. The author seeks to study the use of English transitive constructions by Chinese EFL learners, aiming not only at identifying how they use transitive constructions in English, but also revealing the conceptual factors involved in their use of English transitive constructions.

The relationship between language and conceptualization has fascinated a number of scholars (Chomsky, 2005; Jackendoff, 1992a; Lakoff & Johnson, 1999; Pinker, 2007;

Putnam, 1979). It has been studied under various names such as language and mind, language and thought, language and cognition. Sapir (1921) and Whorf (1956) argued that language shaped thought and that people who spoke different languages had different conceptual systems. Their ideas were later summarized as the Sapir-Whorf hypothesis with two versions (Kay & Kempton, 1984, p. 66):

> The soft version: Structural differences between language systems will, in general, be paralleled by nonlinguistic cognitive differences, of an unspecified sort, in the native speakers of the language.
> The strong version: The structure of anyone's native language strongly influences or fully determines the worldview he will acquire as he learns the language.

While the strong version of absolute linguistic determinism and relativism has been rejected, the soft version has been generally accepted. The Sapir-Whorf hypothesis suggests a constructivist approach to the study of language and concepts.

Piaget (1959) held that concepts were constructed in individual interaction with objects, arguing that conceptual systems developed from interaction between humans and objects. The constructivist view is absorbed in the embodied empiricist philosophy in the emerging cognitive approach to language study (Lakoff, 1987). Conceptualizations are essentially mental activities based on the interaction between humans and the external world. Language represents a special kind of conceptualization that is crystalized into linguistic forms as a result of entrenchment (Langacker, 1987, 1991).

However, despite the long tradition in the studies concerning language and human conceptualization, the research concerning the conceptual systems of EFL learners has been ignored in the past. Because of the intertwining nature of the relationship between language and conceptualization, the study of foreign language learning cannot avoid the issue and research about the conceptual systems of EFL learners will provide valuable insights for language learning.

The transitive construction is an appropriate case for the study of EFL learners' conceptual systems. transitive constructions occupy an important place in language. Næss (2007, p. 2) said that transitivity "plays a central role in almost any linguistic theory, and is generally assumed to describe a language-universal phenomenon." The importance of transitivity is also recognized by Hopper and Thompson (1982), "In many languages (and perhaps covertly in all languages) the transitivity relationship lies at the explanatory core of most grammatical processes." The central place of transitive constructions in language is reflected by its links with other constructions in language such as intransitive constructions (Dilin, 2008), the passive voice (Shibatani, 2006), ergative constructions (Legate, 2012).

The transitive construction is one of the basic linguistic constructions, and encodes basic human experiences (Goldberg, 1995, 2006), and it is fundamental to human conceptualization of the relationship between human beings and the world. In fact, the relationship between human beings and objects serves as the image-schema for transitivity with human beings as the agent and objects as the patient (Lakoff & Johnson, 1999). The study of transitivity can reveal how human beings interact with objects, which is at the heart of human conceptualization.

At the same time, transitive constructions prove problematic for EFL learners as most English verbs are not consistent in their usages regarding transitivity (Yuhara, 2011). Sometimes they are used transitively, and sometimes they are used intransitively. EFL learners have to make a choice and their choice represents their conceptualization, which is the concern of this research. Chinese EFL learners face the same puzzle as to the use of transitive constructions (Li, 2011).

1.2 Statement of the Problem

The transitive construction is often taken for granted as being self-evident in language teaching with its definition from traditional grammar, referring to the kind of construction that includes a transitive verb taking direct objects. However, for Chinese EFL learners, it is difficult in part because English verbs are ambiguous in thematic relationships (Su, 2008). It is often difficult to determine whether a verb should be used transitively or intransitively. The ambiguity regarding the use of transitive constructions was observed even in the earlier stage of modern linguistics: "Almost all verbs are used both transitively and intransitively" (Poutsma, 1929, p. 54). There is no clear distinction between transitive and intransitive usages, and more often than not, the issue is simply dealt with as idiomatic usage and learners use transitive constructions in an intuitive way.

For example, *break* can be used both transitively and intransitively as in *Floyd broke the glass with a hammer* or *the glass broke*. Such cases pose difficulties for EFL learners, and even for English teachers who are often forced to make a distinction between transitive and intransitive verbs, as told by Yuhara (2011). He was asked for help by an English teacher, who was plagued by some students asking grammatical questions and felt unconfident to judge whether a verb counted as transitive or intransitive. He gave an answer as follows:

> it is a matter of how many semantic constituents (linguistically named "arguments" after logic) are necessarily involved in the event described by a verb; if there is one argument, the verb is intransitive (e.g., *sneeze* as in *John sneezed violently*), but if there are two arguments, the verb is transitive (e.g., *embarrass* as in *John embarrassed Mary*), which, I added, is taught as requiring an "object" (here, *Mary*) in school grammar. (Yuhara, 2011, p. 1)

The answer was given based on verb valence (the number of participants that a verb takes). It seems to give a clear standard for judging a transitive verb, yet Yuhara was aware that the description given in school grammar cannot resolve the problem and he acknowledged that the answer was unsatisfactory because "there are a number of cases that fail to make their way into the two classes within and across languages". He was aware of the "if there is confusion, it may arise from the monolithic definition of transitivity in dictionaries and school grammars" (Yuhara, 2011, p. 2).

Traditional school grammar is based on classical theory of categories, which demands clear boundaries among different linguistic categories, such as nouns and verbs, transitive and intransitive verbs (Taylor, 1995). The rigid boundary between transitive and intransitive verbs might be convenient in grammar instruction, but the seemingly clear definitions conceal the confusion felt by both EFL learners and teachers due to the ambiguity concerning the valence of English verbs.

Transitivity is such a problematic issue that even grammar references and textbooks are often inconsistent and incorrect in the classification of verbs, for example, verbs such as *deliver*, *read*, *understand* which allow the object to be omitted are classified as transitive verbs in one book, but are classified as intransitive verbs in another (Dilin, 2008). English verbs are not fixed in one type of constructions. As a matter of fact, they can be used in so many different patterns that any grammar book or dictionary cannot list all of the possible forms. It appears that there are no rules governing the usage of English verbs.

The flexibility of transitive constructions proves challenging for Chinese EFL learners (Li, 2011). Transitivity is instructed in traditional school grammar as a stable category with rigid boundary between transitive and intransitive, which fails to account

for the ambiguity of transitivity and is unable to enhance EFL learners' flexibility in their use of transitive constructions. For example, teachers cannot handle some exceptions as illustrated by Lakoff (1970) with the traditional approach:

(1) *(sic) John was the knower of that fact (Lakoff, 1970: 20)
(2) *(sic) The lighthouse is spottable (Lakoff, 1970: 32)
(3) *(sic) Two pounds are owed by John (Lakoff, 1970: 19)

The three sentences are inappropriate as transitive verbs have three characteristics:

They can be nominalized: *killer, destroyer*,

They can be used in V+able constructions: *killable, destroyable*,

They can be used in passive voice: *be killed, be destroyed*;

Teachers cannot explain the different uses of *know, spot* and *owe* with traditional grammar other than dismissing them as exceptions. But it is not the best solution. Taking a cognitive linguistics approach, the problem can be easily solved. Littlemore (2009) made attempts to apply cognitive linguistics into second language teaching, claiming that traditional grammar fails to explain why the three verbs cannot be used like other transitive verbs like *kill* and *destroy* because it assumes a binary distinction between transitivity and intransitivity. The three verbs do not behave like *kill* and *destroy* because they are not prototypical, therefore they have some features of the transitive verbs, but they do not have all of them.

Therefore, to resolve the confusion about the use of transitive constructions and to enhance Chinese EFL learners' awareness of the flexible nature of transitive constructions, a new approach to the issue is required.

1.3 Research Rationale

The author seeks to study the use of English transitive constructions by Chinese EFL learners. Due to the failure of traditional school grammar to explain the flexibility of transitive constructions, the author situates the research within the theoretical framework of cognitive linguistics. With a cognitive linguistic approach, the flexibility of transitive constructions can be studied and confusion can be clarified. Further, the examination of Chinese EFL learners' conceptualization of transitivity will contribute to the study of their mind.

The conceptualization of transitivity is in essence mediation between events and human conceptual capacities (for example, attention and perspective). Linguistic constructions with different degrees of transitivity indicate different conceptual content as well as different construal of events. Within the theoretical framework of cognitive linguistics, this research suggests that transitivity is a prototypical category rather than a classical category (Næss, 2007).

The prototypical nature of transitivity is suggested by a number of linguists (Hopper & Thompson, 1980; Næss, 2007; Taylor, 1995). It is prototypical in the sense that transitivity is gradable, with some constructions being more transitive and others less transitive. On a continuum of transitivity, at one endpoint is prototypical transitivity, and at the other endpoint is prototypical intransitivity, and most constructions fall between. No boundary between them is assumed.

Transitivity is a conceptual issue in the sense that transitive constructions encode the human conceptualization of reality, rather than reality itself. It is a human interpretation of certain situations; therefore, it is subject to the processing of human cognitive abilities such as schematicity, attention and perspective (Langacker, 2008).

The use of different linguistic elements to encode different degrees of transitivity depends on 1) the event type and 2) the way that it is conceptualized. For example, for the same event of a glass going through the process of breaking, it can be expressed with different linguistic expressions: *The glass broke. Floyd broke the glass. The glass was broken*. All three different sentences depict the same event, but the first one depicts an inchoative process, the second one specifies the energy source that leads to the action, and the last one foregrounds the patient with passive voice.

The author takes the position that "grammar is conceptualization" (Langacker, 2008) and that linguistic constructions encode human experiences (Goldberg, 2006). When Huumo (2003) studied the Finnish existential sentence, he concluded that the difference between the existential and non-existential sentence lay not in the objective semantics of sentences, but in the speaker's subjective conceptualization of the situation. It is the same for EFL learners' use of transitive constructions, which depends on the learners' conceptualization of an event. The category of transitivity is constructed by EFL learners through generalizations on the foundation of prototypes (Rosch, 1999), which will gradually extend to more peripheral instances of transitive constructions. Learning a foreign language is seen as "*grafting*" different linguistic forms on existing concepts to construct a new symbolic system (the pairing of form and meaning) (Holme, 2009). EFL learner language is a coding system for the EFL learners' conceptual system, which is different from that of NSs. As language represents the human conceptual system, the conceptual features of Chinese EFL learners can be revealed when the differences in linguistic constructions are studied between EFL learners and NSs. The study of Chinese EFL learners' conceptual features will contribute to language teaching and learning as more appropriate teaching methods and materials can be designed to fit their conceptualizing tendency and to improve their conceptual competence in English.

1.4 Objectives of the Research

This research aims to examine the use of English transitive constructions by Chinese EFL learners, and to discover the features in their conceptualization of transitivity. Therefore, the research aims at achieving the following objectives:

(1) To examine the use of English transitive constructions by Chinese EFL learners and discover the differences and similarities between Chinese EFL learners and native speakers of English;

(2) To discover the conceptual features in the conceptualization of transitivity by Chinese EFL learners in comparison with native speakers of English as linguistic forms represent human conceptualizations.

As conceptual system is in a process of development, the development in English proficiency is expected to contribute to the development in Chinese EFL learners' conceptual systems. Therefore, it is assumed that the different levels of Chinese EFL learners may show some differences in their using of transitive constructions as a result of the change in their conceptual systems. As the conceptual system is dynamic and developing, the author expects that the result will provide insights about the developing features of conceptualization for Chinese EFL learners. Therefore there are two more objectives in this aspect:

(3) To check the similarities and differences in the use of transitive constructions between different levels of Chinese EFL learners.

(4) To check the features in the conceptualization of transitivity by different levels of Chinese EFL learners.

1.5 Research Questions

To achieve the objectives of the current research, four questions will be addressed:

(1) What are the similarities and differences in the use of English transitive constructions between Chinese EFL learners and native speakers of English?

(2) What do the results of RQ 1 reveal about Chinese EFL learners' conceptual features in their uses of transitive constructions?

(3) What are the similarities and differences in the use of English transitive constructions between different levels of Chinese EFL learners?

(4) What do the results of RQ 3 reveal about different levels of Chinese EFL learners' conceptual features in their uses of transitive constructions?

1.6 Significance of the Research

The present study is expected to benefit both research in linguistics and the EFL field, and to have implications for pedagogy as well; therefore, it is significant both theoretically and practically. On the one hand, it contributes to the understanding of the conceptual system of Chinese EFL learners. On the other hand, it provides empirical proof for the study of conceptual systems which is one of the key topics in linguistics.

First, the current research will give insights into the conceptual system of Chinese EFL learners, contributing to the understanding of the process of EFL learning. Most research in the past put focus on learners' use of English, but ignored their conceptual features. Taking a cognitive linguistic approach, the author expects to give an account of the use of transitive constructions in terms of Chinese EFL learners' conceptual system; therefore, it is expected to explain the conceptual process in English learning, which is not sufficiently answered so far.

Second, as this research is done with a strong theoretical background, it will contribute to theoretical development of linguistic studies. This is particularly significant as research in the EFL field relies heavily on borrowing large amounts of concepts and theories from other fields such as linguistics and psychology but with little feedback to them (Ortega, 2013). Studies in second language learning can shed light on the linguistics research as well. This research draws on cognitive linguistic theories and is expected to test those theories in an EFL context; therefore it will contribute to the study of cognitive linguistics, which is still developing rapidly with new theories and hypotheses on general topics between language and conceptualization. Cognitive linguistics seeks to use general human cognitive abilities to explain the language phenomena and to account for language acquisition; therefore, studies in the field of foreign language learning will be valuable.

Third, the result of the research can be used in grammar instruction for Chinese EFL learners. With the view that grammar is meaningful, students can recognize those subtle differences in different usages of transitive construction rather than follow the traditional method of mechanical sentence transformation in which no meaning is concerned. Such an approach is promising, especially for advanced learners as they can have a deeper understanding of different uses of transitive constructions when they realize that different patterns of the same construction can encode different meanings rather than merely syntactic pattern shifts. Such an approach will raise their awareness of the differences in syntactic patterns, so that students can learn to use transitive constructions in a diversified way with flexibility to express exactly their conceptualizations rather than using the same pattern for all situations.

1.7 Definition of Terms

Transitivity

Transitivity is a prototypical concept, referring to the transitive value loaded in transitive constructions. Therefore, a construction can be high or low in transitivity. Because linguistic constructions encode human conceptualization, transitivity is conceptual in nature rather than an objective property of a certain linguistic construction. To say that "transitivity of a certain construction" is a convenient way of saying "transitivity as conceptualized in mind which is encoded by the construction".

Transitive verb

Transitive verbs can take direct objects. The category of transitive verb is prototypically constructed, with prototypical members such as *kill* and *destroy*, and peripheral members such as *attract* and *satisfy*.

Transitive construction

The traditional account of transitive constructions is a syntactic description, referring to a linguistic construction containing a verb followed by a direct object. Such a definition is rigid in categories and is criticized in the current research. It is the combination between meaning and form, the mapping between subject-object with agent-patient. The category of transitive construction is also prototypical constructed, with some at the core and others more peripheral.

Conceptualization

The author use this term to refer to meaning construction in using language. It is unconscious. As grammar is considered meaningful in cognitive linguistics, it is argued that grammar is conceptualization.

Construal

The term refers to the subjective conceptualization of entities, the imposition of conceptual structure on particular entities with the means of focal adjustment such as attention, schematicity or perspective.

Case

Case is the overt forms added on noun phrases to identify the semantic and syntactic relations in a sentence. English is weak in case markings with only a few reserved for pronouns, but it does not mean that case disappears in English. It exists latently and different cases are mapped to different arguments. For example, the subject usually takes the nominative case while the object is usually the accusative case.

Argument

It is a noun phrase taken by a verb in a sentence, and the argument structure specifies the relations between different arguments and the verb in the sentence. The current study is focused on the two arguments in transitive constructions: the subject and object, and their mappings to the agent and patient semantically.

1.8 Summary

Traditional grammar fails to explain the flexible uses of English verbs, which are difficult for Chinese EFL learners. Transitivity is considered as a prototypical concept with various deviations, which are encoded into different transitive constructions. The encoding process reflects human conceptualization. The author seeks to study the linguistic features in Chinese EFL learners' uses of transitive constructions, which reflect their conceptual mechanisms involved in conceptualization. The project will give insight into Chinese EFL learners' conceptual system.

CHAPTER 2

LITERATURE REVIEW

This chapter provides a critical review of the literature related to the current research. The first section offers an introduction to the fundamental concepts in cognitive linguistics, such as conceptualization, embodiment, prototypes, etc. In the following two sections, both syntactic and semantic approaches to the study of transitive constructions are introduced. Then the author offers a review of capacities involved in the conceptualization of transitivity. After that, two models of prototypical transitivity and prototypical transitive constructions are produced as a framework for the current research. Finally, six different types of transitive constructions are described on the basis of the transitive models.

2.1 Theories in Cognitive Linguistics

2.1.1 The Cognitive Linguistics Approach to Language

This study is done under the theoretical framework of cognitive linguistics, and takes the position that linguistic forms encode human conceptualization (Croft & Cruse, 2004). Cognitive linguistics refers to an approach to the study of language, which started in late 1970s in reaction against then dominant generative linguistics. This approach is followed by different linguists and applied in nearly every sub-branch of linguistics, such as cognitive semantics (Allwood & Gardenfors, 1999; Glynn & Fischer, 2010; Kertész, 2004; Talmy, 2000a, 2000b), cognitive grammar (Langacker,

1987, 1999, 2009), cognitive pragmatics (Bara, 2010; Kecskes & Horn, 2007), cognitive phonetics (Nathan, 2008; Nesset, 2008), cognitive sociolinguistics (Geeraerts et al., 2010; Kristiansen & Dirven, 2009), and cognitive poetics (Brone & Vandaele, 2009; Gavins & Steen, 2003; Stockwell, 2002). Despite their different topics, they share a similar methodology in their research. Croft and Cruse (2004, p. 1) identified three hypotheses guiding this approach as follows:

(1) Language is not an autonomous cognitive faculty;
(2) Grammar is conceptualization;
(3) Knowledge of language emerges from language use.

The three hypotheses were not generalized by Croft and Cruse at random, and they actually answered two fundamental questions in the study of language: 1) what is linguistic knowledge? 2) How is that knowledge acquired? Different answers differentiate different schools in linguistics. Chomsky (1986) also claimed that he had been trying to figure out the answers to these questions, but he gave very different answers from those of the cognitive linguists. While cognitive linguistics presumes a usage-based model, arguing that linguistic knowledge consists of an inventory of constructions which are constructed and entrenched through embodied experiences, Chomsky argued for a UG (Universal Grammar) model and claimed that language knowledge consists of a set of principles and parameters which were innate.

Cognitive linguistics argues grammar and concepts are constructed on the basis of embodied experiences (new empiricism in epistemology) (Johnson, 1987; Lakoff, 1987; Lakoff & Johnson, 1999), as opposed to generative linguistics' argument that grammar and concepts are innate based on rationalism (Chomsky, 1986, 2005). Therefore, while cognitive linguistics attempts to explain language uses with general human cognitive abilities such as attention, perception, schemas, generative linguistics seeks a modular

explanation, attempting to separate the abilities in language acquisition apart from general human cognitive abilities.

2.1.2 Embodied View on Language

In this perspective, language is not an autonomous faculty, and linguistic knowledge is considered as rooted in the same cognitive mechanisms as other kinds of human knowledge. Linguistic knowledge basically represents human conceptual structure (Croft & Cruse, 2004). It is not modular and exists independently of other human cognitive abilities. Semantics as well as syntax is conceptual in nature as is the mapping between meaning and form. Lakoff (1987) argued for an embodied view on language and considered that linguistic forms only have meanings because they were rooted in a conceptualization of the external world.

Cognitive linguists deny the existence of the LAD (Language Acquisition Device, refers to the genetic endowment that is responsible for language acquisition), arguing that language ability is the same as other human cognitive abilities, and language reflects the human general cognitive system. Langacker argued that meaning "meaning is identified as the conceptualization associated with linguistic expressions" (Langacker, 2008, p. 4). After criticizing Chomsky's nativist view of the conceptual system (Chomsky, 1986, 2005), Lakoff and Johnson (Lakoff & Johnson, 1999) also expressed the *embodied* view about the conceptual system, pointing out that embodied experiences could be transformed into concepts. They argued that the transformation from embodied experiences to concepts is a process of construction with metaphor, metonymy, prototypes and schema, that transformation is a metaphorical process and that the conceptual system is *metaphorical* in nature.

This embodied view of language is in line with Piagetian constructivism. The embodied nature of language suggests that language knowledge is rooted in daily experiences. When studying the cognitive development of children, Piaget (1959) argued that language development was a part of children's general cognitive development. Children were not born with cognitive structures but only with basic "reflexes" (the ability to respond to the environment). Conceptual systems were constructed gradually in the interaction between human beings and the object, and it underwent a process from a "sensori-motor" nature to a "symbolic-thought" one. The emphasis on interaction between human beings and the external world is sympathetic to the claim in cognitive linguistics that conceptualization involves both conceptual capacities and conceptual content (Langacker, 2008), and embodied experiences play a significant role in conceptual development (Louwerse & Jeuniaux, 2010).

2.1.3 Grammar as Conceptualization

Cognitive linguistics denies any cut-off points in linguistic categories as in general conceptualization (Taylor, 1995), which means there is no clear boundary between different linguistic categories. For example, Langacker (1987) only presupposed two basic units in language: sound and meaning, or the phonological pole and the semantic pole. Goldberg (2006) made a similar pairing between form and function. Both saw language as an inventory of numerous instances and constructions.

Transitive constructions are the human conceptualizations of transitive relationship, and linguistic encodings vary cross-linguistically. That is to say, transitive constructions are motivated with certain conceptual factors. The motivation of transitive constructions holds for both EFL learners and NSs. The current research seeks to discover those conceptual factors that underlie EFL learners' use of transitive

constructions. Langacker (2008) argued that *grammar is conceptualization*, that is, language takes its root from our conceptual system, which originates from embodied experiences with the external world and develops into a complicated system through such devices as *metaphor* and *metonymy*, *abstraction* and *schematization*:

Langacker (1999, 2002) argued that conceptualization is based on the *embodied experience*, but he also pointed out that the world is "*mentally and socially*" constructed. The conceptual system is a result of the interaction between individuals and society, and between the mind and the body. Language encodes part of the underlying conceptual system. It is one of the clues that reveal the way we conceptualize the world. It does not represent the world. Rather, it represents our conceptualization of the world.

2.1.4 Categorization and Prototypes

The theory of prototypes was first put forward by Rosch in her series of studies (Rosch, 1973, 1977, 1983, 1999; Rosch et al., 1976). It is the mental representation of certain distinctive features of the best instance in a category, and other members in the same category are more or less similar to the prototype as they possess some features of the prototype but not all of them. Prototypes are conceptually salient and act as reference to judge whether other objects belong to the category based on their similarity to the prototypes in the category.

Cognitive linguistics admits conceptual differences among different languages, and among different individuals. However, as language is an embodiment of human cognitive experiences which rely on similar cognitive abilities, different languages are similar in some aspects (Varela et al., 1991). The prototype is one of them. Although prototypes are unlikely to be the same across different cultures, they appear as a general trend because human beings have similar cognitive abilities, some of which are

universal, for example, the distribution of attention.

The prototype model of category is proposed against the traditional rule-based model (Divjak & Arppe, 2013). Traditionally, the concept of category is believed to be a dichotomist concept, one instance being either included in or excluded from the category with the boundaries clearly delimited, as pointed out by Taylor (1995, p. 23):

(1) Categories are defined in terms of a conjunction of necessary and sufficient features.
(2) Features are binary
(3) Categories have clear boundaries
(4) All members of a category have equal status

The cognitive linguistic view of category is a prototypical one. Prototypes are the foundation for further conceptual adjustment in language acquisition. The basic characteristic of a prototype definition is that it assigns membership of a category by means of a judgment of similarity to a central exemplar, the prototype (Rosch, 1999). There are no necessary conditions for all members of the same category, and there are no clear boundaries between different categories in the same domain. Instead, the category shows a central tendency toward the prototype with some members near the center while others more peripheral. The differences between the prototypes in two categories are maximized, but the differences between two peripheral members diminished.

Prototypical categories show more advantages than traditional Aristotelian categories in many aspects. They are flexible and efficient in cognition (Taylor, 1995, 2008). With a rigid traditional category, when we encounter a new concept, we may either count it as belonging to an existing category in case it satisfies the necessary conditions, or perhaps we cannot recognize it as a member of the existing category and we need to create a new category to encompass it. Unfortunately, the world is far more complicated and there are so many entities which do not satisfy all but only some of the

conditions for a classical category. There are frequent imperfect mismatches between categories and the entities in the world (Coseriu et al., 2002). For example, it is no doubt that a sparrow counts as the bird, but how about a duck, a goose, or an ostrich? They are not the typical examples of birds, and there are quite a few people considers they are not birds as they are not birdlike (Rosch, 1973, 1977, 1983). They bear some features of the bird, but still some features are not typically those of the bird. They all have features, two claws, a beak, which are the features of a bird. However, a duck cannot fly and stays usually in water; a goose and an ostrich are too big for a normal bird and cannot fly either. Conceptualizing them as birds does not mean that they have all the necessary and sufficient conditions for a bird, but because they bear some family resemblance to a bird. Categorizations based on prototypes will maximize the possibility of a category while maintaining cross-category distinction with prototypes because the boundaries of categories become fuzzy as a result of maximizing category. Therefore, it reduced the extra effort to create new categories each time we meet a new entity. The prototypical category reduces cognitive burden:

> A human being attempts to gain as much information as possible about its environment while minimizing cognitive effort and resources. This cost-benefit balance drives category formation. In other words, rather than storing separate information about every individual stimulus experienced, humans can group similar stimuli into categories, which maintains economy in cognitive representation (Evans, 2007, p. 176).

All members are conceptualized as the same category based on their similarity to prototypes. Prototypes occupy the conceptual center in categorization, which encompasses all attributes that a certain category demands. But at the same time, it can be extended to more peripheral members even if they do not satisfy all necessary conditions. The flexibility of a prototypical category makes it cognitively more efficient

than the classical category. Categories are constructed out of the human practical needs in conceptualization. There are numerous entities (objects, events, phenomena) in the world, but categories are limited in conceptualization. The differences between different entities are captured only when conceptual needs arise. Otherwise, they may as well be categorized as belonging to the same category (Rosch, 1999). Categories are not inherent features of entities, but are constructed by human conceptualization. They are constructed to enhance cognitive efficiency.

There are two understandings for the concept of prototype, either as a concrete instance of a category or as a mental complex of attributes of the typical instance in a category. The sense of mental construal is preferred because even for the concrete instances, we must have a mental conceptualization of the prototypical instance as a measurement of the similarities for new entities to be categorized (Taylor, 1995).

2.2 The Study of Transitivity

The term “transitive construction” is complicated, and can be roughly considered as a construction that involves two participants. It is considered as a prototypical concept in cognitive linguistics, and includes both typical and peripheral instances. The relationship is prototypically represented between a prototypical agent and a prototypical patient, and the prototypicality depends on the relationship and interaction between them. There is a striking convergence between the different definitions proposed in the literature regarding the properties of prototypical transitivity (Rozas, 2007, p. 17).

There are two main approaches to the study of transitivity. While generative linguistics takes a syntactic approach, which is the traditional view, cognitive linguistics takes a semantic approach.

2.2.1 Syntactic Approach to Transitive Constructions

Traditionally, transitivity is considered as direct objecthood, for example, *hunters killed animals*. If a construction contains a verb which is followed by an object, it will be considered as a transitive construction. More sophisticated descriptions are attempted in generative linguistics to give an adequate account.

Chomsky (1957) specified transitive verbs like [+V, +__NP], which indicates that a transitive verb is followed by a noun phrase, and a transitive structure is represented by [NP V NP], indicating that the verb takes two arguments. Generative grammar separates syntax from semantics and studies syntax independently of meaning. Transitivity is defined on the basis of verb valence which specifies the number of arguments a verb can take. There is a clear-cut distinction between transitivity and intransitivity. Later Chomsky (1965) added some semantic restrictions specifying what kind of NPs could be used as subject and object to rule out the generation of some anomalous sentences. However, the semantic restrictions were still seen as subordinate to the transformational rules and the phrase rules still fail to generalize over the flexibility of verbs. For example, the word *read*, it is often used as a transitive verb, as in the sentence *I am reading an interesting story*, but it can also be used without a direct object, *I am reading*.

A theta grid is used in generative grammar to account for argument patterns of verbs, which specifies the number and the type of thematic roles that the verb can assign. The theta grids of the verbs then generate syntactic forms of sentences and the meaning of theta grids is subjected to logical interpretation (Carnie, 2001). Fillmore (1968) developed case grammar within the framework of generative grammar to determine the case valence of verbs, mapping verbs' semantic case frame with syntactic roles such as

subjects and objects. Jackendoff (1992b) studied the conceptual structure of verbs, decomposing the meaning of verbs in order to limit the possible syntactic patterns of verbs.

Despite semantic elements being taken into account in the study of verb patterns, they are taken as purely formal and subject to logical calculation, and the meta-language used to describe the semantics of verbs is what Lakoff called *mentalese* (Lakoff, 1987), and a manipulation of symbols does not produce meaning.

2.2.2 Hopper and Thompson's Studies of Transitive Notions

Due to the insufficiency of a syntactic account of transitivity, Hopper and Thompson (1980) suggested ten parameters to analyze the notion of transitivity. They argued that transitivity was not a property of individual verbs, but it should be analyzed on a clausal level. The ten parameters summarized the different components of transitivity. Parameters such as "participant", "kinesis" and "aspect" have binary values, for example, whether a clause involves two participants or one participant, whether it expresses an action or non-action, whether the action is completed or is in process. Together, the values for these parameters form a complex notion of transitivity. If a clause has high values in all the ten parameters, the clause is considered to indicate prototypical transitivity. If a clause has low values in all the ten parameters, it indicates prototypical intransitivity. However, most clauses do not fit neatly into prototypical transitivity or intransitivity, but locate somewhere between.

Table 2.1 Transitivity Notion Studied by Hopper and Thompson (1980)

VALUES	HIGH	LOW
Participants	2 or more participants, A and O	1 participant, S
Kinesis	action	non-action
Aspect	telic (bounded)	atelic (unbounded)
Punctuality	punctual	non-punctual
Volitionality	volitional	non-volitional
Affirmation	affirmative (positive)	negative
Mode	realis (real)	irrealis (virtual)
Agency	A high in potency	A low in potency
Affectedness of O	O totally affected	O not affected
Individuation of O	O highly individuated	O non-individuated

A and O stand for the subject and object of a transitive clause, and S stands for the subject of an intransitive clause.

Their notion of transitivity is gradable with combinations of different values in different parameters. The gradability in transitivity suggests a prototypical approach because clauses are not equal in the category of transitivity as theory of classical category indicates. Clauses are judged high or low in transitivity along a scale, and there is no clear boundary between a high transitive clause and a low transitive clause. There is only a continuum along the scale of transitivity, at one endpoint is the prototypical transitivity with all parameters high in their values and at the other endpoint is the prototypical intransitivity with all parameters low in their values. Take a sentence from LOCNESS as an example:

With the unsuspecting neighbor having no idea the guy next door was about to reveal to him that he was his crush, he became angry and murdered him. <ICLE-US-SCU-0005.3>

The action of murder involves two participants rather than one, refers to an action rather than non-action, completed rather than uncompleted, specific rather than general, real rather than virtual. The murderer is volitional and high in potency while the murdered is non-volitional and totally affected in the action. Both are highly individuated. The event is positive rather than negative. Therefore, the action of murder is high in transitivity.

Despite Hopper and Thomson's seminal work on the semantic notion of transitivity, there are some problems with their study. Though they emphasized the semantics of transitivity rather than syntax, their analysis of transitivity is based on the properties of a clause, without concern for the conceptual factors involved in the semantics of transitivity. They indicated that the value for each parameter could be high or low, but they fell short of including human conceptualization in determining the value for the ten parameters, which were considered inherent properties of a clause by them.

2.2.3 Langacker and Taylor's Studies

Langacker criticized the traditional notion of transitivity meaning direct objecthood, and then summarized nine semantic properties in terms of subject and object of a clause (1991, p. 302). Langacker's description of prototypical transitivity focused on the relationship between the subject and object in a clause, as he claimed that "transitivity is not definable just in terms of nominals occurring in a particular structural configuration. It is instead a matter of degree and depends on the meaning of the clause as a whole."

The notion of subject and object is related to his notion of salience (or prominence, cf. Section 2.4.3), which refers to the amount of attention given to participants in an event. Langacker (1987, 1991) described prototypical transitivity as an "action chain", in which the energy is transferred from the starting point (the subject) to the endpoint (the object). The subject and object are naturally salient because they are at the starting point and the endpoint of the "action-chain". They are the focal participants in a transitive relation.

Langacker (1987, 1991) noted that his description of prototypical transitive represents only one type of "conceptual archetypes", and there were some other conceptual archetypes in conceptualization, for example, a conceptual archetype for intransitivity. His view corresponds to Hopper and Thomson's description of prototypical transitivity and intransitivity to a certain degree, but he related the role of human conceptualization in prototypical transitivity with the notion of salience.

Taylor listed 11 semantic properties of prototypical transitive constructions (Taylor, 1995, pp. 206-207). His account of transitivity consists of properties of events and participants, with special properties of the agent and patient specified. For example, he pointed out that the agent "acts consciously and volitionally and thus controls the event." He further suggested that because of its properties of consciousness and volitionality, the agent is often the human being. A patient is described as inanimate entity undergoing a change of state as a result of the act performed by an agent. Note should be taken that instead of Hopper and Thomson's binary distinction among the values of a certain component feature of a clause, the features given by Taylor are more flexible. The descriptive words used by Taylor such as "consciously", "volitionally", "inanimate" are all gradable. An agent can be more or less conscious or volitional, and a patient can be more or less inanimate.

As a cognitive linguist, Taylor also linked transitive constructions to conceptualization. He argued that transitive constructions encode a type of basic human experience represented by the causation schema (Lakoff, 1987), and is therefore, a basic level linguistic category which is "cognitively basic" and is "in the middle of a general-to-specific hierarchy, functionally and epistemologically primary" (Lakoff, 1987, p. 13). Transitivity is a basic level category. Taylor (Taylor, 1995) argued that these different features listed of prototypical transitivity should not be seen as separate components, they should be seen from a gestalt point of view. They are conceived as a whole rather than consisting of different components. Taylor's gestalt view of transitive constructions is influenced by Lakoff (1977, 1987), who considered basic level categories are fundamental in human cognition. Although they can be decomposed into sub-features, the category itself is conceptualized as a whole and is privileged in cognition. Transitive constructions are basic level linguistic constructions and a transitive clause is one of the basic types of clauses which are based on the embodied experience of causation.

2.2.4 Semantic Features of Prototypical Transitivity

The thematic roles of agent and patient were described by Rozwadowska (1988) in relation to three semantic features: *sentient, cause* and *change*. "Sentient" refers to whether an argument is conscious of the event. "Cause" refers to whether the event is caused by the argument or not. "Change" refers to whether an argument is affected as a result of the event. Arguments are judged as to whether they possess each of the three features and then are given either a positive value or negative value indicated with "+" and "-". The three features with different values added indicate a particular type of argument, such as an *agent*, an *experiencer*, an *affected agent*, or a *patient*.

Table 2.2 Feature Interpretation of Thematic Relations, Rozwadowska (1988)

Sentient	Cause	Change	Thematic relation
+	+	+	Affected Agent (e.g., Agents of monotransitive verbs that undergo some change; traditionally referred to as Agents and Themes at the same time: *John rolled down the hill.*)
+	+	-	Agent (Agents of prototypical Agent-Patient verbs: *destroy, beat, kill, hit, write* etc.)
+	-	+	Experiencer, possibly Recipient and Possessor
?	+	-	Instruments
-	+	-	Object – Cause of emotion (i.e., Neutral, Rappaport's Experienced, Jackendoff's Percept)
-	-	+	Patient (i.e., affected objects of agentive verbs)
-	-	-	Neutral viewed as a mere object rather than a cause; also object of the verb *enter* (in *John entered the room.*)

Rozwadowska's interpretation of semantic features was aimed at restricting the argument types that a verb could take, so that she could generalize over various kinds of arguments and classify them into different groups based on semantic similarities. Then she could predict which type of argument a verb could take.

Næss adapted Rozwadowska's model of prototypical description of transitivity and generalized the various prototypical features into three distinctive features in terms of properties for the agent and patient as Fig. 2.1 shows (Næss, 2007):

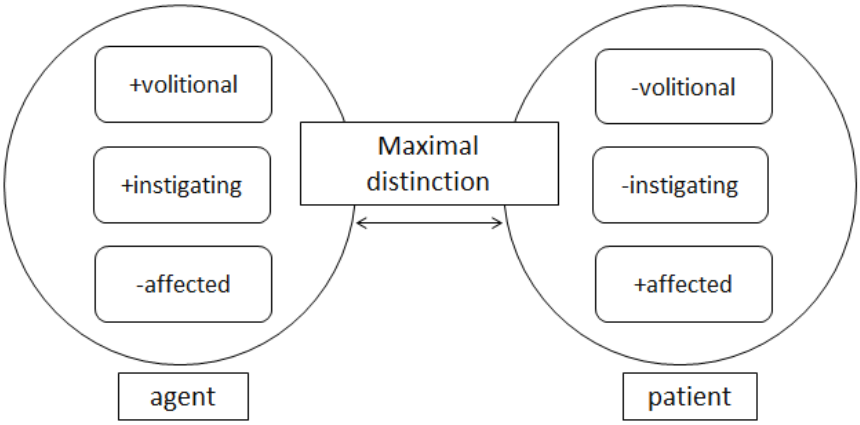

Figure 2.1 Prototypical Transitivity

Volitional [VOL]: a volitionally acting "agent" participant

Instigating [INST]: performing a concrete, dynamic action

Affected [AFF]: a perceptible and lasting effect on a specific "patient"

The agent is conscious about the event, therefore, volitional. It also controls the event, therefore, instigates the whole event. It is not affected in the event too. On the contrary, the patient is usually passively involved in the event, is not in control of the event, and is affected as a result of the event. There is a maximal distinction among the semantic features between the agent [+VOL, +INST, -AFF] and the patient [-VOL, -INST, +AFF], which is key to a transitive relationship. Take a sentence from LOCNESS for example:

Hugo did eventually kill Hoederer proving his worth to the party. BRSUR1

Hugo is the agent who volitionally instigated the action of killing and killed Hoederer, the patient who was involved passively in the event. Hugo was not affected as the killer, but Hoederer was dead as a result of the action.

The typological studies show that the prototypical transitivity exists cross-linguistically (Næss, 2007). It is an ideal cognitive model (ICM) (Lakoff, 1987) in the conceptualization of transitivity, that is, we categorize other two-participant events as

transitivity in terms of this ICM, depending on their similarity with this prototypical categorization of transitivity.

Other thematic relationships exist as the feature value changes. For example, there is an affected agent [+VOL, +INST, +AFF] (*he is eating an apple*), an experiencer [+VOL, -INST, +AFF] (*the book pleases me*), an instrument [-VOL, +INST, +AFF] (*the gun killed him*). The patient can be self-instigated [-VOL, +INST, +AFF] (*she suffocated*), or can be effected rather than affected (*he is baking*). Whenever there are common feature values between the agent and patient in a two-participant structure, there will be some deviation from the prototypical transitive construction. The extreme deviation can lead to an intransitive conceptualization eventually, but the cut point between the transitivity and intransitivity does not exist since the degree of deviation is a relative and subjective concept.

It should be noted that "+" and "-" do not denote a dichotomy of the three features, but a tendency toward the specified features. A cognitive linguistic approach always negates the dichotomy in categorization and admits a continuum from one category to another in the same domain. The three primitive features of agent and patient are summarized on the properties of transitive construction, therefore, their values should not be considered as existing independently of the clause (Kako, 2006).

These different and deviating thematic roles, though conceptually involving more than one participant, are not coded into a prototypical transitive construction. The maximal distinction between the agent and the patient defines the transitive prototype. As a result, EFL learners will encounter conceptual fuzziness when such deviation arises and the conceptual fuzziness will lead to linguistic indeterminacy with regard to the transitive-intransitive opposition.

2.2.5 Ergativity

Ergativity describes "a grammatical pattern in which the subject of an intransitive clause is treated in the same way as the object of a transitive clause, and differently from transitive subject" (Dixon, 1994, p. 1). Ergative paradigms are used to differentiate from transitive paradigms in typological studies. Traditionally, it is believed that a language is either transitive, or ergative. This kind of distinction is reflected in the case marking systems, as the nominative/accusative distinction in transitive paradigm and the absolutive/ergative distinction in the ergative paradigm.

Table 2.3 Typology of Transitive and Ergative Paradigms

NOM/ACC	ERG/ABS
NOM verb	ABS verb
NOM verb ACC	ERG verb ABS

NOM/ACC refers to the transitive paradigm (NOM: nominative case, ACC: accusative case), representing the agent and patient from the energy source to the energy endpoint. The subject of a transitive sentence is marked with the same nominative case while the object is marked differently with the accusative case.

ERG/ABS refers to the ergative paradigm (ERG: ergative case; ABS: absolutive case), representing a mental path from theme (glass) to the energy source (Floyd). Absolutive case designates the **patient** of transitive verbs and the single argument of intransitive verbs and the **ergative** case designate the agent of transitive verbs.

Examples:

He-NOM ran away.

Hunters-NOM killed-VERB foxes-ACC.

The glass-ABS broke;

Floyd-ERG broke-VERB the glass-ABS.

The nominative case is the default case for subjects while the accusative case is the default case for objects. Therefore, prototypical transitivity is expressed with a NOM-ACC case relationship with SVO form, which forms the prototypical transitive construction combining both the NOM-ACC case with SVO form.

Most languages in the world are in the transitive paradigm, represented by nominative/accusative opposition. An ergative language shows the absolutive/ergative distinction. Both English and Chinese are transitive languages, but there are a lot of ergative patterns for such verbs like *break, improve,* and *change*. Ergative constructions show a different conceptualization than transitive ones. In an ergative structure, the patient is not an inert object, but also participating in the event. The cooperation between the patient and the agent makes it different from the prototypical transitive structures (Lemmens, 1998).

Based on Davidse's work (1992), Lemmens (1998) gave a more comprehensive generalization of the main construction patterns. He drew both on cognitive grammar and systemic-functional grammar to argue that the semantic meanings of verbs had an impact on the construction pattern, and the construction pattern had a coercive impact on the verbs' meanings too. He made a case study of the "*kill*" verbs, including such verbs as *murder*, *kill*, *choke*, *drown*, *suffocate*, *lynch*, *abort*, etc. He concluded that semantic meaning paralleled with the transitive/ergative distinction.

Lemmens (1998) argued that though there was no overt ergative case-marking system in English, ergative case exists in an unmarked way as indicated by the conceptualization of ergativity for such verbs as "*suffocate*" and "*drown*". The

conceptualizations indicate that ergative is an inherent case. Legate's study (2012) supported the view that there are different types of ergativity and "language underlyingly has an ergative–nominative–accusative case system", which is not necessarily represented by a case marking.

For the current research, ergativity is studied as a deviation from the transitive prototype, a peripheral member of transitivity because 1) English is mainly a transitive language; 2) the semantic properties of ergativity can be captured with the same set of features describing transitivity, indicating a link between transitivity and ergativity (Giró & José-Luis, 2012). Therefore, ergativity is considered as an extension from the prototypical transitivity with their differences lying in the different values of the object.

2.3 Construal of Transitivity

2.3.1 Construal

Construal is used by Langacker (1987, 1991, 1999, 2002, 2005, 2008, 2009, 2013) to describe the dynamic process involved in conceptualization, another aspect of meaning making. It is "the way a language user chooses to 'package' and 'present' a conceptual representation as encoded in language… by choosing a particular focal adjustment and thus linguistically 'organizing' a scene in a specific way (Evans, 2007, p. 41). For example:

Max hid Angela's keys.

Angela's keys were hidden by Max.

The active and passive voices represent two different ways of construal: the active sentence gives more attention to the agent while the passive sentence gives more attention to the patient.

The prototypical analysis of transitive constructions indicates that:

1) Transitivity is gradable and prototypical transitive constructions are very high in transitivity while peripheral ones are very low;

2) Transitivity is also subjective in that the distinction between agent and patient is a result of conceptualization rather than reality, and it even distorts objective reality to achieve speakers' certain intentions. Therefore, in a full discussion of transitivity, the human conceptual capacities employed in the conceptualization of transitivity cannot be avoided.

This view is in opposition to the objective view of concepts, which assumes that "the job of concepts is to fit objective physical reality and no more" (Lakoff, 1987, p. 309). Lakoff (1987) further argued that concepts "are not to be found objectively in nature, but … are a result of the human imaginative capacity: cognitive models involving metaphor and metonymy, radial categories, and non-universal socially constructed concepts" (p. 309).

The objective view is a monolithic view on conceptual systems, which assumes that conceptual systems are monolithic and provide a single, consistent world view. In particular, it is assumed that for each domain of experience, a conceptual system contains only one way of comprehending that domain. Lakoff (1987) further made a distinction between conceptual systems and conceptualizing capacities. He pointed out that those conceptualization capacities are universal, which ensures that different people with different conceptual systems can still communicate with each other, but the same conceptualizing capacities can lead to different conceptual systems.

Langacker argues that "an expression's meaning is not just the conceptual content it evokes—equally important is how that content is construed. As part of its

conventional semantic value, every symbolic structure construes its content in a certain fashion" (Langacker, 2008, p. 3). He used the term *construal* to refer to "manifest ability to conceive and portray the same situation in alternate ways" (p. 43), and he argued that meaning consists of both conceptual content and a specific way of construing that content. He recognized that construal is more basic than conceptual content in that any conceptual content is imposed by a certain way of construal, as Fig. 2.2 shows:

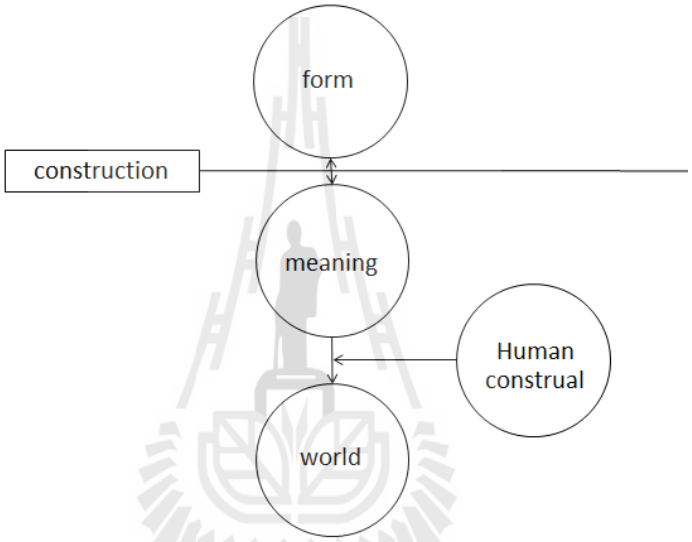

Figure 2.2 The Role of Construal in Construction Formation

As a construction is the conventional pairing of form and meaning, construal determines the linguistic forms of constructions through its role in meaning making. Of the possible ways of viewing the same scene in different ways, we examine three construal phenomena, specificity, focal adjustment, and perspective, which are crucial in meaning making.

2.3.2 Specificity and Schematicity

This pair of terms refers to the extent to which a situation is characterized in detail and precision (Langacker, 2008, p. 55). Construal can be either very specific or very schematic, depending on speakers' intentions. On the scale of specificity, at one end is

the specific instance and at the other end is the schema, which serves as a categorizing pattern, and every specific instance elaborates the categorizing schema. The elaborative relationship works both for lexical items and for linguistic constructions, as the following examples show (Langacker, 2008, p. 56):

> (a) thing → object → tool → hammer → claw hammer
> (b) Something happened. →A person perceived a rodent. →A girl saw a porcupine. → An alert little girl wearing glasses caught a brief glimpse of a ferocious porcupine with sharp quills.

Langacker (2008) further claimed that "schemas and elaborative relationships are essential in every aspect of language structure" and "all linguistic generalizations arise via schematization from more specific structures" (p. 57).

Transitive constructions are subject to the construal of specificity, and agents and patients are conceptualized at different levels of specificity.

2.3.3 Focal adjustment

Focal adjustment refers to the selection of conceptual content for linguistic expression and the figure/background distinction. With focusing, "we access particular portions of our conceptual universe" (Langacker, 2008, p. 57). The most common conceptual device of trajector/landmark alignment:

> The most prominent participant, called the trajector (*tr*), is the entity construed as being located, evaluated, or described. Impressionistically, it can be characterized as the primary focus within the profiled relationship. Often some other participant is made prominent as a secondary focus. If so, this is called a landmark (*lm*) (Langacker, 2008, p. 70).

Langacker made this distinction to explain the fact that there are linguistic expressions with the same conceptual content and the same profile, but their meanings are different because different degrees of prominence are conferred on participants (Langacker, 2008, p. 71). Bernolet's cross-linguistic study (Bernolet et al., 2009) also

proved that speakers' emphasis on different aspect of an utterance could lead to the change in the syntactic structure, indicating that the effect of prominence on the forms of linguistic constructions.

Transitive constructions show the trajector/landmark alignment. While in an active sentence, the agent receives the lion's share of attention and is the trajector, and the patient is the landmark; in a passive sentence, it is the opposite way of alignment between the trajector and landmark. For example,

Max hid Angela's keys.

Angela's keys were hidden by Max.

Max is the trajector and *keys* is the landmark in the first sentence; it is the other way around in the second one. In a prototypical transitive construction, the agent is usually mapped to the role of subject and trajector, while the patient is mapped to the role of object and landmark. In both cases, the landmark is not necessarily realized in linguistic forms.

2.3.4 Perspective

Perspective refers to the viewing arrangement in conceptualization, which is "*the overall relationship between the 'viewers' and the situation being 'viewed*" (Langacker, 2008, p. 73). Speakers conceptualize the situation and encode the particular way of construal into linguistic forms. However, this particular way is usually the default way of construal, which appears to be the natural way of construal and any other way of construal will require extra effort in conceptualization. Langacker called this default perspective the "vantage point of view", as the following example shows (Langacker, 2008, p. 76):

(a) VP1 ---> (rock)———(tree) <--- VP2

(b) VP1: *The rock (tr) is in front of the tree (lm). The tree (tr) is behind the rock (lm).*

(c) VP2: *The tree (tr) is in front of the rock (lm). The rock (tr) is behind the tree (lm).*

Although Langacker (2008) did not analyze transitive constructions directly in terms of perspective, the author found it closely related to two kinds of phenomena in transitive constructions: animacy hierarchy and ergativity.

The agent tends to be more animate than the patient, and the more animate entities are more likely to take the role of the agent. The default case for the agent is the human being, because "a speaker will think in terms of doing things to other people to a much greater extent than in terms of things being done to him. In the speaker's view of the world, as it impinges on him and as he describes it in his language, he will be the quintessential agent" (Dixon, 1994, p. 84). Human beings and other less animate entities form a hierarchy in terms of animacy (adapted from Dixon 1994, p. 85):

1st person pronouns	> 2nd person pronouns	> 3rd person pronouns	> proper nouns	> human common nouns	> animate CNs	> inanimate CNs

The entities on the left are more animate than those on the right; therefore, they appear less obtrusive when used as the agent than those on the right.

Ergativity also involves a different perspective from transitivity. Halliday (2004) suggested that there are two different ways of viewing the clause structure within the system of transitivity: the transitive model of transitivity and the ergative model of transitivity. While the transitive model views a situation from the point of view of the agent, the ergative model views a situation from the perspective of the patient. The former is the default case in English as it is predominantly a transitive language, but there are a number of ergative verbs and expression in English, which may cause some

trouble for Chinese EFL learners.

Both focusing and prominence involve the distribution of attention in the selection of conceptual content, with the former featuring the figure/background alignment involving different conceptual domains and the latter featuring the trajector/landmark alignment within the same cognitive domain. Their differences are not so clearly delineated; therefore, the author will use the cover term "focal adjustment" to refer to both of them.

2.3.5 Fuzzy Boundaries in Transitivity

As transitivity is decided by the conceptual content and conceptual capacities, the same conceptual content can be encoded into different linguistic forms with different employment of conceptual capacities. Due to the flexibility in human conceptualization, there is no fixed boundary between different linguistic constructions, which are employed to reflect different ways of conceptualization in order to achieve specific purposes. Verbs can be used either transitively or intransitively, posing difficulties to EFL learners when the situation is not that clear-cut regarding when to use a transitive construction. It is even problematic for language teachers (Yuhara, 2011).

Croft (2001) employed the term "conceptual space" to refer metaphorically to an area in the conceptual system where a situation was conceptualized. He did a typological survey of world languages to discover how transitivity and voice were encoded in different languages. He concluded that there are no clear boundaries between conceptual spaces for transitivity and intransitivity, and between the active voice and passive voice, all depending on the relative salience between the agent and the patient, as Fig. 2.3 shows.

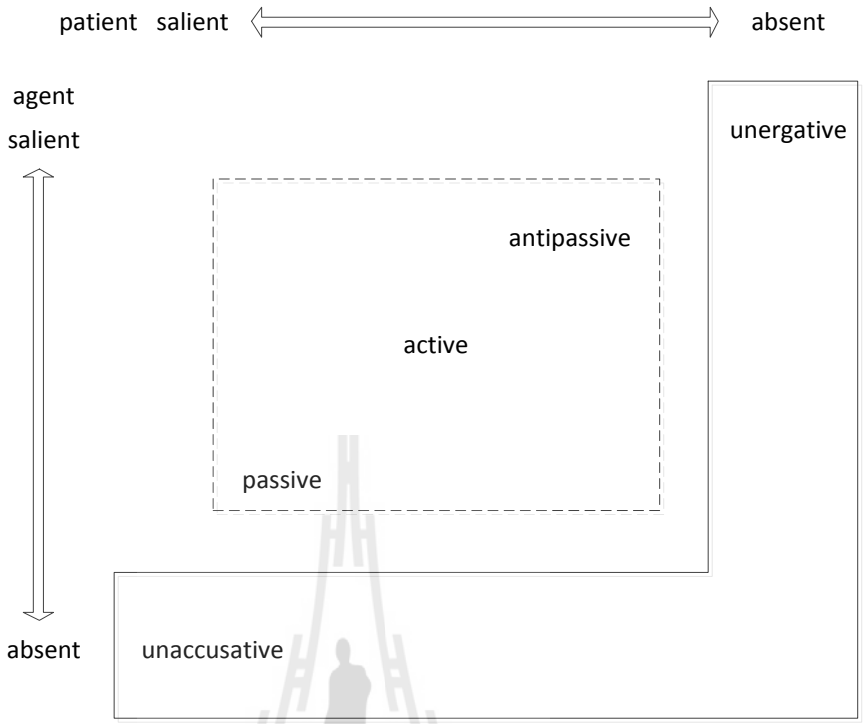

Figure 2.3 Conceptual Space for Voice and Transitivity (Croft, 2001)

The diagram indicates the conceptual spaces for voice and transitivity. The dashed box represents the space where transitive conceptualization takes place, and the other box represents the space where intransitive conceptualization takes place. Examples:

Active: *Max hid Angela's keys.*

Passive: *Angela's keys were hidden by Max.*

Unaccusative: *The leaves fell down.*

Unergative: *He ran quickly.*

Antipassive: it appears in some ergative languages, giving attention to the ergative agent by deleting ergative patient. It is equal to the passive voice in the transitive language such as English.

Croft's analysis of conceptual space indicates several points:

(1) The relative degree of salience conferred on the agent and the patient

determines the position of conceptualization for certain type of situations. (Salience is related to the amount of attention conferred on an entity.)

(2) There is no clear boundary between transitivity and intransitivity, as the dashed box indicates. Unergatives (such as *run, walk, retire*) and unaccusatives (such as *fall, die*) indicate only one participant, either acts as the agent for unergatives or as the patient for the unaccusatives; therefore they occupy the conceptual space for intransitivity. But there is no clear boundary between transitive and intransitive situation types, as the dashed box indicates.

(3) For a transitive situation involving both the agent and patient, there is no clear boundary between the active voice and passive voice. For example, when both the agent and the patient are conferred nearly the same amount of salience, the situation is likely to be conceptualized transitively and is situated in the active voice. If the patient is emphasized and given too much attention to the negligence of the agent, the situation is likely to be conceptualized in the passive voice. Voice is closely related to the concept of transitivity, and is rooted in human conceptualization, as argued by Shibatini (2006) "major voice phenomena have conceptual bases rooted in the human cognition of actions, which have evolutionary, properties pertaining to their origin, development, and termination"(p. 1).

Salience is both subjective and gradable. It is subjective because it is a feature of conceptualization rather than a property of a participant in a situation. It is gradable in the sense that the opposition between "salient" and "absent" form a continuum and there is no clear boundary between them, and the utterer can adjust the attention given to either of the participants, leading to an adjustment of linguistic constructions. Linguistic constructions are representative of conceptual structures.

2.4 The Constraining Effect of Prototypes in L2 Learning

2.4.1 Prototypes as a Constraining Factor in Language Transfer

Chinese EFL learners tend to transfer meanings from their native language to a foreign language. There exist some cases that remind us of language transfer. When there are similarities in transitive constructions between English and Chinese, Chinese EFL learners are expected to use transitive constructions similarly with NSs; when differences occur, they are expected to use them in a different way influenced by their L1(Lado, 1957). It is suggested that language transfer occurs at the beginning stage, but decreases as Chinese EFL learners' language proficiency improves (Chen, 1999). For advanced Chinese EFL learners, their productions are grammatically correct but different from native speakers.

Due to the entangled relationship between language and thought, conceptual transfer is put forward as an improvement of language transfer in the SLA field (Jarvis, 2011; Odlin, 2008). They argue that it is not the linguistic features in L1 that are transferred into L2, but the concepts in L1 are considered transferred. Ellis (2008) considered prototypes serve as a constraint on language transfer. A constraint "prevents a learner either from noticing a similarity in the first place or from deciding that the similarity is a real and helpful one" (Odlin, 2003).

Kellerman (1977, 1979, 1986, 1995) performed a series of studies in this aspect. He tried to demonstrate that L2 learners had intuitions about the structure of their own language and perceived that some of them were translatable into L2 while others were not. It turned out that the transferrable parts were all structures that belonged to the core of the assembly of structures, while more peripheral uses were perceived as not translatable. Kellerman's study was criticized as equating translatable with transferrable,

but they indicated that the prototype was a psychological factor in L2 learners' use of English.

Ijaz (1986) studied the use of English spatial preposition terms by Urdu and German learners with the two sentences below:

(1) Two watches are____the table,
(2) The keys are hanging____the hooks.

Learners were asked to fill the blanks, and he found that while the first one was completed nearly the same between NSs and L2 learners, the second one was given answers influenced by their different L1 backgrounds and thus mixed. The reason, he believed, was caused by prototype effects. Whereas the former involves the core/prototypical meaning of *on*, the latter is more peripheral. The core meaning is acquired with less effort but the peripheral meaning is more difficult.

The two examples show the readiness of prototypes for L2 acquisition, and L2 learners rely on prototypes in acquisition. Hudson (2012) observed that the prototype theory matters a great deal to the study of SLA as nearly everything learned is a category, which includes both the lexical items as well as "those of lexico-grammar, morphology and phonology: words, word-classes, inflections, constructions, morphemes, phonemes" (p. 525).

But the study of conceptual transfer does not give adequate accounts regarding the mechanism of prototypes' constraining effects due to the complexity of human cognition. The question comes up as to how prototypes act as constraints on language transfer. While traditional account ignores this issue, cognitive linguistics provides an access to the study of L2 learners' conceptualizations with its existing work done regarding general human cognition.

2.4.2 Cognitive Origins of the Transitive Prototype

Language reflects human conceptualization of the world. In a transitive construction, the perceived relationship and the distinctive features for both agent and patient are not inherent by themselves, but depend on the construal of the event. The relationship between human beings and the external world is a prototypical relationship of agent and patient, the "causation schema" (Lakoff & Johnson, 1999). Language is embodied in daily experiences (Gibbs, 2005). Since we were born, we inevitably came into contact with the world. The human being is the agent, and nature is the patient. We are intentionally changing nature for our purpose, with nature being affected in this process. Therefore, it becomes natural that the agent should possess such attributes as "volitional", "instigating" and "non-affected" since the prototype for agent is the human being, and the prototype for patient is the inert nature. (In fact nature is not inert, and has significant impact on the human being, but language does not reflect the fact, but our conceptualization.)

However, experiences are far more complicated than the prototype, so the transitive category gets stretched, and less prototypical experiences are also conceptualized based on this prototype as it acts an ICM (Ideal Cognitive Model) (Lakoff, 1987) for cognition.

2.4.3 The Constraining Effects of Prototypes

One argument against the effects of prototypes might be L2 learners' strategies in using L2: L2 learners might have some knowledge of different transitive constructions, but they are not willing to use a particular pattern because they are not sure whether a certain pattern can be used; therefore, they use the patterns which are considered the safest. If they intend to use a certain pattern, they can use it.

This does not hold in the case of pronunciation learning obviously, as the native sound is not what they can use at will. It is generally acknowledged that pronunciation is the most susceptible to fossilization (Acton, 1984) as almost all L2 learners sound not native-like with accent more or less, no matter how hard and how long they have tried unless they have learned L2 at a rather early age, no later than the critical period hypothesized in L2 acquisition (Birdsong, 2006; Lenneberg et al., 1967; Paradis, 2004; Pulvermüller & Schumann, 1994; Singleton, 2001). Less obvious is the case of acquisition of syntax, such as the current study of transitive constructions. While there are various factors suggested, the author argues that the reason lies in conceptualization.

Articulatory organs pose no obstacle as anyone can master the pronunciation of English if one is born in an English native community no matter whether the person is Chinese or English or any other nationality or race. Human conceptualization of the specific sound (phoneme) determines their acquisition of pronunciation. A phoneme is a basic concept of sound that has distinctive features which differentiate it from other phonemes. Everyone will pronounce phonemes slightly differently as the articulatory organs involved cannot be the same for each individual, and even an individual's body is in an ever-changing process, let alone other factors such as speakers' emotions, physical health and other contextual factors. Therefore, a phoneme is not a fixed sound, but a category with infinite cases with slight differences. Then how can different sounds be recognized as belonging to the same phoneme? Kuhl considers that phonetic prototypes contribute to sound recognition, which are "speech sounds that are identified by adult speakers of a given language as ideal representatives of a given phonetic category" (Kuhl et al., 1992, p. 255) and they are "the centers of speech categories" (Kuhl, 1993, p. 262). Phonemes are categorized on the basis of prototypes, which are

conceptual and without concrete forms (as shown in sound waves measured by machines). However, the prototype for a specific phoneme does exist and any other person's pronunciation of the sound is more or less similar to the prototype to the extent that it is not to be confused with other phonemes.

The native-like sound is acquired at the younger age when the prototypes for phonemes are not entrenched in their conceptual systems and are open to change. In Kuhl's study, even six-month old infants alter phonetic perception (Kuhl et al., 1997). They are more able to discern between the nonnative phoneme and its variants than between the native phoneme and its variants. The phoneme prototype acts like a magnet to attract close sounds to it and make them less discernible. It indicates that the entrenchment of phoneme prototypes occurs much earlier than has been expected. Adult learners have already phonological systems and corresponding prototypes entrenched in their mind, which preempt the acquisition of other phonemes in L2 acquisition. Therefore, it is difficult for them to break out from existing conceptual categories of phonemes in L1 to acquire the pronunciation of L2. This is the binding effect of prototypes, less obvious in the acquisition of syntax such as transitive constructions in this study, but more obvious in the acquisition of pronunciations.

Prototypes in L1 phonemes preempt the acquisition of L2 phonemes as each phoneme encountered in L2 will be compared with the phoneme prototypes in L1, the conceptual base as a starting point for L2 phoneme acquisition. Unlearning the existing phonemes might be a good idea, but the language is so entrenched that it cannot be unlearnt practically. Entrenchment occurs as early as in six-month infants (Kuhl et al., 1992), and its effect will be stronger and stronger after recurrent uses in later life. Language learning makes a permanent effect on the human mind, leaving little room for competitors.

The effect of prototypes on language uses is unconscious, whereas the conscious use of a particular pattern indicates the mastery of grammatical knowledge rather than grammar itself. Grammar is conceptualization, consisting of an inventory of constructions (Goldberg, 2006; Langacker, 1987, 1991), rather than stipulating rules. Consequently, it is unconscious by definition. The unconscious nature of conceptualization enhances efficiency in language uses; otherwise, using a language would be a dreadful burden as it involves various kinds of calculations but language use is instantaneous.

Therefore, the prototype in linguistic constructions binds the conceptualization in L2 learning and learners need conscious effort to break out from its binding power. In such a way, the power of prototypes is the power of stereotyped conceptualization, which is embodied by prototypical constructions in language.

The binding effect of prototypes is beneficial in the beginning stage of L2 acquisition as L2 learners can take advantage of their existing prototypes in L1 to get access to the syntax of English. For example, without knowing the meaning of individual words, a prototypical transitive construction can lead the learner to guess its basic meaning: S does something to O with the result that O is affected. But at the advanced stage of L2 acquisition, L2 learners still rely on their existing prototypes to use English, and the prototypical conceptualization obstructs their development into native-likeness proficiency and preempts other more deviating uses of transitive constructions, leading to L2 learners' unconscious uses of more basic constructions.

2.5 Theoretical Framework for the Current Research

The current research aims to study the linguistic features of transitive constructions used by Chinese EFL learners, and to reveal the conceptual mechanism underlying their uses of transitive constructions. Seen from a cognitive linguistics point of view, language transfer or conceptual transfer is questionable because nothing is transferred in L2 learning. What happens with the so-called transfer is actually the adaptation of the Chinese EFL learners' conceptual system (or history) to accommodate a new language. As such, the role of prototypes in transfer has not been paid due attention in the past SLA literature, as human concepts are prototypically constructed, including linguistic categories (Taylor, 1995) such as the concept of transitivity studied in this thesis. Prototypes do not only constrain language transfer, but they pivot and organize the adaptation and reconstruction of the Chinese EFL learners' existing conceptual systems in L2 learning.

Overuse of certain transitive patterns is such a case of the .prototypes' constraining effects. Ellis considered L1 influence as an important factor (2008, p. 358). But the author argues that only some L1 influence exists for Chinese EFL learners, namely, the conceptual tendency encoded into L1. It is more a conceptual issue than a linguistic one. For example, Chinese EFL learners tend to overuse the first person pronouns as the agent of transitive constructions. First person pronouns are at the highest end of animacy hierarchy and are in accordance with the features of the prototypical agent [+VOL, +INST, -AFF].

Another case is the order of words in transitive constructions. Chinese is flexible in word order with many cases of SOV, but it does not appear in L2 displayed in SUBWECCL because the prototypical image of transitivity is SVO, as displayed by Langacker's canonical event model (2008).

When grammatical correctness is combined with default conceptual tendencies, overuse occurs. It is seldom noticed by Chinese EFL learners themselves because they are grammatically acceptable with no negative feedbacks. However, if the learner language is examined, we can find abundant cases of overuse of particular constructions, as displayed in this study.

Two models are given to guide the research.

2.5.1 A Model of Conceptualization of Transitivity

Two general factors can be identified in the conceptualization of transitivity and hence the use of transitive constructions by EFL learners: the various features of event types and the way of construal, as cognitive grammar claims that conceptualization is an interaction between conceptual capacities and conceptual content (Langacker, 2008).

Prototypical constructions, which are conceptually salient, can be grafted onto the existing conceptualizations easily. Peripheral transitivity is fuzzy in conceptualization and is displayed in a number of different linguistic forms (Næss, 2007); therefore, it is difficult to learn. Typologically, the prototypes of these categories form the same foundation for conceptualization, but the extensions from the prototypes are different, and conceptual fuzziness are created in the acquisition of a different language.

Conceptualization involves two factors: different ways of construal (Langacker, 2008), which is characterized by their different employment of such conceptual devices as specificity, prominence and perspective, and conceptual content, which is different types of transitive constructions.

The figure below shows the model of conceptualization of transitivity, which applies to NSs as well as L2 learners:

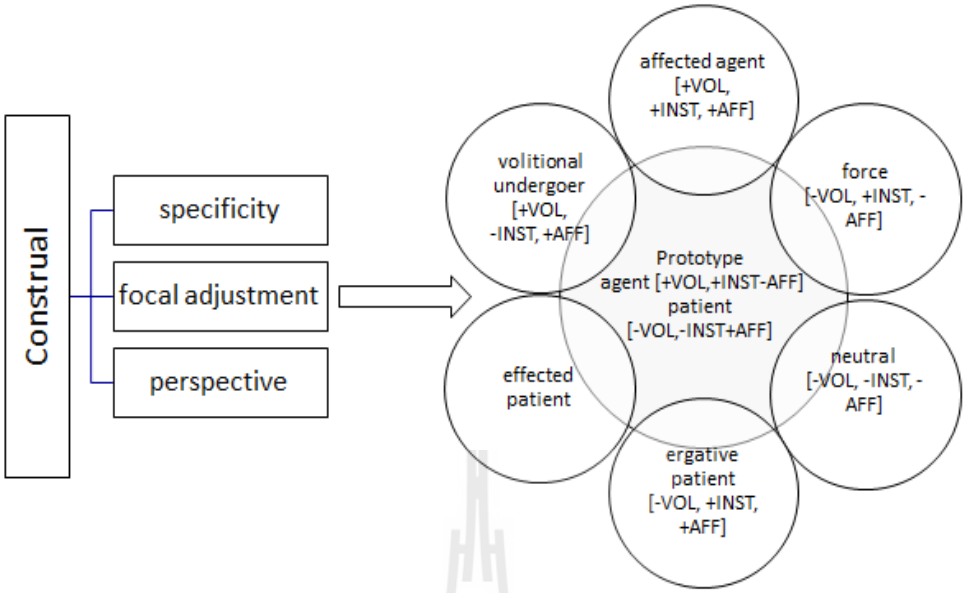

Figure 2.4 A Model of Conceptualization of Transitivity

It accounts for the various features of transitivity and the role of human construal in conceptualizing transitivity:

1) Conceptualization of transitivity involving the conceptual capacities (specificity, focal adjustment and perspective), and conceptual content (different types of transitivity with the prototypical transitivity at the center).
2) Conceptual capacities can be used in different ways to have different construal of transitivity.
3) Conceptual capacities and conceptual content are linked together, and different types of conceptual content result from conceptual capacities;
4) Transitivity is prototypically categorized.

2.5.2 A Model of the Prototypical Transitive Construction

Prototypical transitive constructions are formed with multiple cues such as word order and case marking (Ibbotson & Tomasello, 2009). The features are redundantly combined together and produce a combination of form and meaning.

Syntactically, it takes the SVO form, with S as the subject and O as the object. The nominative case and accusative case are given to the subject and object respectively. In conceptualization, the subject and object are the primary and secondary focus, the trajector and landmark. It encodes the prototypical transitivity representing the maximal distinction between the agent and patient. The subject is mapped onto the prototypical agent and the object is mapped onto the prototypical patient.

Moreover, the default information structure is also mapped onto the prototypical transitive construction in SVO form based on the information principle (Biber et al., 1999), which says that the unmarked distribution of information begins from the given information followed by the new information. The principle holds cross-linguistically but is not inviolable. As the topic is mapped onto the subject, the comment is mapped onto the object. Therefore, multiple mappings appear in the prototypical transitive construction, as Fig. 2.5 shows:

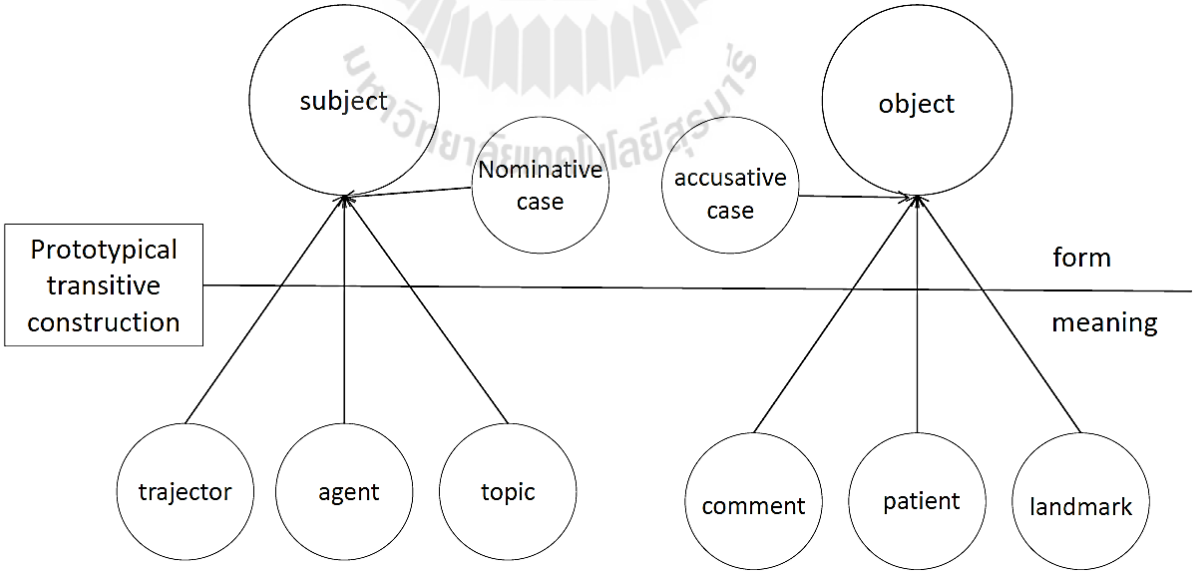

Figure 2.5 A Model of the Prototypical Transitive Construction

The redundant features both conceptually and syntactically contribute to the formation of the prototypci8al transitive construction. Any deviation in either form or function leads to the deviation of whole construction.

2.6 Six Different Types of Transitive Constructions

2.6.1 Transitive Constructions with Prototypical Transitive Verbs

This type of transitive constructions occurs with prototypical transitive verbs such as *kill* or *destroy*. It is referred as TCPV in the study.

Kill is recognized as high in transitivity, and analyzed as a prototypical case for transitivity by a number of linguists (Andrews, 1985; Croft, 1990; Garcı´a-Miguel, 2007; Lakoff, 1977; Levin, 1999). For example:

Hunters-AGENT *killed*-VERB *animals*-PATIENT *with guns*-INSTRUMENT.

Lemmens argued that linguists prefer to use destruction verbs as a case of prototypical transitive verbs because they "express a straightforward kind of causation, in which a human agent directly affects a change of state in a secondary participant, the patient (1998, p. 21). The conceptualization can be best illustrated by Langacker's canonical event model (1987):

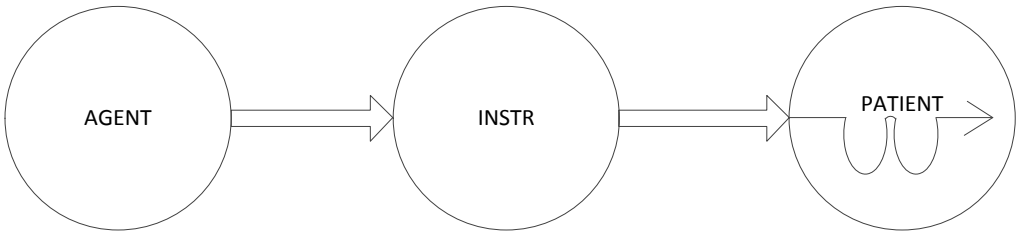

Figure 2.6 Langacker's Canonical Event Model

The arrows represent the energy flow, and the squiggly line in the patient represents the affectedness of the patient. The canonical event model is in conformity

with Næss's argument that prototypical transitivity makes maximal distinction between the agent and patient (Næss, 2007). Langacker's model presumed three participants in a canonical transitive event. The agent is characterized as [+VOL, +INST, -AFF] and the patient is characterized as [-VOL, -INST, +AFF], and the instrument is characterized as [-VOL, +INST, +AFF]. While the agent and patient are on the opposite ends of each other in terms of semantic features, the semantic features of the instrument overlap with those of both the agent and patient (Haspelmath, 2008).

It is not necessary to activate all three participants in conceptualization, but with either two can be activated, or even only one. Usually the agent and the instrument are conceptualized together to form an agent core, as the whole (gestalt) is more salient than individual parts (Langacker, 2008). So the three participants are conceptualized as a two-participant relationship as the opposition between the agent and the patient while the instrument [-VOL, +INST, +AFF] is often omitted.

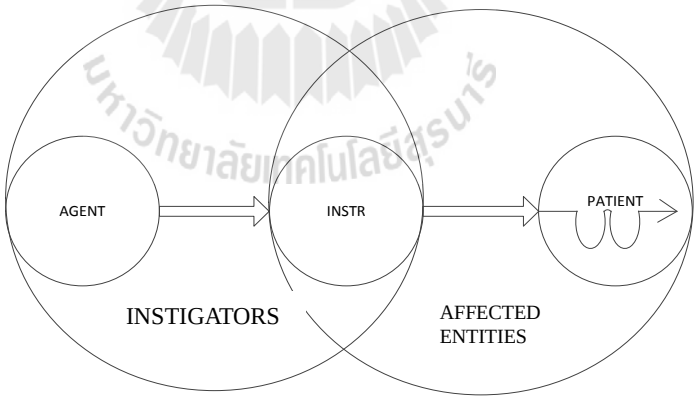

Figure 2.7 Conceptualization of Transitivity

But prototypical transitive verbs do not always result in prototypical transitive constructions as the two participants are not always the agent and patient. It means that the subject in transitive construction can be instrument, or force. The conceptualization for different types of transitivity is different. For prototypical transitivity, there are

differences in conceptualizations as a result of different construal.

Instrument is characterized as [-VOL, +INST, +AFF], which can act as the subject in a transitive construction, but differs from a prototypical agent [+VOL, +INST, -AFF]. In Langacker's canonical event model (2008), it is in the middle of the energy flow, as a consequence, it "might be conceived of as playing a similar role in the event as that of either of the two 'endpoint' participants" (Næss, 2007). When the instrument is given enough attention and put into focus, it is conceived as the starting point on the path of energy transfer, leading to the omission of the agent in conceptualization, as in *a bullet killed Mary.*

Sometimes, the force instigates the event but is not volitional in instigating the event, for example, *the earthquake kills many people.* It is characterized as [-VOL, +INST, -AFF].

When an instrument or force instigates an action, the maximal distinction between the agent and patient does not exist and their semantic features overlap with each other. As a consequence, it is less prototypical than a transitive construction involving a prototypical agent and a prototypical patient.

2.6.2 Affected Agents

Affected agents occur in some transitive constructions, which are referred as TCAA in the project.

Prototypical transitive construction makes a maximal distinction between the agent and the patient (Næss, 2007), and any similarities in the semantics between the agent and the patient lead to deviation from this prototype. As a prototypical transitive construction is conceptually more salient than the peripheral ones, conceptual fuzziness comes up when EFL learners conceptualize a less transitive event. Some verbs indicate

that both the agent and the patient are affected, and the shared feature between them reduces transitivity and the event denoted by verbs is less conceptually salient.

For example, *he drinks.*

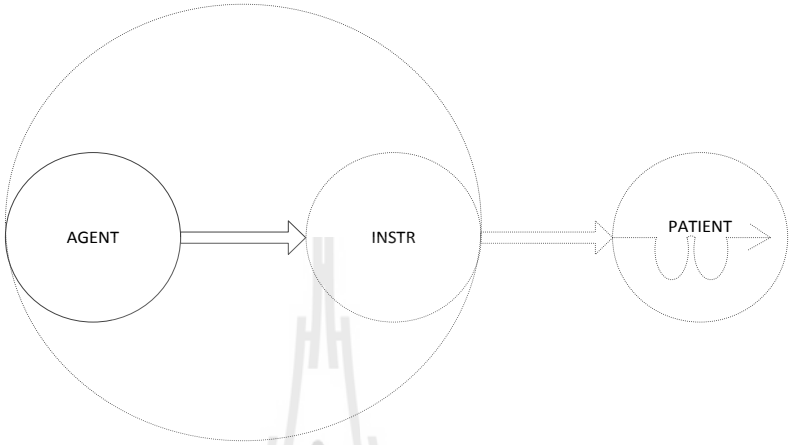

Figure 2.8 Affected Agents

Although the object is missing in the sentence, there is no doubt that some kind of liquid, most probably alcohol, is involved in the event acting as the patient. The dotted line indicates the less salient participants in the event. While patient is less observable, the drinker is noticeable with the effect of drinking. For example, the drinker becomes excited, and his face becomes red, even he is a drunkard as a result of drinking. Since the patient is less salient than the drinker, the agent, it is omitted. It is a case of objectless transitives.

A particular group of verbs involves affected agents, i.e., the ingestive verbs such as *eat* and *drink*, and the specific features regarding the agent have been studied by many linguists (Haspelmath, 1994; Nedjalkov & Jaxontov, 1988; Wierzbicka, 1982). Masica (2005) defined such verbs as "a small set of verbs... having in common a semantic feature of taking something into the body or mind (literally or figuratively)" (p. 46), and regarded them as "occupying a halfway station between intransitives and

transitives, since the object in question can frequently be dispensed with in favor of concentration on the activity as such" (p. 48). Næss recognized ingestive verbs as "a class of verbs cross-linguistically characterized by having an affected agent argument" (Næss, 2007, p. 52), the typical example being *eat* and *drink*. He analyzed that such verbs "show a strong tendency cross-linguistically towards being expressed in formally intransitive clauses" (p. 52) and various patterns indicate their lower prototypicality in transitivity.

Ingestive verbs usually take an affected agent. Wierzbicka (1982) argued that the construction "*have a drink*" is used to indicate the effect on the agent rather than on the object consumed. Nedjalkov and Jaxontov (1988) claimed that for the ingestive verbs such as *eat* and *drink*, "the result of the action affects the underlying subject rather than the immediate patient of the action" (p. 9). Haspelmath (1994) discussed that such verbs as *eat*, *drink*, *learn*, *wear* are used in the circumstance where the agent is affected as a result of the action.

2.6.3 Volitional Undergoers

The volitional undergoer refers to a less prototypical patient, "a subset of the [+VOL, –INST, +AFF] category, namely participants voluntarily submitting to being affected in some way" (Næss, 2007, p. 93). For example:

…justice does not ***satisfy*** *everyone, the law on euthanasia needs to be changed to fit the needs of the people of America…* USARG

Everyone is a volitional undergoer in the transitive construction.

This type of transitive construction is referred as TCVU in the study.

There are two defining features for this category: they are volitionally involved in the event and they are affected. Because of their deviation from the prototype, they

display a different construction from the prototypical transitive construction. Arguing for the Maximally Distinguished Arguments Hypothesis, Næss (2007) claimed that "patientive arguments which are seen as volitionally involved in the event which affects them should also tend to be encoded in constructions other than a fully transitive clause" (p. 89). Volitional undergoers are often marked with dative case cross-linguistically. As there is no dative case in English, they cannot be differentiated from the ordinary objects of a transitive construction. However, as the patient is volitionally involved in the event, it is less distinctive from the role of the agent which is also volitional.

2.6.4 Neutral Participants

Neutral participants refer to a special type of objects in transitive constructions. This kind of object is named as "neutral" by Næss (2007) because it possesses none of the defining features defining transitivity. Therefore, it is characterized semantically as [-VOL, -INST, -AFF] in contrast to the prototypical patient characterized as [-VOL, -INST, +AFF]. This type of transitive construction is referred as TCNP in the current study.

Most neutrals are locations or settings which are conceptualized as participants and take the position of the object in a clause. Langacker (2008) argued that in a canonical transitive event, participants acquired the position of *trajector* and *landmark* (focal participants in an event as the primary and secondary focus), while locations and settings are the stage for the event to take place, playing the role of conceptual scope. But when the conceptual scope itself acquires the status of conceptual content, the conceptualization of transitivity deviates from the prototype with the settings being the landmark and the relationship between that of trajector and landmark in transitivity are in essence that between a participant and a setting. In an "archetypal conception" of

transitivity, "participants interact with one another but merely occupy locations and settings" (Langacker, 2008, pp. 387-388). But in this deviation, settings are viewed as participants, a different conceptualization from ordinary situations. Langacker gave the following examples (p. 387):

(a) *The envelope contained his will.*
(b) *The lecturer finally reached the end.*
(c) *The train is approaching Chicago.*

In all three sentences above, location is one of the focal elements, namely the landmark, which differs from a prototypical transitive construction in which locations are usually encoded as oblique elements in a sentence, for example, a prepositional phrase. However, they are not affected even though they are landmarks in transitive constructions. Neutrality is a property of participants in an event which is "not directly involved with the event either in terms of participating in its instigation or in registering its effect" (Næss, 2007, p. 102). Their deviation has impact on their syntactic behaviors, i.e., they cannot be passivized.

There are some verbs in English, which can take either a direct object or an oblique element, for example (taken from SUBWECCL),

You are facing challenges every day.

Many people are facing with the problem of losing job.

The syntactic difference between the two sentences above implies a difference in conceptualization as syntactic forms encode human conceptualizations, which are results of the imposition of different construal (Langacker, 2008). It should be noted that the feature of "affectedness" is subjective and gradable; therefore, it is subject to speakers' conceptualization. In the case of Chinese EFL learners, it is subject to them determining whether a patient is affected or not. Conceptualization is a process of

meaning-making, which is unconsciously encoded into linguistic forms. The purpose of this research is to reveal the conceptual mechanisms that underlie L2 learners' using of transitive constructions.

The different usage of *face* implies how Chinese EFL learners determine the degree of neutrality of the participants. When *problem* is conceptualized as more neutral, it is encoded into an oblique element, i.e., it is conceptualized as not interactive with other participants of the event, and *problem* comes as unexpected to the subject without the subject's awareness. This conceptualization conforms to the definition of neutrality, which is "the only category which is entirely negatively defined; the only thing its members have in common is being neither volitional, nor instigating, nor significantly affected" (Næss, 2007, p. 106).

2.6.5 Effected Patients

Effected patients occurs with certain verbs when the object that a verb takes is effected rather than affected, which does not exist before the event and comes into existence as a result of the action. This type of transitive construction is called TCEP in the current study. For example, *write* is such a word taking an effected object. No matter what is written, it does not exist before the action and it is created instead of being changed. When studying the specific linguistic behavior of effected verbs, Brisson (1994) compared two distinct classes of verbs permitting IOD (in Brisson's terms, verbs allowing unspecified objects): *write* verbs, examples of which are *write, knit, bake, draw, paint, sew, drink, type, dig,* and *eat*; and *sweep* verbs such as *sweep, plow, pack, dust, vacuum, clean, mow* and *rake.* He concluded that the two different groups of verbs are different in that the first group of verbs allows their objects to be unspecified, while the second group of verbs cannot leave their objects out without loss of meaning.

For example, only the agent appears and the patient is unspecified. But it is different from an intransitive construction, which does not imply a patient. For example, the sentence below contains a true intransitive construction as it only involves one participant in conceptualization, as Fig. 2.9 shows.

He left.

Figure 2.9 Intransitive Construction (unergatives)

An intransitive structure is considered to be non-effective in the sense that the action is not finished yet. It is a type of IOD (indefinite object deletion). The direct object in the situation of IOD is omitted but it is implied through the semantics of the verbs. In this circumstance, the transitivity is diminished as a result of IOD.

2.6.6 Ergative Verbs

While English is recognized as a transitive language, it does show some features of the ergative paradigm. Lemmens (1998) argued that there is an ergativatizing process going on in English. For example, both *starve* and *abort* were used intransitively before, but both acquired a transitive use. Thus, they become ambivalent regarding their verb valence. Sinclair described three features of an ergative verb as:

> It has two patterns;
> Only one of these patterns has a noun group following the verb;
> The person or thing indicated by that noun group may also be indicated by the subject of the other pattern. (Sinclair, 1996, p. 474)

To take the example of *break*, it can be used as a transitive verb as in the sentence: *John broke the vase*, it can also be used intransitively as in the sentence: *The vase broke*.

The transitive constructions headed by ergative verbs are known as TCEV in this study. There are two features of ergative verbs in conceptualization: 1) the implied spontaneous action of theme (patient) in the event; 2) perspective as the viewing arrangement of the event concerned.

The first feature of conceptualization of an ergative event is related to the property of the medium, which can be conceptually autonomous of other participants involved in the event. Ergative constructions are different in that the patient (medium, to be specific in terminology) has the ability to be self-instigated. The patient is not inert, but active in the process. The patient has its own dynamics in the process. In the sentence, *the regime starved its people, people* are prone to starvation, as indicated by *people starved.*

Næss recognized ergative verbs as a different pattern from IOD verbs, "which have both transitive and intransitive uses, but where the single (S) argument of the intransitively used verb corresponds to the O of the transitive, rather than to the A as is the case with verbs which undergo IOD"(Næss, 2007, p. 145). Although verbs such as *break* could be used either transitively or intransitively, Næss considered they were not the same as ingestive verbs like *eat* because their the intransitive variants are "not necessarily incompatible with the interpretation that the event is externally caused', but "denote an event which can be construed as occurring spontaneously" (Næss, 2007, p. 145).

An ergative event is partially conceptualized as self-instigated and the patient is responsible for the event to some degree. This self-instigating feature of a patient in an

ergative construction is captured by its semantic feature described as [-VOL, +INST, +AFF], which is different from a prototypical patient characterized as [-VOL, -INST, +AFF]. Due to its self-instigating nature, an ergative verb is different from a prototypical transitive verb in that it can be used either transitively or intransitively. The flexibility in the valence of ergative verbs represents a different conceptual pattern from those of prototypical transitive constructions, and the deviation from the prototype indicates conceptual flexibility which can be problematic for EFL learners as the rationale of this research assumes that prototypes are conceptually more salient than peripheral members, and conceptual fuzziness leads to problems in EFL learners' linguistic productions.

The second feature of an ergative event is that it is conceptualized in a different perspective from that of a transitive event.

Langacker observed that there were many English verbs, e.g. *break, open, melt, starve, burn, freeze,* etc. "that can be used either transitively or intransitively without any difference in form" (Langacker, 1991, p. 387). He further argued that conceptualization of an event involving ergative verbs was different. An ergative event is conceptualized "counter to the flow of energy along an action chain", which characterizes a transitive event. Conceptualization of an ergative event starts from theme, the participant which is the autonomous core of the event, and more participants are successively added to this core and the conceptualization is expanded. Langacker gave the example of *break* with the sentence *Floyd broke the glass with a hammer*. The conceptual core is *glass broke,* and then *hammer* is added into conceptualization as *a hammer broke the glass,* and finally Floyd is added as in *Floyd broke the glass with a hammer*. Participants are added step by step to the autonomous core of the

conceptualization and the conceptualization of the event becomes complicated sequentially. This conceptualization of ergative event is formulated by Langacker as:

(Glass break)>(hammer—>(glass break))>(Floyd—>(hammer—>(glass break))).

Ergativity is evident in an ergative language such as Dyirbal, which has an ergative/absolutive case-marking system, and the case marking is meaningful (Langacker, 2008). Although there is no ergative/absolutive case-marking in English, ergativity reveals itself in the semantic features of an ergative event and the conceptual perspective counter to that of transitivity. Lemmens (1998) argued that an ergative verb such as *break* is used in this way because the two systems of transitivity and ergativity are real in cognition, but they are not marked with overt cases. Instead, they are indicated cryptotypically (1998, p. 57).

As discussed before, ergative verbs can be used in two patterns: *n V* and *V n*. One special feature of ergative verbs is that the object in *V n* pattern can be employed as the subject for the *n V* pattern. The two patterns indicate two different perspectives (Coon, 2012; Donohue & Brown, 1999; Giró & José-Luis, 2012; Muller, 1995; Polinsky et al., 2012). Most languages in the world are in the transitive pattern, but still some languages are predominantly ergative. Due to the cryptotypical nature of ergativity in English, it is likely to pose problems for EFL learners. It is evident that mastery of ergative verbs requires that EFL learners accommodate ergativity in their conceptual system. English is predominantly transitive (Lemmens, 1998); therefore, some ergative uses, being non-prototypical, prove difficult for Chinese EFL learners as they have to conform to different perspective when using such verbs. The present study will examine the features in Chinese EFL learners' use of ergative verbs as a means to examine how they conceptualize about ergativity in English.

2.7 Summary

After a short description of the fundamental theories in cognitive linguistics, two models of transitivity conceptualization and the prototypical transitive construction are produced in this chapter. The first model specifies the role of construal on the conceptualization of transitivity. Cognitive linguistics argues that language encodes human conceptualizations and language knowledge comes from embodied experience. In encoding conceptualization, a construal is imposed on the events observed, which involves schematicity, focal adjustment and perspective, all of which are basic general human conceptual capacities. Transitivity is a prototypical concept. The prototypical transitivity represents the maximal distinction between the agent and the patient. Any deviation from the prototypes will cause differences in meaning.

The model of the prototypical transitive construction specifies the multiple mapping relations involved in the uses of transitive constructions. The mappings of subject and object in form with agent and patient in meaning form the basis of the prototypical transitive construction together with other elements such as case markings and attention distribution. From the models six different types of transitive constructions are described, including transitive constructions with prototypical transitive verbs (TCPV), with affected agents (TCAA), with volitional undergoers (TCVU), with neutral participants (TCNP), with effected patients (TCEP) and with ergative verbs (TCEV). Each type is associated with certain verbs, which are at the center of transitive constructions. In the next chapter the author will design a project to study Chinese EFL learners' conceptualization of transitivity via examining their uses of different types of transitive constructions.

CHAPTER 3

METHODS AND MATERIALS

This chapter describes the methodology used in the current research. It is divided into five parts. In the beginning the author will explain the rationale for taking a corpus-based methodology; then a detailed description of the corpora to be used is given. Section 3 describes the data collection procedures, including the software to be used, the making of a verb lemma list for reference and the selection of verbs to be concordanced. Section 4 gives an account of data analysis procedures. The last section summarizes the chapter.

3.1 Corpus–Based Methodology

As the present study focuses on Chinese EFL learners' conceptualization of transitivity, which is revealed in their linguistic productions, the author relies on the data from corpora to study the conceptualization of transitivity by Chinese EFL learners. A comparison of different linguistic patterns between a native speaker corpus and a Chinese EFL learner corpus, and between different levels of Chinese EFL learners will be performed to identify the conceptual similarities and differences regarding transitive constructions.

Cognitive linguistics assumes an empiricist view committed to generalization, as Lakoff (1990, p. 53) stated, "a commitment to characterize the general principles governing all aspects of human language." Goldberg (2006) is especially concerned

with how constructions are created as a result of generalization. In line with this empirical spirit, there are many studies done with a different methodology from mainstream generative linguistics, as Tries (2006, p. 3) observed that when compared to a large body of research in other paradigms within 20th century mainstream theoretical linguistics, much work within cognitive linguistics has already adopted a much broader and more balanced empirical perspective, one that does not rely solely on acceptability judgments of isolated or made-up sentences but also incorporates many other kinds of evidence.

The conceptual system is latent, and it cannot be directly observed. As cognitive linguistics assumes a constructivist view regarding the formation of conceptual systems, and language reveals the conceptual system, an inductive method is preferred. The current research is being performed under theoretical framework of cognitive linguistics; therefore, a corpus approach is preferred. But corpus-based research also offers advantages in EFL research that other methods lack.

One problem in current EFL research is that most studies are done in a strictly controlled setting, with a limited number of participants; as a consequence, considering the complexity of reality, such research is limited in generalizability. Gass & Selinker (2008) suggested that attention should be paid to this problem of the narrow applicability of most L2 research (p. 55)

Ellis (2008, pp. 912-913) generalized three kinds of language-use data including naturally occurring samples, clinically elicited data and experimentally elicited data. Learner corpora are one kind of naturally occurring samples. As Granger (2009, p. 14) defined, they are “electronic collections of foreign or second language learner texts assembled according to explicit design criteria.” However, naturally occurring data are

not favored in SLA research, as experimental and introspective data are preferred, which is questionable in their generalizability (Granger, Hung, Petch-Tyson, 2002, pp. 5-6).

Corpus–based studies have a higher generalizability than studies based on clinically or experimentally elicited data because of its relatively large usage data and its natural usage environment. Granger (2009, p. 16) noted that "one of the main assets of learner corpus research is that it brings to the SLA field a much wider empirical basis than has ever previously been available." Therefore, the method of NS-NNS corpora comparison employed in the current research provides a higher generalizability, which is one of the advantages of this project.

3.2 The Data

3.2.1 The Learner Corpus

To perform an effective NS (native speaker)-NNS (non-native speaker) corpus comparison, the learner corpus is the first to be determined. Due to rapid development in corpus linguistics, there are many different corpora available. To name a few:

The International Corpus of Learner English (ICLE)

It contains about 3.7 million words produced by medium-advanced English learners from 16 different countries. (A detailed description can be found on its website: http://www.uclouvain.be/en-277586.html)

The Chinese Learner English Corpus (CLEC)

It contains 1 million words, consisting of compositions written by college students in the national College English Test (CET) and senior middle school students in the national college admission English test. Published in 2002, it is the first major English

learner corpus in China.

College Learners Spoken English Corpus (COLSEC)

It is a sister corpus for CLEC and it contains 1 million words of spoken English.

Middle School Students Writing (MSSW) & Middle School Students Speaking (MSSS)

It contains 0.87 million words, taken from writing and speaking data of Chinese middle school students.

The HKUST Corpus of Learner English

It contains 25 million words, mainly from the essays and examinations taken from the Hong Kong University of Science and Technology.

SWECCL 1.0

SWECCL 1.0 (Wen et al., 2005, 2009) was published in 2005, then revised in 2009. It consists of two sub-corpora, SECCL (Spoken English Corpus of Chinese Learners) and WECCL (Written English Corpus of Chinese Learners), each sub-corpus containing more than 1 million words. All the data were collected from speeches and compositions produced by English major students from 9 universities in China between 1996 and 2002, covering students from Level 1 to Level 4.

SWECCL 2.0

SWECCL 2.0 was published in 2008, and it also contains both spoken data as well as written data, which were collected from both English major students and non-English major students from more than 20 universities between 2003 and 2007. The universities chosen were different from those in SWECCL 1.0.

3.2.2 Features of WECCL

This research will use the written component of SWECCL 2.0, namely, WECCL. It is a collection of 4,950 compositions written by students from more than 20 universities in China. Students are mostly English majors enrolled between 2003 and 2007, ranging from Level 1 to Level 4. The amounts of different types and levels of compositions in WECCL are displayed in the table below:

Table 3.1 Main Features of WECCL

Variables	Levels	Number of Compositions	Tokens
Major	English	4,359	1,131,901
	Non-English	591	116,575
Level	Level 1	1,549	371,431
	Level 2	2,172	567,046
	Level 3	1,108	268,032
	Level 4	121	41,967
Total		4,950	1,248,476

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Compositions are mainly argumentative essays, a very common type of genre in English examinations. There are 27 topics in total, one for expository writing, and all others are for argumentative essays. Students wrote around topics such as globalization, lifelong education, playing computer games, environmental issues, cultures, etc. In total, there are 4,680 argumentative essays with 1,207,968 tokens and 270 expository writings with 40,508 tokens. Both timed and untimed compositions are included with each occupying half the corpus.

3.2.3 The Targeted Corpus

Transitivity, as a phenomenon of conceptualization rather than real events in the world, is expected to be encoded into linguistic forms for EFL learners and native speakers. Both differences and similarities are expected. The different usages of EFL learners are not to be seen as errors in the current research, but indicating their conceptualizations which are different from those of NSs. To achieve the objectives of the current research, a native speaker corpus is required. A corpus is an inventory of usage events, and to compare a NNS corpus to a NS corpus can identify not only similarities and differences in the use of transitive constructions, it can also show the degree of similarities and differences.

Learner language is different from the target language not because it is judged as grammatically incorrect, but because it feels unidiomatic. The comparison between an NS corpus and an NNS corpus can pin down the unidiomaticity of learner language which the standard grammar fails to do. Granger (2009) argued for the advantages of NS-NNS corpora comparison as teachers can identify the differences in learners' productions from the targeted norm in lexical and grammatical aspects as well as in discourse features.

There are different kinds of NS corpora available. Some are very large and contain hundreds of millions of words such as the British National Corpus (BNC) and the American National Corpus (ANC). However, not all NS corpora are appropriate for this study because of the issue of comparability. In fact, the comparability between an NS corpus and NNS corpus is difficult to achieve because most NS corpora are built according to different methods and different principles. The appropriate NS corpus to be used in the present study should be as comparable as possible to the learner corpus.

There are various kinds of factors which influence comparability. These are both linguistic and extralinguistic, and Kaszubski (1998) suggested the comparison should be conducted not merely on the basis of texts, but also on the general attainability between EFL learners and native speakers (p. 3).

So far the most often used targeted NS corpus is the Louvain Corpus of Native English Essays (LOCNESS), built by the Centre for English Corpus Linguistics at the Catholic University of Louvain, Belgium in 1998. The author chooses to use this corpus because it is also a learner corpus, although consisting of the data from native speakers. Therefore the comparison can exclude the factors such as intellectual development in language learning as both native speakers and Chinese EFL learners are in a similar stage of development. Further, LOCNESS was used so widely in the past that it is the *de facto* standard in learner corpus research (Flowerdew, 2010; Laufer & Waldman, 2011; Partridge, 2011; Van Rooy & Terbianche, 2009). In the study of Chinse EFL learners, it also proves fruitful as it is also used as the targeted corpus to identify specific features of Chinese learners' English (Fang, 2013; Ping, 2009; Xu & Xiaotang, 2011; X. Zhang, 2010). In the current study, LOCNESS is similar to WECCL in terms of learner age, text genre and corpus organization. Therefore, it is an ideal corpus for NS-NNS comparison research.

LOCNESS contains 324,304 words, consisting of three different sources of native English essays:

1) British pupils' A level essays about 60,209 words;

2) British university students' essays about 95,695 words;

3) American university students' essays about 168,400 words.

These essays are written both in timed examinations and as homework, and cover

such topics as social ethics, environment protection, education and arts. The length of each essay is about 500 words. More information about LOCNESS is provided in Appendix A.

3.2.4 Building SUBWECCL with Data Drawn from WECCL 2.0

WECCL 2.0 is a comprehensive learner corpus, and researchers can draw data from it and build sub-corpora according to their research purposes. For the present study, the author built a sub-corpus (SUBWECCL) of about the same size as LOCNESS with about 0.32 million tokens. For the research purpose, the author chose three different levels of learner data in WECCL, which originally consists of four different levels of learner data. The different levels of learners are in accordance with their years of study majoring in English in colleges: freshmen, sophomores and juniors. The length of each essay is about 300 words.

Table 3.2 Main Features of SUBWECCL

Levels	Amount of Compositions	Tokens	Types
Level 1	403	108,904	5,772
Level 2	406	107,238	6,409
Level 3	393	108,307	6,754
Total	1,202	324,449	10,744

SUBWECCL is built in order to have a comparison with the LOCNESS; therefore, the author makes sure that the data drawn from WECCL are comparable with LOCNESS. It has the following features:

1) The amount of the tokens is about the same as that of LOCNESS;
2) All compositions are argumentative essays, as those of LOCNESS;

3) Compositions written by students at the same levels are chosen at random, and nearly the same amount of tokens is drawn from different levels, so that a comparison can be performed among different levels of Chinese EFL learners.

SUBWECCL is built as follows:

1) All the argumentative essays are drawn upon, leaving out expository writings;

2) The amount of tokens in SUBWECCL is designed to be equal to that of LOCNESS, namely 324,304 tokens;

3) To determine the amount of tokens for each level of Chinese EFL learners' productions in WECCL. If the author uses Levels 1, 2, 3, 4 in the study, then the average amount of tokens for each level would be 81,076, which works well with Levels 1, 2, 3 but not 4, since it has only 41967 tokens in total. So the author decided to exclude Level 4 from the research, and Levels 1, 2, 3 can represent respectively relatively low, medium and high proficiency learners. As a result, the average amount of tokens from Level 1 to 3 would be 108,101.

4) The number of compositions at each level is determined. For example, the total number of tokens in Level 1 is 282,697, and there are 1,054 compositions at Level 1, so the average amount of tokens for each composition in Level 1 is 268.21. Since the presumed number of tokens is 108,101, divided by the average, the author should choose 403 compositions in Level 1. The number of compositions for Level 2 and 3 is determined in the same way.

5) The compositions are drawn in a random manner, and the sub-corpus is created. A detailed method of randomization of drawing compositions from WECCL is explained in Appendix D.

3.2.5 Comparability between LOCNESS and SUBWECCL

Comparability is crucial in corpora comparison research. The author makes an evaluation of the comparability between the two corpora. As shown in the table below, the two corpora are high in comparability in five aspects.

Table 3.3 Comparability between LOCNESS and SUBWECCL

Items	LOCNESS	SUBWECCL	Comparability
Essay type	exams, timed essays and free essays	exams, timed essays and free essays	high
Size	322464	324,449	high
Length of each essay	500	300	middle
Age of students	mostly 17-23	18-24	high
Topics	social ethics, environment protection, education and arts	globalization, lifelong education, playing computer games, environmental issues, cultures	middle
Genre	argumentative	argumentative	high
Compilers	professional in computer learner corpus	professionals in Linguistics, testing and TEFL	high

3.3 Data Collection

As the author adopts a corpus-based method to examine the use of transitive constructions by Chinese EFL learners, the next issue is to identify the transitive constructions to be examined. Verbs are generally acknowledged to be the determining element in a transitive construction, the "determiner" for other elements (Chomsky, 1957; Goldberg, 1995; Langacker, 2008). It has also been found that different types of transitive construction with different degrees of transitivity are linked with different

verbs (Goldberg, 1995; Næss, 2007). Therefore, the identification of different types of transitive constructions can be done through concordancing different verbs associated with different types of transitive constructions.

3.3.1 The Software Employed in the Current Research: Antconc

The current research is performed through the concordancing of a series of selected verbs, and the software used for concordance is Antconc. It is a piece of free software that is widely used in corpus related studies. It can be downloaded from its homepage (http://www.antlab.sci.waseda.ac.jp/software.html). Its main functions include concordance, collocates, N-grams, wordlist and keyword list. Since the present study uses only the function of the concordance and wordlist, the author will give an account of how they can be performed in the project.

Sinclair defined a concordance as "a collection of the occurrences of a word-form, each in its own textual environment" (1991, p. 32). All the usages of the node word (the word selected for concordance) can be displayed in vertical forms with its context, through which a word's linguistic behavior can be captured (This is known as Keyword in Context form or KWIC). Regular expressions are used in the searching for keywords so that a verb with all its inflected forms can be concordanced at once. For example, when the author searches for the use of "*kill*", the search expression is "\bkill\b|\bkills\b|\bkilled\b|\bkilling\b|\bKill\b|\bKilling\b", and all usages of "*kill*" will be shown in the concordance window.

The display order can be re-sorted with Antconc to show usage patterns of a node word. After re-sorting the result according to the order on each side of node words, the researcher can count the arguments taken by the node word so that they can be classified and their frequency counted.

3.3.2 Representativeness of Verbs for Examination

Ensuring the representativeness of the verbs for examination is the key to achieving the objectives of this research. There are two factors determining the representativeness of the verbs for examination: the verbs should be used with a relatively high frequency, and the verbs should be used in different types of transitive constructions, as displayed in Fig. 3.1.

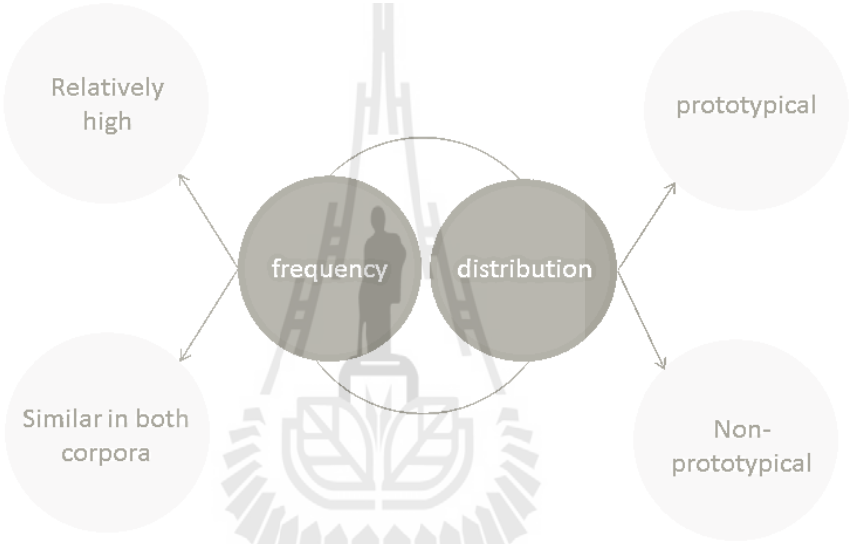

Figure 3.1 Representativeness of Verbs for Concordancing

(1) Verbs for concordancing should have a relatively high frequency in both SUBWECCL and LOCNESS corpora, so that they can be representative of the use of transitive constructions. To achieve this purpose, the author made two verb lemma lists of the two corpora for references. But there is the issue of comparability. Observing the verb lemma lists, it is obvious that for the same verb, their frequencies can be quite different: it can be very high in one corpus, but very low in the other. For this reason, it is not always the verbs with the highest frequency that are selected for examination, and it is perhaps a verb with a lower but similar frequency in both corpora. A compromise has to be made between frequency and comparability.

(2) Transitivity is a prototypical concept and there are different types of transitive constructions, some of which are more prototypical, and others are more or less different from a prototypical construction. Therefore, verbs for concordancing should be associated with both prototypical and non-prototypical transitive constructions to have a full picture of the use of transitive constructions by Chinese EFL learners. Different types of transitive constructions are listed in theoretical framework in Section 2.5.

In all cases, the verb lemma list of SUBWECCL is the first to be consulted as the focus of this research is on EFL learners' use of transitive constructions.

3.3.3 Making of Verb Lemma Lists

Although a verb list can be conveniently made with Antconc, it is not much helpful for the present study because all the inflected forms of verbs would be listed and their frequencies separately counted. As a consequence, the frequency information of verbs cannot be acquired from a verb list. To ensure the representativeness of the verbs for concordancing, the author made two verb lemma lists for both SUWECCL and LOCNESS to consult for information about their frequencies in the two corpora. (cf. Appendices B and C for more information about the creation of lemma lists.)

A lemma refers to "a set of lexical forms having the same stem and belonging to the same major word class, differing only in inflection and/or spelling" (Knowles & Mohd Don, 2004, p. 70). A verb lemma list consists of verbs with all their inflected forms counted together for each of the verbs. Yasumasa Someya's e-lemma list is used here as the archetype. It is "probably the most exhaustive lemma list" (Guo, 2006, p. 89). It consists of 40,569 tokens and 14,762 lemma.

3.3.4 Verbs for Concordancing

After the creation of the lemma lists, the verbs associated with each type of transitive constructions used in the two corpora are identified and compared on the basis of their frequencies, so that they have a relatively high frequency in both SUBWECCL and LOCNESS to ensure representativeness and comparability.

Verbs in each group share similar features of a certain type of transitive construction (cf. Section 2.6), for example, the verbs associated with TCPV all denote a controlling and destruction effect between the two participants in the events encoded by this type of transitive constructions; the verbs associated with TCAA all take affected agents. Note should be taken that the categorization of verbs associated with different transitive constructions is based on their semantic feature rather than on syntactic features. Therefore, the verbs can be used in different syntactic patterns. For example, although *kill* is categorized as prototypical transitive verbs on the basis of its destructive meaning, it does not necessitate direct objecthood in syntactic patterns. It is the flexible mappings between semantics and syntactic patterns reveal the complexity of human conceptualization and pose difficulty of Chinese EFL learners.

The table below shows the verbs to be studied, each of which is selected on the basis of its semantic categorization and relative frequencies in the two corpora. For the frequently used transitive construction types such as TCPV, TCAA and TCEV, there are four verbs selected in each type. The remaining transitive construction types are used less frequently in both corpora, therefore, only three or two verbs are selected for comparison as verbs with low frequency does not have adequate representativeness to reveal both linguistic and conceptual features of Chinese EFL learners.

Table 3.4 A Summary of Data Collection

Types of Transitive Constructions	Verbs for Concordancing
Transitive Constructions with prototypical transitive verbs (TCPV)	*kill, destroy, resolve, control*
Transitive Constructions with an Affected Agent (TCAA)	*eat, read, learn, study*
Transitive Constructions with Volitional Undergoers (TCVU)	*interest, satisfy, attract*
Transitive Constructions with Neutral Participant (TCNP)	*enter, reach, join*
Transitive Constructions effected objects (TCEP)	*write, cook*
Transitive Constructions with ergative verbs (TCEV)	*improve, change, start, break*

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3.4 Data Analysis

After the selection of verbs, a series of concordances of different types of transitive constructions can be performed to identify similarities and differences in the use of transitive construction between a NS corpus and a NNS corpus.

3.4.1 Analysis of Verb Patterns

It is common for a verb to appear in different patterns. A distinction is made between constructions and patterns.

A construction refers to “all levels of grammatical analysis involve constructions: learned pairings of form with semantic or discourse function” (Goldberg, 2006, p. 5). Transitive constructions studied in this research are not the same as those defined in traditional school grammar as a purely syntactic matter. Transitive constructions actually involve a variety of forms, which are known as patterns and cannot be described with a binary distinction between transitive and intransitive. Construction is a more general term, which subsumes pattern (Goldberg, 2006)

Therefore, although the verbs selected for concordancing are all associated with transitive constructions, they are expected to show different patterns rather than a simple [V-NP] pattern, especially for those verbs which are associated with less prototypical transitive constructions. Different patterns indicate different conceptualizations as the “what you see is what you get” approach to syntactic forms suggests (Goldberg, 2006).

Transitivity and voice are interrelated as indicated by Crofts analysis of conceptual space (Croft, 2001). Transitivity can be encoded into three different syntactic patterns: the transitive, intransitive and passive voice patterns. The transitive pattern takes the standard SVO [NP-V-NP] form, with S as the subject and O as the object. The intransitive pattern takes SV [NP-V] form without the object. Both transitive and intransitive patterns of a transitive construction involve two participants in an event and their differences lie in the focal adjustment between the two participants. When the object is indefinite without specific referents, it can be omitted. The passive voice also encode transitivity, but from a different perspective.

Both intransitives and passives are deviations from the prototypical transitivity. While the former serves to put focus on the agent and to de-emphasize the patient

(Goldberg, 2006), the latter serves to emphasize the patient and de-focus the agent (Shibatani, 1988).

Examples taken from LOCNESS:

Transitive: *The foxes **kill** sheep, hens and scare animals.* alevels3

Intransitive: *If you do not **kill** enough, it is not worth killing at all;* BRSUR1

Passive: *According to Lunde 80% of homicide victims are **killed** by someone they know.* USMIXED

Since all three patterns are different syntactic encodings of transitivity, to avoid the misunderstanding of terms, the authors use *V n* to refer to the transitive pattern, *n V* to refer to the intransitive pattern and *be V-ed* pattern to refer to the passive voice pattern.

3.4.2 The Procedures

This research is done on the basis of comparison between two corpora, the LOCNESS and the SUBWECCL, and between different levels of Chinese EFL learners. The procedures are summarized below:

Step 1: Verb concordancing

The selected verbs will be concordanced one by one in the two corpora, and the results exported to text files.

Step 2: Tagging

The files are tagged to identify the syntactic patterns and arguments of each clause containing the verbs. Every clause is assigned to one of the three different patterns: *V n, n V, be V-ed*. The subjects and objects taken by the verbs are also identified with tags. In some clauses where the subjects are not specified, they will not be counted. For example,

Killing animals for food is a kind of way to spread diseases. WARG2952

The transitive construction *killing animals* in the sentence is used with no specified subjects, therefore, only the objects are tagged and counted. The tagging is conducted by the researcher himself, and then the results are examined by two of the researchers' colleagues, who are associate professors and experienced English teachers. As the tagging involves only recognizing three different syntactic patterns, as well as the subjects and objects of each pattern, this procedure is adequate for the examination. A detailed description of tagging can be found in Appendix E.

Step 3: Tag concordancing

With the help of tags, different syntactic patterns for each verb and arguments taken by the verb are accurately concordanced in both corpora.

Step 4: Counting and comparing

The frequencies of syntactic patterns and arguments of each verb are counted and compared between the two corpora, and the results are displayed in three tables: 1) tables of syntactic patterns, 2) tables of subjects and 3) tables of objects. In the table of syntactic patterns, both the frequencies and proportions of each pattern are calculated. In the tables of subjects and objects, the words are in a sequence of tokens from the highest to the lowest, and the shared words between the two corpora are italicized for specification.

There are two other tables to classify the subjects and objects on the basis of their semantic features. In general, subjects and objects can be classified as human, animate and inanimate. Human beings are further classified into first and second person pronouns, reflexive pronouns and other common words. The cover term such as human, animate and inanimate are listed in capital letters: HUMAN, ANIMATE, INANIMATE, and the sub-classification terms are listed with normal forms with no capitalization.

Step 5: Analyzing

The features in the uses of transitive constructions by Chinese EFL learners' are analyzed in three aspects: syntactic patterns, words for subjects and words for objects. Both similarities and differences in the uses of transitive constructions between the two corpora are accounted for, with special attention paid to differences. The analysis is mainly guided by theory of cognitive linguistics; therefore, the features of Chinese EFL learners' using transitive constructions are explained in the human conceptual mechanism in terms of such universal human cognitive capacities as schematicity, focal adjustment and perspective.

Step 6: Synthesizing

The conceptual mechanism of Chinese EFL learners is sought after synthesizing various conceptual features as indicated by their use of different types of transitive constructions.

The procedures are generally the same for analyzing different levels of Chinese EFL learner data in SUBWECCL.

3.4.3 Qualitative and Quantitative Analysis

Corpus-based research can be quantitative, relying heavily on statistical figures such as frequencies, T-scores, P-values, as shown by Leech's study on the frequency of words in spoken and written English (Leech et al., 2001). It can also be qualitative, focusing on limited sets of words to do a detailed study of their usages in corpora, such as the study performed by Lemmens (1998). Most research falls somewhere between, neither totally quantitative nor totally qualitative.

The current research combines both quantitative and qualitative methods to answer the research questions. The combination of both methods is determined by the

objectives of the current research. The author seeks to examine Chinese EFL learners' use of transitive constructions, and to explain their use of linguistic constructions in terms of their conceptualizations of transitivity. While the former requires a quantitative analysis, the latter requires a qualitative explanation.

A quantitative analysis is the first step in the current research. To examine the features of Chinese EFL learners' use of transitive constructions, it is necessary to have a comparison between different frequencies of usages and make a comparison both between Chinese EFL learners and native speakers, and between different levels of Chinese EFL learners. Then the linguistic features can be explained through a qualitative analysis of the conceptual factors such as *schematicity*, *focal adjustment* and *perspective* (Langacker, 2008) which determine the linguistic forms of a construction.

As language encodes human conceptualization, the similarities and differences in linguistic features between Chinese EFL learners and native speakers can reveal the similarities and differences in their conceptual features and the linguistic features in different levels of Chinese EFL learners can reveal the conceptual development of Chinese EFL learners in English learning. The explanation of linguistic features draws theories in cognitive linguistics, especially the work in cognitive grammar (Langacker, 2008) and construction grammar (Goldberg, 2006).

3.5 Summary

As cognitive linguistics is committed to generalizations, the corpus-based method is preferred in this study to enhance the generalizability of the project, one of the advantages of the study. The comparison of NS and NNS corpora is employed to identify Chinese EFL learners' linguistic features when using transitive constructions.

LOCNESS is chosen as the comparison NS corpus, and SUBWECCL is built as the NNS corpus. The two corpora are comparable in such aspects as corpus size, genre, students' age and compilers. Six groups of verbs are selected for analysis as they are used in six different types of transitive constructions, including prototypical as well as non-prototypical ones. They also have a relative high frequency in both corpora so that the results can be representative of Chinese EFL learners in general. The verbs will be concordanced and the sentences be tagged to identify syntactic patterns and arguments of each transitive construction. Then the results will be counted and analyzed in the next chapter.

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CHAPTER 4

RESULTS AND DISCUSSIONS

This chapter conducts comparisons of the transitive constructions used in LOCNESS and SUBWECCL and discusses the reasons for explaining those results. It is divided into eight sections. Sections 1 to 6 show the results of six different types of transitive constructions. In each section, the author compares the uses between native speakers and Chinese EFL learners and the uses between different levels of Chinese EFL learners. The linguistic features are presented at first, followed by conceptual features. Section 7 synthesizes the linguistic and conceptual features of the six different types of transitive constructions to answer the research questions in a more comprehensive way. The last section wraps up the findings and discussions of the chapter.

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4.1 Transitive Constructions with Prototypical Transitive Verbs

4.1.1 Comparisons between LOCNESS and SUBWECCL

There are four verbs studied in this group: *kill, destroy, resolve,* and *control.* These verbs are generally considered to be prototypical as the subjects and objects they take are usually in maximal opposition in terms of semantic features, where subjects are characterized as [+VOL, +INST, -AFF] and objects are characterized as [-VOL, -INST, +AFF]. But the subjects taken are not always prototypical agents, and there are some deviations from the prototype. For example, the subjects can be instrument [-VOL,

+INST, +AFF] as in *a bullet killed him*, or force [-VOL, +INST, -AFF] as in *the earthquake kills many people*. Notes should be taken that prototypical status of this type of verb such as *kill* does not necessitate their occurrence in the prototypical transitive construction, an example of the flexibility of English verbs

4.1.1.1 Kill

The two corpora are similar in the use of the *V n pattern*. But there is a noticeable difference between them: there is no *n V* pattern used in SUBWECCL, which occurs 14 times and makes up 8% of the total uses of *kill* in LOCNESS. The *be V-ed* pattern is used a little more frequently in SUBWECCL.

Table 4.1 Syntactic Patterns of *kill*

Patterns	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	119	66%	34	67%
n V	14	8%	0	0
be V-ed	47	26%	17	33%
Total	180	100%	51	100%

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Examples:

The *V n* pattern:

*The foxes **kill** sheep, hens and scare animals and so the farmers feel they have every right to **kill** these pests.* alevels3

*But he hates his parents and wants to **kill** his parents, because he thought that his parents prevent him play computer games.* WARG0533

The *n V* pattern:

*It is logical, as Stephan says, that if you do not **kill** enough, it is not worth killing at all;* BRSUR1

The *be V-ed* pattern:

*According to Lunde 80% of homicide victims are **killed** by someone they know.* USMIXED

*…many students have been wounded or even **killed** by the cars…*WARG4463

Subjects

The subjects of *kill* used in the two corpora are listed in Table 4.2. The words used in both corpora are displayed in italicized forms (all tables in the following sections are displayed in the same way).

Table 4.2 Subjects of *kill*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
he	*16*	*we*	*6*
they	*7*	*they*	*5*
Candide	4	*people*	*3*
earthquake	3	cook	1
it	3	disease	1
people	*3*	farmer	1
we	*3*	father	1
you	3	*he*	*1*
foxes	2	Ma Jiajue	1
Hamlet	2	phone	1
Oreste	2	player	1
she	2	child	1
antibiotics	1	trapper	1
Claudius	1		
crowd	1		
farmer	1		
gas	1		
God	1		
one hit	1		
Hugo	1		
Kaliayev	1		
males	1		
mother	1		
nuclear waste	1		
oil	1		
person	1		
resistance	1		
Stuart	1		
testing	1		
troop	1		
who	1		
Ying-Ying	1		

There are three findings displayed:

1) Four words used in both corpora are identified in bold forms as: *he*, *we*, *they* and *people*. While the former three words are pronouns, the latter is general in meaning with no specific references;

2) All four words shared in the two corpora refer to human beings, while other words for subjects are more diversified, including both those words for human beings as well as for inanimate entities such as *earthquake* and *antibiotics* in LOCNESS, and *disease* and *phone* in SUBWECCL.

3) While *we* is the most frequently used word for subjects in SUBWECCL, it is *he* in LOCNESS. It indicates Chinese EFL learners' preference for first person pronouns as subjects.

The table below reveals that the inanimate subjects in LOCNESS are more than twice those in SUBWECCL, whereas there are more human beings employed as subjects in SUBWECCL, especially the first person pronoun, *I*.

Table 4.3 Classification of the Subjects of *kill*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	55	79%	22	92%
1st person	3	5%	6	27%
2nd person	3	5%	0	0
common nouns	49	90%	16	73%
ANIMATE	2	2%	0	0
INANIMATE	13	19%	2	8%
Total	70	100%	24	100%

Objects

There are both similarities and differences in the objects used in the two corpora. *Animals* and *people* are used frequently in both corpora, suggesting the objects are mainly either human beings or animals. While *him* is the most frequently used word in LOCNESS with 11 occurrences, it is *animal* in SUBWECCL with 16 occurrences. Table 4.5 displays the different categories of objects: human, animate, inanimate. Whereas human beings are used as objects in LOCNESS more often than in SUBWECCL, non-human objects appear more often in SUBWECCL than in LOCNESS.

Table 4.4 Objects of *kill*

LOCNESS Objects	**Counts**	**SUBWECCL Objects**	**Counts**
him	11	*animal*	*16*
Hoederer	9	*them*	*3*
people	*9*	*people*	*2*
animal	*6*	time	2
child	4	bird	1
fox	4	boy	1
Jew	4	coyote family	1
them	*4*	fetus	1
brother	3	hawk	1
Caesaria	3	*other*	*1*
chicken	3	parent	1
himself	3	pupil	1
bacteria	2	*somebody*	*1*
each	2	themselves	1
human	2	letter writing	1
it	2		
lover	2		
other	*2*		
person	2		
sheep	2		
someone	*2*		
anyone	1		
baby	1		
Baron	1		
boxer	1		

churchmen	1
citizens	1
Clytemnestre	1
criminal	1
Egisthe	1
everyone	1
father	1
fish	1
Grand	1
her	1
Hugo	1
imagination	1
itself	1
programs	1
king	1
man	1
many	1
murderer	1
offender	1
passenger	1
Polonius	1
population	1
rider	1
somebody	1
son	1
staff	1
wife	1
monkey	1
pest	1
pig	1
plantlife	1
prey	1
rabbit	1
species	1

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Table 4.5 Classification of the Objects of *kill*

Objects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	89	75%	9	26%
ANIMATE	27	23%	22	65%
INANIMATE	3	2%	3	9%
Total	119	100%	34	100%

4.1.1.2 Destroy

It is similar in the use of the *V n* pattern between the two corpora as the percentages are approximately the same at 64.6% and 57.1% respectively. But there is no *n V* pattern in SUBWECCL, which occurs infrequently in LOCNESS too, twice at 4.2%. The *be V-ed pattern* is used more frequently in SUBWECCL (42.9%) than in LOCNESS (31.2%).

Table 4.6 Syntactic Patterns of *destroy*

Patterns	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	31	64.6%	20	57.1%
n V	2	4.2%	0	0
be V-ed	15	31.2%	15	42.9%
Total	48	100%	35	100%

Examples:

The *V n* pattern

*The networks will **destroy** the censorship that is on public television now;* USARG

*Computer games can **destroy** their career.* WlRG3161

The *n V* pattern

*Scientists must continue to strive to understand and improve not **destroy**.* <ICLE-ALEV-0021.8>

The *be V-ed* pattern

*Some homes of animals may be **destroyed**.* alevels3

*…the environment of the suburb will be **destroyed**.* WARG1709

Subjects

The subjects taken by *destroy* are mainly human beings and other animate entities, but inanimate entities (*earthquake, disease*, etc.) serving as force [-VOL, +INST, -AFF] are also frequently used in both corpora. Table 4.8 shows that Chinese EFL learners use fewer animate entities than NSs and first person pronouns occupy a larger proportion among human subjects in SUBWECCL.

Table 4.7 Subjects of *destroy*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
we	*3*	*they*	*2*
he	2	*we*	*2*
earthquake	2	disease	1
Alabama	1	education	1
concern	1	game	1
criminal	1	gas	1
effect	1	*it*	*1*
homosexual	1	man	1
it	*1*	people	1
mentality	1	rain	1
molecule	1	report	1
network	1	system	1
politician	1		
prayer	1		
prosecution	1		
rabbit	1		
they	*1*		
thug	1		

Table 4.8 Classification of the Subjects of *destroy*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	10	45.5%	4	28.6%
1st person	3	30%	2	50%
common nouns	7	70%	2	50%
ANIMATE	1	4.5%	2	14.3%
INANIMATE	11	50%	8	57.1%
Total	22	100%	14	100%

Objects

It is similar in the choice of objects between the two corpora as they are mainly inanimate objects. Table 4.10 below shows obviously that inanimate objects are dominant in both corpora.

Table 4.9 Objects of *destroy*

LOCNESS		**SUBWECCL**	
Objects	**Counts**	**Objects**	**Counts**
censorship	2	environment	2
city	2	ability	1
life	*2*	*animal*	*1*
animal	*1*	atmosphere	1
civilization	1	balance	1
contradiction	1	body	1
cow	1	career	1
credulity	1	child	1
crop	1	*everything*	*1*
everything	*1*	*life*	*1*
exporting	1	*nature*	*1*
future	1	nutrition	1
it	1	pest	1
Miami	1	surviving	1
molecule	1	thinking	1
nature	*1*	tree	1
ourselves	1	*what*	*1*
plant	1		
relationship	1		
separation	1		
society	1		
them	1		
uniqueness	1		
us	1		
use	1		
whatever	*1*		
work	1		
world	1		

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Table 4.10 Classification of the Objects of *destroy*

Objects	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	3	10%	1	5%
ANIMATE	2	6%	3	15%
INANIMATE	26	84%	16	80%
Total	31	100%	20	100%

4.1.1.3 Control

There is no *n V* pattern in either corpus. The *be V-ed pattern* occurs more frequently in LOCNESS.

Table 4.11 Syntactic Patterns of *control*

Patterns	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	35	78%	53	90%
be V-ed	10	22%	6	10%
Total	45	100%	59	100%

Examples:

The *V n* pattern

*The power can become intoxicating to the point of it being the obsession that **controls** a person's life*. USARG

*If we could not **control** ourselves well enough, the varies of bad things can also swallow us…* WARG4284

The *be V-ed* pattern

*I too have been subject and **controlled** by my choices.* USARG

*Now we won't be as ignorant as the old days such as consider rain is **controlled** by god.* WARG0316

Subjects

The subjects in both corpora are similar as the most frequently used subjects are all human beings, such as *they, we, God (human-like), student*. But differences still exist as *we* is apparently used more often in SUBWECCL than in LOCNESS. Table 4.13 shows that while words for human beings occupy a dominant proportion in SUBWECCL, the words for inanimate entities are used much less frequently than in LOCNESS.

Table 4.12 Subjects of *control*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
they	*3*	*we*	*9*
we	*3*	*they*	*7*
God	2	student	3
Bill	1	you	3
brain	1	child	2
Britain	1	*government*	*2*
government	*1*	parent	2
he	*1*	woman	2
madman	1	anyone	1
medication	1	boy	1
Newt	1	computer	1
obsession	1	father	1
person	1	*he*	*1*
staff	1	human	1
pill	1	machine	1
women	*1*	man	1
		mother	1
		no one	1
		people	1
		pupil	1
		regulation	1
		those	1
		university	1
		who	1

Table 4.13 Classification of the Subjects of *control*

Subjects	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	14	66.7%	40	87%
1st person	3	21%	9	22.5%
2nd person	0	0	3	7.5%
common nouns	11	79%	28	70%
INANIMATE	7	33.3%	6	13%
Total	21	100%	46	100%

Objects

The objects used in the two corpora are different. There are more reflexive pronouns used in SUBWECCL, which do not appear in LOCNESS and add the proportion of human beings in SUBWECCL. However, as reflexive pronouns do not add more participants in transitive events, if counted out, the percentage of inanimate entities between LOCENSS and SUBWECCL will be similar.

Table 4.14 Objects of *control*

LOCNESS		SUBWECCL	
Objects	**Counts**	**Objects**	**Counts**
destiny	2	themselves	13
it	*2*	time	7
level	2	himself	3
ailment	1	*it*	*3*
argument	1	*them*	*3*
body	1	yourself	3
computer	1	family	2
Congress	1	*life*	*2*
country	1	ourselves	2
custom	1	population	2
economy	1	you	2
environment	1	everything	1
flow	1	feeling	1
fox	1	house	1
government	1	machine	1
gun	1	mind	1

life	*1*	monster	1
man	1	rate	1
nausea	1	species	1
organism	1	speed	1
other	1	trend	1
pain	1	world	1
people	1		
poor	1		
power	1		
presidency	1		
research	1		
substance	1		
them	*1*		
use	1		
visitation	1		
way	1		
economy	1		

Table 4.15 Classification of the Objects of *control*

Objects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	3	8.6%	27	48.2%
reflexives	0	0	21	77.8%
INANIMATE	32	91.4%	26	51.8%
Total	35	100%	53	100%

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4.1.1.4 Solve

There is no *n V* pattern used in either corpus. The *be V-ed pattern* is used less frequently in SUBWECCL

Table 4.16 Syntactic Patterns of *solve*

Patterns	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	36	72%	129	86.6%
be V-ed	14	28%	20	13.4%
Total	50	100%	149	100%

Examples:

The *V n* pattern

*A simple compromise would **solve** the problem that the United States has been faced with for many years.* <ICLE-US-SCU-0007.3>

*I agree with those who think the governments can alleviate or **solve** the problem.* WARG3108

The *be V-ed* pattern

The problem can be **solved** only by providing more training and retraining of low-skilled workers. USARG

The famous people's predicament can be **solved** in two ways. WARG1842

Subjects

There are both human beings and inanimate entities serving as subjects in the two corpora. Most subjects in LOCNESS are inanimate, whereas they are human (*we, they, people, you*) in SUBWECCL. *We* is by far the most frequently used subject in SUBWECCL. Other than human subjects, *way* is used 8 times in SUBWECCL and once in LOCNESS. It is an idiomatic collocating word and Chinese EFL learners use it more often than NSs. Table 4.18 shows that non-human subjects in LOCNESS and SUBWECCL occur at 52.6% and 24.8% respectively, the former nearly twice as large as the latter. Human beings are the most frequently used subjects in SUBWECCL.

Table 4.17 Subjects of *solve*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
acquaintance	1	*we*	*36*
bag	1	government	12
compromise	1	*they*	*10*
contract	1	*way*	*8*
death	1	people	7
electronics	1	you	6

he	*1*	*it*	*5*
it	*1*	child	2
lawmaker	1	country	2
official	1	method	2
person	*1*	moving	2
scheme	1	student	2
scientist	1	operation	1
separating	1	Chinese	1
staff	1	computer	1
they	*1*	department	1
Voltaire	1	*he*	*1*
way	*1*	making	1
we	*1*	other	1
		ourselves	1
		person	*1*
		solution	1
		that	1
		citizen	1
		these	1
		which	1
		youth	1

Table 4.18 Classification of the Subjects of *solve*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	9	47.4%	82	75.2%
1st person	1	11.1%	37	45.1%
2nd person	0	0	6	7.3%
common nouns	8	88.9%	39	47.6%
NON-HUMAN	10	52.6%	27	24.8%
Total	19	100%	109	100%

Objects

Problem occurs most frequently in both corpora, and far outnumbers other words. *Solve problem* as a lexical bundle is entrenched in both corpora.

Table 4.19 Objects of *solve*

LOCNESS		**SUBWECCL**	
Objects	**Counts**	**Objects**	**Counts**
problem	*23*	*problem*	*90*
equation	2	them	12
anything	1	*it*	*9*
case	1	issue	5
conflict	*1*	question	4
confusion	1	*this*	*2*
dispute	1	affair	1
fault	1	competition	1
it	*1*	*conflict*	*1*
puzzle	1	difficulty	1
situation	*1*	pollution	1
sum	1	*situation*	*1*
this	*1*	trouble	1

4.1.1.5 Linguistic Features

The similarities and differences in using transitive constructions with prototypical transitive verbs (TCPV) are displayed in the following aspects:

(1) The *V n* pattern and the *be V-ed* pattern are used in both corpora; However, Chinese EFL learners do not use the *n V* pattern and they use the *be V-ed* pattern inconsistently for the prototypical transitive verbs.

(2) The subjects include both animate entities (mainly human beings) as the agent and inanimate ones as the force in both corpora, but Chinese EFL learners use more human beings (especially the first and second person pronouns) as subjects. They also use more collocating words as objects.

Syntactic patterns

For the four verbs examined here, the *n V pattern* appears in LOCNESS with two verbs: *kill* and *destroy*, whereas it does not appear in SUBWECCL at all, as Fig. 4.1 shows. In the use of the *be V-ed* pattern, the uses are not uniform regarding the four verbs in the two corpora. While NSs use less passive voice than Chinese EFL learners

with *kill* and *destroy,* they use it more with *control* and *solve*. One function of the passive voice is to emphasize the patient, the affected participant in a transitive relationship. The ratio variation in the use of passive voice of the four verbs is more constant in LOCNESS (26%, 31%, 22%, 28%) than in SUBWECCL (17%, 43%, 10%, 13%), as the figure below shows. Chinese EFL learners use the passive voice inconsistently. The ratio could be as high as 43% and as low as 10%, in a marked contrast with NSs.

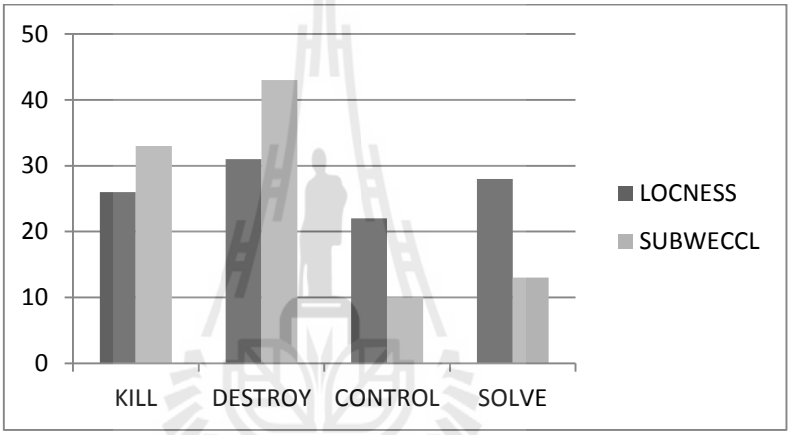

Figure 4.1 Use of the *be V-ed* Pattern in TCPV

Arguments

The differences lie not only in syntactic patterns, but also in the arguments taken by the four verbs. There are more inanimate subjects used in LOCNESS than in SUBWECCL (except *destroy*, where the numbers of inanimate subjects are approximate), as Fig. 4.2 shows. Chinese EFL learners also rely heavily on first person pronouns in comparison with NSs when using humans as subjects as Fig. 4.3 shows.

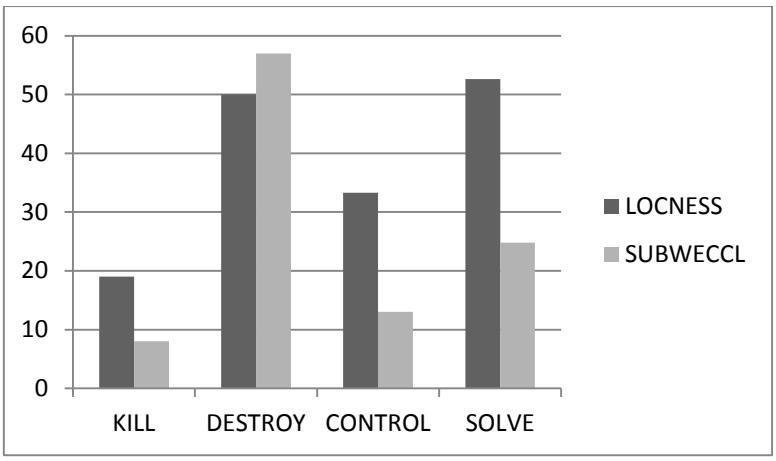

Figure 4.2 The Subjects in TCPV

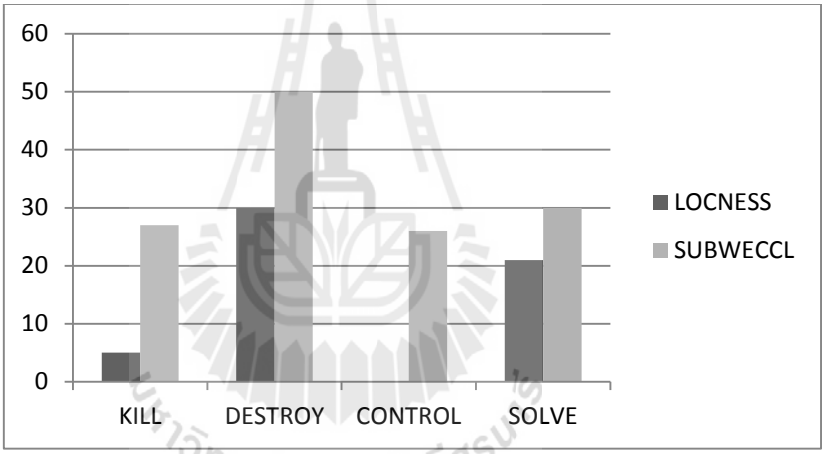

Figure 4.3 First and Second Person Pronouns Used as Subjects in TCPV

In the choice of objects taken by the four verbs, there are also dramatic differences between the two corpora. The objects of both *kill* and *destroy* consist of both human beings and non-human beings, suggesting a similarity between the two corpora. The objects of solve are all inanimate entities, with *problem* being the most frequent in both corpora as a collocating word. But the objects of *control* are different in the two corpora with more uses of reflexives in SUBWECCL.

4.1.1.6 Conceptual Features

The linguistic features in using this type of transitive constructions reveal that:

(1) Chinese EFL learners are biased toward encoding both the agent and patient with the *V n* pattern even when the patients can be omitted in certain contexts.

(2) Chinese EFL learners' use of reflexive pronouns as the object also displays the transitive bias as it transitivizes the one-participant relationship into a two-participant relationship.

(3) Chinese EFL learners are more constrained by the prototypical mapping between the agent and the subject and are against the deviating mapping between the force and the subject.

Transitive Bias

For all four verbs, an unbalanced relationship is maintained between the agent and patient (Lakoff, 1987). Prototypical transitive verbs usually take objects. Therefore, the *n V* pattern as objectless transitive is a deviation from the prototypical transitive construction. No matter whether the verbs take objects or not, all of them involve two participants in conceptualization with different degrees of salience, where the agent acts as the source of energy, transferring the energy to the patient and resulting in a change in the patient, the end point of the energy transfer. *Kill* causes the most obvious effect, by which the agent carries out the act with the result that the patient loses life. *Destroy* carries similar force and the patient involved loses its original condition to the extent that it is no longer the entity it was originally. *Control* is less severe in its cause-effect on the patient; nevertheless, the patient is in a subordinate position dominated by the agent. *Solve* transfers the energy from the agent to the patient with the result that the patient disappears. As the action involves two participants automatically and the patient

is affected in this process, they are encoded in the form of subject and object in syntax. The change in the state of the patient naturally tends to attract attention. Therefore, the object appears almost as a default value and most constructions with prototypical transitive verbs are used with an object. The agent and patient are realized in linguistic forms as trajector and landmark respectively, the primary and secondary focus, and the starting and end point of energy transfer (Langacker, 1987, 1991).

However, language is flexible to adjust in accordance with different ways of human conceptualizations. The speaker can put emphasis on the subject; therefore, less attention is given to the patient involved. Then, the original two participants' relationship can be abridged as if there was no other participant involved. It is an example of conceptual devices functioning in the language.

As a result, *kill* and *destroy* can be used without objects although usually they do take it. Nass considered *objectless transitives* as one kind of IOD (indefinite object deletion) (Næss, 2011). Goldberg considered iteration as a constraint to omit objects (Goldberg, 2006). Though the caused effect is obvious on the patient, the iteration of events makes them less salient than an isolated occurrence. Furthermore, the patients seem endless to the extent that the action cannot be completed, violating the telic parameter of prototypical transitivity (Hopper & Thompson, 1980). The deviation from the prototype causes the change in form from a full transitive to an objectless transitive.

Goldberg (2005) named the objectless transitive as de-profiled object construction. While admitting that focal arguments cannot be omitted, she said:

> In many languages including Chinese, Japanese, Korean, Hindi, Hungarian and Laos any given, non-focal argument can be omitted. In English, with a few lexical exceptions (Fillmore, 1986), all topical arguments must be expressed. However, if the action is particularly emphasized (by repetition, contrast, etc.), it is possible to omit arguments that are both predictable (non-focal) and non-relevant (non-topical) in English (2005, pp. 30-31).

Goldberg considers the object omission can find motivation from Grice's Maxim of Quantity that "say no more than is necessary" (Grice, 1975) since the non-focal and non-topical arguments can be reduced in prominence to the extent of omission with the emphasis on the predicate. Since there are constraints on object omission, such uses are not common, requiring additional mental effort under certain contexts. Therefore, it only occupies a fraction of the total uses of *kill* and *destroy* in LOCNESS. Naturally, it is avoided by Chinese EFL learners (such avoidance is mostly unconscious), although there are more such uses for their counterpart words in Chinese. Goldberg considers Chinese allows non-focal arguments omission and English is more restrictive in this aspect. For example:

Ni yao sha, yao da chong zhe wo lai, ganma qianche wode pengyou. (BLCU Chinese corpus)

If you want to kill and fight, you look for me. Why did you look for my friends? (My translation)

Language transfer cannot explain such phenomena, because what influences Chinese EFL learners' choice of syntactic forms relies on their conceptualization, which is related to their L1 but in conflicts with their L2. The more basic and more prototypical use is the easiest to be evoked in their mind. Therefore, the default use of two participants involved in a prototypical transitive relationship appears more attractive to them.

Reflexive pronouns as a means of transivitization

Reflexive pronouns are used frequently as objects for *control* by Chinese EFL learners. For example,

Qing ni kongzhi yixia ni ziji, bu yao guofen chongdong. Y:UN (BCC)

Please control yourself and don't be impulsive. (My translation)

It is in accordance with Chinese EFL learners' conceptualization of the prototypical transitive construction, where two participants act as the agent and patient. The feature of reflexives is that it can conceptually change a one-participant event into a two-participant event where the agent and the patient are the same. Note that it is only conceptual because in reality there is only one participant. As *control* is a prototypical transitive verb, the urge to add a patient to fill the position of object is so strong that Chinese EFL learners use them unconsciously in such a way though it is different from the use of NSs.

Chinese EFL learners use reflexives frequently whereas they are used rarely by NSs. While *controlling oneself* is a one-participant action, Chinese EFL learners encode it with both the agent and patient as if it were prototypically transitive, suggesting that Chinese EFL learners are relying on prototype transitivity to categorize such less prototypical action by means of using reflexive pronouns.

Prototypical mapping between the agent and subject

It is natural for the subject of TCPV to be animate as the agent is characterized as [+VOL, -INST, -AFF]. In most cases, the role is fulfilled by human beings, but there are exceptions, where the subject is fulfilled by inanimate objects, which is obviously not volitional. Such exceptions are deviations from the prototype, and using deviating patterns require additional mental effort. The data here indicated that Chinese EFL learners use less inanimate entities as subjects.

We cannot induce such phenomenon is caused by language transfer because there are apparently abundant such uses in Chinese. The particularity in their choice of

subjects of TCPV can only be explained by Chinese EFL learners' particular way of conceptualization, which is dependent on the conceptual base of L1. Chinese EFL learners' language is more like primitive L1 learners. It is more fundamental in conceptualization in the sense that it relies more on the direct embodiment of reality and lacks the conceptual distortion, which characterizes NNS' language use.

4.1.2 Comparisons between Different Levels in SUBWECCL

4.1.2.1 Syntactic Patterns

The *V n* pattern and *be V-ed* pattern are found in all three levels, and the *V n* pattern far outnumbers the *be V-ed* pattern. Uses of the two patterns show similarities between the three different levels as indicated by the table below.

Table 4.20 TCPV Used by Different Levels of Learners

Patterns	Level 1		Level 2		Level 3	
	Counts	**Proportion**	**Counts**	**Proportion**	**Counts**	**Proportion**
V n	81	82.7%	68	81%	87	77.7%
be V-ed	17	17.3%	16	19%	25	22.3%
Total	98	100%	84	100%	112	100%

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4.1.2.2 Argument

We is the most frequently used subject across all three levels. There are eight words used in common at all three levels: *we, they, you, government, child, way, people* and *it*, which are also the most frequently used subjects for each level.

Problem is the most frequently used object across all three levels. There are seven words used in common among all three levels: *animal, it, life, problem, them, themselves* and *time*, which are also among the most frequently used word for objects.

Table 4.21 The Subjects of TCPV Used by Different Levels of Learners

Level 1		**Level 2**		**Level 3**	
Subjects	**Counts**	**Subjects**	**Counts**	**Subjects**	**Counts**
we	*21*	*we*	*15*	*we*	*16*
they	*7*	*they*	*8*	*they*	*9*
you	*6*	*government*	*6*	*government*	*5*
people	*4*	*people*	*5*	*it*	*4*
student	4	*way*	*2*	*way*	*4*
government	*3*	*child*	*1*	*people*	*3*
child	*2*	cook	1	*child*	*2*
way	*2*	country	1	*you*	*2*
boy	1	disease	1	operation	1
computer	1	father	1	anyone	1
disease	1	gas	1	Chinese	1
education	1	it	1	computer	1
game	1	mother	1	country	1
he	1	parent	1	department	1
human	1	rain	1	farmer	1
it	*1*	student	1	father	1
making	1	trapper	1	he	1
man	1	who	1	him	1
method	1	*you*	*1*	Ma Jiajue	1
moving	1	youth	1	machine	1
other	1			man	1
parent	1			method	1
person	1			moving	1
player	1			no one	1
system	1			ourselves	1
that	1			phone	1
these	1			pupil	1
women	1			regulation	1
				report	1
				solution	1
				citizen	1
				those	1
				university	1
				which	1
				woman	1

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Table 4.22 The Objects of TCPV Used by Different Levels of Learners

Level 1		**Level 2**		**Level 3**	
Objects	**Counts**	**Objects**	**Counts**	**Objects**	**Counts**
problem	*27*	*problem*	*18*	*problem*	*45*
themselves	*9*	*them*	*11*	*it*	*6*
them	*5*	*animal*	*10*	*animal*	*3*
animal	*4*	*time*	*4*	environment	2
it	*4*	issue	3	issue	2
question	3	*themselves*	*3*	*them*	*2*
time	*3*	*it*	*2*	*themselves*	*2*
yourself	3	atmosphere	1	this	2
himself	2	bird	1	*time*	*2*
ability	1	child	1	you	2
balance	1	conflict	1	affair	1
body	1	coyote family	1	boy	1
career	1	everything	1	hawk	1
competition	1	family	1	himself	1
difficulty	1	feeling	1	image	1
everything	1	fetus	1	letter writing	1
family	1	image	1	*life*	*1*
house	1	*life*	*1*	mind	1
life	*1*	nature	1	monster	1
machine	1	ourselves	1	nutrition	1
other	1	people	1	ourselves	1
pollution	1	pest	1	parent	1
population	1	species	1	people	1
pupil	1	tree	1	population	1
rate	1			question	1
situation	1			somebody	1
speed	1			surviving	1
thinking	1			trend	1
trouble	1			what	1
world	1				

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4.1.2.3 Linguistic Features

All three levels use only two patterns: *V* n and *be V-ed*, in approximately the same percentage; no *n V* pattern is used.

The words used for subjects across three levels are similar and most of them refer to human beings acting as agents. The uses of objects across three levels are also

similar and all three levels use collocating words for objects frequently.

The similarity between the three levels is indicated by a large proportion of shared words for arguments, as the table below shows.

Table 4.23 Similarities of Arguments in TCPV

Levels	Subject			Object		
	Number	**Total**	**Percentage**	**Number**	**Total**	**Percentage**
Level 1	46	69	66.7%	53	81	65.4%
Level 2	38	51	74.5%	49	68	72.1%
Level 3	45	72	62.5%	61	87	70.1%

4.1.2.4 Conceptual Features

Linguistic features in the use of TCPV reveal that all Chinese EFL learners stick to a particular way of conceptualization:

The *n V* pattern is used less frequently in English as it deviates from the conceptualization of prototypical transitivity through the de-emphasis of the patient, which is usually mapped to the object.

All learners use more animate words for subject and inanimate words as object; the words for subjects and objects are at the two endpoint of the animacy hierarchy, and transitivity is high in value for all three levels, which characterizes prototypical transitive constructions. Furthermore, *we* and *you* are at the highest position on the animacy hierarchy.

All three levels rely heavily on formulaic expressions (*way* as subject and *time, problem* as object) in using transitive constructions.

4.1.3 Conclusion

Chinese EFL learners are more constrained by the prototypical transitive constructions: They are biased toward using the *V n* pattern with prototypical transitive verbs. They are against the omission of objects as it violates the mapping relation between the patient and object and they encode the patient into the object in all contexts even when the objects can be omitted as the patients are insalient in certain contexts. Reflexive pronouns are also frequently used by Chinese EFL learners as a means of transivitization to encode the one-participant event with the *V n* pattern. They use less inanimate entities as the subjects of transitive constructions, indicating the effect of the prototypical mapping of the agent with the subject. In comparison, native speakers are less constrained by the prototypical mapping.

All three levels in SUBWECCL are similar in their use of TCPV in terms of syntactic patterns and the choice of subjects and objects. The similarity in use indicates that Chinese EFL learners are similar in their conceptualization of the transitivity represented by the prototypical transitive verbs despite their different levels in English learning.

4.2 Transitive Constructions with Affected Agents

4.2.1 Comparisons between LOCNESS and SUBWECCL

The affected agent was recognized early in linguistics, which distinguishes itself from non-affected agents both semantically and syntactically (Saksena, 1980). The indeterminacy regarding whether ingestive verbs should be used transitively or intransitively poses problems for Chinese EFL learners. The ingestive verbs to be examined in this section are: *eat, read, learn* and *study,* as they are generally recognized

as belonging to this category (Næss, 2011), and because they are relatively high in frequency. Their common semantic feature is that the subjects are affected as the result of the action, characterized as [+VOL, -INST, +AFF].

4.2.1.1 Learn

In total, *learn* is used much more frequently in SUBWECCL (666 tokens) than in LOCNESS (54 tokens), not a surprise as learning is at the center of Chinese EFL learners' life.

Different patterns are used differently between the two corpora. While the *n V* pattern occurs most frequently in LOCNESS, it is the *V n pattern* in SUBWECCL. The *be V-ed pattern* is used far less than other patterns in both corpora, especially in SUBWECCL.

Table 4.24 Syntactic Patterns of *learn*

Patterns	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	25	46.3%	394	59.2%
n V	27	50%	270	40.5%
be V-ed	2	4.7%	2	0.3%
Total	54	100%	666	100%

Examples:

The *V n pattern*

*As children grow up, they **learn** morals from their religious community.* USARG

*You can not only **learn** a lot of new words, you can also know more about the world.* WARG3485

The *n V* pattern

*The rules don't give you a chance to make a mistake so that you can **learn** from it.*

USARG

*You can develop together and **learn** from each other.* WARG3399

The *be V-ed* pattern

*People are understanding that prejudice and discrimination are not consciously **learned**...* USARG

*We can use the knowledge which is **learned** gradually to keep step of the quickly developed society.* WARG4055

Subjects

All the subjects in both corpora refer to human beings as shown in Table 4.21. It is natural as only human beings have the ability to learn (perhaps with the exception of a few animals, such as apes, dogs, or robots, but that is not used in the common sense of *learn*). However, the words for human beings used in the two corpora are different. *We* and *you* are among the most frequently used words in SUBWECCL. Table 4.26 shows that the first and second person pronouns occupy more than half of the total uses in SUBWECCL, whereas only first person pronouns occur in LOCNESS and occupy only 22.2%, much less than in SUBWECCL.

Table 4.25 Subjects of *learn*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
student	*4*	*we*	*125*
they	*4*	*you*	*40*
I	*3*	*child*	*32*
child	*1*	they	28
group	1	*people*	*17*
Oreste	1	*student*	*13*
Pangloss	1	everyone	4
people	*1*	he	4
society	1	Chinese	3
we	*1*	*I*	*3*

men	1	graduate	2
		one	2
		person	2
		learner	1
		anyone	1
		everybody	1
		reader	1
		teenager	1
		those	1

Table 4.26 Classification of the Subjects of *learn*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
1st person	4	22.2%	128	45.6%
2nd person	0	0	40	14.2%
common nouns	14	77.8%	113	40.2%
Total	18	100%	281	100%

Objects

The objects used in SUBWECCL are more general in meaning as indicated by the frequency of *knowledge* and *thing*, which occur much less in LOCNESS.

Table 4.27 Objects of *learn*

LOCNESS		**SUBWECCL**	
Objects	**Counts**	**Objects**	**Counts**
language	*2*	English	61
moral	2	knowledge	54
much	2	thing	40
a great amount	1	what	32
a lot	*1*	skill	25
abstinence	1	*something*	*24*
anything	1	*a lot*	*17*
background	1	*language*	*17*
fact	1	competition	12
idea	*1*	it	8
importance	*1*	*lesson*	*7*
information	*1*	word	7
lesson	*1*	cooperation	6

message	1	*them*	*5*
nothing	1	ability	4
revolt	1	compete	4
sacredness	1	experience	4
something	*1*	major	4
Spanish	1	both of them	3
them	*1*	nothing	3
truth	1	spirit	3
value	1	culture	2
		idea	*2*
		live	2
		quality	2
		reading	2
		rule	2
		subject	2
		virtue	2
		whatever	2
		all	1
		anything	1
		beauty	1
		bravery and resolution	1
		cleaning	1
		confidence	1
		course	1
		curriculum	1
		event	1
		expertise	1
		habit	1
		imitate	1
		importance	*1*
		independence	1
		information	*1*
		insist	1
		literature	1
		meaning	1
		means	1
		method	1
		one	1
		philosophy	1
		point	1
		power	1
		reality	1
		sentence	1
		speaking	1
		teamwork	1
		tender and care	1

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	the more	1
	tongue	1
	usage	1
	use	1
	violence	1
	which	1
	world	1

4.2.1.2 Read

The *V n pattern* and the *n V* pattern occupy most proportion in both corpora, whereas the *be V-ed* pattern occurs only for a few times. But the *be V-ed* patterns are used even less in SUBWECCL (2.2%) than in LOCNESS (4.7%).

Table 4.28 Syntactic Patterns of *read*

Patterns	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	53	81.5%	102	73.3%
n V	9	13.9%	34	24.5%
be V-ed	3	4.6%	3	2.2%
Total	65	100%	139	100%

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Examples:

The *V n* pattern

*They should **read** books and live more in order to regain their lost imagination and sense of adventure.* alevels6

*If we just **read** books for a long time, we will fell dull.* WARG1614

The *n V* pattern

*This technique catches the readers attention just enough to keep them **reading**.* USARG

*And we should **read** loudly.* WARG3629

The *be V-ed* pattern

*These works can be **read** in conjunction with each other and to some extent 'Caligula' is an answer to the ideals…* BRSUR1

*Books can be **read** at any time and at any place …WARG2190*

Subjects

The subjects used in both corpora are similar as indicated by the most frequently used words, which are exactly the same in both corpora: *we, I, they, you* and *people*. Their differences lie mainly in the percentages of each word. Table 4.30 indicates that the subjects used in SUBWECCL still rely heavily on first and second person pronouns, which are at 69.6% whereas they are at 48.1% in LOCNESS. There are also a few inanimate words (*slogan, it*) used as subjects in LOCNESS, which do not appear in SUBWECCL.

Table 4.29 Subjects of *read*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
we	*6*	*we*	*18*
I	*4*	*you*	*13*
they	*3*	*I*	*7*
you	*3*	*people*	*4*
people	*2*	*they*	*3*
the public	2	*he*	*2*
audiences	1	everyone	1
child	1	girl	1
he	*1*	*less of them*	*1*
it	1	*most of us*	*1*
one	*1*	*one*	*1*
recipient	1	other	1
slogan	1	person	1
those	1	roommate	1
		teacher	1

Table 4.30 Classification of the Subjects of *read*

Subjects	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	27	96.4%	56	100%
1st person	10	37%	26	46.4%
2nd person	3	11.1%	13	23.2%
common nouns	14	51.9%	17	30.4%
INANIMATE	1	3.6%	0	0
Total	28	100%	56	100%

Objects

Objects in LOCNESS are more diversified. One obvious feature in SUBWECCL is that *book* is used 47 times, almost half of all the objects used in SUBWECCL, whereas it occurs only 4 times in LOCNESS. *Book* is a default collocating word for *read* with no specific meaning. *Something, thing* and *material* are also used in SUBWECCL, which are more general in meaning.

Table 4.31 The Objects of *read*

LOCNESS Objects	Counts	SUBWECCL Objects	Counts
literature	6	*book*	*47*
work	*5*	*it*	*7*
article	*4*	*newspaper*	*7*
book	*4*	*article*	*5*
what	*3*	material	4
it	*2*	*essay*	*3*
magazine	2	news	3
paper	2	*story*	*3*
story	*2*	letter	2
this	2	*novel*	*2*
argument	1	*report*	*2*
bible	1	sentence	2
essay	*1*	*work*	*2*
how to win	1	a lot	1
journal	1	anything	1
La Chute	1	biography	1

life	1	composition	1
map	1	English	1
Martin Luther King	1	motto	1
motto	1	nature	1
newspaper	*1*	passage	1
novel	*1*	rubbish	1
slogan	1	screen	1
play	1	something	1
program	1	them	1
quote	1	thing	1
report	*1*	*what*	*1*
source	1		
statement	1		
the Color Paper	1		
titles	1		

4.2.1.3 Study

There is no *be V-ed* pattern used in SUBWECCL, and the *n V* pattern is used more frequently than in LOCNESS, whereas the *V n* pattern is used less in SUBWECCL, only a fraction of that in LOCNESS.

Table 4.32 Syntactic Patterns of *study*

Patterns	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	25	69.5%	47	14.4%
n V	3	8.3%	279	85.6%
be V-ed	8	22.2%	0	0
Total	36	100%	326	100%

Examples:

The *V n* pattern

*They feel that teachers just **study** the material and feed it back to the students.* USARG

*We **study** the knowledge in the school, find a good job, get a better job…*

WARG2193

The *n V* pattern

*College students also need to **study**. And their burden may be even heavier than that in high school.* WARG2124

The *be V-ed* pattern

*Schools that are teaching sex education are being **studied** to see if sex education in the classroom is effective in the goal to promote education.* USARG

Subjects

We is used much more frequently in SUBWECCL as subject. Other words like *they, students, I,* and *you* are also used in both corpora. They are all words referring to human beings, but it seems that Chinese EFL learners are more self-centered with more uses of first person pronouns. The first and second person pronouns occupy more than half of the total uses of subjects, as shown in Table 4.34.

Table 4.33 Subjects of *study*

LOCNESS Subjects	**Counts**	**SUBWECCL Subjects**	**Counts**
student	*3*	*we*	*9*
I	*2*	*they*	*4*
Einstein	1	*student*	*3*
Pettigrew	1	*you*	*2*
teacher	1	*I*	*1*
they	*1*	learner	1
we	*1*	people	1
who	*1*	*those who*	*1*
you	*1*		

Table 4.34 Classification of the Subjects of *study*

Subjects	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
1st person	3	25%	10	45.5%
2nd person	1	8.3%	2	9%
common nouns	8	66.7%	10	45.5%
Total	12	100%	22	100%

Objects

The object used in LOCNESS is more diversified, covering different kinds of knowledge and the specific fields in knowledge. Chinese EFL learners rely on two words: *English* and *knowledge*. *English* is the subject proper that they are dealing with every day as English learners. *Knowledge* is a general word with no specific meaning, which is often omitted to produce objectless transitives. Other words such as *thing, material* and *field* in SUBWECCL are also general in meaning.

Table 4.35 Objects of *study*

LOCNESS		SUBWECCL	
Objects	**Counts**	**Objects**	**Counts**
literature	2	English	19
theory	2	knowledge	12
creation	1	*it*	*3*
difference	1	*language*	*3*
drug	1	*subject*	*2*
field	*1*	thing	2
France	1	*field*	*1*
it	*1*	lesson	1
language	*1*	*material*	*1*
marijuana	1	Photoshop	1
material	*1*	skill	1
myth	1	*word*	*1*
physics	1		
plant	1		
problem	1		
relation	1		

role	1
society	1
subject	*1*
technology	1
textbook	1
word	*1*
writing	1

4.2.1.4 Eat

The *V n pattern* is used more often in LOCNESS, while the *n V* pattern is more frequently used in SUBWECCL. The *be V-ed* pattern occurs at 8.2% of total use in LOCNESS but none appears in SUBWECCL.

Table 4.36 Syntactic Patterns of *eat*

Patterns	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	82	83.6%	45	63.4%
n V	8	8.2%	26	36.6%
be V-ed	8	8.2%	0	0
Total	98	100%	71	100%

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Examples:

The *V n* pattern

*As they believe that the BSE can be passed on to humans when they **eat** beef.* alevels9

*They hunted many animals, and **ate** their meat, even used their furs to make food and clothing.* WARG0331

The *n V* pattern

*When we were child, we knew how to **eat**, dress ourselves, read books and so on by studying.* WARG4437

*So if one wants to **eat**, have some where to sleep, have transportation and clothing, the almighty dollar is a must.* USARG

The *be V-ed* pattern

*Beef could cease to be **eaten** by people in the UK because of the increased disease related to beef consumption.* alevels9

Subjects

The three most frequently used subjects are *people, they* and *we* in both corpora. While *we* is the most frequent word in SUBWECCL, it is *people* in LOCNESS. Table 4.38 further shows that both corpora rely heavily on human beings as subject. However, there are more uses of first and second person pronouns in SUBWECCL, standing at 47.3% in comparison with 13.3% in LOCNESS.

Table 4.37 Subjects of *eat*

LOCNESS Subjects	**Counts**	**SUBWECCL Subjects**	**Counts**
people	*17*	*we*	*12*
they	*12*	*people*	*7*
we	*4*	*they*	*6*
he	*2*	you	3
I	*2*	*he*	*2*
animal	1	*I*	*2*
bug	1	Adam	1
Candide	1	dog	1
customer	1	hawk	1
everyone	1	mankind	1
fox	1	*most of us*	*1*
human	1	person	1
many	1	pet	1
no one	1	she	1
nobody	1		
resident	1		
sheep	1		

Table 4.38 Classification of the Subjects of *eat*

Subjects	LOCNESS		SUBWECCL	
	frequency	**proportion**	**frequency**	**proportion**
HUMAN	45	91.8%	38	92.7%
1st person	6	13.3%	14	36.8%
2nd person	0	0	4	10.5%
common nouns	39	86.7%	20	52.7%
ANIMATE	4	8.2%	3	7.3%
Total	49	100%	41	100%

Objects

Beef and *animals* are the most frequently used objects in LOCNESS and SUBWECCL respectively. Schematicity is indicated by the frequent use of general meaning words such as *food*, *meal*, and *thing* in SUBWECCL. The objects are either animate or inanimate in both corpora, but they all serve as the food for human beings.

Table 4.39 The Objects of *eat*

LOCNESS Objects	Counts	SUBWECCL Objects	Counts
beef	*50*	*animal*	*8*
meat	*12*	*food*	*6*
feed	2	*meat*	*6*
it	2	breakfast	2
anything	1	nothing	2
crop	1	pork	2
dinner	1	*them*	*2*
food	1	vegetables	2
hamburger	1	*what*	*2*
lamb	1	apple	1
livestock	1	beef	1
meal	*1*	dog	1
nuts	1	fish	1
animal	*1*	fruit	1
people	1	it	1
plant	1	litchi	1
soybean	1	lunch	1

steak	1	*meal*	*1*
them	*1*	rat	1
what	*1*	rice	1
		the fresh	1
		thing	1

4.2.1.5 Linguistic Features

The comparison of the two corpora exhibits both similarities and differences in the use of ingestive verbs. There are three features deserving notice in the use of ingestive verbs by Chinese EFL learners.

1) Both NSs and Chinese EFL learners use ingestive verbs transitively and intransitively as found in the two corpora, but Chinese EFL learners use the intransitive pattern more frequently; Chinese EFL learners are lacking in their use of the *be V-ed* pattern;

2) Chinese EFL learners use more the first and second person pronouns as subjects and more general meanings words as objects;

3) Chinese EFL learners' use of *learn* and *study*, which are similar in meaning but are used differently regarding transitive alternation.

Syntactic patterns

Ingestive verbs are used in *n V* pattern frequently by both Chinese EFL learners and NSs. An interesting result is that except for *learn* for which the frequencies of intransitive uses in the two corpora are approximate, the other three verbs are all used with more intransitive use in SUBWECCL than in LOCNESS, as indicated Fig. 4.4.

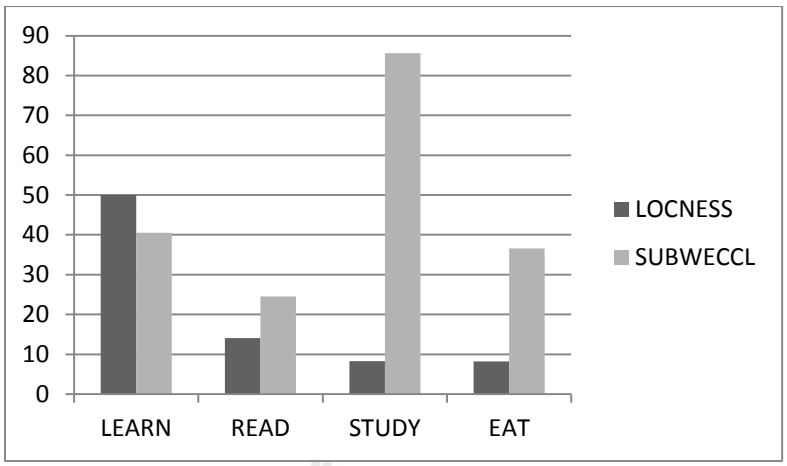

Figure 4.4 Use of the *n V* pattern in TCAA

In comparison with Chinese EFL learners' frequent use of intransitive patterns, their use of the *be V-ed* pattern is rare, even completely missing in the case of *eat* and *study*, as displayed in Fig. 4.5.

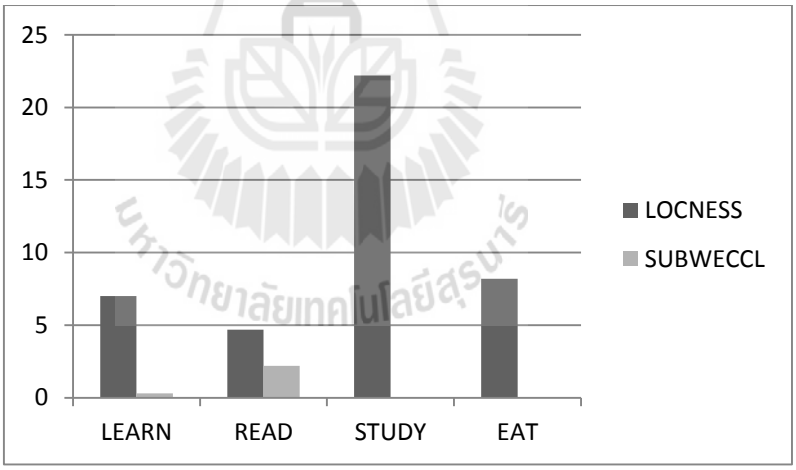

Figure 4.5 Use of the *be V-ed* pattern in TCAA

Arguments

As the four verbs mainly refer to the human action, the subjects used are mainly human beings both in LOCNESS and SUBWECCL, but there are still major differences in the choice of subjects. Chinese EFL learners rely more on first person pronouns in choosing subjects, a symbol of higher animacy according to Dixon's animacy hierarchy

(Dixon, 1994), as indicated by Fig. 4.6.

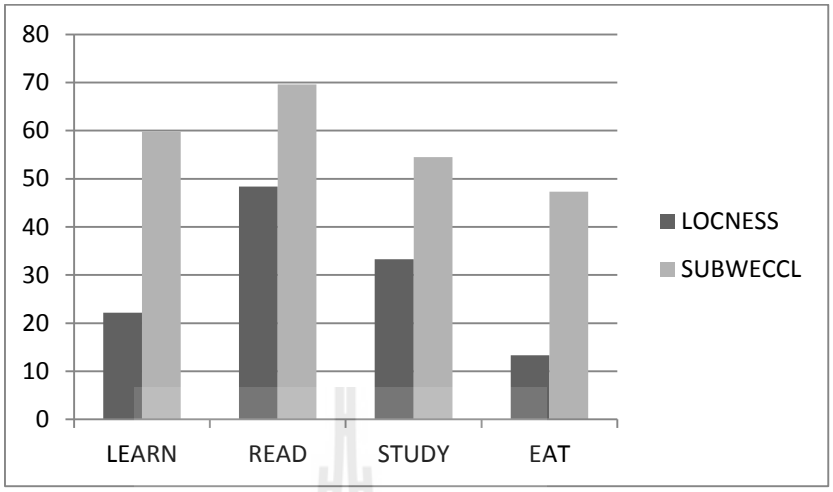

Figure 4.6 Use of First and Second Person Pronouns as Subjects in TCAA

In comparison with NSs, Chinese EFL learners are more likely to focus on themselves in using transitive constructions, as if the events expressed by transitive constructions were around them and their interest was not beyond their reaches.

One feature in the objects used by Chinese EFL learners is their use of general meanings words as objects. For examples, *learn things, read books, study knowledge* and *eat food.* In these constructions, *thing, food, knowledge* and *food* are all general words with no specific meaning, which are usually omitted. But they appear quite frequently in SUBWECCL,

Learn* and *study

An interesting result is shown with the use of *learn* and *study*. They are similar in meaning, but NSs use more intransitive patterns with *learn* and more transitive patterns with *study*. It is the opposite for Chinese EFL learners, who use more intransitive patterns with *study* and more transitive patterns with *learn*. It seems that Chinese EFL learners differentiate between the uses of *learn* and *study* through syntactic means.

4.2.1.6 Conceptual Features

The linguistic features reveal that Chinese EFL learners conceptualize in a default way following the prototypical transitive constructions:

(1) They are more like to de-emphasis the insalient patient than to put emphasis on it in conceptualization;

(2) The transitive bias in their conceptualization leads their use of general meaning words to fulfill the mapping between the patient and object.

(3) They make syntactic differentiation between *learn* and *study* based on their conceptualized difference between the two verbs.

Transitive alternation

TCAAs are used more in the *V n pattern*, as they denote a cause-effect relationship in that the agent volitionally carries out an action and the patient is passively involved and affected as a result of the action. In this aspect, TCAAs embody kind of prototypical transitivity and both the agent and patient are encoded into subject and object in an SVO construction. But they deviating from the prototypical transitive construction in that their agents are affected, leading to the frequent omission of objects. Although they can be used without an object, they are still considered involving two participants. It is a type of IOD (indefinite object deletion) as the patient is indistinct from the agent due to their shared property of affectedness (Næss, 2011). The omission of objects is a process of de-emphasis of object, the same process as *have a drink* construction (Wierzbicka, 2009).

TCAAs are headed by ingestive verbs studied in this chapter such as *read, learn, eat* and *study*. Chinese EFL learners are more likely to use ingestive verbs intransitively, suggesting that the objects are more likely to undergo the process of IOD to de-

emphasize the patient. It is not a result of language transfer, as ingestive verbs are usually followed by objects in Chinese. For example, chi-*eat* and du-*read* are followed by two indistinct objects like chi-*eat* fan-*food* and du-*read* shu-*books* whereas the intransitive use is rare. The frequent omission of objects is in accordance with the semantic nature of TCAAs in that the object is conceptually not salient and susceptible to omission. Næss (2007) suggested that for such verbs like *eat* and *drink*, the meaning of verbs consumes part of their objects. Brown (2008) also concluded that the objects of semantically heavier verbs are more likely to be omitted. Therefore, the underlying conceptual factor overcomes the cross-linguistic similarities and leads to the omission of object in spite of their occurrence in Chinese.

The use of the passive patterns emphasizes patient in contradiction to the omission of objects which de-emphasizes objects. Therefore, the less frequent use of the passive pattern is accompanied by more frequent use of the intransitive pattern. The syntactic change from active voice to passive voice conveys a different way of conceptualization involving attention adjustment and trajector/landmark exchange (Langacker, 1987, 1991, 2008). Passive voice emphasizes the role of object which acquires the status of trajector, the primary focus in an event, while the agent is usually omitted or placed at an oblique position. It is a marked form in comparison with the default form of linguistic constructions where the agent acts as trajector and the patient as landmark. As the agent is both the starting and ending points of energy transfer, the patient is less conceptually salient. With the promotion of patients in the passive pattern to the role of subject, the salience of agents is demoted, contrary to human conceptualization of conferring more attention on the trajector and less attention on the landmark. While passive pattern is used in other transitive constructions where agents are not affected,

the promotion of objects is acceptable. In the passive pattern the affected agents are omitted or specified with an oblique element, putting the agent in the background which is usually the focus of attention, so they are not accepted by Chinese EFL learners in most cases. There are still a few cases of passivization, indicating that Chinese EFL learners can confer more attention on the objects and promote it to the status of trajector; nevertheless, they are reluctant based judgment from transitive prototypes of agent-subject and patient-object pairing relationships.

The subject is supposed to map onto a prototypical agent, who is usually the human being; therefore, the subject in the passive voice contradicts to the assumed agent-subject pairing. The *be V-ed* pattern starts with a non-volitional and non-instigating patient. It is conceptually unnatural to have such entities as subjects unless the speaker intends to give more attention to the patient and put it in prominence. But the affectedness of the agent reduces the likelihood for the promotion of patient, which is more frequent with prototypical transitive verbs such as *kill* and *destroy*. While the patient in TCAA is indistinct from affected agents, the patient in TCPV is distinct from a non-affected agent, therefore the latter's passivization is not as deviating as the former's undergoing passivization. Chinese EFL learners' avoidance of passive voice is a reflection of the fact that they stick to the transitive prototype though ingestive verbs are also used in the passive voice in Chinese.

Detransitivization as deviation from prototypical transitivity

Both passivization and IOD act as a means of detransitivization as a result of deviation from the transitive prototype. But they are different regarding the attention distribution. While passivization deemphasizes the agent and puts more attention on the patient, IOD deemphasizes the patient and puts more attention on the agent. The former

are against the default conceptualization, but the latter follows the default way of conceptualization. The conceptual factor determines the uses by Chinese EFL learners. It is arguable that Chinese EFL learners are more used to the default reading of ingestive verbs so that they naturally tend to use them more frequently in the intransitive pattern to de-emphasize the object, and they are against the use of passive patterns conceptually because it is against the default embodiment of the event. This does not mean that the deviating embodiment in passive pattern has no use. Actually, it reveals the complexity of human conceptualization, which can transform events based on ones' own conceptualization. Chinese EFL learners are apparently lacking in conceptual flexibility with a new language.

The four verbs are often used with human beings as the agent, which are affected. Put together, these features make the agent stand out in contrast to other elements in the event, for example, the patient. Therefore, the agent is the default trajector as it attracts most attention. Any attempt at de-emphasizing it will lead to the deviation from the default conceptualization and add more conceptual burden. That is the reason why Chinese EFL learners avoid using passive pattern with ingestive verbs but are in favor of the intransitive pattern.

Transivitization with general meaning words

Chinese EFL learners use general meaning words as objects, attempting to fill the position of objects to realize a full transitive pattern, that is, to fill the slot of the object no matter how insalient in conceptualization it is. It is likely that Chinese EFL learners use their Chinese concept here, a role of language transfer which happens only after licensed by transitive prototype. Chinese EFL learners tend to stick to the transitive prototype instead of simply using the intransitive pattern. The prototypical transitive

construction has a binding effect on their conceptualization of other less prototypical events; therefore, the indistinctness of patient is likely to be encoded into object though it is less salient in conceptualization.

Syntactic Differentiation between *learn* and *study*

They are similar in meaning but different in syntactic construction. It is not clear why Chinese EFL learners use the two words differently. The author makes the guess that telic (completion of action) is mis-conceptualized as cues for the distinction between transitive and intransitive. The action of *learn* is more telic than that of *study*. Telic events have a higher value in transitivity (Hopper & Thompson, 1980), inducing more transitive uses for *learn*. Seen from the objects of *learn* and *study*, there is a clear difference in semantic meaning used in LOCNESS. But they are similar for Chinese EFL learners (for example, *English, language, knowledge* are the most frequently used words for objects for both verbs), who use them interchangeably in the transitive pattern. As they are similar in meaning, they are differentiated by Chinese EFL learners in terms of syntactic construction: *learn* is considered as transitive and *study* as intransitive. There are no completely equal items in language to achieve linguistic economy (Goldberg, 2006).

Learn and *study* also differ regarding the use of passive patterns. There are few passive uses with *learn* but totally absent with *study*. As discussed before, Chinese EFL learners differentiate the two semantically similar words on the syntactic ground, with *study* intransitivized. *Study* is used like unergatives after intransitivization, like *run* or *walk*, as if the action involves only one participant, the agent in conceptualization. The demotion of patients is carried out with intransitivization of *study* while the transitive use is reserved for *learn*.

Chinese EFL learners' syntactic differentiation of the two semantically similar verbs is further proved by their objects. General meaning words such as *thing, something* and *a lot* occur as objects far more frequently with *learn* than *study*, suggesting Chinese EFL learners perceive *learn* as transitive and study as intransitive. While *study* is an ingestive verb and displayed its properties in the use of NSs, it is perceived more as unergatives and is used accordingly.

4.2.2 Comparisons between Different Levels in SUBWECCL

4.2.2.1 Syntactic Patterns

There are mainly the *V n* and the *n V* patterns used among all three levels, and the *be V-ed* pattern is rarely used. Different patterns are used at similar proportions as indicated by the table below.

Table 4.40 TCAA Used by Different Levels of Learners

Patterns	Level 1		Level 2		Level 3	
	Counts	**Proportion**	**Counts**	**Proportion**	**Counts**	**Proportion**
V n	232	48.1%	196	50.9%	161	47.9%
n V	248	51.5%	187	48.6%	174	51.8%
be V-ed	2	0.4%	2	0.5%	1	0.3%
Total	482	100%	385	100%	336	100%

4.2.2.2 Argument

The five most frequently used subjects (*we, they, people, you, child*) are shared among all three different levels with *we* as the predominant one, as indicated by Table 4.41. There are totally 11 common subjects across all three levels: *child, Chinese, everyone, he, I, people, person, student, they, we (us)* and *you*.

Table 4.41 The Subjects of TCAA Used by Different Levels of Learners

Level 1 Subjects	**Counts**	**Level 2 Subjects**	**Counts**	**Level 3 Subjects**	**Counts**
we	*82*	*we*	*42*	*we*	*40*
you	*35*	*they*	*21*	*they*	*12*
child	*12*	*you*	*11*	*you*	*11*
people	*12*	*child*	*10*	*child*	*10*
they	*7*	*people*	*8*	*people*	*9*
student	*5*	*student*	*7*	*I*	*6*
I	*4*	*he*	*4*	*student*	*4*
everyone	*3*	*I*	*3*	*he*	*3*
most of us	*2*	one	3	*person*	*2*
anyone	1	graduate	2	Adam	1
Chinese	*1*	*Chinese*	*1*	*Chinese*	*1*
he	*1*	everybody	1	dog	1
learner	1	*everyone*	*1*	*everyone*	*1*
parts of them	1	knowledge	1	girl	1
person	*1*	learner	1	hawk	1
pet	1	mankind	1	less of them	1
roommate	1	other	1	she	1
those	1	*person*	*1*	teacher	1
		reader	1		
		teenager	1		
		those	1		

The objects used in all three levels are also similar; for example, *English, knowledge, book,* and *thing* are among the most frequently used objects by all learners, as indicated by Table 4.42. In total, there are 20 words used among all three levels. Notice those words include some of very general meaning words such as *knowledge, thing,* and *book* that are often omitted.

Table 4.42 The Objects of TCAA Used by Different Levels of Learners

Level 1 Objects	Counts	Level 2 Objects	Counts	Level 3 Objects	Counts
English	*36*	*English*	*28*	*book*	*17*
knowledge	*25*	*knowledge*	*25*	*English*	*17*
thing	*20*	*what*	*13*	*knowledge*	*16*
book	*18*	*book*	*12*	*thing*	*14*
something	*14*	*things*	*10*	*skill*	*10*
competition	11	*it*	*8*	*what*	*11*
what	*11*	*skill*	*8*	*language*	*7*
a lot	*8*	*language*	*7*	*something*	*7*
skill	*8*	*a lot*	*6*	*It*	*6*
language	*6*	*animals*	*5*	*a lot*	*4*
it	*5*	competition	5	*lesson*	*4*
newspaper	5	*something*	*4*	*animal*	*2*
word	5	*them*	*4*	anything	2
ability	4	major	3	*article*	*2*
food	*3*	*meat*	*3*	*cooperation*	*2*
lesson	*3*	news	3	experience	2
nothing	3	spirit	3	*material*	*2*
them	*3*	word	3	*meat*	*1*
cooperation	*2*	*article*	*2*	all	1
experience	2	*both of them*	*2*	apple	1
material	*2*	breakfast	2	biography	1
quality	2	*cooperation*	*2*	bravery	1
reading	2	essay	2	composition	1
story	*2*	live	2	culture	1
animal	*1*	newspaper	2	dog	1
article	*1*	nothing	2	essay	1
beauty	1	*subject*	*2*	event	1
both of them	*1*	*food*	*2*	expertise	1
cleaning	1	beef	1	*food*	*1*
confidence	1	curriculum	1	habit	1
course	1	field	1	idea	1
culture	1	fruit	1	litchi	1
fish	1	idea	1	literature	1
imitate	1	importance	1	*meat*	*1*
independence	1	information	1	method	1
insist	1	*lesson*	*1*	one	1
letter	1	*letter*	*1*	Photoshop	1
lunch	1	*material*	*1*	point	1
major	1	*meal*	*1*	pork	1
meaning	1	*mean*	*1*	rat	1
meat	1	*novel*	*1*	report	1
motto	1	*passage*	*1*	screen	1
nature	1	*philosophy*	*1*	sentence	1

novel	1	*pork*	*1*	story	1
power	1	*reality*	*1*	*subject*	*1*
report	1	*rice*	*1*	tender	1
rule	1	*rubbish*	*1*	the fresh	1
sentence	1	*rules*	*1*	the more	1
speaking	1	*sentences*	*1*	them	1
subject	*1*	usage	1	tongue	1
teamwork	1	use	1	vegetables	1
vegetables	1	violence	1	virtue	1
virtue	1	*whatever*	*1*	works	1
whatever	*1*	works	1		
which	1				
world	1				

4.2.2.3 Linguistic Features

Three different levels use transitive constructions with affected agents similarly as they all show the same pattern as use a large amount of words in common as subjects and objects.

There are fewer uses of *be V-ed* pattern in all three levels. The *V n* pattern and the *n V* pattern are used at similar proportions by all three levels.

The reoccurrence of the same words as subjects and objects in all three levels suggests the similarity in conceptualization as displayed in the tables below:

Table 4.43 Similarities in Arguments of TCAA

Levels	**Subject**			**Object**		
	Number	**Total**		**Number**	**Total**	
Level 1	165	171	96.5%	195	232	84.1%
Level 2	109	122	89.3%	147	196	75%
Level 3	99	106	93.4%	127	161	78.9%

4.2.2.4 Conceptual Features

The similarity in syntactic patterns and choice of arguments reveal that Chinese EFL learners are similar in their conceptualization. All of them are constrained

in uses by the prototypical transitive construction when the agent is affected and therefore deviates from the prototypical agent.

All of them avoid the use of the *be V-ed* pattern as it serves to defocus the agent, therefore is in contradiction to nature of the affected agent.

Affected agents are invariably human beings, leading to the common use of subjects by all levels of Chinese EFL learners.

Most frequently used words for objects by all three levels are the default objects for such verbs as *read*, *learn*, *study* and *eat*. However, such objects are more fulfilling the position of the object because they are general in meaning with no specific references.

4.2.3 Summary

Chinese EFL learners' use of ingestive verbs is constrained by the mapping of prototypical transitivity in conceptualization with an SVO construction in linguistic forms, by which the subject is the prototypical agent and the object is the prototypical patient. The combined conceptual-syntactic prototype frames both their conceptualization of transitivity, leading to their less uses of the *be V-ed* pattern but more uses of the *n V* pattern. Their transitivity bias leads to their use of general meaning words as objects. The effect of animacy hierarchy leads their overuse of the first and second person pronouns as subjects. They also make syntactic differentiation based on their conceptualization of the pair of synonyms (*learn* and *study*).

In contrast, different levels of Chinese EFL learners use this type of transitive constructions similarly both in syntactic patterns as well as in the choice of arguments, indicating the difficult for EFL learners to change in their conceptual system in L2 learning.

4.3 Transitive Constructions with Volitional Undergoers

4.3.1 Comparisons between LOCNESS and SUBWECCL

This type of transitive constructions takes a special object: volitional undergoer [+VOL, -INST, +AFF]. There are three verbs studied: *attract, satisfy* and *interest*. As most objects are volitional participants in events, volitional undergoers stand out as non-prototypical object and make a difference to the linguistic constructions. They are usually marked with dative case, but as English is weak in case marking system as it lost many cases as a result of language change, it is difficult for Chinese EFL learners to discern them.

4.3.1.1 Attract

There is no *n V* pattern in either corpus, and the difference lies mainly in different percentages of the uses of the *V n pattern* and the *be V-ed* pattern. Whereas the *V n* pattern appears more frequently in LOCNESS, the *be V-ed* pattern occurs more frequently in SUBWECCL.

Table 4.44 Syntactic Patterns of *attract*

Patterns	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	17	81%	22	69%
be V-ed	4	19%	10	31%
Total	21	100%	32	100%

Examples:

The *V n* pattern

This culminated into the signing of the EEC treaty in Rome and which over the years has ***attracted*** *an increasing number of members.* BRSUR3

*China should go out to **attract** talented people in order to better compete in the world.* WARG4539

The *be V-ed* pattern

*In the end the person will be more **attracted** to a person who has told them how it was with straight talk.* USMIXED

*Child begins to be **attracted** by the computer games.* WARG2199

Subjects

The subjects are mainly non-human beings, as *bid, feature, issue* in LOCNESS and *it, policy* and *air* in SUBWECCL. There are also some human beings acting as subjects: *he* and *journalist. They* also refers to non-human entities in SUBWECCL. *China* is a special word in SUBWECCL, and it is used as an organization which is volitional. The subjects are categorized into two groups: the volitional and non-volitional. While the former are more frequent in in LOCNESS, the latter more frequent in SUBWECCL.

Table 4.45 Subjects of *attract*

LOCNESS Subjects	**Counts**	**SUBWECCL Subjects**	**Counts**
bid	1	*they*	*3*
Candide	1	China	2
feature	1	it	2
he	1	policy	2
issue	*1*	air	1
JAMA	1	bus	1
latter	1	entertainment	1
law	1	freedom	1
museum	1	*issue*	*1*
price	1	journalist	1
they	*1*	life	1
university	1	media	1
which	*1*	power	1
idea	1	scenery	1
		something	1
		thing	1
		way	1
		which	*1*

Table 4.46 Classification of the Subjects of *attract*

Subjects	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
ANIMATE	2	14.3%	6	35.3%
INANIMATE	12	85.8%	17	64.7%
Total	14	100%	23	100%

Objects

The most frequently used objects are words for human beings in both corpora (*sex, customers, students* in LOCNESS, *people, audience, child* in SUBWECCL). *Attention* is the second most frequently used word in SUBWECCL, which does not occur in LOCNESS. It is an idiomatic collocating word in *attract one's attention*, so is *eye* as in *attract one's eyes*. The objects in both corpora consist of two different groups: those words for human beings and those for inanimate entities. The difference lies in the different percentages of inanimate entities, which occur more frequently in SUBWECCL. However, even those words for inanimate entities are also related to human activities.

Table 4.47 Objects of *attract*

LOCNESS		SUBWECCL	
Objects	**Counts**	**Objects**	**Counts**
sex	3	people	5
customer	2	attention	4
student	2	*audience*	*2*
audience	*1*	*child*	*2*
business	1	them	2
child	*1*	us	2
hypocrisy	1	capital	1
member	1	eye	1
responsibility	1	him	1
those	1	talent	1
tourist	1	worker	1
viewpoint	1		

Table 4.48 Classification of the Objects of *attract*

Objects	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
ANIMATE	14	82.4%	16	72.7%
INANIMATE	3	17.6%	6	27.8%
Total	17	100%	22	100%

4.3.1.2 Satisfy

There is no *n V* pattern in either corpus. The *be V-ed* pattern is used more often in SUBWECCL while the *V n* pattern is used less than that in LOCNESS.

Table 4.49 Syntactic Patterns of *satisfy*

Patterns	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	10	66.7%	19	55.9%
be V-ed	5	33.3%	15	44.1%
Total	15	100%	34	100%

Examples:

The *V n* pattern

…justice does not ***satisfy*** *everyone, the law on euthanasia needs to be changed to fit the needs of the people of America…* USARG

…the sort of fixed schooling cannot ***satisfy*** *the growing needs of our daily life, either*. WARG1231

The *be V-ed* pattern

People will not be ***satisfied****. So, apart from jobs people always stress themselves in other aspects.* WARG2393

*Candide will not be **satisfied** until he reaches his love and when he does she is ugly.* BRSUR2

Subjects

There are both human beings and inanimate entities used as subjects in SUBWECCL, but only inanimate entities occur in LOCNESS. *We* is among the most frequently used subjects in SUBWECCL. Table 4.51 shows that all subjects used in LOCNESS are inanimate entities, which occupy only a half of all subjects in SUBWECCL. Inanimate entities are all non-volitional.

Table 4.50 Subjects of *satisfy*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
cause	1	*it*	*3*
compromise	1	we	3
gain	1	they	2
it	*1*	media	2
justice	1	person	1
development	1	schooling	1
something	1	story	1
murdering	1	parent	1
marriage	1	technology	1
		public	1

Table 4.51 Classification of the Subjects of *satisfy*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
ANIMATE	0	0	8	50%
INANIMATE	9	100%	8	50%
Total	9	100%	16	100%

Objects

There are both inanimate entities (*greed, hunger, needs, curiosity*) and human beings (*people, everyone, you*) used as objects in the two corpora, but human beings as

objects occur more often in LOCNESS, whereas inanimate objects occur more often in SUBWECCL. *Needs* and *curiosity* are by far the most frequently used objects in SUBWECCL. Table 4.53 shows that human beings serving as objects in LOCNESS far outnumber those in SUBWECCL, nearly twice their number.

Table 4.52 Objects of *satisfy*

LOCNESS Objects	**Counts**	**SUBWECCL Objects**	**Counts**
people	2	needs	5
neither left nor right	2	curiosity	3
greed	1	you	2
hunger	1	development	1
intimacy	1	examination	1
someone	1	him	1
them	*1*	other	1
viewer	1	ourselves	1
		requirement	1
		them	*1*
		us	1
		whatever	1

Table 4.53 Classification of the Objects of *satisfy*

Objects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
ANIMATE	7	70%	7	36.8%
INANIMATE	3	30%	12	63.2%
Total	10	100%	19	100%

4.3.1.3 Interest

Interest as a verb is used far less than its *ed* forms as an adjective. It is even less in SUBWECCL as the *V n* pattern occurs only once, whereas it occurs for three times in LOCNESS.

Table 4.54 Syntactic Patterns of *interest*

Patterns	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	3	10%	1	2.5%
be V-ed	28	90%	39	97.5%
Total	31	100%	40	100%

Examples:

The *V n* pattern

*His main role is to take interest in areas which do not **interest** the president.* BRSUR1

*In order to **interest** more people and get more benefit, the media make every effort to…* WARG4640

The *be V-ed* pattern

*Pompidou was **interested** in defence and economics and so added these areas to his role as President.* BRSUR1

*Students in university can do something they are **interested** in.* WARG4188

All subjects in both corpora refer to inanimate entities. All objects in both corpora refer to human beings, but the word *people* in SUBWECCL is more general in meaning.

Table 4.55 Subjects of *interest*

LOCNESS Subjects	Counts	SUBWECCL Subjects	Counts
area	1	media	1
idea	1		
show	1		

Table 4.56 Objects of *interest*

LOCNESS		SUBWECCL	
Objects	**Counts**	**Objects**	**Counts**
contemporary	1	people	1
child	1		
president	1		

4.3.1.4 Linguistic Features

The similarities and differences in using transitive constructions with volitional undergoers between the two corpora are displayed in the following aspects:

(1) There are mainly the *V n* pattern and the *be V-ed* pattern used in the two corpora; Chinese EFL learners use less the *V n* pattern but use more the *be V-ed* pattern than native speakers.

(2) The subjects and objects consist of both human beings and non-volitional entities; Chinese EFL learners use more volitional entities as subjects and more non-volitional entities as objects than native speakers.

Syntactic patterns

There is no intransitive use in both LOCNESS and SUBWECCL (except one case of misuse with *interest* by Chinese EFL learners), as indicated by Fig. 4.7. Meanwhile, it appears that Chinese EFL learners use less active voice with the *V n* pattern concerning the group of verbs, relying more on passive voice with more uses of the *be V-ed* pattern .

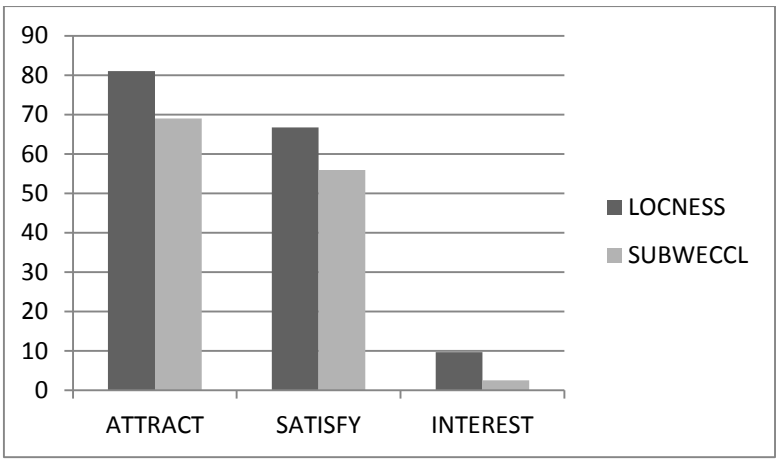

Figure 4.7 The *V n* Patterns of TCVU

Arguments

Objects volitionally participate in the action, and the subjects are usually inanimate entities. An interesting phenomenon is the different percentage of volitional and non-volitional participants in both corpora. The two figures below make a comparison of both the percentages of volitional (animate) subjects and objects used in the two corpora:

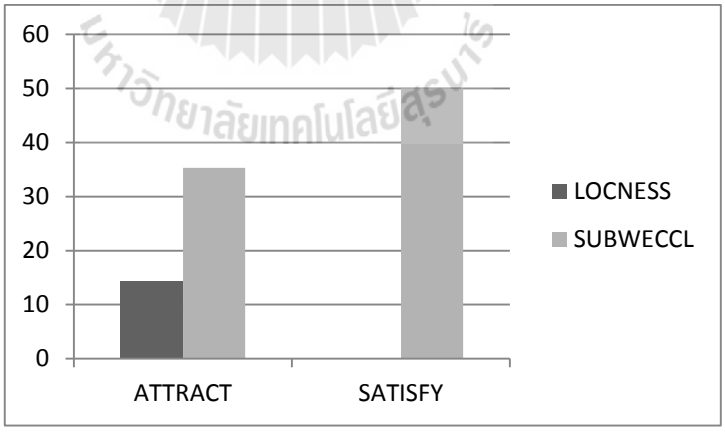

Figure 4.8 Volitional Subjects in TCVU

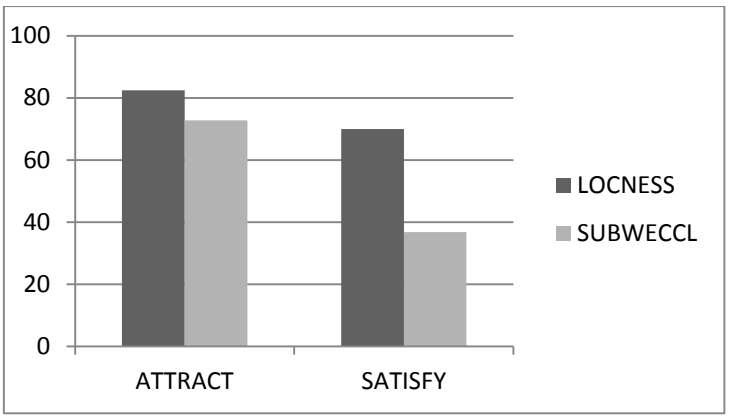

Figure 4.9 Volitional Objects in TCVU

While the frequency of volitional subjects is higher in SUBWECCL than in LOCNESS, the frequency of volitional objects is lower in SUBWECCL than in LOCNESS.

4.3.1.5 Conceptual Features

The linguistic features in using transitive constructions with volitional undergoers reveal that:

(1) Chinese EFL learners follow the prototypical perspective of conceptualizing transitivity from the agent to the patient;

(2) The prototypical mapping relations of agent with subject and patient with object constrain Chinese EFL learners' choice of the words for subjects and objects.

Perspective

TCVU conveys a different direction of conceptualization. The objects of this group are usually fulfilled by human beings as defined by the features of volitional undergoer in TCVU. It needs a change of perspective to accommodate this kind of use. Instead of using the *V n* pattern which requires a change from the default perspective, Chinese EFL learners are more attracted by the passive pattern to avoid taking human

beings as the objects. Human beings are the volitional participants in the event, and it is easy to consider them as the subject rather than the object. This conceptualization based on the transitive prototype is even reflected in the case of misuse by Chinese EFL learners of *interest*:

The only reason was that I never got a card like that. ***People always interest in new things****. WARG1718*

Interest is a little different from the other two verbs studied here as *interested in* is used so frequently in *ed* forms that it is used more like an adjective rather than a verb in passive forms. But the telltale misuse by Chinese EFL learners indicates that:

(1) Chinese EFL learners stick to the default arrangement of taking human beings as subject, and conceptualizing in the opposite direction to the energy transfer;

(2) The default conceptual path is more fundamental, therefore, more resistant to change which results in a different way of conceptualization.

Prototypical Mapping Relations

The subject and object in a prototypical transitive construction is mapped upon by the prototypical agent and patient, representing prototypical transitivity. But the maximal distinction is lost when the objects are also volitional.

The more uses of volitional entities as subjects and non-volitional entities as objects indicate that Chinese EFL learners' choice of subjects and objects are more prototypical as subjects are volitional by their default value, whereas it is the reverse for objects. Prototype effects play a role in the choice of arguments. Therefore, though TCVU is non-prototypical as the objects are supposed to be volitional by definition, Chinese EFL learners attempt to change the conceptualization to fit the transitive prototype. Notice should be taken that this attempt is unconscious. The use by NSs

represents a different conceptual path which requires additional mental effort. When Chinese EFL learners make such attempt, they have to consciously contradict to their conceptual base in L1. As a result, they take an economic path to use passive voice to decrease the burden, especially when it is grammatically acceptable. The volitional feature of the object makes it susceptible to be the subject, which is usually fulfilled by the volitional agent.

4.3.2 Comparisons between Different Levels in SUBWECCL

4.3.2.1 Syntactic Patterns

The table below shows the similarity in the use of different patterns of TCVU by three different levels of Chinese EFL learners:

Table 4.57 TCVU Used by Different Levels of Learners

Patterns	Level 1		Level 2		Level 3	
	Counts	Proportion	Counts	Proportion	Counts	Proportion
V n	6	37.5%	19	67.9%	16	72.7%
be V-ed	10	62.5%	9	32.1%	6	27.3%
Total	16	100%	28	100%	22	100%

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4.3.2.2 Argument

Level 1 use only a few instances of the *V n* pattern, but Levels 2 and 3 show greater similarities in their uses.

Two words for subjects occur in common among all three levels: *it, they*. Words occur between two levels: *we, something (thing)*. Two words for objects occur among all three levels: *needs, people*. While the former is in a lexical bundle with *satisfy*, the latter is a general meaning word. Among other words, *attention* and *curiosity* are collocating words for *attract*.

Table 4.58 The Subjects of TCVU Used by Different Levels of Learners

Level 1 Subjects	Counts	Level 2 Subjects	Counts	Level 3 Subjects	Counts
it	*3*	media	3	China	2
life	1	*they*	*2*	policy	2
technology	1	entertainment	1	*they*	*2*
they	*1*	freedom	1	we	2
		it	*1*	air	1
		journalist	1	bus	1
		parent	1	issue	1
		public	1	*it*	*1*
		something	1	person	1
		way	1	power	1
		we	1	scenery	1
		which	1	schooling	1
				story	1
				thing	1

Table 4.59 The Objects of TCVU Used by Different Levels of Learners

Level 1 Objects	Counts	Level 2 Objects	Counts	Level 3 Objects	Counts
you	2	attention	3	*people*	*2*
people	*1*	us	2	*needs*	*2*
needs	*1*	curiosity	2	them	2
us	1	*needs*	*2*	attention	1
whatever	1	*people*	*2*	audience	1
		audience	1	capital	1
		child	1	child	1
		eyes	1	curiosity	1
		development	1	examination	1
		him	1	him	1
		other	1	ourselves	1
		requirement	1	talent	1
		them	1	worker	1

4.3.2.3 Linguistic Features

With the exception of Level 1, Level 2 and Level 3 are similar regarding the use of the *V n* pattern and the *be V-ed* pattern. There is no *n V* pattern for all three levels. Level 1 is different in that it uses more the *be V-ed* pattern instead of the *V n* pattern. Level 2 & 3 are similar in using TCVU. They use more the *V n* patterns.

Formulaic expressions are used by all learners, especially Level 2&3, such as *satisfy needs, people, attract attention* /*curiosity.* Therefore, the objects used are restricted by collocations.

4.3.2.4 Conceptual Features

The three different levels of Chinese EFL learners are all constrained by the perspective of prototypical transitive constructions from the agent to the patient, and the prototypical mapping relations of the agent with subject and the patient with patient. The constraining effect indicates that Chinese EFL learners show little sign of conceptual development in using transitive constructions.

Level 1 uses more frequently the *be V-ed* pattern, indicating more constraining effect of the prototypical mapping relations. Level 2&3 seemingly show improvement in comparison with Level 1; but the improvement is dubious as they are quite similar between themselves, and their uses are characterized by frequent formulaic expressions, such as *attract attention* /*curiosity.* Therefore, even Level 2&3 do not improve much in conceptualization as the frequent use of formulaic expressions does not mean the conceptual development.

4.3.3 Summary

Chinese EFL learners use more frequently the *be V-ed* pattern but less the *V n* pattern than the native speakers. They also use more volitional subjects but less volitional objects than the native speakers. It reveals that Chinese EFL learners are more constrained by the perspective of the prototypical transitive construction from the agent to the patient following the path of energy transfer. It also reveals that Chinese EFL learners are more constrained by the prototypical mapping of agent with subject and patient with object.

Except with Level 1, Chinese EFL learners at Levels 2 and 3 are similar in their use of TCVUs as they all use more the *be V-ed* pattern than the *V n* pattern; the subjects and objects are similar across all three different levels. It reveals that Chinese EFL learners are similar in their conceptualization of volitional undergoers: conceptualizing it as the agent and mapping it to the subject.

4.4 Transitive Constructions with Neutral Participants

4.4.1 Comparisons between LOCNESS and SUBWECCL

This type of transitive constructions takes objects which are not affected in the whole event; therefore, they are neutral as if they were not involved in the whole process. They are characterized as [-VOL, -INST, -AFF]. They possess none of the three features that characterize transitivity. There are three verbs studied: *enter, join* and *reach*. They are similar in meaning in that they all refer to some kind of movement, and the location is conceptualized as another entity in the moving process, serving as the landmark of action. Landmark is exactly what characterizes the role of object conceptually, which is otherwise encoded into language as oblique elements.

4.4.1.1 Enter

There is no *be V-ed* patterns used in both corpora but the *n V* pattern is used more frequently in LOCNESS, which occurs only for four times in SUBWECCL.

Table 4.60 Syntactic Patterns of *enter*

Patterns	LOCNESS		SUBWECCL	
	Counts	Proportion	Counts	Proportion
V n	37	74%	77	95%
n V	13	26%	4	5%
Total	50	100%	81	100%

Example:

The *V n* pattern

If the mother fails to ***enter*** *training programs or find a job within two years her benefits would be cut off…* USARG

Once the child ***enter*** *the primary school, they should learn how to get along with their classmates …* WARG3696

The *n V* pattern

When dissatisfactions ***enter*** *spouses tend to blame one another.* USARG

They ***enter*** *into another special school-society.* WARG2864

Subjects

The first person pronoun is used much more frequently in SUBWECCL. Overall, human beings are more likely to be taken as subjects. The six shared words in the two corpora all refer to human beings: *he, man, people, child, who* and *you*, whereas other subject words are more diversified including non-human entities: *dissatification, excrement* and *question* in LOCNESS, which are more peripheral in the category of the subject.

Table 4.61 Subjects of *enter*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
he	*4*	we	12
fighter	2	student	6
Hugo	2	they	6
man	*2*	I	5
Oreste	2	*you*	*4*
people	*2*	China	3
female	1	*child*	*2*
bachelor	1	everyone	2
Britain	1	*people*	*2*
Candide	1	all of us	1
car	1	green	1

child	*1*	*he*	*1*
couple	1	internet	1
dissatisfaction	1	*man*	*1*
eighteen	1	population	1
European	1	society	1
excrement	1	somebody	1
mother	1	*who*	*1*
novice	1		
question	1		
recipient	1		
she	1		
those who	*1*		
women	1		
you	*1*		

Table 4.62 Classification of the Subjects of *enter*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	28	84.8%	44	86.3%
1st person	0	0	18	41%
2nd person	1	3.6%	4	9%
common nouns	27	96.4%	22	50
INANIMATE	5	15.2%	7	13.7%
Total	33	100%	51	100%

Objects

While all objects in both corpora are inanimate entities referring to locations, the words used are different.

Table 4.63 Objects of *enter*

LOCNESS		**SUBWECCL**	
Objects	**Counts**	**Objects**	**Counts**
relationship	3	university	26
sport	3	society	16
marriage	2	*college*	*10*
party	2	school	8
program	2	WTO	4
town	2	century	2

Argos	1	netbar	2
bank	1	*career*	*1*
Britain	1	classroom	1
career	*1*	enterprise	1
city	1	it	1
college	*1*	library	1
coma	1	life	1
community	1	them	1
cycle	1	web club	1
homeland	1	word	1
house	1		
indifference	1		
address name	1		
military	1		
mind	1		
fight	1		
room	1		
service	1		
teen	1		
war	1		
work	1		
world	1		

The most often used words are *relationship, sport* and *marriage* in LOCNESS, referring to an abstract position that can only be felt, whereas they are *university, college* and *school* (except *society*) in SUBWECCL referring to a concrete location that can be physically touched. The objects taken by *enter* is more likely to be metaphoric, suggested by the bigger amount of abstract objects such as *service, indifference* and *work.* As indicated by Table 4.64, the amount of abstract objects in LOCNESS outnumbers that in SUBWECCL, and it is the other way around in the use of concrete objects.

Table 4.64 Classification of the Objects of *enter*

Objects	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
abstract	24	64.9%	24	31.2%
concrete	13	35.1%	53	68.8%
Total	37	100%	77	100%

4.4.1.2 Join

There is no *be V-ed* pattern used in either corpus and there are more uses of the *V n* pattern in SUBWECCL

Table 4.65 Syntactic Patterns of *join*

Patterns	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	29	76.3%	15	88.2%
n V	9	23.7%	2	11.8%
Total	38	100%	17	100%

Examples:

The *V n* pattern

*Even now the channel tunnel has **joined** us to the continent we still consider ourselves to be separated from the world standing alone* BRSUR3

*There are less sports games we can watch and **join**.* WARG2061

The *n V* pattern

*We all come from different background but have **joined** or melted together to produce homogeneous Americans.* USMIXED

*Third, after reading this article, share it with your friends. Broadcast and you will **join** to reduce the throw-away stuffs.* WARG1208

Subjects

More words referring to human beings are employed as subjects in SUBWECCL, among which, the first person pronouns are more frequently used. There are more inanimate subjects in LOCNESS.

Table 4.66 Subjects of *join*

LOCNESS Subjects	Counts	SUBWECCL Subjects	Counts
Britain	5	*we*	*3*
he	*2*	they	2
Hugo	2	China	1
American	1	*he*	*1*
Candide	1	Hua Mulan	1
it	*1*	*it*	*1*
newspaper	1	manufacturer	1
people	1	*student*	*1*
student	*1*		
tunnel	1		
UK	1		
we	*1*		
woman	1		

Table 4.67 Classification of the Subjects of *join*

Subjects	LOCNESS		SUBWECCL	
	Counts	Proportion	Counts	Proportion
HUMAN	10	52.6%	9	81.8%
1st person	1	10%	3	33.3%
common nouns	9	90%	6	66.7%
INANIMATE	9	47.4%	2	18.2%
Total	19	100%	11	100%

Objects

Objects are mainly organizations in both corpora, as indicated by the three shared objects: *party, army* and *group*. But there are more human beings acting as objects in LOCNESS than in SUBWECCL. All the objects represent the virtual location that

individuals can locate themselves in, including both the human organizations and activities, while the former are conceptually more deviating from locations.

Table 4.68 Objects of *join*

LOCNESS Objects	**Counts**	**SUBWECCL Objects**	**Counts**
party	*8*	activity	3
community	3	association	2
market	3	*army*	*1*
army	*2*	effort	1
Europe	2	game	1
group	*2*	*group*	*1*
America	1	me	1
class	1	*party*	*1*
E.C.	1	practice	1
force	1	ring	1
it	1	school	1
KQED	1	WTO	1
organization	1		
upper end	1		
us	1		

Table 4.69 Classification of the Objects of *join*

Objects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	13	44.8%	4	26.7%
1st person	1	7.7%	1	25%
common nouns	12	92.3%	3	75%
INANIMATE	16	55.2%	11	73.3%
Total	29	100%	15	100%

4.4.1.3 Reach

V n pattern is the dominant pattern in both corpora, but *be V-ed* pattern occurs less often in SUBWECCL than in LOCNESS.

Table 4.70 Syntactic Patterns of *reach*

Patterns	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	45	83.3%	34	87.2%
n V	1	1.9%	2	5.1%
be V-ed	8	14.8%	3	7.7%
Total	54	100%	39	100%

Examples:

The *V n* pattern

Literature ***reaches*** *the reader on his own particular level…* USMIXED

We could safely ***reach*** *a conclusion that education…* WARG2630

In the days when a message would take a week to reach from London alevels7

The *be V-ed* pattern

A compromise was ***reached*** *…* BRSUR1

So far no agreement has been ***reached****.* WARG2728

Subjects

The subjects used are mainly human beings in both corpora, but *we* is used more frequently in SUBWECCL. Table 4.72 indicates that human beings are used more frequently as subjects in SUBWECCL than in LOCNESS, whereas inanimate entities in LOCNESS are used more often than in SUBWECCL.

Table 4.71 Subjects of *reach*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
he	8	*we*	*7*
it	6	*they*	*4*
they	*4*	*child*	*2*

American	1	group	2
Candide	1	*you*	*2*
case	1	company	1
child	*1*	*all of them*	*1*
Clamence	1	feeling	1
country	1	I	1
dog	1	relationship	1
information	1	she	1
literature	1	technology	1
people	1		
quality	1		
reliance	1		
society	1		
student	1		
we	*1*		
you	*1*		

Table 4.72 Classification of the Subjects of *reach*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	20	58.8%	20	83.3%
1st person	1	5%	8	40%
2nd person	1	5%	2	10%
common nouns	18	90%	10	50%
ANIMATE	1	3%	0	0
INANIMATE	13	38.2%	4	16.7%
Total	34	100%	24	100%

Objects

Table 4.73 Objects of *reach*

LOCNESS		**SUBWECCL**	
Objects	**Counts**	**Objects**	**Counts**
people	4	goal	6
stage	4	conclusion	4
level	*3*	agreement	3
top	*3*	*level*	*3*
age	*2*	*age*	*2*
compromise	2	*top*	*2*
it	*2*	achievement	1

point	2	apartment	1
reader	2	class	1
university	2	decision	1
state	1	destination	1
C	1	end	1
conclusion	1	field	1
court	1	impasse	1
triple digit	1	*it*	*1*
equality	1	potential	1
height	1	standard	1
hell	1	success	1
land	1	virtue	1
love	1	wish	1
many	1		
other	1		
proportion	1		
school	1		
shore	1		
teen	1		
them	1		
us	1		
year	1		

The table below shows that there are both human beings and inanimate entities used as objects in LOCNESS, but there are only inanimate entities as objects in SUBWECCL, among which *goal, conclusion, agreement* and *level* are all idiomatic collocating words for *reach*. Table 4.74 below shows that human beings are used as objects at 24.4% in LOCNESS, but none appears in SUBWECCL.

Table 4.74 Classification of the Objects of *reach*

Objects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	11	24.4%	0	0
1st person	1	9%	0	0
common nouns	10	91%	0	0
INANIMATE	34	75.6%	34	100%
Total	45	100%	34	100%

4.4.1.4 Linguistic Features

The passive voice is seldom used, as indicated by the fact that both *enter* and *join* are not used in the *be V-ed* pattern in both corpora, and it occurs at a relatively smaller percentage with *reach*, which is used even less frequently in SUBWECCL.

Despite the similarities in syntactic patterns, there are still major differences concerning the choice of subjects and objects taken by this group of verbs. Inanimate nouns are used as subjects more frequently in LOCNESS and human beings are more frequently used in SUBWECCL with obviously more occurrences of the first person pronouns. Interestingly, the situation is just the opposite for the choice of objects. Except for *enter* (the objects are all inanimate locations); the other two verbs take more human beings as objects in LOCNESS. While the subjects in SUBWECCL are predominantly human beings, the objects are mainly inanimate. Chinese EFL learners stick more to the prototypical role of agents and patients with less deviation from the transitive prototype.

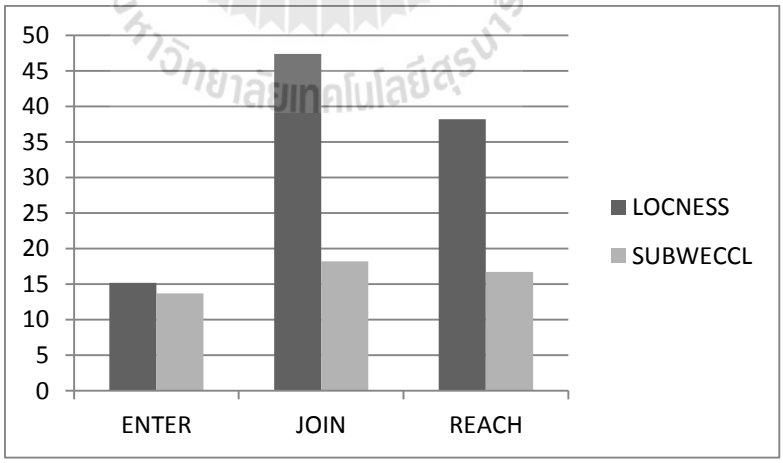

Figure 4.10 Use of Inanimate Subjects in TCNP

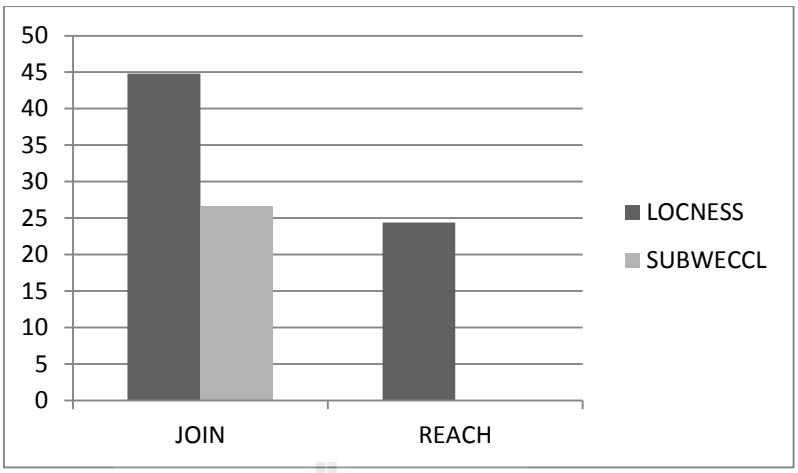

Figure 4.11 Use of Animate Objects in Both Corpora

The figure indicates that Chinese EFL learners are less likely to use volitional entities as objects, fulfilling the role of landmark such as *join the army/army/us*, or *reach us/people/reader*.

4.4.1.5 Conceptual Features

The linguistic features in using transitive constructions with neutral participants reveal that:

(1) Emphasis on neutral participant is avoided by both Chinese EFL learners and native speakers;

(2) Chinese EFL learners avoid the use of mainly human beings as objects following the non-volitional feature of the prototypical patient. It is also a more literal use as using human beings as subject is a metaphor of conceptualizing human beings as locations.

Locations as landmark against emphasis

The common semantic feature of TCNP is that the objects usually serve as the context or surroundings rather than a patient, the endpoint of energy transfer. The less

use of the *be V-ed* pattern and *n V* pattern by Chinese EFL learners suggest some mental effort required for such kind of conceptualization as the default way of conceptualization with TCNP is mainly active rather than passive. The location objectivized in TCNP is usually used as background, oblique element in a syntactic structure. Consequently, it is less prominent than trajector and landmark in conceptualization. The passivization is meant to emphasize the role of objects with correspondingly more attention, but to emphasize such an oblique backgrounded element is against the default way of conceptualization. They are naturally rarely used.

The objects of TCNPs are supposed to play the role of surroundings, describing a context or a location, either literally or metaphorically. Human beings are not the usual choice to fulfill this role. Further, human beings are supposed to be the subject carrying out the action instead of the passive role of object. As a result, human beings as object seldom occur in TCNP. To conceptualize human beings as location needs to deviate from the prototypical patient, thus requires more mental effort than, say, words referring to locations literally. The transformation of human beings from an active person to a passive role deviates from the prototypical mapping of human beings upon agents and subject; therefore, it contradicts the default way of conceptualization and Chinese EFL learners avoid using such use.

Human beings deviating from the prototypical patient

The three verbs are supposed to take locations as their objects, but their uses can be metaphorical when the location is conceptual rather than real. *Enter* is followed by two different kinds of objects: those referring to locations such as *university, college,* and those referring to abstract positions such as *relationship, sport, marriage*. The abstract objects can be seen as metaphorical extension/deviation from the more basic

concrete locations. This kind of metaphorical objects is used both in LOCNESS and SUBWECCL. The metaphorical use is more diversified than the literal use, suggesting the diversity of metaphorical conceptualization between Chinese EFL learners and NSs. In fact, the use of human beings as objects can also be considered as metaphorical as human beings are treated as locations. The diversity of metaphorical locations is in contrast with the similarity in literal locations. Literal use is more prototypical than its metaphorical extensions.

4.4.2 Comparisons between Different Levels in SUBWECCL

4.4.2.1 Syntactic Patterns

All three levels of Chinese EFL learners rely heavily on the *V n pattern*; the *be V-ed* pattern is rarely used by all three levels.

Table 4.75 TCNP Used by Different Levels of Learners

Patterns	Level 1		Level 2		Level 3	
	Counts	**Proportion**	**Counts**	**Proportion**	**Counts**	**Proportion**
V n	35	95.1%	58	90.6%	33	91.7%
n V	1	2.7%	5	7.8%	2	5.6%
be V-ed	1	2.7%	1	1.6%	1	2.7%
Total	37	100%	64	100%	36	100%

4.4.2.2 Argument

Overall, the three levels are similar in their uses of TCNP regarding both the sntactic patterns and arguments in TCNP as displayed in the tables below:

Table 4.76 Similarities of Arguments in TCNP

Levels	Subject			Object		
	Number	**Total**	**Proportion**	**Number**	**Total**	**Proportion**
Level 1	18	26	69.2%	14	35	40%
Level 2	24	35	68.6	34	58	58.7%
Level 3	13	25	52%	13	33	39.4%

Table 4.77 The Subjects of TCNP Used by Different Levels of Learners

Level 1 Subjects	**Counts**	**Level 2 Subjects**	**Counts**	**Level 3 Subjects**	**Counts**
we	*6*	*we*	*8*	*we*	*8*
they	*4*	*they*	*7*	child	2
you	*4*	*student*	*4*	China	2
I	*3*	China	2	*student*	*2*
child	2	*I*	*2*	he	1
company	1	people	2	*I*	*1*
everyone	1	*all of them*	*1*	internet	1
feeling	1	*all of us*	*1*	it	1
green	1	everyone	1	man	1
group	1	group	1	relationship	1
Hua Mulan	1	he	1	she	1
student	*1*	manufacturers	1	society	1
		population	1	technology	1
		somebody	1	*they*	*1*
		who	1	*you*	*1*
		you	*1*		

Table 4.78 The Objects of TCNP Used by Different Levels of Learners

Level 1 Objects	**Counts**	**Level 2 Objects**	**Counts**	**Level 3 Objects**	**Counts**
society	*5*	*university*	*19*	*society*	*5*
goal	4	*college*	*6*	*school*	*4*
university	*4*	*society*	*6*	conclusion	3
college	*3*	*school*	*3*	*university*	*3*
school	*2*	WTO	3	age	2
top	2	activity	2	century	2
achievement	1	agreement	2	level	2
agreement	1	association	2	WTO	2
apartment	1	goal	2	activity	1
army	1	conclusion	1	*college*	*1*
career	1	effort	1	decision	1
class	1	enterprise	1	destination	1
classroom	1	it	1	group	1
end	1	library	1	impasse	1

field	1	netbar	1	it	1
game	1	parties	1	life	1
level	1	potential	1	me	1
netbar	1	practice	1	ring	1
them	1	standard	1		
virtue	1	success	1		
web club	1	wish	1		
		word	1		

4.4.2.3 Linguistic Features

All three different levels of Chinese EFL learners show a strong similarity in their use of TCNP.

The *V n* pattern is the predominant pattern across all three levels. The other two patterns are used very rarely, indicating their peripheral status for Chinese EFL learners.

We is the most frequently used subject across all three levels. There are five words appearing in all three levels: *we (us), they (them), you, I* and *student*, all referring to human beings and the first person pronouns are heavily used upon by all Chinese EFL learners.

Four words are used as objects among all three levels: *university, school, college* and *society*, while the former three words refer to basically the same institution, the latter is a metaphorical use because there is no shape or concrete position of a *society*. The most frequently used objects are all words referring to a particular institution that they are familiar with: *school* (*university* or *college*).

4.4.2.4 Conceptual Features

The similar use by different levels of Chinese EFL learners indicates that all of them rely on the prototypical use of transitive constructions and do not develop a more deviating way of conceptualizing the neutral participants.

As human beings act the mover is naturally the primary focus and is accorded the status of subject, whereas the location acts as the background which is exactly the role of landmark. In passive patterns, the location acts as the trajector with most attention and the mover is placed at the backgrounded position, which is against the human conceptual tendency. Therefore, the rare use of the *be V-ed* pattern is the natural result of L2 conceptualization.

As all the verbs refer to movement, subjects are naturally human beings. Chinese EFL learners tend to construct an event with human beings as the subject, especially with themselves as the starting points; therefore, first and second person pronouns are used frequently. All subjects act as prototypical agents.

The semantic features of TCNP determine that deviation from its default use of the SVO structure (with human beings as subjects and location as objects) is difficult, thus reducing the possibility for Chinese EFL learners' diversified uses.

4.4.3 Summary

The author argues that the features in Chinese EFL learners' use of TCNPs are the result of prototypical effects. The conceptual systems of both L2 learners and NSs are based on prototypes. While NSs are more flexible in adapting the transitive prototype to express their unique conceptualizations through conceptual devices such as the attention, profiling and perspective, leading to a flexible use of transitive constructions, Chinese EFL learners are more dependent on prototypes and are bound by them in conceptualization, leading to a more prototypical use of TCNPs.

4.5 Transitive Constructions with Effected Patients

4.5.1 Comparisons between LOCNESS and SUBWECCL

The amount of this type of transitive constructions is limited in both corpora. Two verbs are to be examined here: *write* and *cook*. They are special in that the objects in TCEP are *effected* as a result of the action rather than *affected*.

4.5.1.1 Write

The frequencies of the *V n* pattern in both corpora are similar at 51.9% and 53.5% respectively, but two other patterns, the *n V* pattern and the *be V-ed* pattern show some differences.

Table 4.79 Syntactic Patterns of *write*

Patterns	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	40	51.9%	37	52.9%
n V	11	14.3%	14	20%
be V-ed	26	33.8%	19	27.1%
Total	77	100%	70	100%

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Examples:

The *V n* pattern

*Instead he **writes** a book so that the world would know about the holocaust.* USMIXED

*He always **write** his will before death, or find an excellent successor to continue to his enterprise.* WARG3888

The *n V* pattern

*Camus **writes** with hindsight yet clearly admires the comportment of Kaliayev and the lucidity…*SUR1

*On the paper cards, people can **write**, draw by themselves with all hearts.* WARG2870

The *be V-ed* pattern

*The article was **written** one year after Anna moved.* USARG

*Because the word on it are printed but not **written** by hand* WARG2659

Subjects

Subjects consist of mainly human beings in both corpora, but *we* is the most often used subject in SUBWECCL. Chinese EFL learners use more first and second person pronouns at 53.3% of the total subjects in SUBWECCL.

Table 4.80 Subjects of *write*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
he	*9*	we	7
Sartre	3	*he*	*6*
I	2	graduate	1
she	2	chairman	1
Voltaire	2	Li Bai	1
author	1	media	1
Celie	1	*student*	*1*
government	1	*they*	*1*
Hurley	1	you	1
Mr. Woodley	1		
people	1		
student	*1*		
they	*1*		
whomever	1		

Table 4.81 Classification of the Subjects of *write*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	26	96.3%	15	93.8%
1st person	2	8.3%	7	46.7%
2nd person	0	0	1	6.6%
common	24	91.7%	7	46.7%
INANIMATE	1	3.7%	1	6.2%
Total	27	100%	16	100%

Objects

Both corpora are similar in their choice of objects, some of which are frequently used, such as *letter, paper, article,* and *essay*. Chinese EFL learners use general meaning words such as *something* and *thing* as objects, which are not used by NSs.

Table 4.82 Objects of *write*

LOCNESS		**SUBWECCL**	
Objects	**Counts**	**Objects**	**Counts**
Candide	4	*letter*	*7*
letter	*4*	card	4
story	4	*essay*	*3*
paper	*3*	*article*	*3*
play	3	something	3
article	*2*	them	3
book	2	word	3
work	*2*	*paper*	*2*
Amendment	1	it	1
Congressman	1	meaning	1
drug	1	novel	1
essay	*1*	plan	1
exam	1	thing	1
Friedan	1	thought	1
God	1	will	1
he/her	1	wish	1
literature	1	*work*	*1*
prayer	1		
resume	1		
show	1		
slop	1		
this	1		
topic	1		
tragedy	1		

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4.5.1.2 Cook

No *be V-ed* pattern is used in SUBWECCL, which occurs once in LOCNESS.

Table 4.83 Syntactic Patterns of *cook*

Patterns	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	3	25%	8	47%
n V	8	66.7%	9	53%
be V-ed	1	8.3%	0	0
Total	12	100%	17	100%

Examples:

The *V n* pattern

*We must prepare and **cook** a meal.* USARG

*And we would like to **cook** some food by ourselves and share them to each classmate.* WARG3986

The *n V* pattern

*When dad is at work and mom is in the kitchen **cooking** or cleaning.* USARG

*If we live outside, we maybe should **cook** by ourselves, do the cleaning by ourselves and wash the clothes by ourselves.* WARG1656

The *be V-ed* pattern

*The carcass will have to be cleaned and **cooked** properly using clean knives etc. instead of washing the carcass in dirty water only changing* alevels9

Subjects

First person pronouns are the most frequently used subjects in SUBWECCL, occupying more than half of all uses in SUBWECCL.

Table 4.84 Subjects of *cook*

LOCNESS Subjects	Counts	SUBWECCL Subjects	Counts
men	1	*we*	*5*
we	*1*	I	1
		she	1
		student	1
		they	1

Objects

Food and *meal* are the most frequently used objects in SUBWECCL, which also appear in LOCNESS.

Table 4.85 Objects of *cook*

LOCNESS Objects	Counts	SUBWECCL Objects	Counts
fish	1	*food*	*3*
food	*1*	*meal*	*3*
meal	*1*	everything	1
		salad	1

4.5.1.3 Linguistic Features

Though the amount of TCEP is limited, there are still some interesting findings concerning their uses.

First, the *be V-ed* pattern is used less frequently in SUBWECCL than in LOCNESS, as displayed in the table below, suggesting Chinese EFL learners tend to use more active voice.

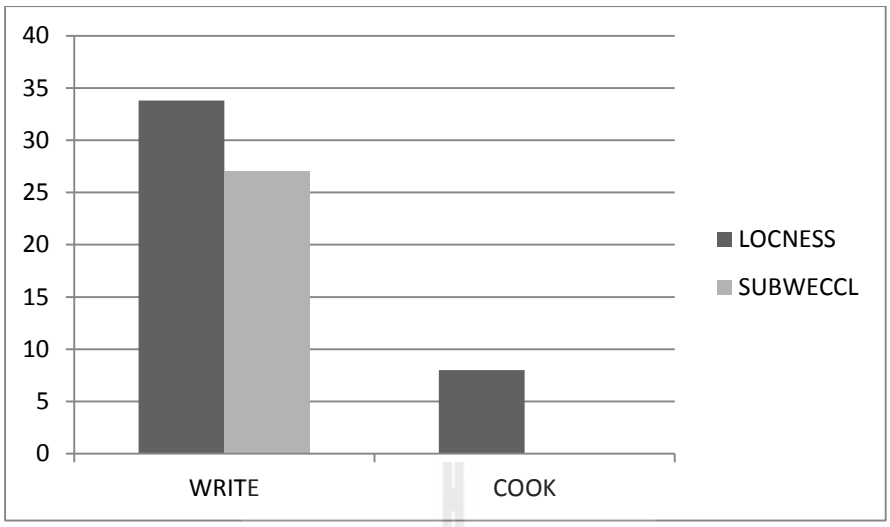

Figure 4.12 The *be V-ed* Pattern used in the two corpora

Second, there is no consensus on the use of the other two patterns. It indicates that the transitive or intransitive use of such verbs may change depending on the context and semantics, for example, the use of objects with general meanings (*cook food*, *write something*) which could be omitted because of their non-specificity semantic feature.

Third, as *write* and *cook* are typically human activities, it is not surprising that the majority of their subjects refer to human beings. It is similar between the two corpora in this aspect. But Chinese EFL learners' reliance on first and second person pronouns suggests the features of spoken language. One feature in Chinese EFL learners' use of effected objects is that they tend to use more words with general meanings, which carry no specific meaning and can be omitted. For example:

When he wants to ***write something****, probably he will face the difficulty of new words.* WARG0763

Something can be omitted without the loss of literal meaning but Chinese EFL learners stick to it.

4.5.1.4 Conceptual Features

The linguistic features reveal that: (1) Chinese EFL learners are likely to de-focus the effected patient rather than putting emphasis on it; (2) their frequent use of the first and second pronouns indicates the effect of the animacy hierarchy; (3) the transitive bias leads to their frequent use of general meaning words as objects instead of object omission.

TCEP is special in that their objects are effected rather than affected in the event. Therefore, the objects are often products resulting from action, rather than as an endpoint of the energy transfer. They are often mixed up with ingestive verbs such as *eat* (Van Valin, 1997), because both types of verbs can be followed by an object or be without it. Nass (2011, p. 421) argued that "it is this non-referentiality which most plausibly accounts for the omissibility of effected objects in languages like English". She further considered the common feature between ingestive verbs and verbs of creation to be "*low distinctiveness".* But the underlying causes for low distinctiveness are different for the two groups of verbs: while the former is caused by the common affectedness in both subject and object taken by ingestive verbs, the latter is caused by the emergent nature of effected object, which is *non-referential* (Næss, 2011). The feature of low distinctiveness in the patients taken by ingestive verbs could reduce transitivity, leading to the low frequency in the use of passive pattern. It is the same case with creation verbs studied in this section.

The reason lies in the special feature of effected objects. As they are effected as the result of action, they are non-referential in the event and are therefore, not conceptually salient. The passive pattern is a marked form to emphasize the non-referential object. When the object is promoted from the position of landmark to the

primary focus of trajector, the attention conferred upon it is increased. For the objects taken by prototypical transitive verbs, they are still in the focus of attention, though it is the secondary focus in comparison with the primary focus of trajector. But non-referential objects are not at the same level of attention; therefore, its promotion to the status of primary focus appears a marked form and requires conceptual distortion of the objects from obliviousness to the focus. Chinese EFL learners are too constrained by the prototypical transitive construction to use such deviating patterns.

The first and second person pronouns are used more frequently as the subjects as they are at the upper end of the animacy hierarchy and are therefore the more prototypical agents mapped with the subject.

Chinese EFL learners use general meaning words frequently to fulfill the function of de-emphasizing objects while keeping the transitive construction at work. Chinese EFL learners feel the need to fill the positions of the object to avoid objectless transitives, which are overtly deviating from the transitive prototype. Chinese EFL learners unconsciously follow the pattern of prototypical transitive construction by adding the general meaning words as objects even if they are unnecessary and can be omitted. It is the binding power of prototypical transitive constructions that influences their linguistic uses.

4.5.2 Comparisons between Different Levels in SUBWECCL

4.5.2.1 Syntactic Patterns

The patterns used are similar between the three different levels, as displayed by the table below:

Table 4.86 TCEP Used by Different Levels of Learners

Patterns	Level 1		Level 2		Level 3	
	Counts	**Proportion**	**Counts**	**Proportion**	**Counts**	**Proportion**
V n	12	54.5%	18	56.3%	15	50%
n V	6	27.3%	9	28.1%	8	26.7%
be V-ed	4	18.2%	5	15.6%	7	23.3%
Total	22	100%	32	100%	30	100%

4.5.2.2 Argument

The similarity in the choice of arguments is displayed in the tables below.

Table 4.87 The Subjects of TCEP Used by Different Levels of Learners

Level 1 Subjects	Counts	Level 2 Subjects	Counts	Level 3 Subjects	Counts
we	*3*	*we*	*4*	*we*	*5*
he	*1*	*he*	*2*	*he*	*3*
she	1	graduate	1	student	1
they	1	Li Bai	1	chairman	1
		student	1	media	1
		you	1	they	1
		I	1		

Table 4.88 The Objects of TCEP Used by Different Levels of Learners

Level 1 Objects	Counts	Level 2 Objects	Counts	Level 3 Objects	Counts
essay	*2*	card	3	*letter*	*5*
word	2	them	3	something	2
article	*1*	paper	2	*article*	*1*
card	1	*article*	*1*	*essay*	*1*
letter	*1*	*essay*	*1*	word	1
plan	1	it	1	works	1
thing	1	*letter*	*1*	everything	1
thought	1	meaning	1	*food*	*1*
food	*1*	novel	1	meal	1
meal	1	something	1	salad	1
		will	1		
		wish	1		
		food	*1*		

we and *he* are used among all three levels. *They* and *student* are used between two levels. Four words are used as objects among all three levels: *article*, *essay*, *letter* and *food*. Note that the former three words are the default objects for *write*, the latter is the default object for *cook*. It is no surprise that they are used by all Chinese EFL learners.

4.5.2.3 Linguistic Features

The *V n* pattern is the most frequently used pattern across all three levels, followed by the *n V* pattern, then the *be V-ed* pattern. All three levels use TCEP similarly in the proportions of different patterns: the *V n* and *n V* patterns are used frequently but the *be V-ed* pattern is rarely used.

The subjects used are similar across the three levels: Overreliance on human beings, especially first person pronouns, is noticed among all three levels. The default objects for *write* and *cook* are used frequently, contributing to the similarity in their use of arguments.

Table 4.89 Similarities of Arguments in TCEP

Levels	Subject			Object		
	Number	Total	Proportion	Number	Total	Proportion
Level 1	4	6	66.7%	5	12	41.7%
Level 2	6	11	54.5%	4	18	22.2%
Level 3	8	12	66.7%	8	15	53.3%

4.5.2.4 Conceptual Features

The use of syntactic patterns follows the natural tendency in conceptualization: the agents (in this case, they are all human beings) as the most salient participants in events attract most attention; therefore, they are more likely to act as subjects whereas effected objects are non-referential with less salience, thus are more

likely to be omitted or just conceptualized as landmarks. The *be V-ed* pattern which foregrounds the object is against the natural conceptual tendency, therefore is used less frequently unless with speakers' special intention to emphasize the object.

Default objects are ready for use for all levels of Chinese EFL learners, who are dependent on them in using TCEP. The verbs consume part of the meanings of patients. For example, *cook*'s object is going to be *food*, no matter what the specific name is given to the food. Therefore, the selection of objects is confined to particular words and that contributes to the similarity in use by all Chinese EFL learners.

4.5.3 Summary

Chinese EFL learners use less the be V-ed pattern due to the insalient nature of the effected patient, and the emphasis by means of passivization deviates from the prototypical mapping of the patient with the landmark, the less profiled participant in events. Chinese EFL learners also use more general meanings words as objects instead of object omission due to the transitive bias in their conceptualization.

On the contrary, all three levels of Chinese EFL learners are similar in their use of TCEP, indicating the difficulty for them to change their reliance on the prototypical transitive constructions.

4.6 Transitive Constructions with Ergative Verbs

4.6.1 Comparisons between LOCNESS and SUBWECCL

One of the major features of ergative verbs is that they presume a different perspective: viewing energy transfer from the endpoint rather than from the starting point, from the patient to the agent and from theme to the actor. It is syntactically special in that the object of the *V n* pattern is often used as the subject of the *n V* pattern.

4.6.1.1 Break

The *be V-ed pattern* is used in approximately the same percentage in the two corpora, but there are more occurrences of the *n V* pattern in LOCNESS, whereas there are more cases of the *V n* pattern in SUBWECCL.

Table 4.90 Syntactic Patterns of *break*

Patterns	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	32	48%	20	56%
n V	23	34%	9	25%
be V-ed	12	18%	7	19%
Total	67	100%	36	100%

Examples:

The *V n* pattern

*This kind of ignorant thinking is **breaking** us apart.* USARG

*They always dare to **break** the school disciplines, and sometimes they even make themselves caught in trouble.* WARG2457

The *n V* pattern

*They realized that they would have to order parts for the brakes if one **broke**…* USARG

*The feelings between them can become very easy to **broke**.* WARG3528

The *be V-ed* pattern

*Most traditions are **broken** to benefit society or to create it more equal.* USARG

*…the traffic regulations are often **broken** by people living in such a high pace.* WARG3058

Subjects

Both human beings and inanimate entities are used as subjects in the two corpora. However, there are more inanimate subjects in LOCNESS than in SUBWECCL. Among the human subjects, the first and second person pronouns are used more frequently in SUBWECCL.

Table 4.91 Subjects of *break*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
it	*2*	they	3
people	*2*	we	2
youth	2	*one*	*2*
Boston	1	behave	1
chemical	1	*it*	*1*
computer	1	*people*	*1*
crime	1	plant	1
Electre	1	somebody	1
fun	1	tax	1
he	1	whoever	1
many	1	*you*	*1*
measure	1		
men	1		
one	1		
player	1		
practice	1		
scientist	1		
thinking	1		
you	*1*		

Table 4.92 Classification of the Subjects of *break*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	11	50%	11	73%
1st person	0	0	2	18.2%
2nd person	1	9%	1	9.1%
common nouns	10	91%	8	72.7%
INANIMATE	11	50%	4	27%
Total	22	100%	15	100%

Objects

Law is the most frequently used object in both corpora, indicating the effect of formulaic expressions. Most uses in the two corpora are metaphorical as their objects (*barrier, rule, agreement, balance,* etc.). However, the collocating words are shared in both corpora: *law* and *rule*, indicating their entrenchment in both the mind of both Chinese EFL learners and NSs as in the expression: *break law/rule.*

Table 4.93 Objects of *break*

LOCNESS		**SUBWECCL**	
Objects	**Counts**	**Objects**	**Counts**
law	*8*	*law*	*4*
barrier	3	agreement	1
it	*2*	balance	1
rule	*2*	discipline	1
back	1	harmony	1
bank	1	hope	1
community	1	*it*	*1*
consensus	1	ozone layer	1
custom	1	material	1
cycle	1	practice	1
existence	1	reputation	1
frontier	1	right	1
house	1	*rule*	*1*
leg	1	shackle	1
mould	1	silence	1
plan	1	this	1
program	1	war	1
promise	1		
skin	1		
spine	1		
us	1		

4.6.1.2 Change

V n pattern is used more frequently in LOCNESS, while the *be V-ed* pattern is used less frequently. The *n V* pattern is used at a noticeably higher frequency in SUBWECCL.

Table 4.94 Syntactic Patterns of *change*

Patterns	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	140	61.4%	90	39.6%
n V	71	31.1%	98	43.3%
be V-ed	17	7.5%	39	17.1%
Total	228	100%	227	100%

Examples:

The *V n* pattern

*This is admirable as he is trying to **change** the lives of people who think they're happy and immortal but are really unhappy and mortal.* BRSUR1

*You can **change** your idea by reading some English essays.* WARG0703

The *n V* pattern

*This explains why something has to **change** in the business world today because business has to be looked at positively…* USARG

*The nature of teaching will have to **change**.*

The *be V-ed* pattern

*In doing this he believes that the whole universe could be **changed** …* BRSUR1

*In my opinion, this traditional practice must be **changed** along with the development of modernization…* WARG2182

Subjects

Both human beings and inanimate entities serve as subjects in the two corpora, but the words employed are different. The most frequently used subjects in the two corpora

are *invention* (LOCNESS) and *we* (SUBWECCL) respectively. *We* occurs for 19 times, nearly a third of all the subjects taken by *change* in SUBWECCL. Most subjects in SUBWECLL are words for human beings (60%), whereas they are inanimate entities in LOCNESS (76%). When taking human beings as subjects, the two corpora also show some differences: the first and second person pronouns occur much more frequently in SUBWECCL whereas they are mainly common nouns in LOCNESS.

Table 4.95 Subjects of *change*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
invention	10	*we*	*19*
he	7	you	4
doing	6	*people*	*3*
they	5	technology	3
television	4	woman	2
what	3	internet	2
this	3	knowledge	2
it	3	government	2
we	*2*	actor	1
society	*2*	girl	1
people	*2*	god	1
event	2	manufacturer	1
Candide	2	nobody	1
world	1	who	1
TV	1	Xi Shi	1
that	1	country	1
telephone	1	globalization	1
suicide	1	history	1
subject	1	function	1
satellite dish	1	mind	1
sale	1	nature	1
result	1	opinion	1
possession	1	perception	1
polio	1	relationship	1
person	1	role	1
penalty	1	situation	1
PAC	1	*society*	*1*
much	1	thing	1
modernization	1	university	1
miracle	1		
law	1		
idea	1		
gun	1		
everything	1		

egg	1
drug	1
discovery	1
De Gaulle	1
creation	1
confederacy	1
computer	1
company	1
child	1
attitude	1
AIDS	1
advent	1

Table 4.96 Classification of the Subjects of *change*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	20	24%	35	60%
1st person	2	10%	19	54.3%
2nd person	0	0	4	11.4%
common nouns	18	90%	12	34.3%
INANIMATE	64	76%	23	40%
Total	84	100%	58	100%

The objects used in the two corpora are similar.

Table 4.97 Objects of *change*

LOCNESS		**SUBWECCL**	
Objects	**Counts**	**Objects**	**Counts**
way	*21*	*life*	*10*
life	*20*	*it*	*8*
mind	*5*	*situation*	*6*
attitude	*4*	*habit*	*4*
constitution	3	*world*	*4*
it	*3*	concept	3
policy	*3*	idea	3
age	2	*way*	*3*
function	2	*mind*	*2*
government	2	much	2
home	2	*opinion*	*2*
human	*2*	ourselves	2
meaning	2	*position*	*2*

opinion	*2*	*society*	*2*
order	2	themselves	2
perception	2	appearance	1
philosophy	2	aspect	1
role	2	*attitude*	*1*
society	*2*	bus	1
technology	2	candidate	1
universe	2	community	1
what	*2*	*condition*	*1*
law	2	country	1
all	1	culture	1
anything	1	demerit	1
business	1	enthusiasm	1
child	1	family	1
communicating	1	*fate*	*1*
condition	*1*	history	1
decision	1	*human*	*1*
electronic	1	husband	1
epicenter	1	knowledge	1
everything	1	location	1
expectation	1	major	1
experiment	1	manner	1
face	1	method	1
fate	*1*	mindset	1
gene	1	nation	1
bloves	1	orientation	1
habit	*1*	*people*	*1*
him	1	*policy*	*1*
itself	1	rubbish	1
matter	1	someone	1
message	1	standards	1
mode	1	them	1
motive	1	theory	1
nature	1	thoughts	1
notion	1	*what*	*1*
outfit	1	words	1
outlook	1	yourself	1
packaging	1		
party	1		
people	*1*		
population	1		
position	*1*		
prejudice	1		
Prime minister	1		
procedure	1		
product	1		
race	1		

rate	1
rule	1
situation	*1*
size	1
style	1
supply	1
symbol	1
system	1
thing	1
this	1
tune	1
views	1
world	*1*

The most frequently used objects occur both in LOCNESS and SUBWECCL, such as *way, life* and *mind*, but there are some differences regarding the use of reflexive pronouns. More reflexives are observed in SUBWECCL: *ourselves, themselves* and *yourself.*

4.6.1.3 Improve

The *V n* pattern is used more frequently in SUBWECCL while the *n V* pattern occurs more often in LOCNESS. *The be V-ed pattern* is used more in SUBWECCL than in LOCNESS.

Table 4.98 Syntactic Patterns of *improve*

Patterns	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	48	66.7%	247	82%
n V	18	25%	21	7%
be V-ed	6	8.3%	33	11%
Total	72	100%	301	100%

Examples:

The *V n* pattern

For example in the treatment of genetic disorders, the production of new medicines ***improving*** *crop yields…* USARG

Students could ***improve*** *their abilities with these.* WARG2238

The *n V* pattern

The unions were hopeful that workers' rights would ***improve****.* BRSUR1

First of all, these people think the children could ***improve*** *from the competition.* WARG1767

The *be V-ed* pattern

As I've already said the area of travel has been greatly ***improved*** *due to the airplane.* USARG

With the development of technology, people's life level has been ***improved*** *greatly.* WARG1286

Subjects

The subjects taken by *improve* are different. The most frequently used words for subjects are human beings such as *we, you* and *people* in SUBWECCL, and *we* is used far more frequently with 11 occurrences. Inanimate entities occur more often in LOCNESS such as *grass, age,* and *burst*. Table 4.100 indicates that human beings used as subjects only stand at 13.6% whereas they are 56% in SUBWECCL. The situation is reversed for inanimate entities used as subjects, which occupy 86.4% in LOCNESS, but only 44% in SUBWECCL.

Table 4.99 Subjects of *improve*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
grass	2	*we*	*44*
age	1	*it*	*15*
burst	1	you	11
change	1	*people*	*8*
company	*1*	*they*	*8*
computer	*1*	education	6
explaining	1	child	5
frequency	1	which clause	5
genetics	1	student	4
integration	1	reading	3
it	*1*	skill	3
knowledge	1	technology	3
legalization	1	cooperation	2
one	1	learning	2
people	*1*	condition	2
placement	1	study	1
production	1	goodwill	1
ban	1	capability	1
they	*1*	China	1
this	*1*	Chinese	1
we	*1*	*company*	*1*
		competence	1
		competition	1
		computer	*1*
		country	1
		doing jobs	1
		dream	1
		enterprise	1
		government	1
		he	1
		I	1
		law	1
		living	1
		nation	1
		number	1
		planting trees	1
		position	1
		school	1
		society	1
		education	1
		standard	1
		that	1
		this	*1*
		who	1

Table 4.100 Classification of the Subjects of *improve*

Subjects	LOCNESS		SUBWECCL	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	3	13.6%	84	56%
1st person	1	33.3%	45	53.6%
2nd person	0	0	11	13.1%
common nouns	2	66.7%	28	33.3%
INANIMATE	19	86.4%	66	44%
Total	22	100%	150	100%

Objects

Notice should be taken of the use of reflexive pronouns as objects in SUBWECCL. There are a number of them: *ourselves (14), themselves (13), yourself (6), himself (3), oneself (2), myself (1). Oneself* occurs only once in LOCNESS, and none of the other reflexives appear in LOCNESS. The frequent use of reflexive pronouns in SUBWECCL is in sharp contrast with the rare use of them in LOCNESS.

Table 4.101 Objects of *improve*

LOCNESS		SUBWECCL	
Objects	**Counts**	**Objects**	**Counts**
life	*4*	ability	44
service	3	quality	21
chance	2	*skill*	*16*
health	2	ourselves	14
skill	*2*	themselves	13
speed	*2*	English	12
university	2	*it*	*8*
argument	1	*condition*	*7*
aspect	1	yourself	6
availability	1	knowledge	6
care	*1*	level	6
character	*1*	efficiency	5
competitiveness	1	environment	5
condition	*1*	*life*	*5*
education	*1*	*standard*	*5*
establishment	1	capability	4

facility	1	fame	3
fault	1	himself	3
healthcare	1	situation	3
image	1	relationship	3
it	*1*	*oneself*	*3*
lifestyle	1	personality	2
lot	1	*society*	*2*
method	1	spirit	2
oneself	*1*	transportation	2
rank	1	*itself*	*2*
safety	1	man	2
situation	1	bond	1
society	*1*	both	1
species	1	*care*	*1*
standard	*1*	*character*	*1*
support	1	characteristics	1
symptom	1	city	1
system	*1*	competence	1
this	1	consciousness	1
transport	1	cooperation	1
understanding	1	country	1
yield	1	development	1
		diathesis	1
		education	*1*
		effects	1
		EQ	1
		examination	1
		impression	1
		intellectual	1
		intelligence	1
		material	1
		mind	1
		myself	1
		one	*1*
		outlook	1
		performance	1
		position	1
		productiveness	1
		pronunciation	1
		qualification	1
		responsibility	1
		rhythm	1
		sense	1
		speaking	1
		speed	*1*
		study	1
		system	*1*

	taste	1
	team	1
	technique	1
	technology	1
	temperament	1
	them	1
	thing	1
	strength	1
	traffic	1
	us	1
	vocabulary	1

Table 4.102 Classification of the Objects of *improve*

Objects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN	1	2.1%	44	17.8%
reflexive	1		40	
INANIMATE	47	97.9%	203	82.2%
Total	48	100%	247	100%

4.6.1.4 Start

There are more uses of the *n V* pattern in LOCNESS, but more uses of the *V n* pattern in SUBWECCL. The *be V-ed pattern* occurs less frequently in SUBWECCL.

Table 4.103 Syntactic Patterns of *start*

Patterns	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
V n	27	34%	9	53%
n V	45	56%	7	41%
be V-ed	8	10%	1	6%
Total	80	100%	17	100%

Examples:

The *V n* pattern

*But are we right to blame the scientists who first **started** the research and who had no ideas for it to be used as a weapon.* alevels8

*Schools can **start** psychological classes that can teach students how to face problems bravely.* WARG3836

The *n V* pattern

*Camus **starts** by trying to define the absurd.* BRSUR1

*Especially, everyone should **start** with the little things…* WARG4310

The *be V-ed* pattern

*Before any essay can be **started**, the key words in the essay title must be defined and understood.* alevels1

*Nowadays, famous people have less privacy and they are always with some rumors **started** by the media.* WARG4643

Subjects

There are both human beings and inanimate entities used as subjects in LOCNESS, but the subjects in SUBWECCL are mainly human beings. (*they, we* and *you* are pronouns, and *government* and *school* are human organizations.)

Table 4.104 Subjects of *start*

LOCNESS		**SUBWECCL**	
Subjects	**Counts**	**Subjects**	**Counts**
women	2	they	1
abuse	1	school	1
body	1	government	1
bus	1	*we*	*1*
Caligula	1	you	1
child	1		
I	1		
IBM	1		
it	1		
mother	1		
Pangloss	1		
people	1		

player	1
problem	1
scientist	1
she	1
Steve	1
students	1
this	1
we	*1*

Table 4.105 Classification of the Subjects of *start*

Subjects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN(volitional)	2	7.4%	9	100%
INANIMATE(non-volitional)	25	92.6%	0	0
Total	27	100%	9	100%

Objects

Objects used in the two corpora are similar in that they are all mainly non-volitional entities. A few words referring to human beings are used as objects in LOCNESS but none of them occur in SUBWECCL.

Table 4.106 Objects of *start*

LOCNESS		**SUBWECCL**	
Objects	**Counts**	**Objects**	**Counts**
revolution	2	career	2
menopause	2	class	1
family	2	enterprise	1
life	*2*	*life*	*1*
day	2	program	1
uproar	1	school	1
uprising	1	study	1
research	1	war	1
reign	1		
quarterback	1		
philosophizing	1		
ordeal	1		
kid	1		

intercourse	1
industry	1
homework	1
habit	1
girl	1
engine	1
change	1
announcement	1

Table 4.107 Classification of the Objects of *start*

Objects	**LOCNESS**		**SUBWECCL**	
	Counts	**Proportion**	**Counts**	**Proportion**
HUMAN(volitional)	2	9.5%	5	100%
INANIMATE(non-volitional)	19	90.5%	0	0
Total	21	100%	5	100%

4.6.1.5 Linguistic Features

After the uses of each verb in the two corpora are compared, the similarities and differences in the using of transitive constructions with ergative verbs can be summarized in the following aspects:

(1) All the three patterns are used in both corpora, but they occur in different proportions for each corpus. Chinese EFL learners use less the *n V* pattern but are more likely to use the *be V-ed* pattern than native speakers.

(2) The subjects consist of both animate and inanimate entities in both corpora, but Chinese EFL learners use more animate entities as subject and more inanimate entities as object than native speakers.

(3) Chinese EFL learners use more reflexive pronouns as objects.

Syntactic patterns

With the four verbs, except for *change*, there are more intransitive (the *n V* pattern) uses in LOCNESS than in SUBWECCL. As the figure below shows:

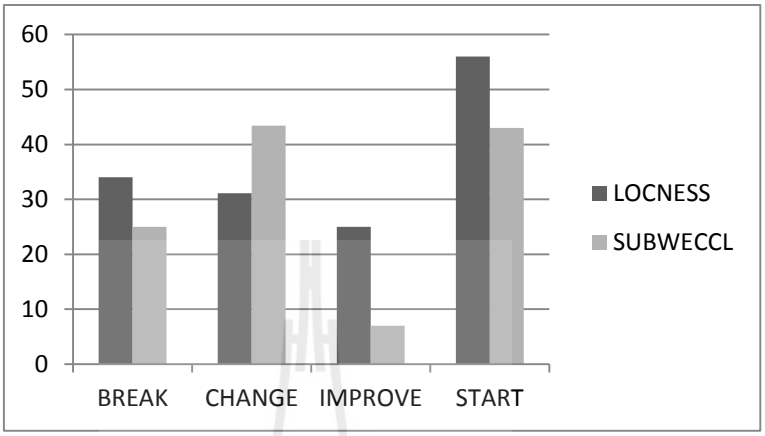

Figure 4.13 Use of the *n V* Pattern in TCEV

Even when the inanimate is used as subject, it is likely to be passivized. Table below shows the ratio of *n V* pattern and the *be V-ed* pattern.

Table 4.105 The Ratio of the *n V* Pattern and the *be V-ed* Pattern

verbs	LOCNESS			SUBWECCL		
	n V	***be V-ed***	**ratio**	***n V***	***be V-ed***	**ratio**
break	23	12	52%	9	7	78%
change	71	17	24%	99	39	39%
improve	18	6	33%	21	33	157%
start	45	8	18%	7	1	14%

The ratio indicates the likelihood of passivation of intransitive patterns. As seen from Fig. 4.14, the ratio is higher in SUBWECCL for three verbs: *break, change* and *improve*, while in the case of *start*, the ratio is approaching at 14% and 18% in the two corpora respectively. It can be argued that Chinese EFL learners are more likely to use passive voice when encountering such situation than NSs.

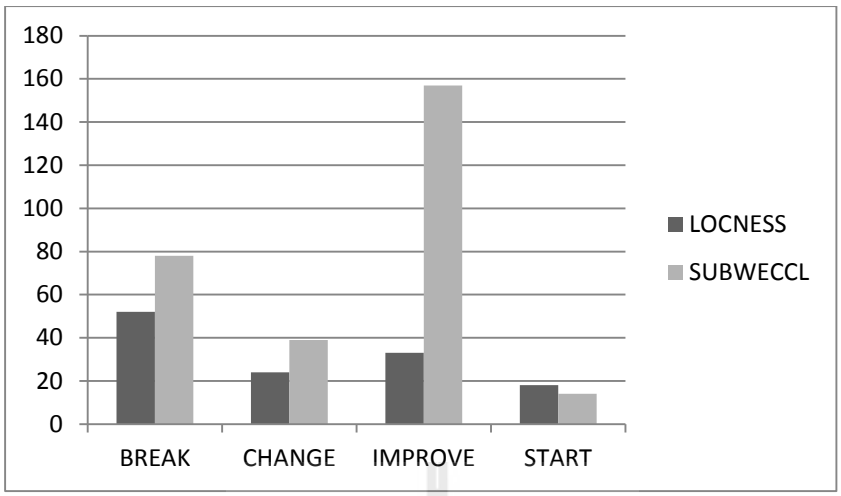

Figure 4.14 Ratio of Passivization in TCEV

Subjects

As we discussed, ergative patterns can denote a different direction of conceptualization starting from the patient, which is usually played by the role of non-volitional entities. For the transitive pattern, they are used more like prototypical transitive constructions, with destructive effects on the patient. For the ergative verbs studied here, there are more inanimate subjects used in LOCNESS than in SUBWECCL.

The use of non-volitional subjects acting as force is not as frequent in SUBWECCL as in LOCNESS, because agents are usually volitional and non-volitional agents are not prototypical. Any deviations from the prototype are extensions from it and require additional conceptual effort as we have discussed in previous sections; therefore, it is used less by Chinese EFL learners.

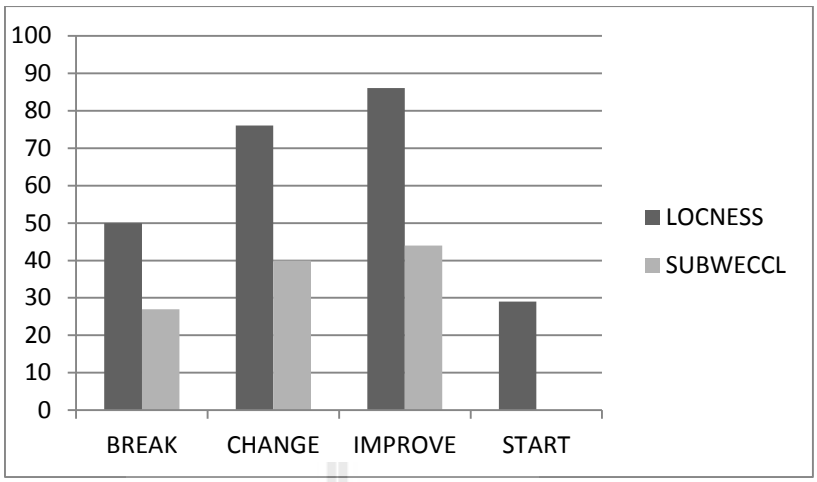

Figure 4.15 Use of Non-Volitional Subjects in TCEV

Objects

In the case of *improve*, there occur a number of reflexives as objects in SUBWECCL, while they rarely appear in LOCNESS. It is a special phenomenon as the other two verbs, *change* and *break* display no such use. Improve is usually used with a patient and agent.

This would greatly improve the lotteries image. alevels5

But Chinese EFL learners use it like

Only understand the functions of university education well, can we improve our qualities and contribute to our country. WARG1608

Teamwork can make us realize our shortages and then we can improve ourselves a lot; WARG0665

4.6.1.6 Conceptual Features

The linguistic features in using ergative verbs reveal that:

(1) Chinese EFL learners are more constrained by the prototypical transitive perspective of conceptualizing from the agent from the patient;

(2) The animacy hierarchy constrains the selection of the words for subjects and object; the conceptualization of the agent and patient is mapped with the animacy hierarchy.

Perspective

The ergative pattern suggests a different perspective, which is abundant in Chinese, but the relative lack of ergative use in L2 indicates that Chinese EFL learners are not familiar with this kind of conceptualization in English. As English is predominantly transitive, ergative is syntactically peripheral. The peripheral use of ergative patterns require a different way of viewing events and require additional mental effort in conceptualization than a transitive perspective. It is this additional mental effort which discourages Chinese EFL learners from using ergative patterns. The ergative pattern (*n V* pattern in this respect) usually takes the non-human entity as subjects; therefore, it is also contradictory to the prototypical subject which is fulfilled by animate entity (especially human beings). The non-traditional use of inanimate subjects also contributes to the lack of ergative use for Chinese EFL learners.

However, there is one exception. The use of *change* is different and it is the only verb that Chinese EFL learners use with more *n V* patterns than NSs. The reason lies in its two counterparts in Chinese in meaning: *bian hua* (intransitive) or *gai bian* (transitive). The use is subject to cross-linguistic influences. When Chinese EFL learners want to use the *n V* pattern or the *V n* pattern, they can always resort to their conceptual base in Chinese to form counterpart constructions in English. There are two prototypes in concept for *change* in Chinese, and Chinese EFL learners can select one at their will. As both are prototypical concepts, it poses no problem for them to use the two patterns if necessary.

As argued before, ergative verbs denote a different perspective. While ergative languages are rare, ergative uses are not uncommon in English, and some scholars even call it the process of ergativization such as the historical change of *starve, thirst* and *abort* (Halliday et al., 2014; Lemmens, 1997, 1998). Therefore, Chinese EFL learners' tendency to use more passive voice instead of intransitive pattern is a reaction to ergativization. What is interesting here is that, like English, Chinese is a predominantly transitive language but with abundant uses of ergativization (Frei, 1956; Y. Zhang, 2014; Zhou, 1990). Chinese EFL learners are familiar with ergative construction in Chinese, yet they are not likely to use it in L2. The author argues that it is the change of perspective that leads to Chinese EFL learners' different use from NSs. In other words, it is caused more by a different way of conceptualization than by language transfer.

As English is predominantly in the transitive paradigm, it is the default form for Chinese EFL learners. Any deviation means a conceptual change of perspective and requires additional mental effort for Chinese EFL learners. Apparently, Chinese EFL learners are not familiar with ergativity in English, even though they are using it in Chinese. They encounter it in English, but it is not entrenched in their conceptual system. They rely on the transitive paradigm, and use English based on the transitive paradigm which is part of their conceptual base.

The intransitive use of ergative verbs de-emphasizes the agent in the event, therefore foregrounding the role of patient. The de-emphasis of agent can also be achieved with the use of passive patterns. On the one hand, the two means are similar in their omission of agent so that there is only patient acting as trajector, the primary focus in conceptualization. On the other hand, they are different regarding the perspective. Although the *be V-ed* pattern also deviates from the prototypical transitive

construction, it is not as deviating as changing the perspective implied by the ergative use. The passive pattern, as a means of adjustment of trajector and landmark, has long been entrenched in L2 conceptualization, and therefore is more likely to be chosen when learners want to emphasize the patient rather than using the *V n* pattern.

However, it does not mean that Chinese EFL learners cannot acquire the ergative pattern. Instead, they use them frequently in L2. They just do not use them as frequently as NSs and as readily as they use passive patterns. Another proof is the use of reflexives as subjects by Chinese EFL learners. The use of reflexives turns a conceptually inchoative event into a transitive event. Though the event remains the same, the conceptualization changed.

Animacy hierarchy

Chinese EFL learners use more first person pronouns; therefore, the action is focused around them. Reflexive pronouns are used as device of transivitization to change an ergative use into transitive. They fulfill the role of objects although they can be omitted. It indicates that the prototypical transitive construction constrains Chinese EFL learners from using the ergative pattern which is a deviate form. The objects of *change* and *break* are mostly non-human; therefore, reflexive pronouns are used infrequently.

4.6.2 Comparisons between Different Levels in SUBWECCL

4.6.2.1 Syntactic Patterns

All three levels of Chinese EFL learners use more *V n* patterns, followed by the *n V* pattern, and the least used pattern across all three levels is the *be V-ed* pattern.

Table 4.109 TCEV Used by Different Levels of Learners

Patterns	Level 1		Level 2		Level 3	
	Counts	**Proportion**	**Counts**	**Proportion**	**Counts**	**Proportion**
V n	130	61.6%	128	71.5%	108	56.5%
n V	58	27.5%	29	16.2%	48	25.1%
be V-ed	23	10.9%	22	12.3%	35	18.4%
Total	211	100%	179	100%	191	100%

4.6.2.2 Argument

Seven words for subjects occur in common among all three levels: *it, people, technology, they, we, who (ever)* and *you*. There are 16 words used as objects in all three levels: *ability, condition, English, himself, it, knowledge, level, life, ourselves, quality, relationship, situation, skill, society, themselves* and *yourself*. Note that there are four reflexives used frequently in all three levels: *themselves, yourself, ourselves* and *himself*.

Table 4.110 The Subjects of TCEV Used by Different Levels of Learners

Level 1 Subjects	**Counts**	**Level 2 Subjects**	**Counts**	**Level 3 Subjects**	**Counts**
we	*31*	*we*	*15*	*we*	*20*
you	*6*	*it*	*8*	*you*	*5*
it	*5*	*they*	*7*	child	3
education	4	*you*	*6*	education	3
people	*4*	*people*	*5*	*it*	*3*
condition	3	child	2	skill	3
government	3	reading	2	*people*	*2*
they	*4*	student	2	*technology*	*3*
which clause	3	*technology*	*2*	capability	1
cooperation	2	actor	1	China	1
country	2	competences	1	competition	1
knowledge	2	doing jobs	1	computer	1
learning	2	function	1	dream	1
behave	1	god	1	enterprise	1
Chinese	1	goodwill	1	government	1
company	1	he	1	internet	1

girl	1	internet	1	let	1
globalization	1	mind	1	manufacturer	1
history	1	opinion	1	nation	1
I	1	perception	1	nature	1
law	1	person	1	nobody	1
living	1	school	1	number	1
one	1	situation	1	one	1
planting trees	1	society	1	relationship	1
plant	1	study	1	role	1
position	1	tax	1	school	1
reading	1	university	1	that	1
society	1	which clause	1	*they*	*1*
somebody	1	*whoever*	*1*	*who*	*1*
standard	1			woman	1
student	1				
technology	*1*				
thing	1				
this	1				
who	*1*				
woman	1				
Xi Shi	1				

Table 4.111 The Objects of TCEV Used by Different Levels of Learners

Level 1 Objects	**Counts**	**Level 2 Objects**	**Counts**	**Level 3 Objects**	**Counts**
abilities	*16*	*ability*	*16*	*ability*	*12*
quality	*9*	*English*	*7*	*skill*	*8*
ourselves	*7*	*it*	*7*	*life*	*7*
it	*5*	*ourselves*	*6*	*themselves*	*7*
knowledge	*5*	*quality*	*6*	*quality*	*6*
life	*5*	*skill*	*5*	*it*	*5*
English	*4*	*life*	*4*	*condition*	*3*
level	*4*	*themselves*	*4*	*ourselves*	*3*
situation	*4*	fame	3	*situation*	*3*
themselves	*4*	law	3	standard	3
condition	*3*	*yourself*	*3*	capability	2
efficiency	3	*condition*	*2*	efficiency	2
environment	3	environment	2	habit	2
skill	*3*	idea	2	itself	2
world	3	opinion	2	mind	2
yourself	*3*	position	2	much	2
concept	2	*situation*	*2*	*society*	*2*
habit	2	standard	2	ways	2
agreement	1	transportation	2	a man	1
aspect	1	appearance	1	balance	1
bond	1	attitude	1	both	1
bus	1	candidate	1	career	1
capability	1	classes	1	characteristic	1
care	1	cooperation	1	community	1
career	1	country	1	concept	1

character	1	culture	1	consciousness	1
city	1	development	1	*English*	*1*
competence	1	diathesis	1	EQ	1
country	1	education	1	*himself*	*1*
demerit	1	effect	1	hope	1
discipline	1	enthusiasm	1	husband	1
enterprise	1	fate	1	intelligence	1
examination	1	harmony	1	*knowledge*	*1*
family	1	*himself*	*1*	*level*	*1*
himself	*1*	human	1	location	1
history	1	intellectual	1	manner	1
idea	1	*knowledge*	*1*	method	1
impression	1	*level*	*1*	mindset	1
law	1	major	1	nation	1
material	1	material	1	orientation	1
mind	1	one	1	ozone layer	1
myself	1	*oneself*	*1*	people	1
oneself	*1*	outlook	1	personality	1
personality	1	performance	1	*relationship*	*1*
policy	1	pronunciation	1	rule	1
position	1	*relationship*	*1*	system	1
practice	1	reputation	1	technique	1
productiveness	1	responsibility	1	technology	1
program	1	right	1	thing	1
qualification	1	rubbish	1	us	1
relationship	*1*	school	1	war	1
rhythm	1	sense	1	way	1
silence	1	shackle	1	*yourself*	*1*
society	*1*	society	1		
someone	1	speaking	1		
spirit	1	speed	1		
strength	1	spirit	1		
study	1	study	1		
taste	1	team	1		
them	1	temperament	1		
theory	1	them	1		
traffic	1	this	1		
what	1	thought	1		
		vocabulary	1		
		war	1		
		word	1		
		world	1		

4.6.2.3 Linguistic Features

In all three levels, the *V n* pattern is used most frequently, followed by the *n V* pattern and *be V-ed* pattern.

There are a large proportion of words used as subjects and objects in common by all three levels. As indicated by the table below, the choice of subjects and objects of ergative verbs is similar as more than half of all words are the same.

Reflexive pronouns are used as objects frequently by all three different levels.

Table 4.112 Similarity of Arguments in TCEV

Levels	Subject			Object		
	Number	Total	Proportion	Number	Total	Proportion
Level 1	52	95	54.7%	75	130	57.7%
Level 2	44	69	63.8%	68	128	53.1%
Level 3	35	64	54.7%	62	108	57.4%

4.6.2.4 Conceptual Features

The verbs are ergative, indicating a different perspective. However, Chinese EFL learners stick to the transitive paradigm, so the *V n* pattern far outnumbers *n V* pattern in all three levels.

Reflexive pronouns are used as objects frequently by all learners. The reflexives used in objects fulfill the position of objects rather than providing new information, which can be omitted. It indicates a transitive bias among all learners as it serves to transitivize the intransitive pattern,

4.6.3 Summary

Chinese EFL learners tend to use the n V pattern but more the be V-ed pattern as a reaction toward ergativization. They also use more animate entities as the subject and more inanimate entities as the object due to the effect of animate hierarchy. They use more reflexive pronouns as a means of transivitization.

All three levels of Chinese EFL learners are similar in their use of TCEV as displayed by their use of syntactic patterns and their choice of the subjects and objects. It indicates the difficulty for EFL learners to change their conceptualization in using transitive constructions.

4.7 Synthesis of Results and Discussions

4.7.1 Comparisons between LOCNESS and SUBWECCL

4.7.1.1 Linguistic Features

This section answers Research Questions 1:

What are the similarities and differences in the use of English transitive constructions between Chinese EFL learners and NSs of English?

Syntactic patterns

The findings reveal that there are certain similarities and major differences between their uses. The results are summarized as follows:

Table 4.113 Syntactic Similarities and Differences between Chinese EFL Learners and NSs

TCs with	Similarities	Differences
Prototypical transitive verbs	Mainly the *V n* and *be V-ed* patterns are used in both corpora. *The foxes **kill** sheep, hens and scare animals.* alevels3 *Many students have been wounded or even **killed** by the cars.* WARG4463	There is no use of the *n V* pattern in SUBWECCL *If you do not **kill** enough, it is not worth killing at all.* BRSUR1

Affected agents	The *V n* and *n V* patterns are used frequently in both corpora. *You can not only **learn** a lot of new words.* WARG3485 *You can develop together and **learn** from each other.* WARG3399	There are less uses of the *be V-ed* pattern in SUBWECCL. *Prejudice and discrimination are not consciously **learned**…* USARG
Volitional undergoers	The *V n* and *be V-ed* pattern are used in both corpora, and the former is more frequent. *China should go out to **attract** talented people in order to better compete in the world.* WARG4539	The *be V-ed* pattern is used more frequently in SUBWECCL. *Child begins to be **attracted** by the computer games.* WARG2199
Neutral participants	Mainly the *V n* pattern and the *n V* patterns are used in both corpora; Few *be V-ed* patterns are used in both corpora. *When dissatisfactions **enter** spouses tend to blame one another.* USARG *If the mother fails to **enter** training programs or find a job within two years her benefits would be cut off…* USARG	There is mainly the *V n* pattern used in SUBWECCL. The *be V-ed* and *n V* patterns are used less in SUBWECCL than in LOCNESS. *Once the child **enter** the primary school, they should learn how to get along with their classmates …* WARG3696
Effected patients	Mainly the *V n* pattern and the *n V* patterns are used in both corpora. *He **writes** a book so that the world would know about the holocaust.* USMIXED *People can **write**, draw by themselves with all hearts.* WARG2870	There are less uses of the *be V-ed* pattern in SUBWECCL *Because the word on it are printed but not **written** by hand.* WARG2659
Ergative verbs	All three patterns are used in both corpora. *This kind of ignorant thinking is*	Chinese EFL learners tend to use the *be V-ed* pattern instead of the *n V* pattern. *The traffic regulations are often*

	breaking *us apart.* USARG *The feelings between them can become very easy to* ***broke****.* WARG3528	***broken*** *by people living in such a high pace.* WARG3058

Arguments

(1) Chinese EFL learners use more volitional entities as subjects (mainly human beings), as Fig. 4.16 shows; The first and second person pronouns are also used more frequently in SUBWECCL, as Fig. 4.17 shows;

(2) Chinese EFL learners use more human beings as objects, as Fig. 4.18 shows; more reflexives pronouns are used as objects for certain verbs such as *change, improve* in SUBWECCL; Chinese EFL learners also tend to use more general meaning nouns as objects such as *thing, something, food.*

(3) Formulaic expressions are used in both corpora, but Chinese EFL learners rely on them more than NSs;

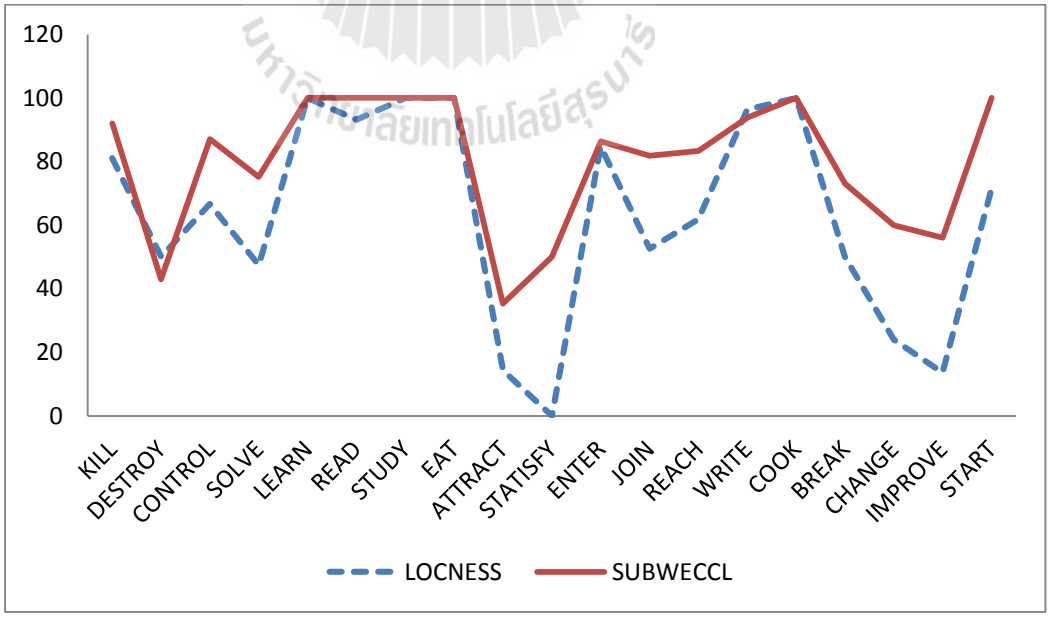

Figure 4.16 Comparison of Volitional Subjects between LOCNESS and SUBWECCL

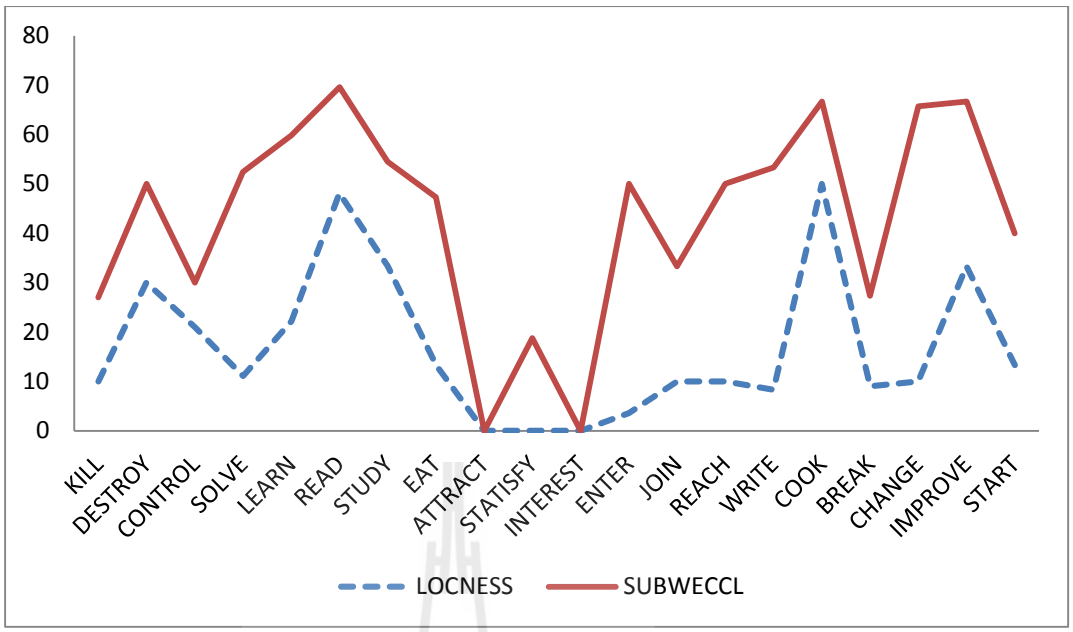

Figure 4.17 The Percentages of First and Second Person Pronouns as Subjects in LOCNESS and SUBWECCL

Except for three verbs, *control*, *change* and *improve*, all the other verbs are followed with more human beings as objects than non-human entities.

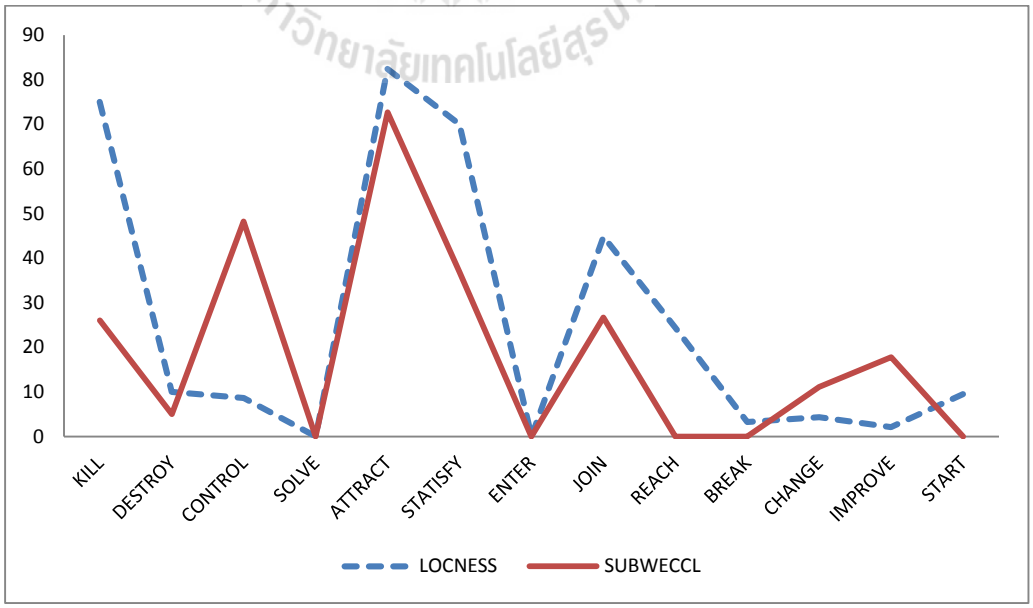

Figure 4.18 Human Beings Acting as Objects

For such verbs like *change* and *improve*, reflexive pronouns are used frequently as the object to express the action's effect on the subject itself.

Linguistic simplification

All the above-mentioned features are displayed in the current study, and the author argues that they contribute to the simplification in L2. The transitive constructions used by Chinese EFL learners are simplified and more basic in comparison with those used by native speakers. They are grammatically correct but different. Callies identifies this as an advanced learner variety (ALV) as it is free from grave grammatical errors but unidiomatic and is different from the language of native speaker in subtle ways (Callies, 2009), including: overuse of high frequency words (Ringbom, 1998a, 1998b), reliance on certain prefabrications (De Cock, 1998, 2000), a high degree of personal involvement (Petch-Tyson, 1998). Granger (2004) considers they are the features of advanced interlanguage, which is the result of a very complex interplay of factors: developmental, teaching-induced and transfer-related.

Due to the simple features in L2, it is considered as resembling some features of spoken language. Spoken features are prevalent even in native learner corpora such as ICLE (International Corpora of Learner English) (Granger, Dagneaux, et al., 2002) in comparison with other native corpora, though not as obvious as in L2, as native learners are also in a process of language development (Gilquin & Paquot, 2007). The simplifications of L2 involve both vocabulary and syntax. Limited vocabulary is expected of Chinese EFL learners, but the simplification in syntax is also obvious in L2.

4.7.1.2 Conceptual Features

This section answers research question 2:

What do the results of RQ 1 reveal about Chinese EFL learners' conceptual features in

their uses of transitive constructions?

The features in Chinese EFL learners' use of transitive constructions are the result of prototypical effects. The conceptual systems of both Chinese EFL learners and NSs are based on prototypes. While NSs are more flexible in adapting the transitive prototype to express their unique conceptualizations through conceptual devices such as the attention, profiling and perspective, leading to a flexible use of transitive constructions, Chinese EFL learners are more dependent on prototypes and are constrained by them in conceptualization.

Syntactic Patterns

The uses of transitive constructions with different patterns by Chinese EFL learners are different from NSs in various ways. As all the six patterns of TC are extensions from the prototypical transitive construction, it is promising to believe that the special features are caused by the constraining effects of the prototypical transitive construction. As constructions are the pairing of form and meaning, the constraining effects are realized through the default multiple mapping relations (cf. Section 2.5.2): the agent, trajector and topic are mapped upon the subject marked with the accusative case, and the patient, landmark and the comment are mapped upon the object marked with the accusative case. Any deviation from the multiple mapping will cause a deviation from the prototypical transitive construction and thus lowering the value of transitivity.

Transitive constructions with prototypical transitive verbs

The *n V* pattern defocuses the patient and minimizes its salience and the focus is on the agents. It is used usually to encode repetitive actions, which violate the telic principle (cf. 2.2.2) stating that prototypical transitivity should be completed.

Repetition also implies that the patients are not much affected, leading to the indistinctness between the agent and patient, deviating from the prototype. The omission of objects is made possible. But Chinese EFL learners tend to use the *V n* pattern and refuse the omission of objects.

Transitive constructions with affected agent

Affectedness is the common feature between subjects and objects, blurring the distinction between them. The agent, as it is affected, acquires some feature of the patient and is conceptualized as patient-like. Therefore, with the promotion of patients with passive pattern to the role of subject, the salience of agents is demoted, contrary to human conceptualization of trajector-agent and patient-object mapping. Passive voice is used to defocus the agent (Shibatani, 1988).

Transitive constructions with volitional undergoers

The objects volitionally participate in the action; therefore, they are in a similar conceptual status as agents. Just as affected agents in TCAA have shared features with patients, volitionalness is a shared feature between volitional undergoers and the agents. Agents are usually mapped to the subject in syntax; therefore, passive pattern is preferred as it takes the volitional undergoer as the subject. The passive pattern deviates from the prototypical transitive constructions, but it avoids the reverse of syntactic roles between agents and patients.

Transitive constructions with neutral participants

The object in TCNP is neutral because it possesses none of the values defining prototypical agents and patients, defined as [-VOL, -INST, -AFF]. Therefore, it is generally back-grounded in conceptualization and plays the role of stage in the canonical event model (Langacker, 2008). The stage is usually off the focus and cannot

be promoted to the status of trajector as the primary focus. The omission of objects is possible because it is less salience; while Chinese EFL learners neglect it, NSs make use of it, suggesting the binding influence of prototypes.

Transitive constructions with effected patients

TCEP carries an effected object which comes into existence as a result of action and is thus not known previously; as the effected object is indistinct and non-referential in conceptualization, it is less salient than the agent. Therefore, Chinese EFL learners follow the transitive prototype and use fewer passive patterns than NSs who, though aware of the indistinct nature of objects, still promote it to the status of trajector with most attention given to achieving certain purpose in pragmatics or genre context.

Transitive constructions with ergative verbs

TCEV denotes an opposite perspective in conceptualization. The object [-VOL, +INST, +AFF] of TCEV is inchoative. It shares the instigating feature with the agent. Therefore, the objects in the *V n* pattern can be used as the subjects of the *n V* pattern. Chinese EFL learners follow the default perspective of conceptualizing from the agent to the patient and an opposite perspective is not expected. Therefore, they transitivize ergativity, whereas NSs are more aware of ergativity, and use the intransitive pattern accordingly.

Subjects

The prototypical effects also show their impact on the arguments in transitive constructions. Chinese EFL learners tend to use volitional entities (mainly human beings) as subjects and non-volitional entities as objects. The subject of the prototypical transitive construction is fulfilled by the prototypical agent, which is volitional and instigating but not affected in the event; therefore, Chinese EFL learners' use of subjects

are more prototypical.

Moreover, there are obviously more first and second person pronouns used as subjects in L2. In comparison with NSs, Chinese EFL learners are more likely to focus on themselves in using transitive constructions, as if the events expressed by transitive constructions are around them and their interest is not beyond their reaches.

The overuse of first and second person pronouns has been studied by some scholars, who consider it a spoken feature of L2. Peter (Petch-Tyson, 1998) found that Chinese EFL learners, though with different linguistic backgrounds (French, Dutch, Finnish, Swedish), use more first person pronouns (two to four times higher) than their native speaker counterparts in essay writing. Similar results were also produced in several studies with Chinese EFL learners from different L1 backgrounds: Chinese learners (Lee & Chen, 2009; Leedham, 2014), French speaking English learners (Cobb, 2003; Granger & Rayson, 1998), Japanese learners (McCrostie, 2008). It is argued that "novice writers," no matter whether they be NSs or NNSs, tend to use spoken features (Gilquin & Paquot, 2007). For example, the language in LOCNESS also shows some spoken features, only "less marked" than EFL learners.

However, no answer is given as to why the developmental path begins with *we* rather than other pronouns. It needs to be explained with the prototypical transitive construction. In interaction with the world, human beings are the prototypical agent and the self is at the center of this interaction and at the very center of focus. In information structure, *we* is the topic and the existing information, while other participants are comments and new information. In transitive constructions, *we* is the default starting point of energy transfer to other entities. It is *we* that imposes power on others. Therefore, it is no wonder that *we* is the most frequently used subject.

Objects

As prototypical patients are non-volitional, human beings do not count as good candidates for patients. Therefore, Chinese EFL learners tend to use patients which are non-volitional and thus prototypical. Fig. 4.18 indicates more human beings are used as objects in LOCNESS due to NSs' flexible use of language and their flexibility in conceptualization in English, whereas Chinese EFL learners' use of objects is more limited to non-human entities, suggesting the binding effect of prototypical TC which pairs the object with the prototypical patient.

Chinese EFL learners use more reflexives as objects, which are usually omitted by native speakers because these verbs are inchoative. Chinese EFL learners specifying the self as objects is actually a reiteration of meanings, but it serves to clarify the meaning and filling the slot of object which might otherwise be empty and the construction would be intransitive. As discussed before, this is a case of the ergative use for inchoative verbs. Chinese EFL learners treat them as transitive and add objects to fill the slot because the ergative form deviates from the prototypical TC.

Conceptual simplification

It is reasonable to argue that it is the result of L2 learners' reliance on prototypical use of transitive constructions.

The current project indicates that simplifications displayed in language are caused by simplifications in conceptualization. Studies in the past focused on the linguistic features and neglected the underlying mechanisms (Berretta, 1995; Leow, 1997). L2 is felt to be simple not only because the linguistic features it displays are different from NSs (actually differences often add more problems in comprehension), but because it is more prototypical in conceptualization with fewer deviations. Therefore, it is felt to

be in the vein of default conceptualization. It is language in its basic form without genre or rhetorical features which require more deviations from the prototypical constructions.

Why are prototypical constructions considered simple in conceptualization? They provide a stereotyped and thus efficient way of conceptualization. Constructions are meaningful, and people determine the meaning of an expression both by the words and more importantly, by the construction that contains the words. Therefore, constructions facilitate understanding.

With a prototypical transitive construction like [a V b], even without knowing the meanings of *a* and *b*, one would know that it means that *a* exerts force on *b* volitionally and instigates the event, and *b* is affected in the event as a result. The prototypical transitive construction itself determines the meaning of the expression. But with deviating transitive constructions, its meaning is difficult to predict. English is notorious for its multiple mapping relations between the SVO form and argument structure, as Hawkins admits, "They must often be mapped onto complex argument structures in ways that many (often most) languages do not permit, even the closely related German" (Hawkins, 2014, p. 36). For the prototypical transitive construction, the argument structure is fixed, thus enabling the prediction of meaning. It is stable in form with *V n* pattern since any different patterns mean less prototypical meaning. For example, the omission of objects, and passivization all denote low transitivity and the meaning is thus difficult to predict as the multiple mappings of the prototypical transitive constructions are loaded with meaning. The multiple mappings between form and meaning also ensure the stability of meaning; therefore, it acts as the anchor for conceptualization and lessens the conceptual burden;

Prototypes are easy to evoke for L2 learners in their uses of transitive constructions, and they are also easy to interpret for readers because they are the default linguistic encodings of salient events serving as exemplars for less conceptually salient events; they are universal across different languages because human basic cognitive capacities such as distribution of attention, focusing and perspective, are universal.

Kellerman and Ijaz's studies (Ijaz, 1986; Kellerman, 1986) indicate the universal core of conceptualization: the prototypical part is common across different languages, but the more peripheral ones are conceptualized in different ways. Prototypical transitivity as the maximal distinction between agents and patients is also universal for different languages, which is confirmed in typological studies (Næss, 2011). That is where prototype is felt to be simple.

Mechanism of Prototypical Effects

The author argues that the prototypical transitive construction constrains Chinese EFL learners' flexible use of English. The six types of transitive constructions examined in the study all show some deviations from the transitive prototype. While NSs follow the deviations and use language more flexibly, Chinese EFL learners are constrained by the prototype and their uses remind us of the features of the transitive prototype. The strain between concepts in L1 and linguistic forms in L2 is constant and accompanies the L2 learning process.

The features in Chinese EFL learners' use of transitive constructions are the result of prototypical effects. The conceptual systems of both Chinese EFL learners and NSs are based on prototypes. While NSs are more flexible in adapting the transitive prototype to express their unique conceptualizations through conceptual devices such as the attention, profiling and perspective, leading to a flexible use of transitive

constructions, Chinese EFL learners are more dependent on prototypes and are constrained by them in conceptualization.

We argue that the difference in using transitive constructions are caused by their different attitudes toward using prototypes as a starting point for deviation (for NSs) or as a schema for rectifying other less prototypical events. The different approach between Chinese EFL learners and NSs comes from their different conceptual structures. While NSs have learned the prototypes since childhood and it is open-ended in constant formation, Chinese EFL learners have already prototypes linked with their L1; therefore, they make use of the prototype.

The table below summarizes the prototypical effect illustrated in Chinese EFL learners' use of transitive constructions concerning the syntactic patterns.

Table 4.114 Prototypical Effects in Syntactic Patterns

Conceptual features	Examples
Animacy hierarchy: more human beings, especially first and second person pronouns as subject; more inanimate entities as object;	*force + kill/destroy +n;* *reach/join + somebody;* both avoided by Chinese EFL learners. Subject-object order mapping up with the animacy hierarchy.
Perspective adjustment: constrained by the agent-patient path of energy transfer, preferring to start from the volitional to the non-volitional.	*satisfy/attract/interest + somebody* by NS, changed into *Somebody be satisfied/attracted/interested* in L2.
Transitive bias: Object omission avoided; one-participant events get transitivized through adding reflexive pronouns as objects; General meaning words filling the position of objects.	*kill/destroy* often used intransitively, but avoided by Chinese EFL learners; *control/change/improve oneself,* RPs are used too much frequently in L2; *eat/learn/study/write* something/things, *things* appear too much in L2 but omitted by NSs.

Chinese EFL learners rely on prototypes for several reasons:

First, they are salient in conceptual systems (Taylor, 1995). A prototypical concept is a salient one to anchor other less salient concepts. For example, the prototypical transitive construction is formed on the basis of multiple mappings between form and meaning and the multiple cues such as word order and case markings enhance their salience in conceptualization. It encodes the most salient and dramatic events such as *killing* and *destruction* involving the agent and patient.

Second, since human beings have similar cognitive capacities, which are general and universal for all human beings (Lakoff, 1987; Langacker, 2008), the prototypes are more likely to be similar than different, thus ensuring intelligibility by others. They serve as stimulators for concepts in two languages with the link being the prototypes, which are at the core of human conceptual systems; As L2 encodes a different way of conceptualization, the conflicts between the L1 conceptual base and L2 encoding forms lead Chinese EFL learners' reliance on the common features between the two different conceptual systems, and prototypes are believed to be part of those common features.

Third, prototypical constructions are formed to ease the conceptual burden (Evans, 2007; Ungerer & Schmid, 2006). Though in many circumstances, they are not the exact conceptualization of events, they are the closest and safest available to them. Any deviation from this prototype requires extra conceptual effort.

In this way, the prototypical constructions act both as a facilitator and a preemptive factor that prevents learners from using other types of constructions. The facilitative and constraining role played by prototypes in L2 acquisition has some consequences, for example, the simplification of L2. It happens not only in the acquisition of transitive constructions, but in second language acquisition as a whole and is applicable to other

linguistic categories.

Transitive constructions used by native speakers are also structured around prototypical transitive constructions, but prototypical effects are more entrenched in L2, which even leads to fossilization in the acquisition of transitive constructions as indicated by the similarity among different levels of Chinese EFL learners, whereas native speakers are more open and flexible in their use of transitive constructions. Note should be taken that a deviation from prototypical transitive construction licenses the possibility of change in syntactic encoding forms, but it does not ensure that change. While NSs make use of that possibility, Chinese EFL learners refuse it. Chinese EFL learners following prototypes arrive at grammar correctness but at the cost of losing pragmatic and stylistic features, an aspect of simplifications in L2.

4.7.2 Comparisons between Different Levels in SUBWECCL

4.7.2.1 Linguistic Features

This section answers research question 3:

What are the similarities and differences in the use of English transitive constructions between different levels of Chinese EFL learners?

Different levels of Chinese EFL learners are similar in their use of transitive constructions. Comparisons of the use of six different types of transitive constructions between different levels of Chinese EFL learners in SUBWECCL show that the different levels of Chinese EFL learners use transitive constructions similarly in syntactic patterns and the choice of subjects and objects. There is a large amount of words used in common as the subjects and objects in transitive constructions among the three different levels.

Since the learners stick to the transitive prototype, their uses of transitive constructions are constrained with fewer deviations. The three different levels of Chinese EFL learners use transitive constructions in a similar way. Fig. 4.19, 4.20 and 4.21 illustrate the use of the *V n* pattern, the *n V* pattern and the *be V-ed* pattern among three different levels in SUBWECCL.

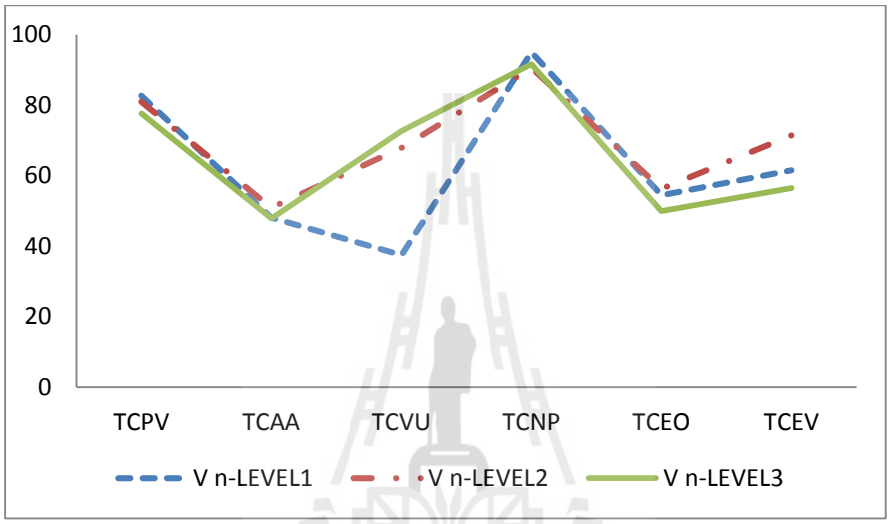

Figure 4.19 The *V n* Pattern Used between Different Levels of Learners

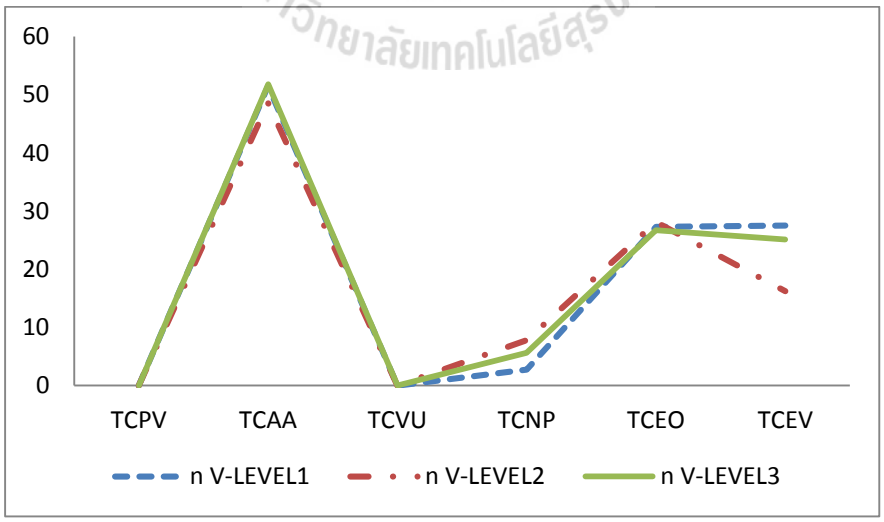

Figure 4.20 The *n V* Pattern Used between Different Levels of Learners

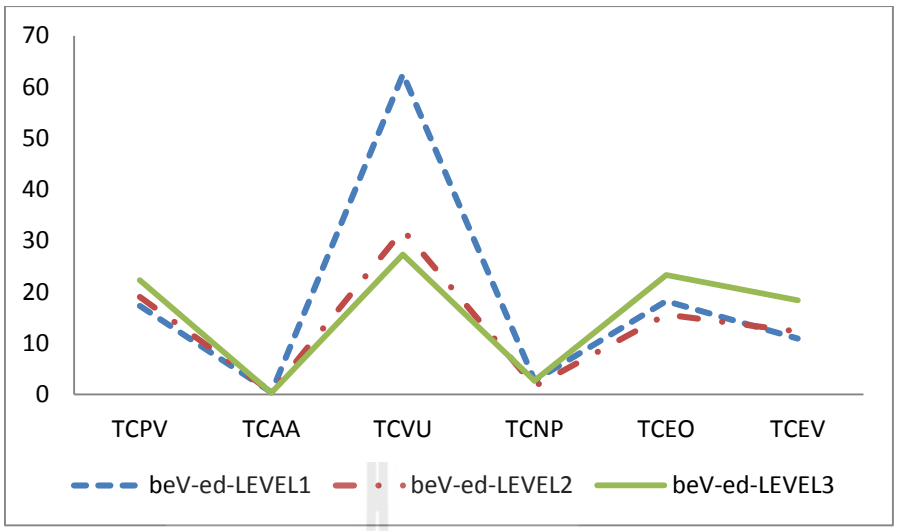

Figure 4.21 The *be V-ed* Pattern Used between Different Levels of Learners

Except for slight difference with Level 1, Chinese EFL learners' uses of the different patterns are almost the same despite the gap in terms of the years they have taken to learn English.

4.7.2.2 Conceptual Features

This section answers research question 4:

What do the results of RQ 3 reveal about different levels of Chinese EFL learners' conceptual features in their uses of transitive constructions?

Although the Chinese EFL learners have increased in their English vocabulary after several years of study, there is little development in their conceptual system caused by their heavy reliance on prototypes, which can lead to fossilization in L2 learning.

The binding power of prototypes is not just limited to the acquisition of transitive constructions, but has serious impacts on L2 acquisition as a whole. Consciously fighting against the conceptual paradigm in L1 can serve to deconstruct existing prototypes and to have a flexible command of English.

Note should be taken that all three levels of Chinese EFL learners are English majors; therefore, they are considered as advanced learners. However, they do not show more flexibility in their uses of transitive constructions as native speakers. They seem to be in a stage of fossilization (Selinker, 1972): the cessation of the learning process at least as far as acquisition of transitive constructions is concerned.

Chinese EFL learners' uses of transitive constructions reveal that their conceptualization sticks to the transitive prototype and resists changes. However, it should come as no surprise because conceptual system is difficult to change, as corroborated by other studies.

Danesi (1993) studied the use of metaphors by Chinese EFL learners and concluded that Chinese EFL learners did not advance in their conceptual competence and still relied on their L1 conceptual base. Hinkel (2002) also found that Chinese EFL learners showed no sign of improvement in a grammatical judgment test of passive voice. Their judgment were still markedly different from NSs even after they had learned English for a long time and achieved good scores in TEFEL. In Lardiere's case study (2007), Patty, a female Chinese-American immigrant, lived in U.S. for 20 years and assimilated to American culture. Despite her high proficiency English after 20 years of daily interaction with native speakers, her English is noticeably non-nativelike.

All the linguistic features suggest that Chinese EFL learners find it difficult to escape their existing conceptual system; therefore, they are more likely to be constrained in language learning. As concepts and categorizations are formed on the basis of prototypes, the constraining effect is much of that of prototypes.

Chinese EFL learners' use of transitive constructions is simplified in all three levels. Unfortunately, most studies consider that the simplifications in interlanguage are

caused by L2 learners' low English proficiency and primitive development in L2 acquisition, not recognizing the conceptual mechanism involved in the simplification process. It is difficult for Chinese EFL learners to change their conceptual system with the improvement in their English proficiency. The prospect is not optimistic as indicated by the result that three different levels of L2 learners' language are similar in their use of transitive constructions both in terms of syntactic patterns and vocabulary.

There are various factors involved in the fossilization of L2 acquisition, but certainly L2 learners' heavy reliance on prototype conceptualization is an important one and has been neglected in the field of SLA so far. Mac Whinney (2006) argues that fossilization comes as a result of "the effects of ongoing L1 entrenchment with the notion that L2 develops at first as parasitic or dependent on L1" (p. 153). Her opinions are not accurately expressed. As language embodies human conceptual system, L2 develops as parasitic on the L1 conceptual base rather than on the L1 linguistic forms. L2 learners adapt existing concepts in L1 rather than borrow L1 linguistic forms to L2. In other words, L2 learners make use of their existing conceptual systems in L2 learning, and they adapt their conceptual systems to accommodate L2, and then mapping the new language onto their existing conceptual system.

Under these circumstances, fossilization is inevitable. What remains to be resolved is what aspects of the conceptual system is L2 mapped onto? The author suggests that L2 is more likely to be mapped onto prototypical concepts because they are universal cross-linguistical and they are conceptually more salient than peripheral ones, acting as a pivot in conceptualization. This does not mean that prototypes are universally the same; as prototypes are gradable, the core parts are more similar than the peripheral ones, as displayed by Kellerman (1977, 1979, 1986, 1995) and Ijaz's study (1986). In

the current research, L2 learners' reliance on the prototypical transitive construction prevents their flexible use of transitive constructions like NSs.

4.8 Summary

This chapter conducts comparisons of six different types of transitive construction used in LOCNESS and SUBWECCL, and between three different levels of Chinese EFL learners in SUBWECCL. Chinese EFL learners show major differences from native speakers in the choice of syntactic patterns and arguments of transitive constructions. While native speakers use more deviating forms of transitive constructions, Chinese EFL learners are more dependent on prototypes and their uses are less flexible and simplified with less deviation. Their uses are constrained by the mapping relations of subject-agent-trajector vs object-patient-landmark as embodied by the prototypical transitive construction.

Comparisons in different levels of Chinese EFL learners in SUBWECCL show that they use transitive constructions similarly, indicating that there are no major changes in their conceptual systems. It is no surprise as language and thought are entangled with each other and Chinese EFL learners' reliance on their conceptual base associated with L1 results in their preference for a more basic and more prototypical use of English. Therefore, they are confined in their use of English by their existing conceptual system. The stability displayed in the uses of transitive constructions by different levels of Chinese EFL learners' reveals this difficulty in conceptual change for Chinese learners.

CHAPTER 5

This chapter begins with a summary of the findings of the project, followed by the limitations and pedagogic implications of the study. Suggestions for future research are given in the last section.

5.1 Summary of the Study

Under the theoretic framework of cognitive linguistics, this project seeks to study the use of transitive constructions by Chinese EFL learners and to reveal the conceptual mechanisms underlying their uses. It is obvious that Chinese EFL learners' language is different from native speakers, but to determine the extent how different they are and the aspects where the differences lie in requires a systematic comparison of natural linguistic data. Therefore, the method of NS-NNS corpora comparison is employed. The comparison involves both the syntactic patterns and their arguments in transitive constructions. In total, there are six different types of transitive constructions studied.

The findings reveal that while there are major differences in the use of transitive constructions between Chinese EFL learners and native speakers, different levels of Chinese EFL learners are similar in their uses. The transitive patterns used by Chinese EFL learners are less deviating and less flexible. In the comparison of subjects, Chinese EFL learners use more volitional entities as subjects (mainly human beings). The first and second person pronouns are also used more frequently in SUBWECCL. In the comparison of objects, Chinese EFL learners use more non-human beings as objects.

More reflexives pronouns are used for certain verbs such as *change, improve* in SUBWECCL. Chinese EFL learners also tend to use more general meaning nouns as objects such as *thing, something, food* and *people*.

The comparisons between different levels of Chinese EFL learners display few differences either in syntactic patterns or arguments in transitive constructions. There are a large amount of words used in common as the subject and object among the three different levels, suggesting little change in their conceptualization of transitivity.

The author argues that the features in Chinese EFL learners' use of transitive constructions are the result of prototypical effects. The conceptual systems of both Chinese EFL learners and native speakers are based on prototypes. While native speakers are more flexible in adapting the transitive prototype to express their unique conceptualizations through conceptual devices such as the attention, profiling and perspective, leading to a flexible use of transitive constructions, Chinese EFL learners are more dependent on prototypes and are bound by them in conceptualization, leading to a more prototypical use of transitive constructions. Chinese EFL learners' heavy reliance on prototypes can lead to fossilization in language acquisition. The binding power of prototypes is not just limited to the acquisition of transitive constructions, but has serious impacts on L2 acquisition as a whole. Consciously combating against the conceptual paradigm in L1 can serve to deconstruct existing prototypes and contributes to the enhancement of English proficiency.

5.2 Pedagogic Implications

This study is beneficial to language teaching in the following ways:

First, a cognitive linguistics account of grammar focuses on meaning making and

grammar instruction should pay attention to meanings of syntactic patterns rather than treating them simply as a shift of forms.

Traditionally, grammar is considered to consist of rules separated from meaning. Language is divided into such components as syntax (the study of grammar) and semantics (the study of meaning) following the structuralist tradition (Harris, 1960) inherited later by generative linguistics. In their opinions, grammar is a formula for regulating language. An expression is either correct or incorrect irrespective of the contexts in which it is used. Verbs are either transitive or intransitive, with no middle ground between them. Cognitive linguistics considers grammar as conceptualization and constructions are meaningful as they are mappings of meanings and forms. Linguistic categories are prototypically structured and are linked by family resemblance (Taylor, 1995). As this study shows, nearly all verbs can be used transitively or intransitively depending on the conceptualization of speakers. In comparison with the fixed rules introduced in traditional grammar instruction, a cognitive linguistics account of grammar is more flexible and therefore, more authentic as language use is diversified beyond the rules of grammar. Words embody entities in conceptualization while grammar embodies the relations between them. The meaning of grammar lies in its embodiment of relations via means of human conceptualization. Through the introduction of meaning into grammar, the teacher can explain to students concretely the conceptual mechanism of grammar instead of training them in grammar drills in isolation of meaning, which is prevalent in current grammar instruction. For example, in the teaching of transitive constructions, the teacher can tell students transitive constructions have meanings, which are the energy transfer between the two participants involved. Different patterns have different meanings: the *V n* pattern puts

focus on both participants, while the *n V* pattern and the *be V-ed* pattern put focus only on one participant, either on the agent or the patient. Through this means, students can have a better understanding of the conceptual features of transitive constructions and can use them with consciousness of the conceptual differences between different patterns. This kind of instruction can contribute to students' reading comprehension of English texts as well as their writing as they can use different patterns on the basis of their conceptualization rather than on grammar stipulations. Only when students understand the meanings of different syntactic forms, can they have the awareness of conceptualization underlying language uses and consciously change their conceptual systems via learning English.

Second, the study of prototype effects as illustrated by Chinese EFL learners' use of transitive constructions contributes to grammar instruction.

Transitive construction is a radial category with the prototypical transitive construction embodying the maximal distinction between the agent and patient, while other peripheral constructions are conceptually less distinct between the two participants. Transitivity is a gradable concept. Therefore, a verb is not either transitive or intransitive; rather, transitivity is a more or less issue. For example, in the teaching of the use of ingestive verbs such as *learn* and *eat*, teachers following traditional grammar account would simple tell their students that they can be used both transitively and intransitively, i.e. they can take objects or without them. Then the students are left with the impression that ingestive verbs are used both transitively and intransitively without the change of meaning, as if it were only a shift of forms. Taking a cognitive linguistics approach, the teacher can tell students that the ingestive verbs are not prototypical transitive verbs; therefore, they are used differently from other more

prototypical transitive verbs. The differences lie in the affectedness nature of the agents, and the intransitive use is a deviating form through the omission of objects. Therefore, the intransitive use implies the defocus of the patient in conceptualization, leading to a deviating pattern of transitive constructions.

Third, language learning should focus on making meanings via using language flexibly rather than sticking to rules, which is especially required for advanced Chinese EFL learners. The role of formulaic expressions in L2 acquisition is to be reconsidered.

Learning transitive constructions is a process of unpacking the prototypical mappings as represented by the prototypical transitive construction slowly and trying deviations with ever-increasing new elements. Then the reliance on the prototypical mapping can be reduced and uses of transitive constructions become more flexible and diversified. It is the same for Chinese EFL learners' use of formulaic expression. Overuse of formulaic expressions leads to failure in deconstructing them and producing more creative uses. Such cases are not limited just to the use of transitive constructions, but also to Chinese EFL learners' language development as a whole in such aspects as phonology and grammar.

The author suggests that the emphasis only on Chinese EFL learners' accuracy and fluency in language teaching has negative effects on L2 acquisition, leading to the lack of flexibility and variety in students' uses of English. Accuracy and fluency have been the two main goals in communicative language teaching (Cook, 2002; Finardi & Porcino, 2012; Hammerly, 1991; Richards, 2006). However, when grammar accuracy is not a problem anymore for advanced learners, they should consciously encouraged to change their ways of using English to avoid fossilization. In this way, the boundaries of their prototypes for transitive construction will be extended as a result of consciously

fighting against their existing conceptual systems. It is a life-long process of deconstructing prototypes that accompany Chinese EFL learners.

It is obvious that native speakers tend to stretch the language limit to express their mind, whereas Chinese EFL learners tend to rely on the transitive prototype in linguistic productions and are thus constrained by prototypes. As prototypical constructions are the core and basic part of a language, Chinese EFL learners are more in the core part than native speakers. If we consider prototypes are standards (actually they are reference acting as anchoring point to guide human conceptualization), it combats the point of view that L2 is not standard and is deviating. It is the other way around. It is the native-speakers who deviate from the language standards and stretch the language to the extent that they produce expressions which are usually considered unacceptable but are acceptable in certain context. Native speakers try to express themselves regardless of breaking the rules of grammar. But Chinese EFL learners are confined within the grammar rules instructed by teachers and textbooks. It is the Chinese EFL learners who are the follower of grammar and their language is more basic and more conservative than real language consequently. Taking this view, we can see the problems in grammar instruction. It all depends on the questions of standard. If the standard is the deviation, then what Chinese EFL learners should learn is this kind of deviation, rather than standards. Grammar instruction fails not because Chinese EFL learners use English incorrectly, but because their uses are not as deviating / diversified as native speakers'. Chinese EFL learners have to be encouraged to explore in language learning in order to develop their English proficiency.

As displayed in the study, there is a tendency by Chinese EFL learners to rely on formulaic expressions. Formulaic expressions are usually encouraged in language

teaching. While the author confirms the value of formulaic expressions in language learning, caution should be taken against over-reliance on them as they obstruct further learning. Chinese EFL learners need not only use formulaic expressions, but also be able to deconstruct them so as to use language more flexibly. Language proficiency lies as much in the use of formulaic expression as in the flexible use of language.

5.3 Limitations

There are four limitations to the study:

First, as conceptualization is dynamic (Langacker, 1987, 1991), any attempt at studying them catches just a still image of it, a *snapshot* in Langacker's words; the current research is no exception. It captures a still image of Chinese EFL learners' and NSs' conceptualizations. While this contributes to the understanding of Chinese EFL learners' conceptual features, the dynamic nature of conceptualization has to be kept in mind.

Second, the comparison corpus used in the study, LOCNESS, is relatively small, comprising about 340, 000 words. As a result, SUBWECCL was built to be about the same size. Some transitive constructions are used less frequently, such as those with effected patients and volitional undergoers. Consequently, the comparison and analysis is restricted as not all possible uses are displayed. The verbs examined are also limited due to the corpus size. However, there are no NSs learner corpora with a bigger size than LOCNESS so far. Elicited data might be a way to solve the problem of corpora size, but they lead to other problems regarding the authenticity and credibility of data, as conceptualization is by itself an unconscious and automatic process. It reveals more about their grammatical knowledge than about their conceptualizations.

Third, comparability remains an issue for such kinds of research. Though the author did his best to ensure the comparability of the two corpora of LOCNESS and SUBWECCL, one has to be aware that due to the different writing contexts and most importantly, different topics, the differences in vocabulary are inevitable. The impact is mainly on the arguments in transitive constructions while syntactic patterns are less affected. To overcome this problem, the author categorized the subjects and objects to compare them in different semantic groups. There has been some attempt to create the corpora with the same topic for both native speakers and Chinese EFL learners to enhance the comparability. This will provide a more promising result in future studies.

Fourth, due to the scarcity of the research on Chinese EFL learners' acquisition of transitive constructions, there are few similar studies to corroborate the findings of the study. More research in different contexts (different linguistic backgrounds, different levels of Chinese EFL learners, different types of data, etc.) is required to fully reveal Chinese EFL learners' conceptualization of transitivity and the role of prototypes in L2 acquisition.

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5.4 Suggestions for Future Studies

Though the study of transitive construction in the field of linguistics attracts many scholars, the study of Chinese EFL learners' use of transitive constructions is rare in the SLA literature. It is expected that the study of transitivity in linguistics will feed more such research in the fields of EFL and SLA. A few suggestions are given to guide such research:

First, the corpus used can be more comprehensive including corpora of Chinese EFL learners with different native language backgrounds (for example, ICLE). As

human cognitive capacity is considered to be universal across different languages, more Chinese EFL learners with different language backgrounds can contribute to the study of general human conceptual mechanisms of transitivity;

Second, Chinese corpora can be added in comparison. The effects of language/conceptual transfer are best examined through the comparison between the target language, interlanguage and the learners' mother tongue (Odlin, 1989).

Third, the study of transitive constructions alone is not enough to get a whole picture of Chinese EFL learners' conceptual mechanism. It will be necessary to study other linguistic constructions and to go beyond the field of syntax. The cognitive study of Chinese EFL learners' acquisition of phonology, semantics and pragmatics can be more promising than the single study in this thesis.

Finally, application studies in prototype-based grammar instruction are recommended to examine its effects. It is promising as it breaks away from the traditional grammar and is more vivid in grammar instruction (Bielak, 2013).

This project focuses on the conceptual mechanism of Chinese EFL learners as revealed by their uses of transitive constructions and beyond. The study of Chinese EFL learners' mind is gaining popularity in the field of SLA nowadays, partly because of the late-coming realization of the intertwining nature of language and thought in the field of SLA, and partly because of the increasing impact of cognitive linguistics in the field of both applied and theoretical linguistics. However, the study of the human thought is nothing new. Humboldt (1836/1960), Sapir (1921) and Whorf (1956) had studied these matters long before it attracted the attention in the SLA field. Humboldt considered that learning a second language is the only way that anyone can escape from the original conceptual system, and but this escape cannot be entirely successful as people are

always trapped by their original language views. Nowadays, the emerging cognitive linguistics is coming to maturity and sophisticated cognitive models are produced to explain language uses on the basis of human conceptual systems; it is the author's hope that it can inspire EFL research to explore the conceptual systems of EFL learners the current study is conducted for this purpose.

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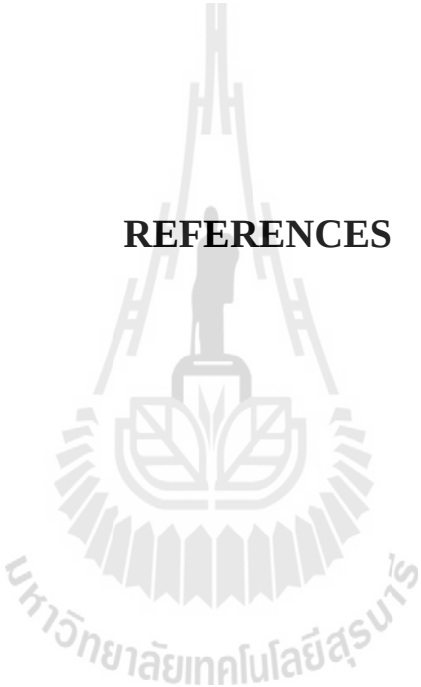

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APPENDICES

มหาวิทยาลัยเทคโนโลยีสุรนารี

APPENDIX A

TEXTS IN LOCNESS

1 American Argumentative Essays

149,574 words (usarg)

Marquette University (codes: ICLE-US-MRQ-0001.1-46.1)

54,285 words - 46 essays

Indiana University at Indianapolis (codes: ICLE-US-IND-0001.1-28.1)

13,454 - words, 28 essays

Presbyterian College, South Carolina (codes: ICLE-US-PRB-0034.2-39.2)

12,447 words - 6 lengthy (+ 500) essays

University of South Carolina

I. usscu1.cor - 5,710 words 6 essays

II. usscu2.cor - 18,630 words 17 essays

III. ususc3.cor - 15,815 words 13 essays

IV. usscu4.cor - 12,730 words 17 essays

University of Michigan (codes: ICLE-US-MICH-0001.1-45.1)

43 essays - 16,502 words

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American mixed essays

18,826 words (usmixed)

1) 16 essays - 9,296 words

2) 8 essays - 4,436 words

3) 32 essays - 5,094 words

2 British Argumentative Essays

University students

I. brsur1.cor - 59,568 words

1) 15 essays - 41,439 words

2) 18 essays - 18,129 words

II. brsur2.cor - 17,108 words 24 essays

III. brsur3.cor - 19,019 words 33 argumentative essays

A levels

1. Transport

2 Parliamentary system

3 Fox hunting FH01

4 Boxing - B01

5 the National Lottery

6 <ICLE-ALEV-0001/10.6>

7 <ICLE-ALEV-0001/10.7>

8 <ICLE-ALEV-0001/30.8>

9 <ICLE-ALEV-0001/139>

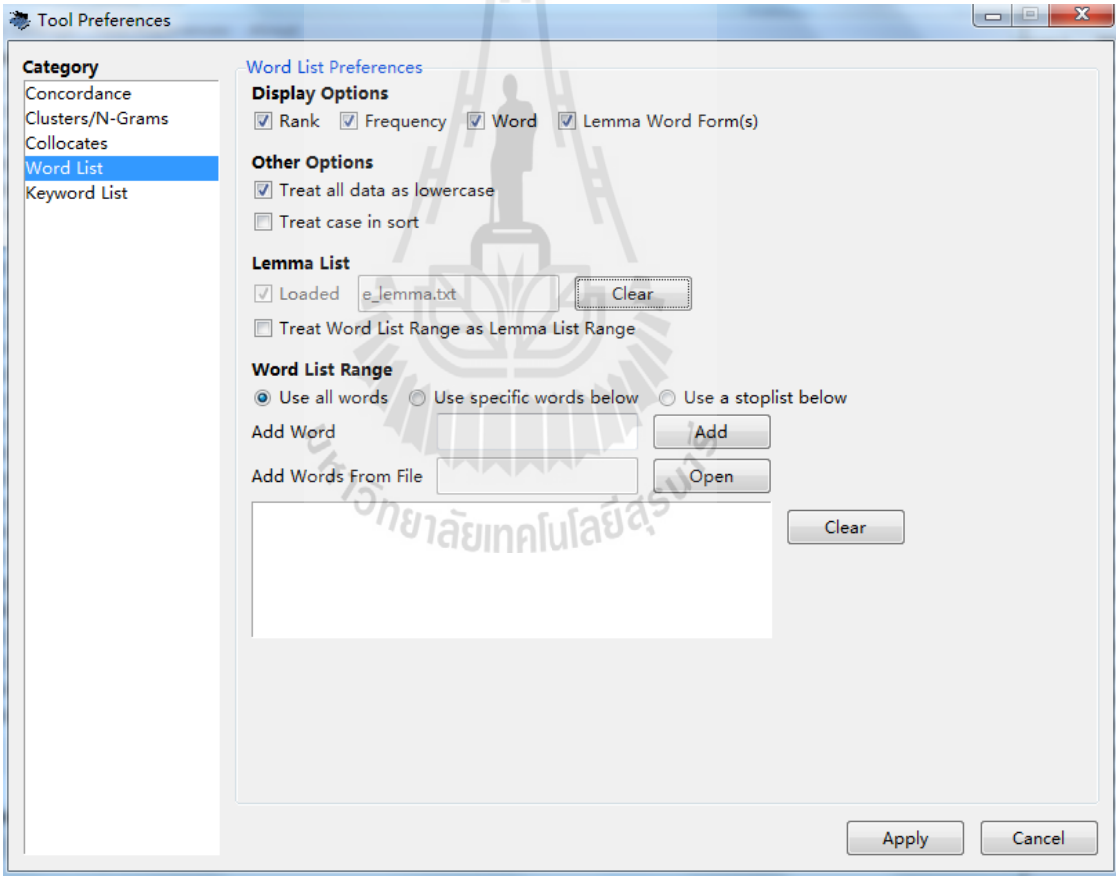
APPENDIX B

CREATING LEMMA LISTS

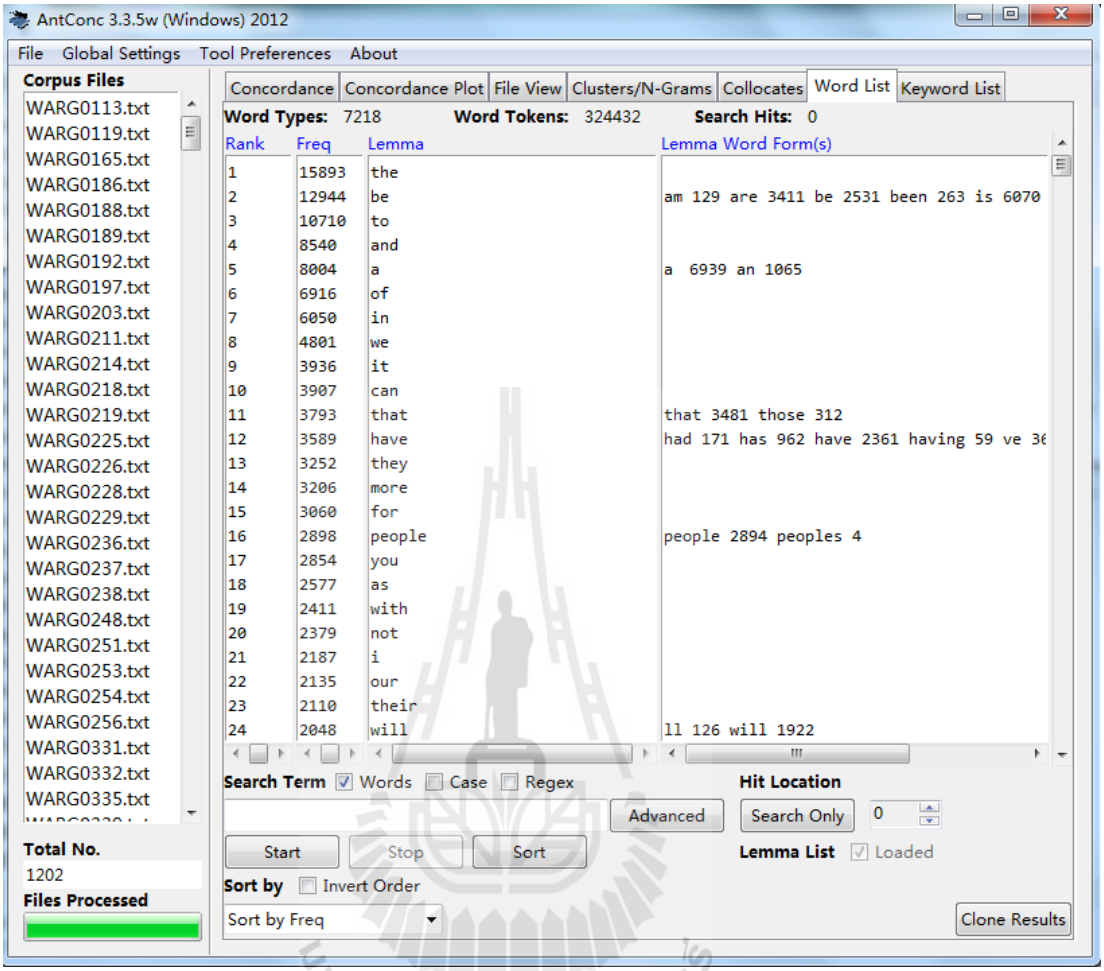
Verb lemma lists were created following the steps below:

Step 1: load the file and chose the “wordlist” function”.

Step 2: load lemma list



Step 3: start and sort by frequency



Step 4: save output to a text file

Step 5: delete other words in the file besides verbs, and infrequent verbs (less than 10) were also deleted because they were not representative enough for the current research.

APPENDIX C

LEMMA LISTS OF LOCNESS AND SUBWECCL

LOCNESS			SUBWECCL		
Rank	Verbs	Counts	Rank	Verbs	Counts
1	make	873	1	think	1433
2	use	794	2	make	1278
3	take	675	3	learn	1217
4	see	638	4	live	1213
5	state	583	5	get	935
6	go	514	6	know	871
7	become	498	7	study	816
8	give	466	8	use	808
9	need	438	9	educate	746
10	say	435	10	take	723
11	want	429	11	your	720
12	get	423	12	living	686
13	feel	421	13	need	659
14	live	414	14	become	644
15	work	398	15	work	617
16	show	394	16	want	536
17	like	374	17	say	522
18	believe	367	18	go	506
19	know	365	19	develop	503
20	own	361	20	play	498
21	change	342	21	like	489
22	think	334	22	give	488
23	come	325	23	help	445
24	reason	309	24	pay	440
25	cause	295	25	speak	421
26	seem	295	26	rent	420
27	mean	289	27	own	407
28	play	289	28	compete	334
29	lead	281	29	tell	321
30	act	275	30	keep	319
31	try	271	31	care	318
32	allow	270	32	find	314
33	quote	266	33	improve	303
34	increase	260	34	reason	299
35	view	245	35	change	285
36	point	228	36	reading	260
37	leave	227	37	see	256
38	look	224	38	spend	256
39	support	218	39	choose	254
40	help	215	40	cooperate	254
41	bring	213	41	bring	248
42	form	205	42	treat	242
43	lose	196	43	try	242

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44	result	188	44	teach	237
45	present	185	45	agree	235
46	find	182	46	feel	227
47	create	181	47	place	225
48	accept	180	48	process	224
49	claim	179	49	mean	219
50	continue	176	50	believe	196
51	pay	176	51	graduate	187
52	consider	174	52	result	184
53	unite	171	53	solve	184
54	keep	168	54	view	184
55	force	167	55	face	183
56	start	167	56	order	183
57	begin	166	57	mind	180
58	experience	166	58	deal	179
59	argue	165	59	protect	177
60	fight	163	60	point	176
61	put	163	61	communicate	173
62	kill	160	62	cost	169
63	involve	159	63	throw	169
64	control	156	64	lose	168
65	decide	154	65	look	165
66	die	153	66	love	160
67	run	151	67	receive	159
68	murder	141	68	lead	152
69	choose	138	69	hold	151
70	provide	138	70	last	151
71	rule	138	71	influence	149
72	tell	137	72	grow	147
73	learn	136	73	often	146
74	understand	135	74	traditional	146
75	hand	134	75	city	145
76	free	132	76	interest	144
77	deal	130	77	gain	143
78	happen	128	78	benefit	142
79	culture	127	79	consider	142
80	loss	126	80	support	141
81	prove	126	81	concern	136
82	aid	125	82	provide	136
83	attempt	125	83	waste	136
84	love	125	84	cause	135
85	call	123	85	move	128
86	realize	122	86	put	128
87	found	121	87	win	125
88	stop	120	88	show	123
89	ban	118	89	reduce	122
90	carry	118	90	leave	120
91	grow	118	91	seem	119
92	face	116	92	send	111
93	study	116	93	form	110
94	train	115	94	save	110
95	turn	115	95	build	108
96	ask	113	96	realize	106
97	spend	113	97	earn	105
98	transport	113	98	share	105
99	test	112	99	begin	103
100	include	110	100	talk	103
101	mind	109	101	understand	103

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102	cost	108	102	increase	102
103	court	108	103	write	102
104	benefit	107	104	depend	100
105	exist	105	105	ignore	99
106	receive	105	106	meet	98
107	write	105	107	call	96
108	develop	104	108	hope	96
109	hold	104	109	read	96
110	care	100	110	ask	95
111	drink	100	111	happen	95
112	process	100	112	accept	94
113	respect	98	113	lie	94
114	talk	98	114	follow	93
115	occur	96	115	respect	93
116	hope	94	116	listen	91
117	head	93	117	exist	90
118	lack	93	118	stay	90
119	reduce	93	119	enter	88
120	watch	93	120	prepare	87
121	win	93	121	include	86
122	affect	92	122	stop	86
123	conflict	92	123	control	84
124	stay	91	124	worry	84
125	gain	90	125	stand	81
126	remain	90	126	compare	80
127	commit	89	127	turn	80
128	debate	88	128	achieve	79
129	move	88	129	affect	76
130	achieve	87	130	eat	76
131	produce	87	131	replace	74
132	reject	87	132	prefer	72
133	buy	86	133	produce	70
134	follow	86	134	adapt	69
135	travel	86	135	relax	69
136	appear	85	136	buy	67
137	fall	85	137	offer	67
138	hear	85	138	prevent	65
139	lower	85	139	present	64
140	teach	85	140	run	64
141	answer	84	141	catch	63
142	desire	84	142	doubt	63
143	fear	83	143	pass	63
144	break	82	144	die	62
145	agree	81	145	finish	62
146	advocate	80	146	avoid	61
147	set	80	147	dream	61
148	stand	78	148	create	60
149	discuss	77	149	remember	60
150	encourage	77	150	walk	60
151	limit	76	151	obtain	59
152	prevent	76	152	afford	58
153	raise	76	153	appear	58
154	require	76	154	deny	58
155	practice	75	155	master	58
156	define	74	156	state	58
157	improve	74	157	train	58
158	attack	73	158	carry	57
159	explain	73	159	encourage	57

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160	influence	71	160	watch	57
161	offer	71	161	answer	55
162	close	70	162	set	55
163	plan	70	163	draw	54
164	aim	69	164	express	54
165	killing	69	165	report	54
166	oppose	69	166	rule	54
167	reform	69	167	clean	53
168	speak	68	168	survive	53
169	sell	67	169	require	52
170	decrease	66	170	suitable	52
171	approach	65	171	topic	52
172	name	65	172	discussion	51
173	determine	64	173	imagine	51
174	refuse	64	174	meanwhile	51
175	demand	63	175	please	51
176	lie	63	176	decide	50
177	open	63	177	foreigner	50
178	reach	63	178	lonely	50
179	serve	63	179	promote	50
180	damage	62	180	safety	50
181	discover	62	181	sleep	50
182	establish	62	182	suppose	50
183	hunt	61	183	talent	50
184	introduce	61	184	touch	50
185	represent	61	185	against	49
186	suffer	61	186	everywhere	49
187	catch	60	187	forget	49
188	expect	60	188	harmful	49
189	search	60	189	housing	49
190	apply	59	190	newspaper	49
191	cut	59	191	open	49
192	report	58	192	phone	49
193	return	58	193	position	49
194	save	58	194	wish	49
195	struggle	58	195	age	48
196	express	56	196	business	48
197	enter	54	197	citizen	48
198	meet	54	198	helpful	48
199	deny	53	199	key	48
200	describe	53	200	reflect	48
201	enjoy	53	201	sure	48
202	reveal	53	202	wise	48
203	reward	53	203	wonderful	48
204	separate	53	204	again	47
205	suggest	53	205	coming	47
206	add	51	206	decision	47
207	build	51	207	fall	47
208	perform	51	208	machine	47
209	solve	51	209	population	47
210	waste	51	210	succeed	47
211	draw	50	211	wife	47
212	drive	50	212	difference	46
213	portray	50	213	hardly	46
214	seek	50	214	holiday	46
215	tend	50	215	yet	46
216	treat	50	216	hurt	45
217	adopt	49	217	kill	45

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218	compare	49	218	pace	45
219	prepare	49	219	personality	45
220	share	49	220	reach	45
221	destroy	48	221	argue	44
222	justify	48	222	colorful	44
223	suppose	48	223	deep	44
224	contain	47	224	harmonious	44
225	fail	47	225	independent	44
226	read	47	226	policy	44
227	reading	47	227	satisfy	44
228	throw	47	228	tire	44
229	arise	46	229	admit	43
230	obtain	46	230	attend	43
231	recognize	46	231	contribute	43
232	survive	46	232	destroy	43
233	protect	45	233	dog	43
234	sign	45	234	economic	43
235	escape	44	235	friendship	43
236	hit	43	236	gradually	43
237	join	43	237	hunt	43
238	wear	43	238	mention	43
239	remember	42	239	normal	43
240	assume	41	240	psychological	43
241	deserve	41	241	suggest	43
242	illustrate	41	242	born	42
243	mention	41	243	correct	42
244	admit	40	244	fail	42
245	drop	40	245	fee	42
246	favor	40	246	friendly	42
247	maintain	40	247	fully	42
248	refer	40	248	hot	42
249	afford	39	249	latter	42
250	alter	39	250	music	42
251	educate	39	251	natural	42
252	match	39	252	next	42
253	promote	39	253	reasonable	42
254	send	39	254	start	42
255	showing	39	255	tension	42
256	walk	39	256	worker	42
257	worry	39	257	air	41
258	blame	38	258	clear	41
259	direct	38	259	consequence	41
260	fit	38	260	discuss	41
261	realises	38	261	found	41
262	avoid	37	262	heat	41
263	push	37	263	prove	41
264	reflect	37	264	relate	41
265	revolt	37	265	spare	41
266	clean	36	266	teaching	41
267	compromise	36	267	aim	40
268	rape	36	268	hear	40
269	contact	35	269	break	39
270	remove	35	270	demand	39
271	retain	35	271	facing	39
272	rise	35	272	force	39
273	witness	35	273	neglect	39
274	abuse	34	274	pollute	39
275	hurt	34	275	raise	39

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276	conduct	33	276	challenge	38
277	demonstrate	33	277	continue	38
278	doubt	33	278	cut	38
279	eliminate	33	279	dispose	37
280	ensure	33	280	suffer	37
281	exchange	33	281	tend	37
282	realise	33	282	recycle	36
283	station	33	283	wear	36
284	wonder	33	284	acquire	35
285	attribute	32	285	complain	35
286	favour	32	286	mark	35
287	laugh	32	287	overcome	35
288	listen	32	288	act	34
289	replace	32	289	add	33
290	appeal	31	290	attract	33
291	earn	31	291	bear	33
292	enable	31	292	connect	33
293	forget	31	293	cultivate	33
294	shock	31	294	plan	33
295	associate	30	295	search	33
296	conclude	30	296	cook	32
297	contrast	30	297	return	32
298	dress	30	298	allow	31
299	legalize	30	299	complete	31
300	strengthen	30	300	expect	31
301	writing	30	301	judge	31
302	assist	29	302	ensure	30
303	cheat	29	303	involve	30
304	expose	29	304	close	29
305	misuse	29	305	enhance	29
306	supply	29	306	manage	29
307	wait	29	307	wash	29
308	cure	28	308	abolish	28
309	depend	28	309	devote	28
310	encounter	28	310	insist	28
311	examine	28	311	list	28
312	expand	28	312	seek	28
313	feed	28	313	wait	28
314	ignore	28	314	attach	27
315	scare	28	315	chat	27
316	abolish	27	316	fight	27
317	condemn	27	317	apply	26
318	confess	27	318	disturb	26
319	contribute	27	319	emphasize	26
320	fly	27	320	enrich	26
321	impose	27	321	fill	26
322	pour	27	322	appreciate	25
323	pray	27	323	arouse	25
324	sit	27	324	check	25
325	trust	27	325	confront	25
326	dispute	26	326	disappear	25
327	integrate	26	327	expose	25
328	stress	26	328	join	25
329	strike	26	329	match	25
330	succeed	26	330	notice	25
331	admire	25	331	strengthen	25
332	display	25	332	conclude	24
333	dominate	25	333	conflict	24

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334	overcome	25	334	distance	24
335	purchase	25	335	feed	24
336	release	25	336	handle	24
337	shot	25	337	separate	24
338	arm	24	338	adjust	23
339	arrive	24	339	contrast	23
340	attend	24	340	fit	23
341	disagree	24	341	name	23
342	enhance	24	342	debate	22
343	guarantee	24	343	overuse	22
344	imply	24	344	pick	22
345	notice	24	345	spread	22
346	repent	24	346	surprise	22
347	restrict	24	347	drop	21
348	spread	24	348	extend	21
349	swim	24	349	grasp	21
350	address	23	350	hate	21
351	charge	23	351	loss	21
352	communicate	23	352	regret	21
353	inform	23	353	serve	21
354	persuade	23			
355	tackle	23			
356	transmit	23			
357	turning	23			
358	check	22			
359	fire	22			
360	identify	22			
361	implement	22			
362	possess	22			
363	protest	22			
364	punish	22			
365	quest	22			
366	rely	22			
367	ring	22			
368	transfer	22			
369	accuse	21			
370	attract	21			
371	bite	21			
372	blow	21			
373	intend	21			
374	mark	21			
375	threaten	21			
376	beat	20			
377	challenge	20			
378	chase	20			
379	consume	20			
380	defend	20			
381	emphasize	20			
382	hang	20			
383	hide	20			
384	outweigh	20			
385	propose	20			
386	realised	20			
387	ride	20			
388	satisfy	20			
389	shelter	20			

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APPENDIX D

BUILDING SUBWECCL

As the study needs to build a sub-corpus of WECCL, the compositions are to be selected randomly. Randomization is to be ensured in the following procedures:

Step 1

All essays by learners in Level 1, Level 2 and Level 3 are extracted with Sub-Corpus Creator, provided in the software packages along with the SWECCL. All compositions in SWECCL are tagged in head information such as gender, level, so researcher can build sub-corpora for specific purposes. Sub-Corpus Creator is developed for this purpose;

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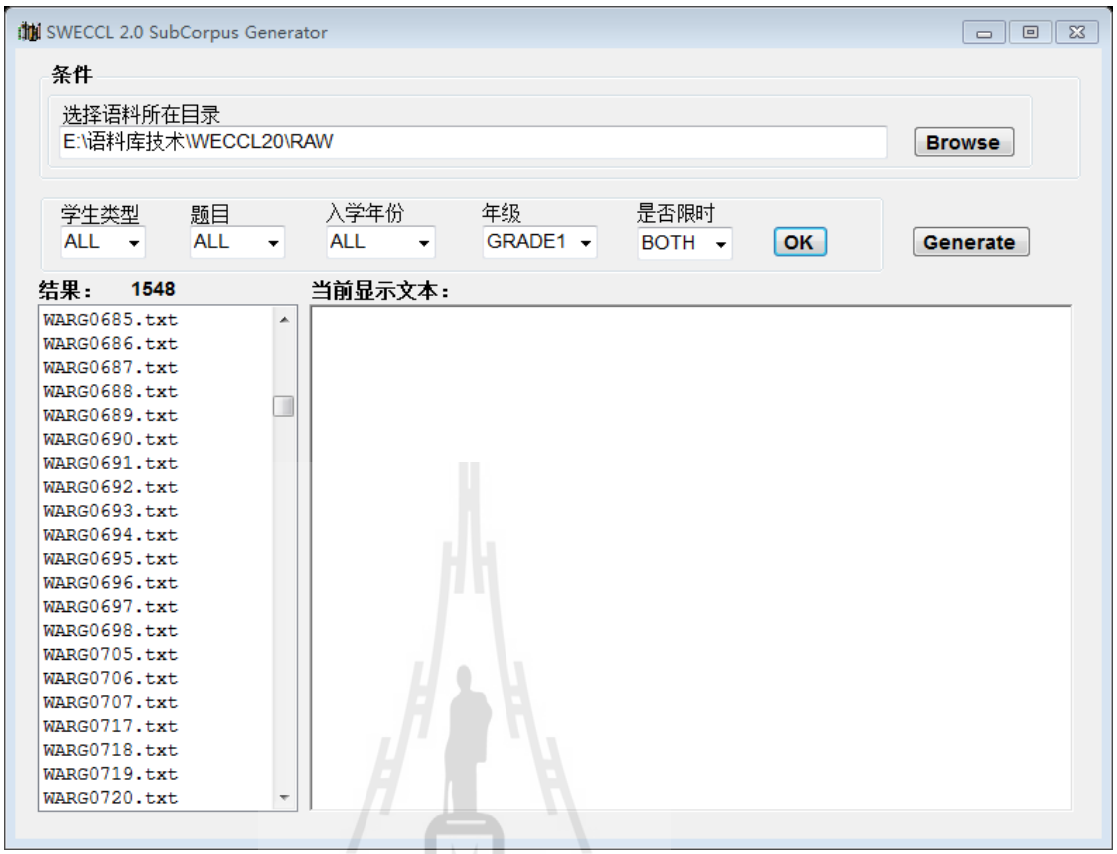

Step 2

After extraction of all levels 1-3 essays, the total amount are beyond the needs of the current study. Take the randomization of Level 1 essays for example. There are total 1548 essays, and I need to choose 403 essays. The number of each essay is not in the order of cardinal numbers. Therefore, the usual method of randomization with equal distance of order cannot be applied anymore.

Step 3

I use a randomization vbs script designed by Li Liang. It deletes documents randomly so that the documents reserved are randomly selected. In the case of level 2 essays, I delete 1145 essays randomly, and the remaining 403 essays are supposed to be randomly selected. Randomization script selection codes:

```
Sub delete_a_file(filetail)
Set fs = CreateObject("Scripting.FileSystemObject")
Dim txtFileList
txtFileList = ""
For Each anyfile In fs.GetFolder(".").Files
    If Right(LCase(anyfile.Name), 4) = "." & Trim(filetail) Then txtFileList = txtFileList & anyfile.Name & ";"
Next
If txtFileList <> "" Then
    txtFileList = Split(txtFileList, ";")
    filenumber = UBound(txtFileList)
    Randomize
    random_sn = 1 + Round((filenumber - 1) * Rnd(), 0)
    random_filename = txtFileList(random_sn - 1)
    fs.DeleteFile random_filename
End If
End Sub

tail_choice = InputBox("也可输入“htm”或“xml”之类的其他扩展名（扩展名意味着文件类型），" & Chr(13) & "点“取消”也等于输入了“txt”", "要删除的文件的扩展名是（txt就是文本文件）", "txt")
If tail_choice = "" Then tail_choice = "txt"
deleted_total = InputBox("请输入……", "要随机删除的文件数量", "1")
If deleted_total > 0 Then
    For counter = 1 To deleted_total
    delete_a_file (tail_choice)
    Next
End If
```

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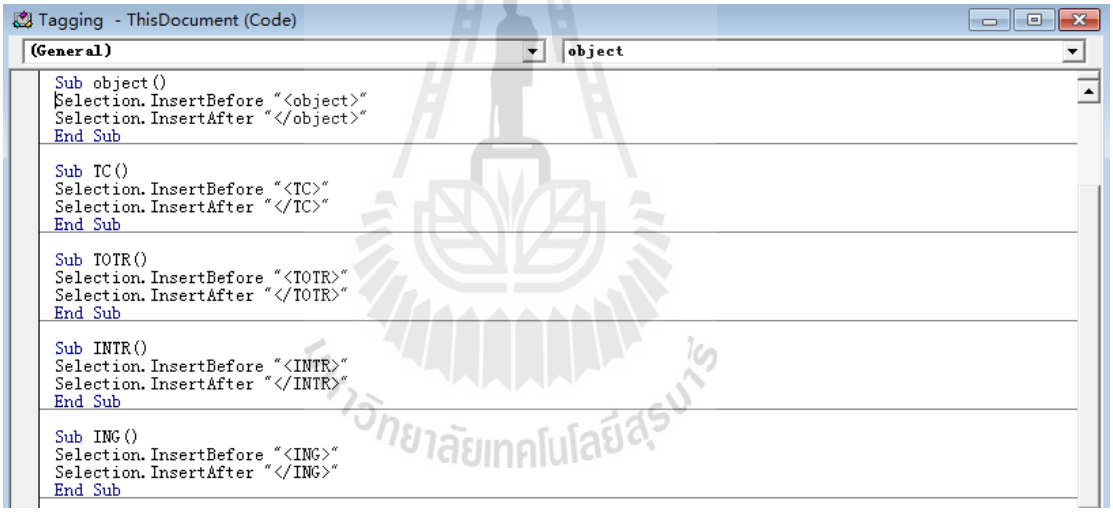
APPENDIX E

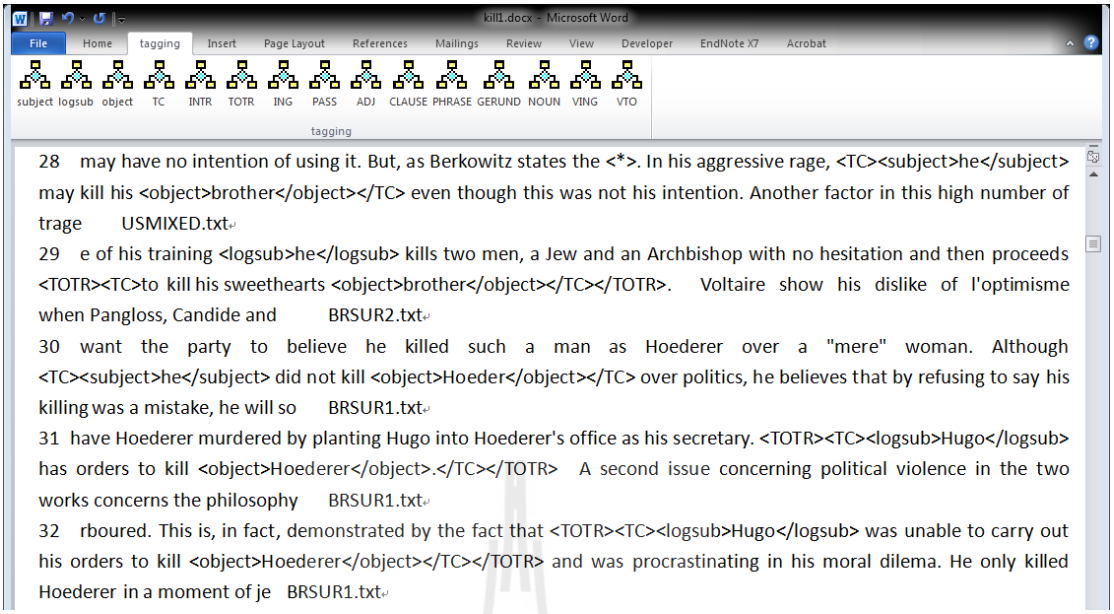
TAGGING DATA

In order to identify patterns of each construction, and subjects and objects in transitive construction, the data has to be tagged for concordance. I use word as a means of semi-auto tagging tool after adding some Macros.

Step 1: build Macros for tagging add-ons.



Step 2: put add-ons in the ribbon panel, and tagging the data.



Step 3: After tagging, the syntactic patterns and arguments of transitive constructions can be concordanced with Antconc.

Concordancing words for subjects:

many uniformed people make. <TC>The <subject>antibiotics</subject> kill most of the <object>bacteria</object></
save a sailor when it happened. <TC><subject>Candide</subject> killed the <object>Jew</object></TC> and the Gra
the idea of rejecting optimism.<TC><subject>Candide</subject> having killed three <object>people</object></TC>
lling of his beating; and after <TC><subject>Candide</subject> "kills" the <object>Baron</object></TC>, he leav
he girls become very upset when <TC><subject>Candide</subject> kills the <object>monkeys</object></TC>, their l
ecessary. When he suspects that <TC><subject>Claudius</subject> killed his <object>father</object></TC>, Hamlet
nd queen, and stands before <TC>the <subject>crowds</subject> who are looking to kill <object>him</object></TC>
and on the streets. <INTR>Dangerous <subject>dogs</subject> who were trained to kill</INTR> and maim in similar
n, for example, when <TC>a terrible <subject>earthquake</subject> destroyed the city and killed an estimated 50
des an abundance. In 1775 <TC>an <subject>earthquake</subject> struck Lisbon killing 40.000 <object>people</
d it in the midst of <TC>a terrible <subject>earthquake</subject> which kills many thousands of <object>people<
s carried by chickens. When <TC>the <subject>farmers</subject> killed the <object>chickens</object></TC> for th
rolled some way or another. <TC>The <subject>foxes</subject> kill <object>sheep</object></TC>, hens and scare a
armers also complain about <ING><TC><subject>foxes</subject> killing their <object>sheep</object></TC></ING>. H
on of an unknown but deadly <?> <TC><subject>gas</subject> which kills the entire <object>staff</object></TC> c
gain. Martin asks morosely why <TC><subject>God</subject> saved the sheep but killed the innocent <object>pass
let's is that he is a murderer. <TC><subject>Hamlet</subject> kills many <object>people</object></TC> throughou
e and without thinking to look, <TC><subject>Hamlet</subject> kills <object>Polonius</object></TC> instead. Ham
d an Admiral was killed because <TC><subject>he</subject> did not kill enough <object>people</object></TC>. In
from Louis and Olga. <quote> <INTR><subject>He</subject> does not want to kill</INTR> for the right reasons, b
<quote> and he understands him. <TC><subject>He</subject> also does not kill <object>him</object></TC>, but qui
acter of Dostoyevsky's and says <TC><subject>he</subject> will kill <object>himself</object></TC> if caught, ir
he <*>. In his aggressive rage, <TC><subject>he</subject> may kill his <object>brother</object></TC> even thoug
r over a "mere" woman. Although <TC><subject>he</subject> did not kill <object>Hoeder</object></TC> over politi
the right reasons. He knows why <TC><subject>he</subject> should kill <object>Hoederer</object></TC> - because
tuals always want to act but if <TC><subject>he</subject> killed <object>anyone</object></TC> it would ruin him

Concordancing the *V n* pattern:

which he expresses his desire <TOTR><TC>to kill <object>himself</object></TC></TOTR> and take the easy way out
character of Dostoyevsky's and says <TC><subject>he</subject> will kill <object>himself</object></TC> if caugh
es the <*>. In his aggressive rage, <TC><subject>he</subject> may kill his <object>brother</object></TC> even
hesitation and then proceeds <TOTR><TC>to kill his sweethearts <object>brother</object></TC></TOTR>. Voltai
derer over a "mere" woman. Although <TC><subject>he</subject> did not kill <object>Hoeder</object></TC> over p
er's office as his secretary. <TOTR><TC><logsub>Hugo</logsub> has orders to kill <object>Hoederer</object>.</T
demonstrated by the fact that <TOTR><TC><logsub>Hugo</logsub> was unable to carry out his orders to kill <obje
for the right reasons. He knows why <TC><subject>he</subject> should kill <object>Hoederer</object></TC> - bec
tion and define his project. <TOTR><TC><logsub>Hugo</logsub> has been sent to kill <object>Hoederer</object><
the party asks is his failure <TOTR><TC>to kill <object>Hoederer</object></TC></TOTR> for the right reasons. H
e bourgeois people they came from. <TC><subject>Hugo</subject> did eventually kill <object>Hoederer</object><
'autrui). Olga says <quote>. <TOTR><TC><logsub>She</logsub> is prepared to go to any lengths, even as she rev
nephew were travelling with him and <TC><subject>Kaliayev</subject> could not bring himself to kill innocent <
y no I don't want this child, <TOTR><TC>kill <object>it</object></TC></TOTR>, but that not very fair to the ch
f every party represented, usually. <TC>A <subject>mother</subject> who cannot afford to keep her baby won't h
to kill one person for a cause, then<TC> <subject>you</subject> have to be prepared to kill <object>many more<
mistake many uniformed people make. <TC>The <subject>antibiotics</subject> kill most of the <object>bacteria</
those who release it. For example, <TC><subject>it</subject> might <PHRASE>kill off</PHRASE> other <object>pl
down the rabbit population as <TOTR><TC><logsub>farmers</logsub> are able to use <logsub>poisons</logsub> to k
t has to be all or nothing, that if <TC><subject>you</subject> are prepared to kill one <object>person</object
Man every year not banned, because <TC><subject>they</subject> kill <object>riders</object></TC> every year.
be controlled some way or another. <TC>The <subject>foxes</subject> kill <object>sheep</object></TC>, hens an
<quote> and it doesn't matter when <TC><subject>you</subject> kill <object>somebody</object></TC> because the
75-80%. It is still a fact that if <TC><subject>we</subject> kill <object>someone</object></TC> it will most
hat a note? would be enlisted <TOTR><TC>to kill the <object>citizens</object></TC></TOTR>. Throughout the fir
have to continue the sport because <TC><subject>they</subject> need to kill the <object>foxes</object></TC>,

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CURRICULUM VITAE

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