摘 要

　　自然言语的在线性决定了它不可能像书面语那样流畅和正确,而是充满着言语错误和迟钝、停顿、重复、沉默和修补等不流畅语流或间断语流,成为心理语言学、认知语言学、计算机语言学、神经语言学等学科研究语言产生、理解的对象。西方语言学利用语误和语料库乃至计算机技术对自然言语进行了长达百年之久的研究,建立了不少模型和理论,揭示了不少人类言语产生和理解的心理认知规律,也推动了对语误修补的研究。研究者从语言学,社会语言学,实验及计算机统计学角度,在自我修正的各方面作了大量的研究。然而,从心理语言学视角研究言语产出中的修补仍不多见。本文从会话修补定义入手,讨论了 Levelt 等人的自我监控和自我修补等理论,揭示了自我修补各阶段的心理信息加工特征,修正了会话修补的定义,认为修补是一个复杂的有章可寻的心理认知过程,有其研究价值。在此基础上,本文以汉语普通话表述实验得到的一手数据为根据,对汉语产出过程中的自我修补从修补的原因角度进行分类;进一步完善了言语产出过程中自我修补的结构;补充了已有言语修补的类型;描述了实验中汉语产出修补的分布情况,认为基本达到了初探汉语自我修补规律及推动言语修补共性研究的实验目的。

关键词: 间断语流; 语误; 自我修补; 内部结构; 自我监控

ABSTRACT

The on line nature of human spontaneous speech gives rise to speech errors and disfluencies typical of hesitation, pause, silence, repetition, repair, etc. It has invited the attention of psycholinguistics, cognitive linguistics, computational linguistics, neurolinguistics and etc. which have, since the last century, exerted enormous efforts in the research on the speech by dint of speech errors and corpora, endeavoring to unveil the nature of human speech production and comprehension. With assiduous efforts, researchers have established many models of speech production and theories as well and laid bare many a rule concerning the speech, linguistically, psychologically and cognitively. The research has also boosted the study of speech repair. As known, researchers have made a wide scope of study concerning the repair from the perspective of linguistics, sociolinguistics, empirical experiments and computational statistics, yet the psycholinguistic approach is still barren as indicated in the definition of the repair. Therefore, the present paper, starting with the discussion of repair internal structure, intends to make a tentative study on the repair, this time self-repair, from the psycholinguistic perspective in the light of levelt's theories on self-monitoring and self-repairs, endeavoring to reveal the mental information processing features in the stages of self-monitoring, repair planning and the self repair and correct the definition. The paper concludes that speech repair is in itself a complex psychological and cognitive process. Besides, the paper points out that the repair is rule-governed and merits due attention. Then basing on data from Mandarin production on first hand, the author classifies self-repairs by the reason to repair during Mandarin production process; revises the structure of the self-repair during speech production; supplements new types of self-repairs; describes the distribution of self-repairs in the experiment, all of which bring about fulfillment of the tentative study on exploring self-repair particularity in Mandarin production and stimulating researches on self-repair commmonality.

Key Words: disfluency; speech error; self-repair, internal structure; self-monitor

List of Figures

List of Tables

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Acknowledgements

Introduction

As far as the process by which a speaker turns a mental concept into a spoken utterance is concerned, it is more difficult to study speech production than to investigate speech perception or comprehension because of the difficulty in constructing experimental tasks that can reveal the complex steps in the process. Thus, psycholinguists interested in the speech production process must use less direct methods to gain insight into how this is accomplished. Researchers have historically relied on two kinds of data in the construction of speech production models — speech errors and speech disflencies, yet the former is emphasized in this thesis. However, it is not speech errors proper that are studied here but a newly discovered phenomenon ocurring with them sometimes — self-monitoring.

Speakers monitor themselves when producing spontaneous speech. They detect that sometimes the realized utterance does not confirm to their standards: That is, the utterance, although linguistically well formed, does not convey something in a felicitous way, or the utterance deviates from linguistic standards. In both incidents, the detection of such a discrepancy between ideal speech and actual speech has repercussions: The speaker decides to interrupt, and then takes corrective actions: The formulations of a self-repair.

Repairs are common not only in spontaneous conversations, but in all kinds of discourses. Researches on self-repairs are significant both theoretically and practically, complementing speech production theories and models and exploring language development issues, etc., on the one hand, and providing information receiver speech comprehension techniques on recovering from a self-repair in information giver's speech, on the other hand.

Much has been studied on speech self-repairs in many domains abroad such as computational linguistics, neurolinguistics, sociolinguistics, conversational analysis, etc. while they are not as much investigated in psycholinguistics and are even less in languages other than English or some European languages. Due to researching on speech self-repairs being a multidisciplinary study, it has not obtained due attention from home researchers. Thereafter, this paper attempts to investigate those less touched areas mentioned above by studying self-repairs in Mandarin speech to compare the regularity in several aspects with that in Levelt's study. Thus, a brief literature review on theories and models of speech production and theoretical and experimental researches on self – repairs is included in the paper which lays a solid foundation for comprehending the theme of the paper.

It is basically an experimental and comparative study in the thesis with the hypothesis that self-repairs in Mandarin speech share commonality and also present particularity comparing with those in English or other European speeches in terms of categories, the structure, editing expressions and types. Three sections of tasks are set for 15 adult speakers of Mandarin. With the tasks carried out, the data is transcribed and analysed independently by the author herself. At last, the experimental result testifies the hypothesis posed before the experiment. Yet, due to limited supporting resources and knowledge, the experiment still has room for improvement both academically and technically.

Layout of the present paper is presented here. **Part 1** is a review on relevant studies on self-repairs which provides a large picture and basic knowledge for understanding the theme of the paper. **Part 2** probes into the internal mechanism of self-repairs; what their mental mechanism is in language production process and what self-repairs are inside. **Part 3** concludes the nature of self-repairs in three

perspectives, categories, structure and distribution. It offers a pattern the next part follows and compares with. **In part 4,** an experiment is conducted to explore what self-repairs in Mandarin speech are like and how they are different from those in English self-repairs. This part is the main representation of the theme. **Part 5** makes some possible implications for future researches and practice which relate self-repair studies with studies of speech production and language development and sum up certain skills comprehenders would apply into recovering from the self-repairs speakers make during the talk.

Part One

A Literature Review on Relevant Studies on the Self-repair

All science, says Plato, begins with astonishment. But it is rare that one stops to think how one's own language works — it is simply there to serve them. People talk almost every day so much that it is extremely natural for them not to pay much attention to how they express their conceptions through words. They simply take it for granted, probably for the reason that they can talk effortlessly, without conscious knowledge of the complexities involved in the process. All the complicated mental processing is happening entirely below the level of consciousness, in another word 'unconsciously', which means that they're not aware of 'doing' anything except when they hear themselves saying 'funny', and it's all happening at such an astonishingly fast speed that they're not even aware of any time these steps are taking.

The fact is that people's indifferent attitude towards their speaking a language is because intuitively talking isn't hard, and they do produce fluent speech. Only when there are hesitations, repetitions, pauses and the like, do they realize that they are 'doing' something wrong. In such a situation, people use self-repairs after they have realized what needs to be repaired. But why people make speech errors and disfluencies during their speech production? What is the nature of information processing in speech production? How can they make up for their speech errors? And what characteristics it reveals when self-repairs are implemented? These are the a few questions researchers intend to answer. Since the self-repair is one of the components of speech production and self-repair researches originate from speech production process, a brief review of speech production studies answering the

question of what has been achieved in the related research is of significance for later discussion of the phenomenon.

1.1 Research on Language Production

The process of language production has long been a spot of interest for exploration and investigation, and many researchers have investigated the speech production process by using convergent measures. Some investigators have made detailed and systematic analysis of naturally occurring errors of production, some have given speakers, under laboratory conditions, more or less specific instructions on what to produce, and others apply computing programming. Despite these differences in approaches, the findings from these varied investigations are beginning to yield useful and valuable result, therefore, the outline of an overall model of production is becoming clearer. The pioneering model that suggested the process of planning speech can be viewed as a series of stages, each devoted to one level of linguistic planning and that result was published by Fromkin in 1971. The author, based on the provided information, intends to describe several representative models, with an emphasis on Levelt's. According to Levelt (1989), there are four stages of production: conceptualizing, formulating, articulating, and self-monitoring.

1.1.1 Approaches to Language Production Research

Approaches to language production research are quite different from those to language comprehension research, which are relatively much more mature than the former. To discuss the approaches to language production research, it must be noted that many research achievements in psycholinguistics come from language comprehension observation, so some people regard language comprehension as the kernel issue in psycholinguistics. Language comprehension is studied largely through

experiment under control; elaborately designed experiments can also be adopted to obtain data in studying language production but spontaneous observations are much more adopted. Butterworth (1980) has pointed out that language processor operation can be better understood through language production than through language comprehension because the output of language system can be seen and heard, unlike the untraceable mental representation.

To make things clear, this thesis lists out three main research measures in investigating language production. First, the oldest and the most prevailing measure is to observe the case of speech errors and then deduce how it works in normal condition. This measure depends on spontaneous observation so basically it belongs to qualitative research method – data collecting and classifying analysis. Second, in controlled language production experiment, participants receive a stimulus, usually a word or a pair of words and then produce a word, a sentence or a segment. The theoretical base of this procedure lies in the fact that when language is produced, a piece of message can transform into words. Third, computer programming has been applied mainly to study high-level language planning models as well as to observe sentence processing and the structure of production system.

1.1.2 The Study of Speech Errors

The speech error is so common that a great number of researchers have probed into the phenomenon, and scientific analysis of speech errors, commonly referred to as "slips of the tongue", started in the early 1970s, with the seminal publication of an article by Fromkin (1971) which examined the way speech errors may be used in the construction of linguistic argument. This paper, and those that follow, marked the end of a long period in which speech errors were regarded with suspicion in scientific circles. It has become respectable for investigators to use errors to examine the role of linguistic units in the production of speech. Consider the following examples in which what was actually said is compared to what the speaker intended in table 1.

Table 1. A Comparison between Intended Utterance and Actual Utterance

Intended utterance	Actual utterance
You have missed all my history lectures.	You have hissed all my mystery lectures.
Noble sons of toil	Noble tons of soil
You have wasted the whole term.	You have tasted the whole worm.
The dear old Queen	The queer old dean

The above examples are all attributed to the Reverend William A. Spooner. It may be because he became "infamous" for producing such errors that the kinds of errors people make are often called **spoonerisms**, a term after his name.

Speech errors are systematic which typically fall into one of the eight categories: exchanges, substitutions, additions, deletions, anticipations, perseverations, blends, and shifts.

Various hypotheses concerning the basis for such errors have been advanced. One of the more prominent has been Freud's view that errors occur because we have more than a single plan for production and that one such plan competes with and dominates the other. In 1901 he based his monograph, *Psychopathology of everyday life*, on errors as above claiming that slips of the tongue resulted from repressed thoughts which are revealed by the particular errors which a speaker makes. While it is possible that Freud is correct in some cases, such errors reveal as much if not much more about the structure of language as they do about repressed thoughts. The most common interpretation is that we produce speech through a series of separate stages, each devoted to a single level of linguistic analysis. Errors typically occur at one level, but not the others, during the production process. The author is now moving to

the discussion of several representative models before discussing the process of language production in the next part.

1.1.3 Language Production Models

Serial models

In 1971, the first model that attempted to account for the major stages and levels of representation was published by Fromkin (1971,1973), followed by a similar and more detailed model forwarded by Garrett (1976). Both models are called serial models because they suggested that the process of planning speech can be viewed as a series of stages, each devoted to one level of linguistic planning.

The Utterance Generator model distinguished six stages at which different representations of the utterance occur as is presented in table 2. And there is also a more vivid presentation of Fromkin's model in Figure 1.

Table 2. Fromkin's Model of Speech Production

Stage	Process
1	Identification of meaning – a meaning to be conveyed is generated.
2	Selection of a syntactic structure – a syntactic outline of the sentence is constructed, with word slots specified.
3	Generation of intonation contour – the stress values of different word slots assigned.
4	Insertion of content words – appropriate nouns, verbs, and adjectives are retrieved from the lexicon and placed into word slots.
5	Formation of affixes and function words – function words (articles, conjunctions, preposition), prefixes, and suffixes are added.
6	Specification of phonetic segments – the sentence is expressed in terms of phonetic segments, according to phonological rules.
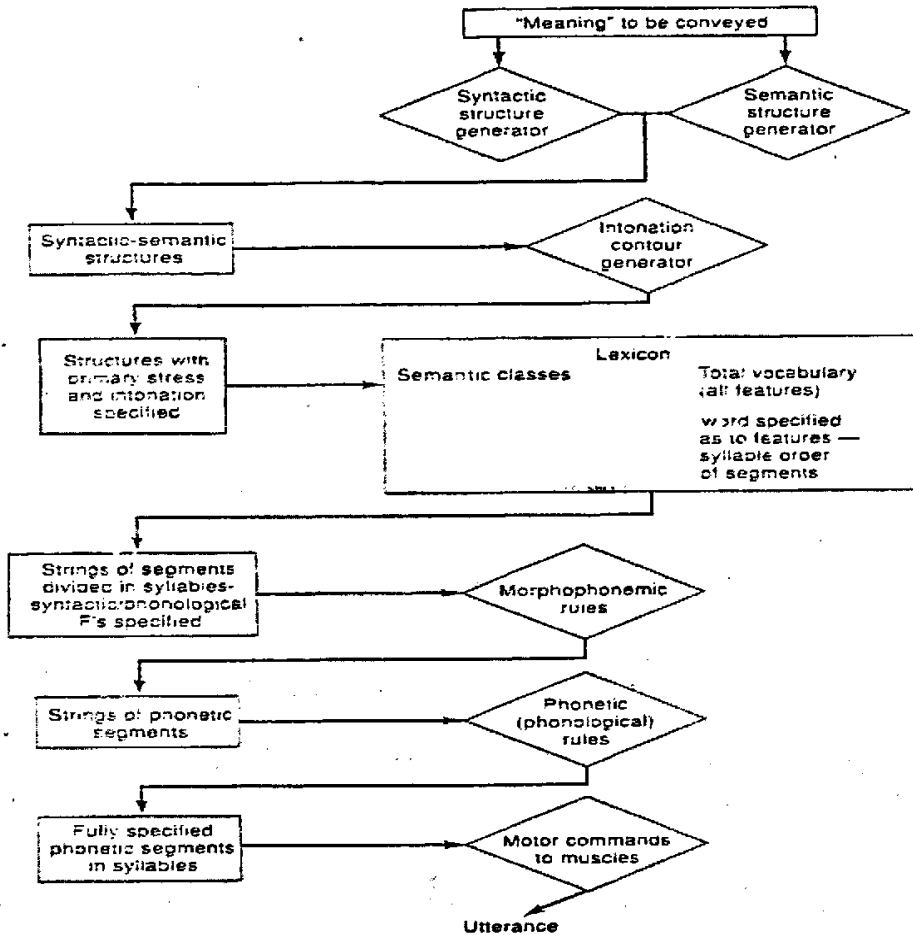
Figure 1. Fromkin's Utterance Generator

In 1975, Garrett proposed a speech production model, also based on speech error data. It made explicit some of the implicit aspects of the Fromkin model and filled in some gaps in the model. Although it, too, requires refinement, this model has provided a major framework for further research in the field. Figure 2 presents the first version of the Garrett model and figure 3 the latest construction of the model

(1984). The earlier model is presented because it includes statements of what the levels attempt to account for (Garrett, 1975, 1984).

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┌─────────────────────┐
│   Message source    │
└─────────────────────┘
           │
           ▼
M₁, M₂, M₃........, M₄  ┐   "Semantic" factors pick      (Word substitutions and fusions
           │           │   lexical formatives and      occur here; independent word
           │           │   grammatical relations        exchanges and phrase exchanges
           ▼           │                                also occur here)
   Functional level    │
   of representation    │
           │           │   Syntactic factors pick
           │           │   positional frames with
           ▼           │   their attendant gram-        (Combined form exchanges and
   Positional level     │   matical formatives;          sound exchanges, word and
   of representation    │   phonemically specified       morpheme shifts occur here)
           │           │   lexical formatives are
           │           │   inserted in frames
           ▼           │
     Sound level        │
   of representation    │   Phonetic detail of both      (Accommodations and simple
           │           │   lexical and grammat-         and complex sound deletions
           │           ┘   ical formatives specified     occur here)
           ▼
Instructions to articulators

                                                         ("Tongue twisters")
           │
           ▼
┌─────────────────────┐
│ Articulatory systems │
└─────────────────────┘
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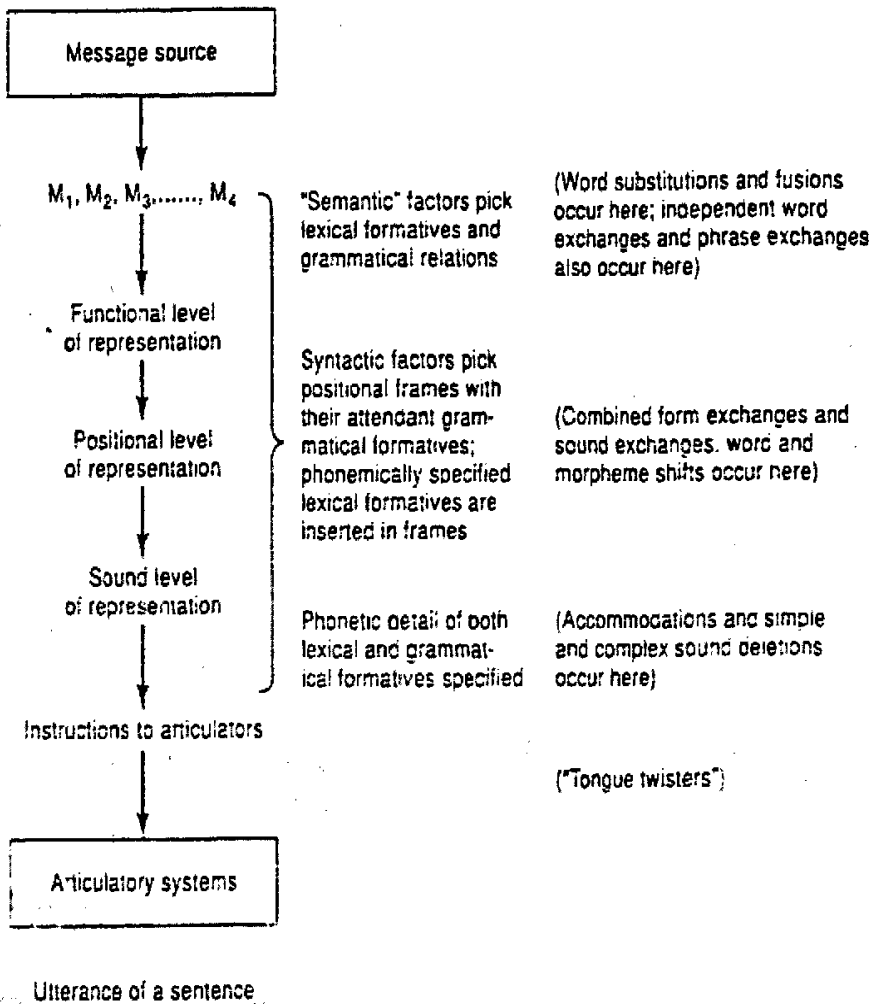
Utterance of a sentence
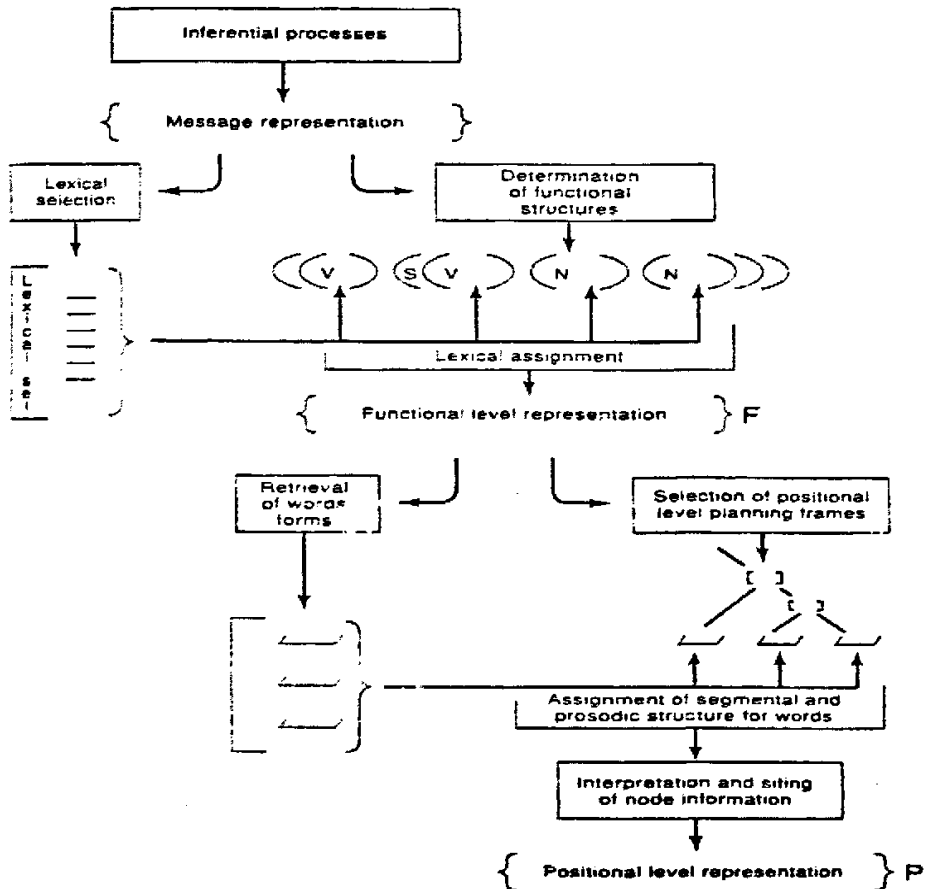
Figure 2. Garrett's 1975 Model

Figure 3. Garrett's 1984 Model

Much overlap exists between the Fromkin and Garrett models. Both distinguish among three levels—a conceptual level, a language-specific sentence level, and a motor level of articulatory control (Garrett, 1980). However, Garrett has provided other indications that the stages devoted to the formulation of syntactic structure precede those devoted to the insertion of lexical items into that structure. Garrett (1975) has carefully examined word exchanges and found that they are distinct from morpheme and sound exchanges in a number of ways. Most sound and morpheme

exchanges occur within zero to one word, whereas exchanges of words take place over longer stretches. Moreover, the vast majority of errors occur within the clause, but of those that do not, nearly all are word exchanges. Furthermore, these exchanges tend to preserve the grammatical class of the item. All of these considerations led Garrett to argue that word exchanges reflect a stage of linguistic planning in which functional syntactic relations were being constructed (basically, stage 2 in Fromkin's model) and that the introduction of morphemes and sounds (stage 5 and stage 6) comes later, when the outline is in place, and involve more local exchanges of material.

Parallel models

An alternative to the serial models put forward by Fromkin and Garrrett are parallel models which assume that multiple levels of processing take place simultaneously during the process of language production. Several theorists have advanced this idea, including Dell (1986), MacKay (1987), and Stemberger (1985). These parallel models are similar in spirit to the TRACE model of speech perception and the interactive activation model of visual word recognition.

Dell (1986) assumes that there are four levels of nodes in permanent memory: semantic, syntactic, morphological, and phonological. Separate representations of the intended message occur at each level, much as in the serial models. Unlike the serial models, however, these representations work in parallel. As a node at one level becomes activated, it may activate other nodes at the same level or at other levels. Dell's Spreading activation model of speech production (Dell, 1986) is such a connectionist model that in this model, words (and possibly rules) are organized into networks, with connections between units based on semantic and phonological relatedness. Figure 4 shows a hypothetical network representation for the utterance, "Some swimmers sink." The activation of a concept spreads activation to those lexical items sharing semantic features with the thought to be conveyed. For example, the speaker's thought, "swimmer," activates, among other things, a class of nouns, a

class of nominal affixes such as the plural, and a class of verbs. Because of spreading activation among all nodes in the network, selection of *swimmer* and *sink* also activates aspects of their grammatical usage, as well as their phonological forms.
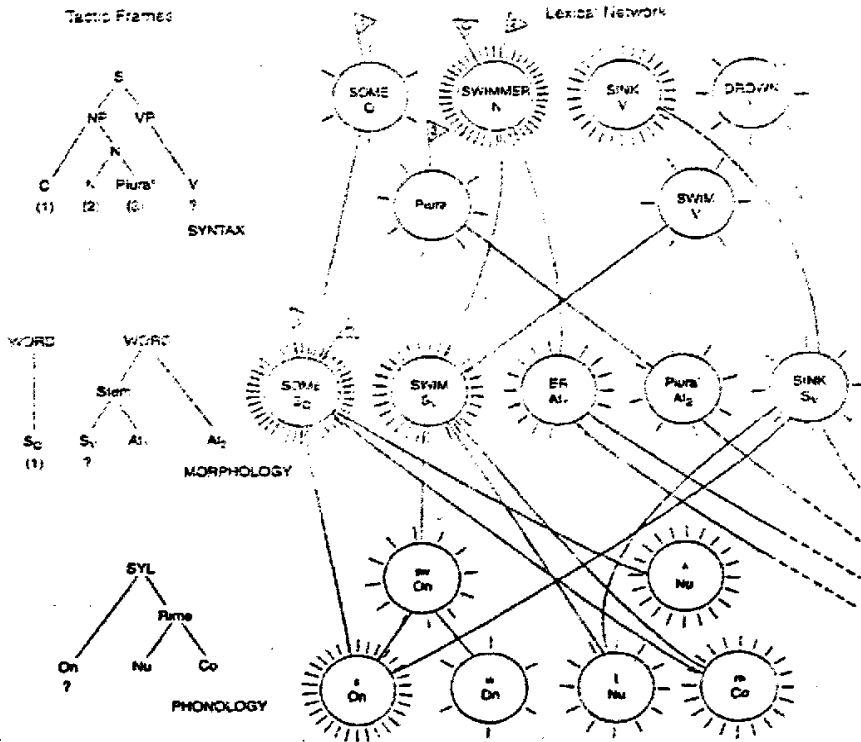

Figure 4. A Hypothetical Network Representation for the Utterance, "Some swimmers sink."

Parallel and spreading activation models of speech production provide an interesting alternative to the stage models discussed earlier. Speech production is a very rapid activity, and the parallel structure of these models seems well adapted to explaining various aspects of production.

Levelt's model

It is particularly crucial to point out that Levelt further distinguishes a *speech-comprehension system* within his model of speech production . Its primary role is to monitor the output for errors. Levelt (1983, 1989) notes that attempts at self-correction while speaking suggest that speakers actively attend to (self-monitor) both intermediate forms of their intended utterances during processing, as well as their output.

Levelt's model to some extent falls into parallel models because he took the stand of connectionism in several aspects (he accepted the spreading activation network). But he thought connectionism is a formal language for describing cognitive process but not a theory on cognitive process.

1. 2 Relevant studies on the self-repair

These researches on natural language production stimulate researches on speech repairs as indicated in concerning the repair from the perspective of sociolinguistics, linguistics, empirical experiments and computational statistics for the study of the internal structuring, monitoring, cue phrase, boundary delimitation, phonological, prosodic and intonational features, regression analysis and form analysis.

1.2.1 The Theoretical Aspect

Sociologist Schegloff, Jefferson and Sacks advanced the concept of trouble source, trouble initiation and the structure models of trouble repair and distinguished four types of repairs: self initiation / self repair، self initiation / other repair، other initiation / self repair، other initiation / other repair in 1977 when the term *repair* came into use formally. Hindle classified speech repair as fresh start, modification repair and abridged repair in 1983. Levelt classified repair into two types: error repair and appropriateness repair in 1989. Goodwin proposed that repair is to attract

the listener's attention in 1991. Faerch and Kasper proposed that self-repair reflects face-saving. It demonstrates that speech with errors is to the speaker a face-threatening act so implementing self-repair helps face-resuming. And the statement that the repair reveals the uncertainty when people maintain face and pursue equality was put forward by Ron White in 1997 which indicates that speech repairs deserve the research merit in sociolinguistics and inter-cultural communication.

1.2.2 The Experimental Aspect

Lickley, Shillcock and Bard investigated in 1991 through experiment that listeners use prosodic cues to judge speech repairs. In 1992, Lickley and Bard found in gating paradigm that almost 80% of the disfluencies in their corpus could be recognized at the first word gating after the speech error and speech interruption. This experiment validates further the theory that prosodic cues can help listeners recognize self-repairs of the speaker. In the same year, O'Shaughnessy addressed the function of time duration and pitch in prosodic cues. Nakatani and Hirshberg proposed in 1994 that the listeners can judge self-repairs from pitch, swing and interruption duration as they change. Yet the experiment using these approaches has not prevailed at present. As linguists and psychologists study natural speech in perspective of speech production, computational linguists in perspective of speech recognition to improve machine's capability to recognize natural speech. Their research focuses on multilevel processing of natural corpus, describing disfluency characteristics in the corpus, distinguishing disfluency cues phrases, distinguishing and delimitating components of repair structures and computational researching on cues phrases. By part of speech tagger, parser, human-computer dialogue, simulation techniques and software, they investigate natural speech containing speech errors and self-repairs.

Hindle proposed rules of self-repair analysis with his Fidditch parser (1983): surface copy rule, category copy rule and stack copy rule. What's more, Levelt addressed well-formedness rule in 1989.

It may be concluded so far that speech and speech error production is a complex psychological and cognitive process. Human can not only map conception into specific message, encode message into words and sentences, then encode into phonetic representation and at last express themselves in articulation muscles, they can also monitor speech and repair speech errors. Yet, from the researches mentioned above, you may find easily that there have been many psycholinguistic studies on language production, whereas rare psycholinguistic studies have been done on speech repair, this time self-repair.

Part Two

The Mental Mechanism of the Self–repair

An overview of the relevant studies of self-repairs in speech production has been presented, and then in this part a deeper investigation of the self-repair is discussed. Before the nature of one thing is analyzed, to clarify what it is is the first step. Therefore, various definitions of self-repairs are discussed below including the author's preferable definition of Komos' in which Komos points out that speech monitoring is the interior mechanism of self-repairs and distinguishes two types of self-repairs: covert and overt repairs. Consistent with this definition, self-monitoring in language production process and internal and external monitoring will also be discussed in the following sections in this part which lay a good foundation for the categorization and analysis of self-repairs in the next part.

In the section of self-monitoring in language production process, there will be further explanation on conceptualizing thoughts; formulating linguistic plans; implementing linguistic plans (articulating plans and self-monitoring) by steps of language production which positions self-repairs in language production process. There is little doubt that speakers can listen to themselves speak out loud, and scrutinise what they hear. But a central claim of the recent theory is that there is also an additional channel. Catering to this new trend, evidence for internal monitoring and a division of labor between the two channels are discussed.

2.1 Self – repairs in Speech Production

The self-repair is a common phenomenon in conversation (Schegloff, Jefferson and Sacks, 1977), but there is not enough importance attached to it in linguistic study until the 1980th when the self repair turns gradually into an important subject in

discourse analysis and natural language processing and a new research area in syntactics and psycholinguistics. Due to its immature developments so far, there has been no exact definition of the "self-repair". However, for further probing into the area, the author intends to propose a more complete definition which is used throughout the discussions. Below are some representative definings of the self-repair and the author's evaluation on them.

On defining the concept, Cyclopaedic Dictionary of Applied Linguistics defines the self-repair as a character of oral discourse. The speaker corrects what he has just said as he speaks. Corrections arise either from the content or the form and could possibly occur at every layer: phonemes, morphemes, words, phrases, sentences, discourses.

Different from the defining which sees the self-repair as a character of oral discourse, Schegloff, Jefferson, and Sacks (1977) referred to the repair as a variety of ways of handling troubles that arise in the process of speaking, understanding, and communicating in an interactional setting. What's more, Schegloff (1977) distinguished the term "correct (errors)" and "repair". "correct" refers to replace a slips of the tongue or an error with a correct form while what needs to be repaired is more than that. Specifically speaking, "repair" is not constrained to only replacement. For example, repair occurs as the speaker is doing a word search in some instance. Besides, it does not necessarily mean that there are slips of the tongues, errors or vices that can be recognized by the listeners in the speaker's speech before the repair as the speaker repair what he has said. Schegloff et al (1977) defines what the speakers repair as repairable or trouble sources. Rieger (2003) followed Schegloff et al's defining of "repair" and his defining is more specific. He demonstrated that the repair behavior includes "error correction, the search of a word and the use of hesitation pauses, lexical, quasi-lexical, or non-lexical pause fillers, immediate lexical changes, false starts, and instantaneous repetitions".

Yet, there are definitions much simpler than the one mentioned in the last paragraph as A. Potsma (2000) advanced "self-repairs" are error corrections without

outside activation, usually occurring instantly after the errors. Another statement that "self-repair" refers that the speaker corrects his own errors in his speech was given by van Hest (1996).

Though the definings above do attempt to define the self-repair from different angles, the author intends to adopt Komos' (1999) as he defines the self-repair from a psycholinguistic perspective: the self-repair is the exterior representation of speech monitoring mechanism. When speakers recognize errors or inappropriateness in their expression, they interrupt the speech and make self-repairs which means they have conducted a self-initiated, self-repair behavior. However, self-repairs may even occur before articulation. In some cases, speakers recognize existence of speech errors after speech organization in their mind but before articulation when they make repairs immediately or do not make any repairs at all. Compared with overt-repairs which have exterior representation, this type of repairs having no direct exterior representation is called covert-repairs.

Different researchers give different operable definitions of "self-repair" due to different research angles and purposes and those definitions to different extent, help people understand self-repairs. Next comes the author's evaluation of those definitions one by one. Schgloff et al's contribution lies in his explicitly delimitating the distinction between "correct" and "repair" for the first time but their definition is too general and therefore, not convenient to operate. Riegers 's definition seems even bigger including almost all the techniques for gaining time in spoken language but because he puts emphasis on repetition, he does not discuss operable definitions of other types in repairs except repetitions. A. Potsma's and van Hest's definitions are simple and superficial. A "self-repair" is not simply a behavior of correcting errors. Comparably speaking, Komos's definition is more comprehensive which proposes not only repair process (recognizing errors – interruption – implementing self-repairs) but also that covert repairs are part of the repairs. Meanwhile, he also points out that the operable definition of repair is restricted in the scope of overt repairs for it's hard to measure covert repairs.

The author intends to adopt Levelt et al's theory to modify the definition of self-repair in three aspects: error monitoring, repair planning, repair implementing which also reflects basically Komos's definition.

2.2 A Review on Self-monitoring in Language Production Process

Language production research traditionally exploits patterns of speech errors, speech onset latencies and (to a much smaller extent) disfluencies in order to investigate how the language production system works. Current accounts of language production also postulate a self-monitoring system that inspects overt and internal speech and interrupts and repairs when a problem is detected. The author will investigate this tendency by discussing the framework put forward by Levelt whose "perceptual loop theory" (1983, 1989) is the most influential theory in monitoring theories.

This is a framework sketched by Levelt (1989) and which is influenced by earlier work by Bock (1982), Fromkin (1971), Garrett (1975), and others. This framework is depicted in Figure 5.
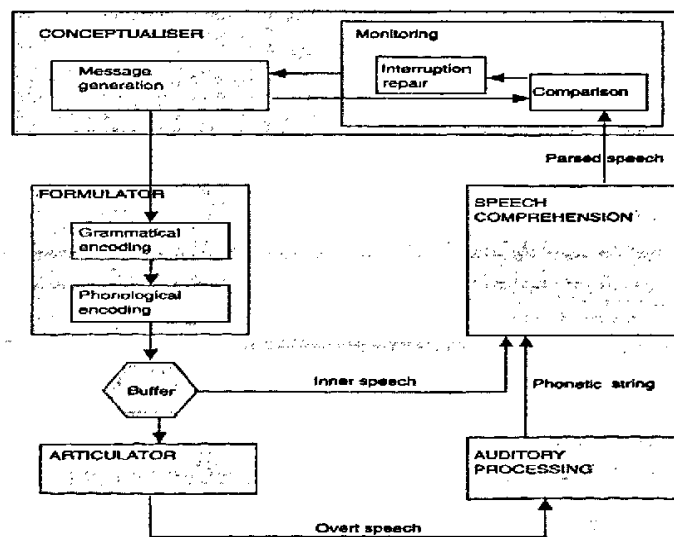

Figure 5. Blueprint of the speaker. (Adapted from Levelt, 1989.)

Levelt (following, for example, Garrett, 1975) divided language prodcution into three major components: the conceptualiser, the formulator and the articulator with a speech comprehension system which will be discussed respectively in the following sub-sections.

2.2.1 Conceptualizing Thoughts

First, the conceptualiser provides an interface between thought and language. It has access to the speaker's intentions, knowledge of the world, the current (physical and social) context, and a "model" of the current state of the discourse (who said what earlier in the conversation, what is the main topic, what subtopic is currently in focus, and so on). If the speaker, given this current context, decides to engage in a speech act, he or she will formulate a pre-verbal message. This can be thought of as a semantic structure, not itself yet language, but containing information that can be conveyed by a speech act.

2.2.2 Formulating Linguistic Plans

The formulator uses this message to construct a sentence representation. It is subdivided into two components. The first component, grammatical encoding will, select form the mental lexicon words that match the specifications in the message. Based on message properties, this component will also assign grammatical functions to there words and build a phrasal representation, specifying the hierarchical relation between syntactic constituents and their linear order. The second component is phonological encoding. This component uses the sentence – level representation, including the words which have been assigned positions in that representation, and determines (a) the prosody of the sentence, and (b) the phonological form of the words. The latter process includes "spelling out" the phonological segments in the

words, determining the metrical structure of these words (e.g. how many syllables? which syllable is stressed?), and assigning the segments to structural positions in these words.

2.2.3 Implementing Linguistic Plans

In regard to implemeting linguistic plans, there are several suggestions, but this thesis would provide the illustrations of the articulating plans and the self-monitoring.

Articulating plans

The resulting representation is phonological in nature. But in order for the utterance to be articulated, this representation needs to be translated into the language of motor control. According to some proposals, this latter process yields "articulatory gestures" which specify in an abstract (context – independent) way what patterns of articulatory movements are required. The actual control of motor programming and motor execution is the task of the third component, the articulator.

Self – monitoring

The right hand side of the graph sketchily shows speech comprehension, which is subdivided into auditory processing of overt speech (which renders a phonetic string), and speech comprehension proper, which is responsible for word recognition, syntactic analysis, and mapping the syntactic representation onto meaning. The resulting representation, which Levelt (1989) called "parsed speech", feeds into the conceptualiser.

As Figure 5 shows, this framework of language processing localizes the monitor in the conceptualiser. Our speech reaches the conceptualiser through the speech comprehension system, and there are two channels feeding into this system. We can listen to our own over speech (using auditory analysis) just as we can listen to anyone else's speech. But we can also "listen" to a representation of speech before it

is articulated: Inner speech. This second channel is depicted in the figure as a connection between the articulatory buffer, which temporarily stores the speech plan while it waits for articulation, and the language comprehension system. Both of these feedback loops will reach the conceptualiser, and that system, finally, compares whether our own "parsed speech" matches our intended speech. This view on monitoring is controversial and there are many tests of its tenability.

Self-monitoring of action is important for smooth performance in many areas of human behavior. For instance, when we reach out to grasp for an object, we are able to monitor our arm movement and quickly modify the trajectory in case an obstacle is suddenly encountered. The same is true for producing speech. Speech is largely planned and the selection of meaning, syntax, and word forms is a complex process in which errors might occur. Self-monitoring the planning process might prevent (some of these) errors to surface in overt speech. This is important because speech errors might hamper the fluency of a conversation which sometimes can be embarrassing. Models of speech production recognized the importance of a monitoring system that helps speakers to convey their messages in an optimal way. As the importance of self-monitoring has been recognized, then there will be a further exploration of its two channels – an external and an internal channel.

2.3 Internal and External Monitoring

Most theories of monitoring assume that speakers use at least two information sources: An external and an internal channel. First, speakers can listen to their own overt speech and check whether it contains any discrepancies with intended speech. This implies that the language comprehension system is critically involved in monitoring overt speech. Second, there is convincing evidence that speakers also monitor representations of speech that is not yet articulated through an internal

channel. The author will present classical evidence for the existence of internal monitoring.

An implication of postulating two channels is that there must be a division of labor between them: some of the errors will detected by one channel, others by the other. Presently, theories of monitoring leave unspecified what this division is. How many errors are detected by each channel? Which ones? Can the speakers strategically shift between the two channels? In this part, the author will introduce one of the proposals – Hartsuiker and Kolk's proposal for determining the relative contribution of each channel though it still needs improvement.

2.3.1 Evidence for Internal Monitoring

The existence of an internal channel can be appreciated by considering (1), an English translation of a repair reported by Levelt (1989):

(1) *then you go the v.horizontal line*

In this example, the speaker produced a /v/, but interrupts immediately, and repairs with the word "horizontal". Given the context (an experiment in which speakers described routes through networks of colored circles), it can be assumed that the /v/ was the first sound of "vertical". This error is interrupted so quickly that it is very unlikely that the external channel detected it. The duration of a phoneme such as /v/ is about 70ms. This leaves little time for auditory recognition of the actual utterance, comparison with target utterance, and halting of the speech apparatus (Hartsuiker & Kolk, 2001). It is much more likely that a representation of "vertical" was corrected internally, before the actual realization of the first sound /v/, but that the interruption took place too late to prevent the error from becoming overt.

There is also experiment evidence for internal monitoring. In one set of studies the participants could not hear their own overt speech, because it was masked by loud white noise (Oomen, Postma, & Kolk, 2001; Postma & Kolk,1993; Postma & Noordanus, 1996). These studies consistently showed that speakers are able to detect substantial numbers of speech errors, although they could not use the external channel.

In other studies, speakers were asked to detect errors in silent speech. Participants indeed reported errors in internal speech and a similar pattern of error detection was observed as in external speech. This supports the theory of an internal channel, and it suggests that the internal and external channel use similar criteria for error detection.

In the speech production literature, there are different accounts of how speakers monitor their own speech. There is agreement with respect to the fact that there are two mechanisms involved, an internal (monitoring planned speech) and an external (monitoring already uttered speech) mechanism. However, there is disagreement about the location of the internal monitor. Production-based accounts assume that the internal monitor resides within the production system. In contrast, perception-based accounts, such as the perceptual loop theory of Levelt and colleagues (Levelt, 1983; 1989; Levelt, Roelofs, & Meyer, 1999), assume that the speech plan is monitored by using the speech comprehension system.

Figure 6 depicts a proposal of self – monitoring, based on Levelt's (1983;1989) perceptual loop theory and amendment proposed by Hartsuiker and Kolk (2001).
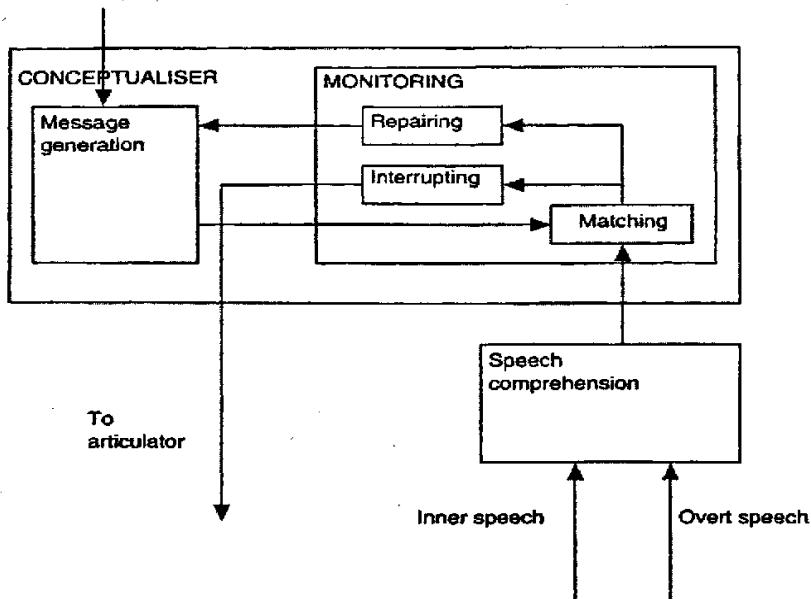
Figure 6. Components and Information Channels involved in Self-monitoring. (Adapted form Hartsuiker and Kolk, 2001.)

2.3.2 A Division of Labor between the Two Channels

Hartsuiker and Kolk (2001) took a different approach from the previous proposals in estimating the division of labor between the two monitoring channels: they proposed a probabilistic model. Instead of trying to classify each individual incident as one that is either triggered by the internal or the external channel, their model estimated the proportions of such incidents in a given experiment or experimental condition. These proportions can be estimated from experimental data, because the model specifies a mathematical relationship between observable variables (such as the number of errors that are repaired) and model parameters (such as the error detection rate of the internal channel). Given sufficient assumptions, that model has a unique solution. For example, for the data published by Oomen and Postma (2001), they estimated that 25 percent (normal speech) to 29 percent (fast speech) of the

overt self-corrections were triggered by the internal channel. Unfortunately, this model only has a unique solution under the simplifying assumption that the probability of detecting an error is equal for each channel. There are, however, reasons to doubt that assumption. A number of authors assume that the two channels may use different criteria for monitoring. So the assumption in this proposal needs to be tested. There are still much to explore in the study of division of labor between the two channels.

In all, self-monitoring contrasts markedly with the dated and very inaccurate depiction of communication as consisting of a message that speaker A sends to listener B. The attested presence of a self-monitoring stage presumes that people don't just communicate with others, they communicate with themselves; they don't just listen to others, they listen to themselves. Communication is not a one-way broadcast of a signal, but it is an interactive process, involving not just the interaction *between* the interlocutors but also the interaction *within* each individual speaker. The self-editing process confirms for psycholinguistics what has long been known to exist in most biological functions of the body ----the presence of feedback loops. Speech production (or written composition) is not a linear 'one-way' process; it is a parallel, 'two-way' system involving both output and the concurrent editing and modulation of that output.

Part Three

Self-repairs Categorized and Analyzed

Error detection has an aftermath. The speaker will interrupt himself and attempt to correct the error. In Levelt's (1989) proposal, the coordination between these two processes is governed by the "main interruption rule". That is, the speaker interrupts immediately on error detection and halts all components of language production. Since it takes time to stop action, there will be a short interval during which speech is still carried on. This interval ends when overt speech is interrupted. That moment marks the beginning of the "editing phase", during which the repair is planned.

Self-repair behavior is a recurrent phenomenon in everyday speech. People are constantly monitoring what they are saying or planning to say. They usually correct themselves for two main reasons: (a) because they think their utterance is not appropriate enough (appropriate repairs), or (b) because they have made an error (error-repairs).

3.1 Categories of Self-repairs in Speech Production

Self-repairs can be divided into several categories. One of the most detailed, and the commonly accepted systems is suggested by Levelt (1983, 1989). Levelt developed his system on the basis of an analysis of the self-repair behavior of adult speakers of Dutch. Levelt distinguished two main classes of repairs: covert and overt repairs. Covert repairs (C-repairs) occur when speakers discover trouble and interrupt themselves before the troublesome item is uttered, (i.e. pre-articulatorily). As covert repairs take place in inner speech, it is impossible to identify what the speaker is repairing. Overt repairs are made after (part of) the troublesome item has been articulated. As a result, overt repairs can be easily identified and classified.

Depending on the **reason** for repairs, they can be classified as: (1) Error repairs (E-repairs), which, depending on the trouble word to be corrected, can be further divided into phonological (EF), morphological (EM), lexical (EL) or syntactic (ES) error repairs; or (2) appropriateness repairs (A-repairs), which can be further divided into appropriateness lexical repairs (AL-repairs) and appropriateness insertion repairs (AI-repairs). Below are some examples of various types of self-repairs.

3.1.1 E-repairs

Altogether four kinds of E-repairs, abbreviated as ERs, (phonological error repairs, morphological error repairs, lexical error repairs and syntactic error repairs) are listed here with explanations and examples followed.

EP-repairs (phonological error repairs):

The speaker corrects a phonological error, (e.g. because of a mispronunciation or an exchange of phonemes).

2. "they have a /naʃf/ ^ ni*ce* boat"

3. "they /rɪn/ ^ r*u*n to their car"

EM-repairs (morphological error repairs):

The speaker corrects a morphological error, for example an error in selecting the affixes in the case of adjectives or nouns.

4. "so the man is inmature ^ immature for his age"

5. "the monkeys with a hat on their head ^ heads"

EL-repairs (lexical error repairs):

  The speaker has selected the wrong word and substitutes the correct one for it.

6. "if you must read ^ uh write the English word"

7. "he sees all the monkeys in the tree with a hat over ^ with a hat on their head"

ES-repairs (syntactic error repairs):

  The speaker produces a grammatical construction which cannot be finished without

  violating the grammar of the target language.

8. "the man thinks up of ^ thinks of something"

9. "it's not you do ^ something you do every day"

3.1.2 A-repairs

  Two kinds of A-repairs, abbreviated as ARs, (lexical appropriateness repairs and insertion appropriateness repairs) are listed here with explanations and examples followd.

AL-repairs (lexical appropriateness repairs):

  The speaker replaces one term with another, usually more precise, term.

10. "and then he is very sorry ^ he feels very sorry"

11. "it turns out to be a film ^ a movie scene"

AI-repairs (insertion appropriateness repairs):

The speaker repeats part of the original utterance and inserts one or more words to specify his/her message.

12. "you see a policeman ^ an English policeman"

13. "he is standing on his uh feet, uh, two feet"

According to the reason for overt repairs, four types of E-repairs and two types of A-repairs are suggested. What's more, it is obvious to find that kinds of errors in E-repairs above are language-specific, so there may be other kinds of E-repairs when other languages are involved.

3. 2 Structure of the Self-repair

Most overt repairs, E-repairs and A-repairs, show a basic repair structure, which consists of three distinguishable components presented in figure 7.

(cut-off point = _)

original utterance   editing phase   repair

"go from left to"   "uh"   "from pink to blue"

reparandum   editing term   reparatum

Figure 7. Structure of an Overt Repair (Levelt, 1983).

Levelt defines the parts of an overt repair as (1) a reparandum, which can be either an error or an inappropriate expression; (2) an editing term, immediately following the interruption of the flow of speech; and (3) a reparatum, which is the correction or alteration of the troublesome item with or without the repetition of prior material.

According to Levelt (1983), self-repairs have a characteristic structure that consists of three parts. First, we interrupt ourselves after we have detected an error in our speech. Second, we usually utter one of various editing expressions. These include terms such as *uh, sorry, I mean*, and so forth. Finally, we repair the utterance. Now, these parts are to be discussed one by one.

3.2.1 Self Interruption

Nooteboom (1980) found that roughly two-thirds of speech errors are corrected shortly after the error, usually at the first word boundary after the error. But different types of errors produce different levels of detection. Anticipations (e.g., she shells instead of seashells) were repaired more often than perseverations (e.g., sea sells instead of seashells). Nooteboom thought that the urge to correct the error was immediate but that the speaker had to wait until a constituent boundary was reached in order to fulfill the urge to repair.

Levelt (1983,1989) developed one of the most influential classification systems for self-repairs on the basis of self-repair behavior of adult speakers of Dutch. Subjects were presented with complex sets of color patterns that are connected with lines, as depicted in Figure 8. The subject has to describe the layout of colors, starting at the point designated by the arrow. Consider configuration (a) in figure 8. The subject has to describe the arrangement of colors, for example, "Above the gray patch is a red one. To the right of the red patch is a yellow one...," as if a hypothetical listener has to reproduce the layout from the subject's description. The task results in speech

errors and interruptions that can be analyzed. Levelt found that 18 percent of the errors were repaired within the trouble word. Most of the errors (51) were corrected immediately after the error, and 31 percent were delayed one or more words. These results were similar to what Nooteboom (1980) found with spontaneous speech errors.
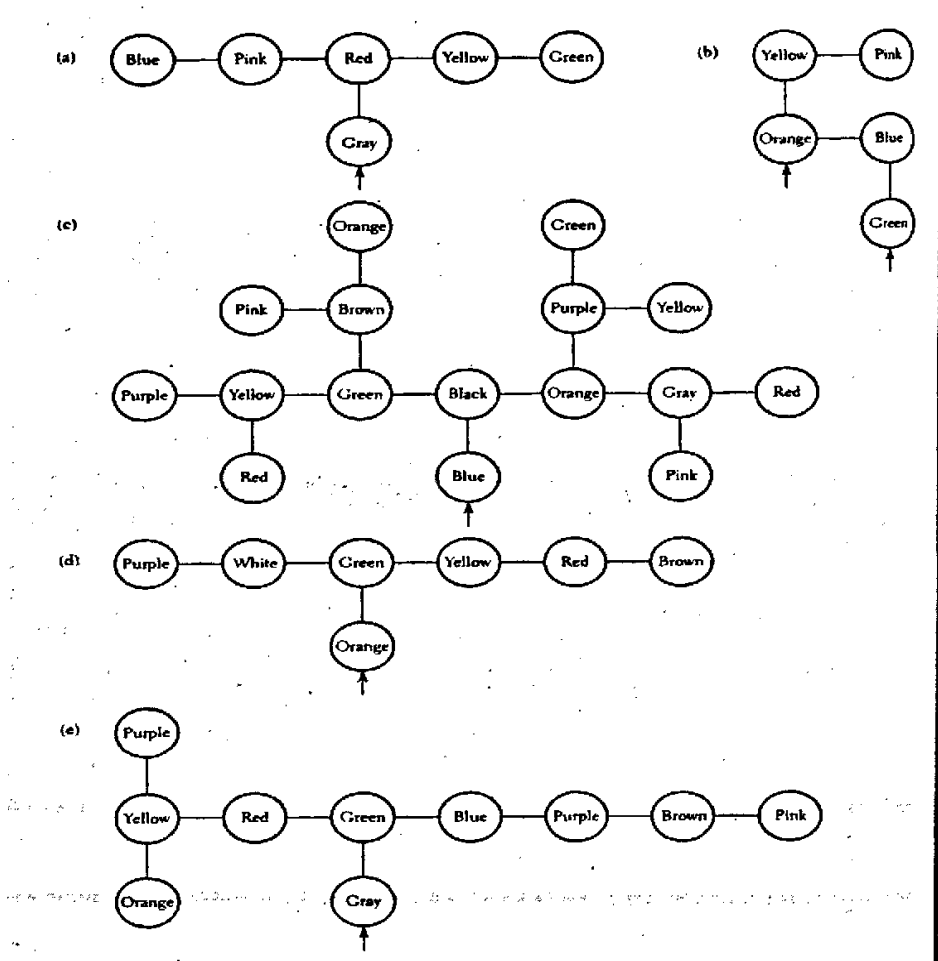
Figure 8. Color Patterns used in Levelt's Study. (Based on Levelt, 1982. From Speaking: From Intention to Articulation, by W. J. M. Levelt, p.141.Copyright 1989 MIT Press.)

3.2.2 Editing Expressions and Prosodic Marking

Levelt noted that we interrupt speech after error detection in order to make an editing expression (I mean, uh, etc.) and then continue with the self-repair. Each editing expression signals a different kind of trouble. *Uh* is the most common and is used when speakers get stuck searching for information in the middle of an utterance. *I mean* indicates that the speaker needs to add a word or substitute a different item for the one spoken.

DuBois (1974) has also analyzed several different editing expressions. The phrase *that is* is typically used to further specify a potentially ambiguous referent, as in sentence (14). *Rather* is used for what DuBois calls nuance editing, as in (15), in which a word is substituted that is similar in meaning to the original, but slightly closer to the speaker's meaning. *I mean* is reserved for true errors, as in (16).

(14) William hit him – hit Pieter, that is.

(15) I am trying to lease, or rather, sublease, my apartment.

(16) I really like to – I mean, hate to – get up early in the morning.

The expression *uh* may differ in some respects from these other expressions. It is the most common expression and turns up in many different languages. Levelt (1989) suggests that it is a symptom of trouble rather than a signal with a specific communicative meaning. Speakers may simply utter *uh* when they get stuck in the middle of their utterances. If it does not convey a specific meaning, why say it at all? Perhaps *uh*, along with various nonverbal cues such as averting one's gaze, indicated to the listener that the speaker still has the floor.

Shriberg, unlike previous researchers, is working on methods for detecting repairs that do not rely on the presence of an explicit "edit" signal. This is critical because

repairs will not always be accompanied by an "editing expression". For example, in a data set of self-repairs used by Levelt, 43% of the repairs were not marked by an editing expression. Another way in which repairs can be marked other than lexically, is prosodically.

"Spontaneous self-corrections in speech pose a communication problem; the speaker must make clear to the listener not only that the original utterance was faulty, but where it was faulty and how the fault is to be corrected. Prosodic marking of corrections making the prosody of the repair noticeably different from that of the original utterance offers a resource which the speaker can exploit to provide the listener with such information" (W.J.M. Levelt and A. Cutler, 1983).

By Cutler's definition, a repair is considered "marked" if there is a "noticeable" change in pitch, amplitude, and/or duration between the original and the repair utterance. The differences can be either positive or negative, however, a tendency was found for repairs to be of higher pitch, greater intensity, and of longer duration. Cutler considers a repair to be "unmarked" if it does not exhibit any of these changes, even if it is preceded by a pause. In the corpus of self-repairs used by Cutler, only 38% of lexical error corrections were marked. In a subsequent study, 53% of repairs for error corrections were found to be marked.

Cutler found several examples of repairs that were unmarked on a first repair attempt that was unsuccessful but marked for the second attempt. One way of strengthening a repair other than changing its lexical nature (e.g., adding "You mean...") is to mark the repair prosodically. Cutler does not, however, distinguish the degree of marking.

Other factors found to affect whether or not a repair is prosodically marked are the type of repair (error vs. appropriateness) and the size of the semantic domain with

which the error and repair contrast. According to Levelt and Cutler, repairs tend to be marked more often for errors than for appropriateness. This corresponds to Levelt's finding that editing terms are used more frequently for repairing errors than for appropriateness. By using an editing term and/or prosodically marking a repair, the speaker is attempting to distinguish this information for the listener. In addition, a repair is more likely to be marked if the element in error can be replaced by one of a small set of alternatives (e.g., morning vs. evening). However, when the error and replacement are antonyms, this effect may be due to the degree of opposition rather than simply the number of items.

Levelt and Cutler draw several important conclusions regarding the use of prosody to mark repairs. Firstly, "in the absence of lexical joint between repair and original utterance, the listener may very well use intonational cues to match the repair to the trouble item". Secondly, since repairs were marked more often for corrections of error (53%) than for corrections of appropriateness (19%), it is argued that marking is used to express rejection. Lastly, prosodic marking of repairs was found to be similar to prosodic marking in general (for non-repairs). If this is the case, then it will prove difficult to use prosodic information for automatic detection of such repairs.

3.2.3 Implementing Self – repairs

After the interruption and the editing expression comes the repair proper. Levelt (1983,1989) distinguishes among three types of repairs. *Instant repairs* occur when the speaker traces back to the mistake, which is then replaced, as in (17). *Anticipatory retracings* occur as the speaker returns to a point in the sentence before the error, as in (18). And in the third form, *fresh starts*, the speaker abandons the original sentence and starts over, as in (19). Levelt (1989) found that most self-repairs were instant repairs (51 percent) and anticipatory retracings (41 percent);

only 8 percent were fresh starts. Repairs tend to be targeted to the troublesome area, and speakers generally fix the problem without repeating the entire utterance. However, fresh starts are most likely when the original item is contextually inappropriate. What was said is not an error, strictly speaking, the phrase that gets a fresh start is correct; however, it is awkward or inappropriate and therefore needs to be rephrased.

(17) "the blank crossing point ^ white crossing point"

(18) "to the purple crossing point ^ to the red crossing point"

(19) "from yellow down to brown ^ no, that's red."

In conclusion, speakers repair their utterances in a way that maximized listeners' comprehension. The listener's problem when a speaker errs in not only to understand the correction but also how to fit the correction into the ongoing discourse. Several aspects of speaker self-repairs recommend themselves as helpful in this regard: speakers interrupt themselves quickly, their editing expressions indicate the type of error, and then the repair itself is systematic. All of these characteristics would appear to make the listener's work easier.

3.3 Distribution of Self-repairs

Investigating the distribution of the self-repair plays a very important part in psycholinguistics because it would provide indirect evidence for people to comprehend operation of monitoring mechanism and sensitivity of monitoring to different types of speech errors.

Researching on the mother tongue reveals that monitoring mechanism is sensitive

to the lexical aspect the most and its sensitivity is influenced by task types and other situational variables. When tasks demand more accurate expression, then there will be much more self-repairs once they are detected to be inaccurate.

Fathman (1980) did research by employing 75 children as subjects whose fist language is not English, finding that when they describe a caricature or talk about themselves, they made more lexical self-repairs (50%) than any other types of self-repairs in which the morphological, semantic, syntactic and phonetic repairs takes 20%, 15%, 12%, 3% in turn.

Lennon (1984)'s conclusion is similar to Fathman's. In his study, 12 German college students whose mother tongue is German iterate the stories they have heard in English. The result is that lexical self-repairs take 73%, phonetic 13% and the others are syntactic and semantic repairs.

In Van Hest (1996a)'s research, appropriateness repairs take 39.7%, error repairs 22.4%. Compared to self-repairs in the first language, there are much more error repairs in the second language.

Poulisse (1993) classified speech errors as lexical, morphological, syntactic and phonetic errors. He finds that lexical repairs occur the most frequently which is consistent with the findings of previous studies yet meanwhile finds phonetic repairs occur also, relatively speaking, frequently.

Part Four

Experiments on the Self-repair Behavior

Since studies on self-repairs have been received much more attention abroad as indicated in the reviewing part, the language in which self-repairs are studied is also influnenced in that researches are mostly done in English or other European languages. Researches on self-repairs in languages other than English or other European languages are still not conducted so broadly and deeply. In this part, an experiment on self-repairs in Mandarin language is investigated and analyzed in order to find the answers of the questions raised and to test the hypothesis. The data is categorized and also analyzed in terms of interruption, editing expressions, and types with the result showing that self-repairs in Mandarin share commonality with those in English and meanwhile, present particularity in perspectives mentioned. Though the experiment is limited by finite resources at hand, it contributed to self-repair studies in Mandarin in particular and also researches on the self-repair in a general sense.

In this part, the experiment on self-repairs done by the author in this thesis is reported in four subsections: questions and the hypothesis; method; results and discussion; and conclusion.

4.1 Questions and the Hypothesis

There has been a discussion of the categories, structure and distribution of the self-repair in previous studies. Because most of the theories are advanced and experiments are done by foreign researchers, it turns out that English or some other European languages are frequently investigated in self-repair studies. This situation poses a question to one: is there any difference in self-repairs in Mandarin production?

And if it is the case, what will it be like in terms of categories, structure and distribution of the self-repair in Mandarin production?

To the above questions, the author studies Mandarin self-repair and assumes that the self-repair in Mandarin speech production presents differences compared with that in English or other European languages when sharing similarities, with respect to the categories, structure and distribution of self-repairs produced.

4.2 Method

This thesis reports the results of an analysis of the self-repair behavior of 15 adult speakers of Mandarin. The self-repair data were collected from three different tasks which were performed by the subjects in Mandarin. The first task was descriptions of color patterns. Subjects were presented with complex sets of color patterns that are connected with lines, as depicted in Figure 8. The subject has to describe the layout of colors, starting at the point designated by the arrow. That is to say, the author applies the same color patterns and experiment requirement as those in Levlet's study. The second task was story-telling consisting of two caricature stories, the first of which is a comic strip. The subject implements the task for 3 minutes in finishing either of the caricature story. The third task was interviewing in which the subject has an informal talk with the author for 9 minutes.

In all, approximately 5 hours of speech were recorded by the author in person. All types were checked for possible instances of self-repairs, which were independently transcribed and classified by the author herself. In the end a total of 409 self-repairs were analyzed.

4.3 Results and Discussion

To seek the answers of the questions raised and test the hypothesis by using the experimental method stated, the author is to report and discuss the results of the tentative experiment of self-repairs in Mandarin production on those aspects mentioned above one by one.

Categories:

In this experiment, self-repairs are categorized on the base of what has been discussed earlier so they are still categorized into E-repairs and A-repairs. In E-repair group, repairs of EP, EL and ES still exist but there is no EM-repair because in Mandarin, a character or a word does not have an affix. Meanwhile, there are also new categories featuring Mandarin characteristics in the data: tonal error repairs, lingual error repairs and exchange error repairs which are abridged as ET, ELI and EE repairs respectively.

As Mandarin pronunciation has the four tones called the first tone, the second tone, the third tone and the fourth tone, one pronounces a Mandarin character with a specific tone in the four tones. So if one pronounces a Mandarin character with a wrong tone and he makes a repair for that, then he conducts an ET repair.

Another characteristic of Mandarin pronunciation concerned here is that one should distinguish in Chinese Pin Yin "Zh", "Ch" "Sh" from "Z", "C", "S" respectively. For example, if one pronouns "Zh" as "Z", he conducts an ELI repair and vice versa.

EE repairs occur when one exchanges the position of two words or phrases in a sentence and makes a repair for that. For instance, one says B is above A when he is supposed to say A is above B and then he makes a repair saying A is above B.

For type 4 (fresh starts) and type 5 (pivot construction) repairs which will be discussed later, it's hard to tell the repairs as AL or AI and thus they are just categorized as A.

With every possible categories in the experiment explained, the distribution of self-repair categories is presented blow. In the experiment, ERs take 57% of ERs and ARs combined shown in Figure 9. The result is almost in line with Levelt's finding that the percentage of ERs is 56% of the total which indicates that ERs contribute to more than half of self-repairs whether the language studied is English or Mandarin.

Figure 9. Distribution of ERs and ARs

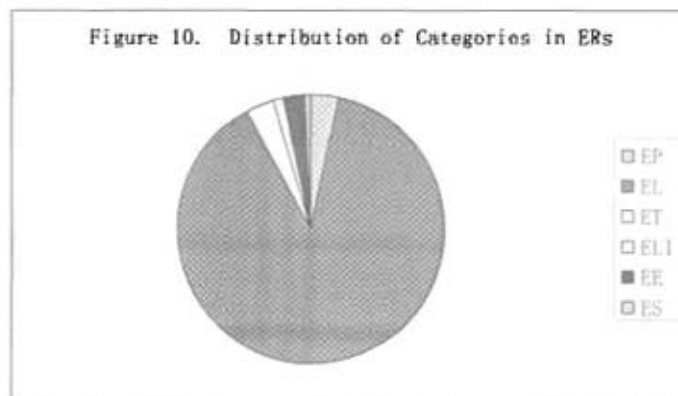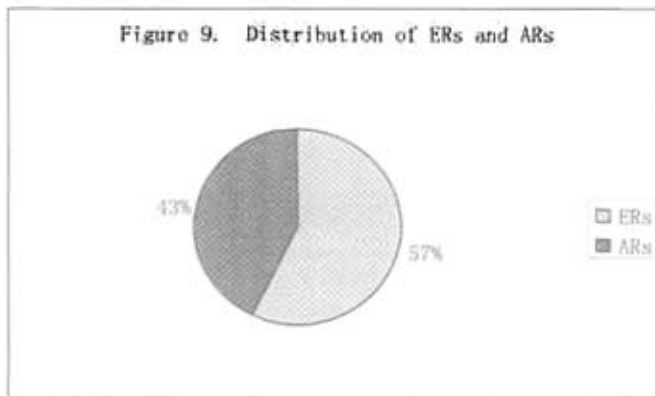Figure 10. Distribution of Categories in ERs

Figure 10 shows quite notably that EL repairs (89%) take a large part in the ERs. The percentage is much higher than that in the previous studies and it indicates one pays more attention to choosing words to express himself accurately than pronouncing every word correctly in Mandarin.

There are altogether 95 ARs in the experiment including 19 AL repairs, 71 AI repairs and 5 simply classified as ARs. AI repairs account for most of the ARs. That means people often use insertion repairs to make their speech more contextually appropriate in Mandarin.

Interruption:

The distribution of interruptions over time is shown in Figure 11. The author found that only 2 corrections were within a character, as in sentence (59) of task 3. 152 corrections occurred immediately after the error, as in sentence 2 of task 1. The remaining 52 errors were delayed by one or more characters; in (55) of task 2, the correction comes two characters later.
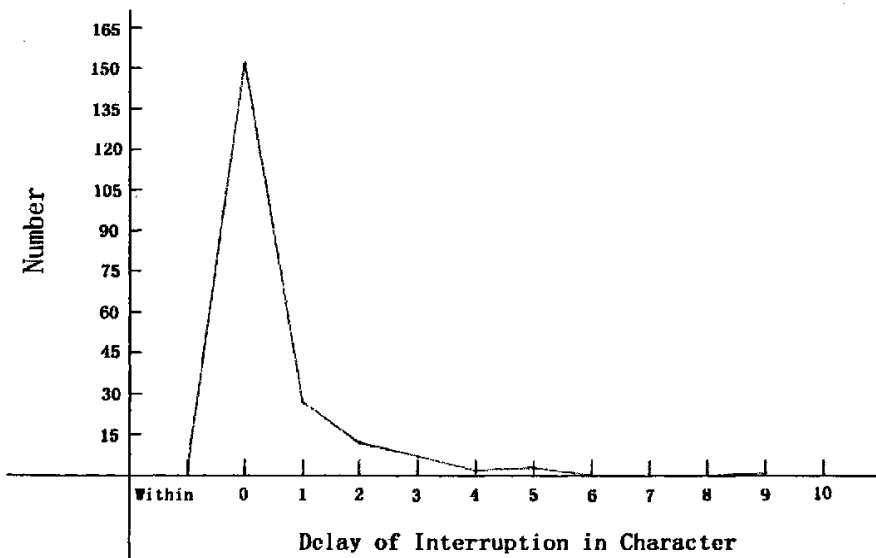

Figure 11. Distribution of Interruptions

It shows a remarkably high point in Figure 11 which represents the number of immediate corrections. The result is consistent with Levelt's finding that immediate corrections play a predominant part (more than half) in interruptions whereas corrections within a word (character in this experiment) take the smallest percentage. But the contrast between the number of the former and the later is shaper in this experiment of Mandarin production than the previous studies of English production. That may be due to the fact that the formation of an English word is almost consistent with its pronunciation. The process of pronouncing a word is the process of pronouncing its phonetic symbols from the beginning to the end which represent the alphabets from the first to the last whereas formation of a Mandarin character does not have as much consistence with its pronunciation as the formation of an English word does with its. One pronounces a Mandarin character according to its Pin Yin but what constitutes a Mandarin character is strokes which has almost no direct relation with its Pin Yin. So it is much easier to interrupt during pronunciation of an English word than that of a Mandarin character because the chances of making reference of its formation when pronouncing is bigger for an English word than a Mandarin character.

Another reason is that in English a word can usually convey a complete meaning alone, while a Mandarin character often does that with other characters which makes it hard to stop within a Mandarin character as in an English word.

In the perspective of duration of pronouncing, an English word also has more advantage of being interrupted than a Mandarin character which does not usually lasts long.

Editing Expressions:

18% of repairs were made with editing expressions in the three tasks. The percentage is much lower in comparison with 57% of Levelt's. Tape-recording may have an effect on diminishing the chances for the existence of editing expressions. One would conduct his speech repairs swiftly expecting not to leave obvious

indication of making errors when his speech is supervised as a TV host does while he makes a speech error in program-recording. That is to say, experimental speech errors to certain extent differentiate spontaneous speech errors in which case, the subject may speak without extra vigilance.

From table 3, one may find the distribution of editing expressions follows a "succinct" principal. They at most contain four characters. What's more, most of the time, people use one or two characters to represent their selection process and from time to time use three or four characters. Because the subject's main intention is to maximize the amount of intended information, he certainly does not spend much time on editing expressions which just facilitate him to better express what he intends.

Table 3. Distribution of Editing Expressions

Editing Expressions	Number	Editing Expressions	Number
e（呃）	14	bu（不）	1
a（啊）	8	cuo le（错了）	1
en（恩）	8	ai ya（哎呀）	1
na ge（那个）	4	suo wei de（所谓的）	1
bu dui（不对）	4	hao xiang shi（好象是）	1
o（哦）	3	ying gai shi（应该是）	1
um	2	fan zheng jiu shi（反正就是）	1
zhe ge（这个）	2	bu hao yi si（不好意思 ）	1
bu shi（不是）	2	zen me shuo ne（怎么说呢）	1

Types:

Based on Levelt's three types, a new type was found in the experiment. The author delimitates four types found in the three tasks in a new angle.
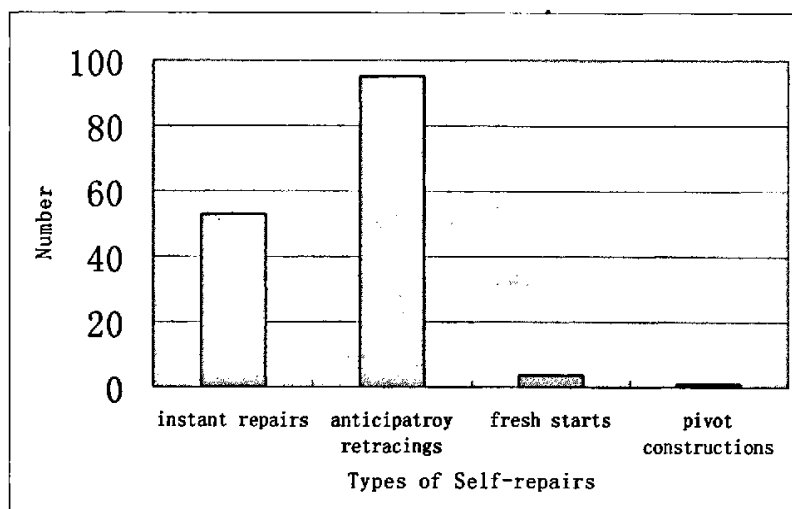
Figure 12. Distribution of Types

Based on the evaluation of the experimental data above, speech repairs in the author's sense comprise the following four phenomena:

- instant repairs

- anticipatory retracings

- pivot constructions

- fresh starts

In comparison with instant repairs (51%) and anticipatory retracings (41%) in Levelt's study, the latter (62%) is more than the earlier (34%) in this study. This difference again indicates Mandarin character characteristics as stated in interruption section that an English word can usually express a complete meaning alone, whereas a Mandarin character often achieves that with other characters. So even when

speakers implement self-repairs in Mandarin production, they most of time have to retrace back to a point prior to the error to utter a relatively full meaning unit which can be easily understood by the listeners.

As can be seen in Figure 12, 95 repairs are anticipatory retracings which apart from the reason given by the author above, reflects speakers' attitude of maximizing listeners' comprehension in that speakers try most of the time to repeat some parts of what has been said during self repairs in order that listeners can catch up with the ongoing discourse with as less effort as possible.

Figure 12 shows that a great number of repairs belong to the first two types and a few the latter two types. It can be concluded that speakers seldom change syntactic constructions as a strategy when conducting self-repairs. Based on this fact, the four types are delimitated by the author in perspective of syntactic construction.

The author takes repairs without changing the syntactic construction of a sentence as modification repairs. So **Modification repairs** correct part of the whole sentence, but do not change the syntactic construction. Defined this way, **instant repairs** and **anticipatory retracings** are in this group. In contrast to other studies, the author defines **repetitions** as a special case of modification repairs, where the corrected part and the correction are identical. There are 231 sentences with repetitions in all in the experiment which can not be ignored though not discussed further in this paper. In a **pivot construction**, the syntax of a sentence changes from the initial construction to a different one, whereby one part of the sentence belongs to both constructions. One example the author found is: "I think I can enjoy in Beijing various kinds of plays, uh, can be enjoyed in Beijing". The underlined term "various kinds of plays" is the Pivot, which is part of the first, active voice syntactic construction "I think I can enjoy in Beijing various kinds of plays" and of the second, passive voice "various kinds of plays, uh, can be enjoyed in Beijing". **Fresh starts** do not have a pivot; the construction is aborted and a completely new one is started.

Commonly each repair is segmented in the four parts reparandum, editing term, interruption point, and reparans; an example is given in figure 13 to complement descriptions of the structure of the self-repair in previous studies.

- reparandum: the "wrong" part of the utterance
- interruption point(IP): boundary marker at the end of the reparandum
- editing term: special phrases, which indicate a repair like "well", " I mean" or filled pauses such as "uhm", "uh" (optional, most of the time missing)
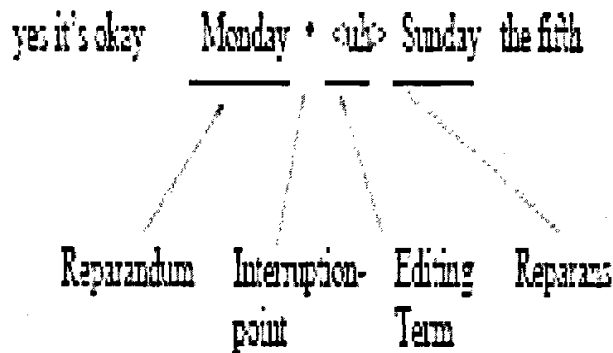- reparans: the correction of the reparandum

Figure 13. A Revision of the Self-repair Structure

4.4 Comprehensive Analysis

The results of the tentative experiment fit well with the hypothesis. Self-repairs in Mandarin production in this experiment exhibit differences from those in English production in Levlet's experiments, in terms of categories, structure and distribution of self-repairs. The differences reflect Mandarin character characteristics. For

example, ET and ELI in repair categories are found with Mandarin pronunciation property; it is true that rare interruptions are found within a word in Mandarin speech corrections. Then a new category (EE) and type (pivot constructions) are found, not language specific exactly, though rare in this experiment.

However, certain universal traits do exist between languages. There is no exception for Mandarin and English. In English production, there are EP, EL and ES in repair categories which also can be detected in Mandarin production in this experiment and EL takes the most percentage both in English and Mandarin production. Categorization of interruption in English self-repairs is also applied to that in Mandarin in which immediate corrections occur the most frequently. As for types of self-repairs, the three types in previous studies are also included in this experiment. What's more, the author reorganizes the three types with the new one in a new way.

To sum up, compared with previous studies in English or other European languages, the present study in Mandarin exhibits not only common traits but also its own characteristics. What's more, the author makes some revisions on defining the types of the self-repair and its structure to integrate the studies of self-repairs.

Part Five

Some Application Considerations for Future

Research and Practice

Self-repair study in speech production and comprehension as is stated in the thesis is a multidisciplinary subject, studied in such fields as psycholinguistics, conversational analysis, pragmatics and artificial intelligence. For this reason, the theoretical insights and empirical findings on self-repairs can be used, to some extent, for the research of other fields or for reminding other researches of the possibilities for development and improvement.

Here, in the concluding part, the author wishes to devote a few pages to the application considerations in the direction of theoretical application and practical application, as well as for some related fields in which the information drawn from the research of Mandarin self-repair analysis can be a reminding hint for potential development.

5.1 Implications for Related Research

This section is for implications for theoretical purposes from two broad perspectives, relating the present self-repair studies with researches on speech production and language development, especially in Mandarin speech environment.

5.1.1 The Self-repair and Speech Production

On the basis of the discussion, the author concludes that the self-repair plays an important role in shaping speech, and that is essential to better understand how this system works inside by providing clues through its categories, structure, editing

expressions and types to how and when the processing system retrieves different kinds of linguistic knowledge, how the system uses the knowledge once it has been retrieved, how the system interrelates linguistic and non-linguistic knowledge, and how the system is organized within and constrained by human cognitive capacities. Therefore, the speech self-repair contributes to exploration of the internal mental mechanism of speech production and perfection of speech production models. So does the research of the self-repair conducted in this paper providing experimental cues to the construction of linguistic theories, especially to speech production theories (and speech comprehension ones in a sense that the self-repair involves speech comprehension process). This thesis is specifically beneficial for Mandarin production studies by researching on Mandarin self-repair categories, the structure, editing expressions and types to further investigate the operation of internal mechanism of Mandarin production for Mandarin learning whether as a first language or a second one.

5.1.2 The Self-repair and Language Development

The study of self-repair behavior is interesting because it tells people something about language development. Studies of child L1 self-repair show that children are focused on those errors which are part of the subsystem they are acquiring. In addition, these studies report a clear shift from phonological repairs in the speech of young children to more semantic and syntactic repairs in the speech of older children. This implies that child self-repair research should make it possible to relate types of self-repair behavior to different stages in language acquisition. Because L2 speakers, just like developing speakers, go through different stages of language proficiency, one should expect comparable data in L2-self-repair research. Researches have

already shown that what gets repaired at different stages in the process of L2 development, is related to those aspects of the L2 the learner is working on at the time and child L2 self-repair data have already shown a shift with age and level of language proficiency (more or less similar to that in the L1); thus self-repair data can prove to be important for theories of L2 acquisition. Furthermore, it is worthwhile to carry out experiments to study Mandarin self-repairs for constructing theories and models in studying Mandarin whether as a first language or a second one. However, less attention has been attached to self-repair studies in languages other than English. In fact, trans-language investigations on self-repairs are crucial for both studying common rules in speech production and exploring particularity in the second language acquisition.

5.2 Implications into Practical Application

Self-repairs are common in spontaneous speech because speakers are constantly monitoring what they say which involves checking both that they are making sense and that what they are saying is appropriate to the situation. If there is something wrong with what they say, they need to fix it as they speak. In other language production situations, such as written work like writing letters, people don't make as many errors because they have time to review their words before the addressees receive them. Researching on self-repairs is crucial for listeners to better understand speakers' intention after they make a repair in their spontaneous speech for listeners could make full use of information provided on revision process to make their comprehension process as smooth as possible. For instance, listeners may use the word-identity convention or the category-identity convention to determine where to attach the repair syntactically when dealing with instant repairs and anticipatory

retracings respectively. In word-identity conventions, there is a lead-in word in a replacement, such as the word *to* in " Right to yellow, uh to white", whereas there is no lead-in word in the category-identity for replacements, as in " From the green disc to up to a pink..., orange disk" (Levelt, 1983). In all, by the first word of the repair, the listeners could interpret the repair connecting with the original broken utterance accordingly. Likewise, researches on other aspects of self-repairs facilitate listeners' understanding of the repair in their own way.

5.3 Further Considerations

The self-repair in speech production is the researching focus of the thesis. Strictly speaking, it should be called self-initiated self-repair. A repair is an alteration that is suggested or made by a speaker, the addressee, or audience in order to correct or clarify a previous conversational contribution. It may occur at any of several points following the contribution in question, perhaps occurring in accordance with a conventional order of preference. There are four trajectories or routes by which a repair is accomplished: self-initiated self-repair, self-initiated other-repair, other-initiated self-repair, and other-initiated other-repair. In conversation, according to Schegloff et al. (1977), there is an order of preference with respect to repair trajectories, with self-initiated self-repair being most preferred and most common and other-initiated other-repair being most dispreferred and least common.

In fact, other three types of repairs are common in L2 classrooms. The role of repair in language teaching is a central issue in that it tends to bear a greater load in the L2 classroom than in other institutional settings. As Markee (2000) observes, "Conversational repair is viewed by SLA researchers as the sociopsychological engine that enables learners to get comprehended input". It therefore follows that a

clear understanding of how repair is organized in the L2 classroom is vital to the strand of SLA research. There is a reflexive relationship between the pedagogical focus and the organization of repair; as the pedagogical focus varies, so does the organization of repair. So the organization of repair in the L2 classroom can best be understood in relation to the evolving and reflexive relationship between pedagogy and interaction.

Conclusion

This thesis has a survey of the research conducted by western scholars on natural language production and speech self-repairs; together with the definition of the speech self-repair and discussions on the mental mechanism of the self-repair, with an emphasis on Levelt's theories on self-monitoring and the self-repair which is one of the authoritative ones so far. This thesis has also investigated the nature of the self-repair from three perspectives: categories, the structure (interruption, editing expressions, implementing the self-repair) and the distribution; conducted an experiment on self-repairs in Mandarin speech to obtain the nature of Mandarin self-repairs in the three perspectives mentioned above and compare it with that of English self-repairs; at last, made some possible implications for future research and practice.

The experiment conducted by the author has revealed several thought-moving results, namely on the categories, interruptions, editing expressions and types of Mandarin self-repairs.

Firstly, for E-repairs, repairs of EP, EL and ES still exist but there is no EM repair as a Mandarin word does not possess an affix. However, there are new features found, ET, ELI and EE. ERs take 57% of all the self-repairs which is similar to levelt's 56%. EL repairs take 89% of ERs. Most of the A-repairs are AI repairs.

Secondly, as for the distribution of interruptions, the number of corrections within a word, immediate corrections and corrections delayed by one or more words are 2, 152 and 52 respectively which is consistent with Levelt's findings that immediate corrections take the biggest part and corrections within a word the smallest.

Thirdly, in editing expression part, only 18% of repairs contain editing

expressions, much lower than Levelt's 57%. But it is easy to find that editing expressions in the experiment are mostly short.

Fourthly, with respect to the types, there are more anticipatory retracings than instant repairs in the experiment while it's just the opposite in Levelt's study. By whether or not changing the syntactic construction in self-repairs, the author delimitates the types of the self-repair in a new perspective.

At last, a new organization of the repair structure is brought out to fully present the repair process.

It must be noted that, owing to the limitations of the author in conducting a research of this kind, this paper has not reached its perfection, for some problems and questions still remain to be solved and answered, and a deeper level of research still awaits to be conducted and carried out.

First, defining the self-repair is still in the process of being mature as indicated in the thesis various versions of definitions though a tentative definition is suggested in the thesis which still requires deeper investigation into the internal mechanism of self-repairs in future studies. Second, there is still lack of diverse language explorations in speech self-repair area where English takes the dominance, hard to make comprehensive generalization. Thus, for the studies of particularity of specific language self-repairs and the commonality of self-repairs, researching on languages other than English is no doubt crucial. Third, in that self-repair phenomenon is important in predicting language development of language learners, future researches can be done on predicting and describing internal mechanism of speech self-repairs made by Chinese second language learners or other language learners learning Mandarin.

One point that should be also mentioned is that due to the complicatedness of the internal mechanism of language production and its self-repair process, many variables in carrying out the experiment are not easy to control. And most importantly, the experimental result is still expected to be more objective, and needs modification in a more scientific way. Thus, the generalization of the findings, by and large, is still leaving rooms for improvement.

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Appendix I

Descriptions of Color Patterns

1. 出发点是黄色, 黄色往上, 哦, 橙色。(EL; 3; 哦; 1)
2. 回到刚开始的兰色, 哦, 不对, 不对, 回到, um, 回到最初的黑色。(EL; 2; 哦, 不对, um; 2, 3)
3. 绿色的, 绿色往右依次是······ (AL; 2; 2)
4. 在红色这个基点的左边, 啊, 紧挨红色这个左边······ (EL; 3; 啊; 1)
5. 另外一个基点, 我们仍然回到这个, 橘色这个基点。(AI; 2)
6. 这是右边, 所谓的, 黑色和兰色这条线右边的所有图形。(AI; 2; 所谓的)
7. 而仅次于黄色的左边是两个, 一个是绿色紧挨着黄色, 啊, 错了, 黄色的左边是红色。(EL; 3; 啊, 错了; 2)
8. 绿色, 我们现在以绿色作为顶点, ······ (AI; 2)
9. 紫色, er, 黄色的下方是橘色。(EL; 2; er; 1)
10. 第一个球是黄色, 是灰色的。(EL; 2; 2)
11. 灰色的, 由灰色的球往上走是红色的球。(AI; 2)
12. 红色的球向右转, 向右转第······ (3)
13. 一共有两个, 一共有两个色球······(3)
14. 第一个, 从左往右, 第一个是黄色的, 第二是绿色的。(AI; 2)
15. 从, 回到红色的球······ (AL; 2; 1)
16. 红色的球从, er, 向左有两个色球, er, 从左往右, 第一个是兰色的, 第二是粉色的。(AL; 2; er; 1)
17. 向上有一个, 有一个黑色的色球。(3)
18. 绿色的球向, 绿色的球向左, 有一个黄色的球。(3)
19. 回到始发, 回到绿······ (EL; 2; 2)
20. 回到绿, 那个, 回到始发兰色的球。(EL, AI; 2; 那个; 2)
21. 在向, 在黑色的球向右的布局与左边的是对称的。(AI; 2)
22. 橙色球的, 橙色球的右边是一个灰色的球。(3)
23. D图始发, D图始发颜色, ······ (3)
24. D图始发颜色, 始发的色球是橙色的。(EL; 2; 2)
25. 最靠左边的是, 最靠左边的是紫色色球, 中间是, 中间是白色色球。(3×2)
26. 第一个, 第一个球是黄色的。(3)
27. 第二球是绿, 是红色的。(EL; 2; 2)
28. E图始发颜色是灰色的, 灰色的色球。(AI; 2)
29. 灰色色球上是绿色的, 向, 向右有四个色球, 第一个色球是兰色的, 第二个色球是紫色的, 第三个色球是棕色的, 第四个色球是粉色的, 是从左向右的顺序。(3)

30. 从，回到……（EL；2；1）

31. 回到，回到灰色的始发色球。（3）

32. 上下各，上下各分布着紫色和橙色的色球。（3）

33. 然后，左边，往左是……（AI；2）

34. 红色，en,刚才的黄色往左是紫色。（EL，AI；2；en；1）

35. 绿色往，不，刚才的黄色往上是粉色。（EL，AI；3；不；1）

36. 黑色往右，右边的部分，右边的第一个是，en，橙色。（3）

37. 棕色往右是红，粉色。（EL；2；1）

38. 绿色往左，左边的部分，左边是，er，红色。（3）

39. 红色旁边是，er，红色右，右……（AL；2；er；2，3）

40. 红色右，红色左边是黄色。（EL；2；2）

41. 回到棕，回到灰色，往下走是粉色。（EL；2；2）

42. 橘黄，啊，不是，再回到黄色上面是紫色。（EL，AI；2；啊，不是；1）

43. 然后，从紫色再回，回到绿色。（3）

44. 往，继续往左侧，是兰色。（AI；2）

45. 由兰色返回，由第二个的兰色返回到……（AI；3）

46. 第一个的，左侧的第一个的粉色。（AI；2）

47. 往右侧再，en，是兰色。（EL；2；en；1）

48. 继续往右行，往左，左侧第二位是黄色。（EL；3；2）

49. 第三，继续往，往左行是，第三位，是紫色。（3×2）

50. 黄色是从，黄色是右侧的第二位。（EL，2；2）

51. 由黄色的第二位 huan，返（fan），返回到第一位的绿色。（EP；2；1，3）

52. 第一位的绿色上行 ，上行到棕色。（3）

53. 棕色，棕色第一位的上，er，第一位的棕色上行到第二位的橘色。（ES；2；er；1，3）

54. 由绿色返回至正中的，正中的黑色。（3）

55. 兰色往上，兰色往上是黑色。（3）

56. 现在讲这个图右 mai，右边（bian）的部分。（EP；2；2）

57. 绿色的右边是，en，不好意思，绿色的左边是红色。（EL；3；en，不好意思；2）

58. 在回到灰色之后呢，向右走，到红色，啊，不对，不对，从灰色走到红色，之后向右走，到黄色。（EE；2；啊，不对；2）

59. 向上走到黑色，向，再向右走到橙色。（AI；2）

60. 之后，再从灰色向，返回到橙色。（EL；2；1）

61. 先上，先往上走到紫色。（AI；2）

62. 灰色，A 图从灰色出发。（AI；2）

63. 绿色右，绿色左边是白色。（EL；2；2）

64. 第三个，第三幅图……（EL；2；2）

65. 向上是紫色，再向上，er，紫色又分为两，两路。（3）
66. 左侧是，左侧依次是，白色，紫色。（AI；3）
67. 右侧是，右侧依次是，黄色，红色和棕色。（AI，3）
68. 黄色又分为两部分，上，上面是紫色，下面是橘黄色。（3）
69. 我们首先看到的是黑，是灰色。（EL；2；2）
70. 那么黄色的前面呢，我们看，看到紫色。（3）
71. 绿色的右边是，右边首先是，黄色。（AI；3）
72. 接下来是红色，再接下来是橙，是棕色。（EL；2；2）
73. 那么它的左边，绿色的左边呢，……（AL；3；1）
74. 然后从中，en，从红色为中心，……（AI；3；en；2）
75. 黄色, 从黄色向右方向是粉色。（AI；2）
76. 兰色的正，er，正上方是黑色。（3）
77. 然后灰色的正上方是粉，粉色。（3）
78. 紫色（sh-），紫色（se）的右方是黄色。（ELI；1；2）

Note: Decriptions devided by semicolons in each parenthesis reprensent the category, interruption, editing expressions and the type, respectively, of a self-repair. In interruption part, "1" represents "within a word"; "2" represents "immediately after the error"; "3" represents "delayed by one or more words". In type part, "1" represents instant repair; "2" represents anticipatory retracing; "3" represents repetition; "4" represents fresh start; "5" represents pivot construction. It is to be noted that not all repairs possess the four parts of descriptions at the same time.

Appendix II

Story-telling

1. 那个，其中那个瘦的…… （AI；2）
2. 然后准备到, 游到河对面的…… （EL；3；2）
3. 河中心, 不是, um, 哎呀, 反正就是，河对面的小岛上吧。（EL；2；不是，um，哎呀，反正就是；2）
4. 修到最后才发现两条, 两段铁轨是接不上的。（EL；2；2）
5. 出了问题之后，大家都是那种, um, 大家反应都是…… （AI；3；um）
6. 大家反应都是，怎么说来着，反应都是没有人出来承担责任。（怎么说来着；3）
7. 有两个男人，两个光着身子的男人…… （AI；3；2）
8. 两个男人非常, 两个男人关系非常…… （AI；2；2）
9. 关系非常和睦的一个, 一对人…… （EL；2；2）
10. 于是，一个胖, 这个胖的男人…… （AL；3；1）
11. 铁路在两, 在某个交汇点却差开了。（EL；2；2）
12. 两个人在很暴怒, 两个人在很生气的暴怒着。（AI；2；2）
13. 我们必须共同努力达到，努力去达到一个共同的目标。（AI；2；2）
14. 因为这样，我们可能事半功倍, 事倍功半。（EE；2；1）
15. 上司坐在下属的身上，哦, 不对，好象是下属坐在了上司的身上。（EE；2；哦，不对，好象是；1）
16. 这个漫画的场景是一个, 火车, 火车轨道的施工现场。（AI；2）
17. 在一个团队（作-）, er, 团队的工作中，…… （3）
18. 一条斜（xie）轨, 一条铁（tie）轨修成了两条线路。（EP；2；2）
19. 在失事的客机, 客机旁…… （AI；2）
20. 有, 有两位, 有两位男士。（3×2）
21. 他们漂, 他们趴在一快漂浮的浮木上面。（EL；2；2）
22. 他们两个人互相, 互相协助着对方趴在浮木上。（3）
23. 两人前, 两人是漫无目的地在, 这个, 海洋上游泳。（EL；2；2）
24. 他们把包裹, 他们把不愿意仍掉的这个包裹顶在他们的脑袋上。（AI；2）
25. 然后，向那个荒岛, 向那个荒岛过去。（3）
26. 他们, 他们已经到了这个荒岛上。（3）
27. 打开包裹看，里面有, 里面有鞋子，袜子之类的…… （3）
28. 这两位男士正在穿戴, 穿戴他们的衣物。（3）
29. 他们在, 他们已经穿戴好了所有, 所有的衣物。（EL；2；2，3）
30. 警官也拿出了警官的样子，正在呵（斥），正在命令着这位警员什么。（EL；2；2）

31. 这幅，这四个漫画，让我们，让我们体验到……（EL；2；2，3）
32. 作为，作为一个失事的客机的逃难人员……（3）
33. 或者，er，或者去寻找，寻找一些拯救自己的办法。（er；3×2）
34. 却只想到了，如何，如何体面的去作为自己的一个，去弄自己的一个坟墓。（EL；3；2，3）
35. 也许他们用这样的精神去考虑别的，去考虑别的途径。（3）
36. Teamwork 是团队，团队合作的意思。（EL；2；1）
37. 图中一共有6个，一共有6位工人。（EL；2；2）
38. 而领导者，两个领导者正在互相争吵。（AI；2）
39. 铁轨似乎是架错了，铁轨似乎是架错了1米。（AI；2）
40. 他们间，他们这样是属于团队合作并不是很协调的情况。（EL；2；2）
41. 应该是从头铺设，而不应该，而不应该是在这里争吵。（3）
42. 周围环境，周围环境很，环境很，很美丽。（3×3）
43. 在团队合作中，应该更加，更加确保合作的质量。（3）
44. 铁轨没有接好，并不该因为，该因为前次错误而在这里争吵。（3）
45. 他们在，er，他们去执行任务的时候。（EL；2；er；2）
46. 他们正好有一块板，救生板……（AI；2）
47. 把他们的衣服放在那个，er，把他们的衣服脱下来以后，包在一起，放在那个板上。（AI；3；er；2）
48. 他们就看见一个小岛，en，en，小岛。（en；3）
49. 不让衣服湿，er，湿，弄湿。（AI；2；er；3）
50. 人，赤裸裸的人都是一样的。（AI；2）
51. 在图中显，图中看到的是……（EL；2；2）
52. 一个小山，一个小山丘下面……（AL；2；2）
53. 有两个队伍，两个工程队正在……（AL；2；2）
54. 两个工程队正在，他们的队长正在吵架。（AI；3）
55. 其中，一个队，两个队长……（EL；3；1）
56. 但是他们并没有，之前并没有协商。（AI；2）
57. 铁轨就叉了，没有接在一块，而是，er，叉，交叉……（AI；2）
58. 交叉，交叉过去了……（3）
59. 人们之间的互相配合和er，互相，就是，er，互相的配合和，er，um，怎么说呢，和，怎么说呢，啊，和这个沟通是特别重要的。（er，um，怎么说呢，啊；3×3）
60. 这个山，这个图上边的两个人……（EL；2；2）
61. 不过那个胖的警察也不知道在训那个，为什么事训那个瘦的警察。（AI；3）
62. 还是，什么东西，看到地上有个什么，什么铲子。（3）
63. 合作，啊，合作关系不恰当啊。（AI；2）
64. 是不是等，等什么，啊，发号施令。（3）

65. 这个铁路构得，er，盖，盖得也够偏的啊。（AL；3；er；1，3）
66. 下了海，下了河之后，就觉得上去的时候应该穿衣服了。（AL，2；2）
67. 正好看见一个岸上有一，有一个包裹。（3）
68. 游向了海，河中间的一个小岛。（AL；2；1）
69. 没有想到他们俩穿的是，偷的是一套……（EL；3；1）
70. 偷的是一套，是两套制服。（EL；3；2）
71. 所以他们，他们穿上制服以后……（3）
72. 而且笨蛋，胖的笨蛋就命令瘦的笨蛋……（AI；2）
73. 没有团队合作，两个，两个笨蛋团队没有合作。（AI；3）
74. 两个，两个笨蛋团队没有合作。（3）
75. 那些事不关，事不关己，高高挂起的人。（3）
76. 一次不幸的空难中，两位乘客，两位幸存的乘客……（AI；2）
77. 经过一番努力，两个人最终来到，爬到这个小岛上。（EL；3；1）
78. 当他们穿上衣服才发现，在下面的，er，当底座的这位乘客……（AL；3；1）
79. 当他们的两个铁路交接的时候，接头的时候，却……（AL；3；1）
80. 从这幅图画里能联想到我们日常生活中的，en，许多，许多需要那个团队合作的，en，情景。（3）
81. 一个人对另一个人开始呵斥起来，去，去工作，去，去，去，去劳动。（AL；2；2，3）
82. 从内（ne-），从外在到内在的一些变化就是在这边，这里边体现出来了。（EL；1；2）
83. 这边，这里边体现出来了。（AI；3）
84. 这幅图发生在美国 19 世纪二三十年代，美，美国铁路开始修建的时候……（3）
85. 他们中，一个是负责美国东部的铁路修斤(jin)，修建（jian）……（EP；2；2）
86. 因为，啊，东部的联合铁路公司是由北，北部财阀来指使。（3）
87. 现在我们向大家描述，描述一幅图画，这幅图画有四个，四个小的部分组成。（3×2）
88. 谁都，啊，谁都一下子不能说自己想要……（3）
89. 由这个故事，我们可以看出来，这个，en，一个很好的朋友，一对很好的朋友吧……（EL；3；2）
90. 这个小故事反映了什么样一个，一个道理呢？（3）
91. 采取一个大局观，这种，啊，这种好的团队精神的话……（3）
92. 所以呢，er，起码呢，让我们知道在这幅图中……（EL；3；er；1）
93. 之后呢，在他的头上呢，顶上了这一袋，er，这一袋，这一袋东西吧。（er；3）
94. 他们的社会角色呢，原来一个是警官，一个是一，er，um，官衔比较低，哎，一个是警官，另一个可能就是士兵吧。（3）

95. 而在这时，而在这之前，他们在水里的时候呢……（EL；2；2）
96. 警官承担了那个，防，er，承，让另一个，让他的下属呢，骑在自己的头上。（AL；2；2）
97. 和我们最初来到人生的时候，er，来到人世的时候……（EL；3；er；2）
98. 在这个荒凉的场景之下呢，有5，有6个修路工……（EL；2；2）
99. 但是没有考虑到集体，er，集体的作用。（er；3）
100. 代表了这三，这两伙人的头呢，现在开始吵架。（EL；2；2）
101. 就像是一个和，与他们没有任何相关的事情在发生。（EL；2；1）
102. 他们回岸的时候，甚至就是一个人，就是那个瘦的，坐那胖的身上。（AL；2；2）
103. 那胖的都没说，没，没什么意思。（3）
104. 没什么意思，没什么意见。（EL；2；2）
105. 他们就，就变成不平等的了。（3）
106. 从里面场景来看呢，就是，一群人在修一条，在修铁路。（EL；2；2）
107. 然后每，每伙人呢，里面都有三个。（3）
108. 然后两人，两个领头的人就吵起来了。（AI；2）
109. 因为他们修了两条铁路呢，可能就是，er，就是，他们可能就是，er，出现了这种，就是，er，都想在那个地方修。（er；3×2）
110. 但是那个地，那个路，就是可修的那个空间呢，只有一个。（EL；2；2）
111. 应该，应该就是把思路放宽一点。（3）
112. 感觉换了衣服，这，这个胖，胖子应该是一个长官。（3×2）
113. 这图上一共有六个人，应该是六个，er，修铁路的工人吧。（AI；2；应该是）
114. 这组人是从两个方向，向中间一，一起修铁路。（3）
115. 它要表达的意思就是，er，现在社会上存在的，这个，er，合作，er，分工合作的问题。（AI；2；er）
116. 经常是达成不了一个，er，统筹的这样的一个……（AI；2；er）
117. 统筹的这样的一个，一种方法。（EL；2；2）
118. 最后这个路呢，就变成了，这个，er，并非，这个，好，好的路面了。（3）
119. 像这图中呢，就很，er，就是一种不合作的态度。（EL；2；er；2）
120. 在我面前呢，有四幅，有，有四幅图片。（3×2）
121. 在画面的正，正中呢……（3）
122. 怎么样把这个重，沉重的袋子呢，推上岸上去。（AI；2）
   有一个瘦一点的，这个，男士呢，就骑在这个，er，稍微呢，壮，强壮一点的 123. 男士的身上。（AI；2）
124. 这个瘦，瘦个男士呢……（3）
125. 手举着，头上顶着这个袋子。（EL；2；1）
126. 所以他们就呢，就是，把，en，穿上衣服。（EL；2；en；1）

127. 他们原来是呢，一个，两个士兵。（EL；3；1）

128. 就是刚刚的那个，en，就是身材比较强壮，比较强壮一点的那位男士。（3）

129. 我们看第四幅图上面呢，这个，en，比较，en，这个，比较，en，高，高级的，这个，军官呢，他在对这个，er，位置，位置比较低的这个军官呢，在呢，大声地呵斥着什么。（en，er；3×5）

130. 应该是比较平等的，这样的，共，共患难的。（3）

131. 然后一起呢，就是，er，成功地爬，爬上了岸。（3）

132. 在这种危难的时刻，大家可能，就是，一起，一起都能同心协力。（3）

133. 人心啊，这种，en，不平等的感觉，或者是，这种，它这应该是阶级地位的这种，en，这种，就是差别就显示出来。（en；3）

134. 难道这是 1869 年吗？这是美国的太平洋铁路和这个，en，和这个联合太平洋，联合铁路，这个，已经竣工的时刻吗？（EL；2；en；2，3）

135. 本来这些铁轨，如果竣工的时候应该是，这种，连接得比较融，融合的这种感觉。（3）

136. 旁，旁边他们这些工人也已经非常，本来应该是非常，感觉非常成功，非常兴奋，非常有成就感的。（3×2）

137. 这样呢，就是一群工人，他们只是，也是，本，他们是呢，就是……（3×2）

138. 已经付出了这种劳动，辛劳……（AL；2；1）

139. 结果呢，却呢，让我们觉得，en，觉得挺，怎么说呢，比较地，就是，出人意料吧。（en；3）

140. 他们俩这里面是两位，这个，两道铁路的这个……（EL；2；这个；2）

141. 两道铁路的这个，纠（jiu），施工人员？（EL；2；1）

142. 我觉得过错不在，不在这两个人当中。（3）

143. 这个问题的话，我们应该，就是，光是在这样的铁路施工当中，我们可以，可以想想……（3）

144. 这些时候呢，我们可能大家都是，er，都付出了真正的，这种，自己的劳动。（er；3）

145. 你光凭个人的这种能力呢，个人的，个人自己的这种呢，er，individualism 是不够的。（3）

146. 一开始是，en，就，就，就没有，没有东西穿，然后搞了一，好象可，也，也有可能是……（3×3）

147. 他们偷了一套，偷了两套制服。（EL；3；2）

148. 他两个都，都穿上那个警察的制服。（3）

149. 也许是要去，en，去办什么，什么案子。（en；3×2）

150. 然后假，假，假冒是，假冒是警察吧。（3×2）

151. 应该是在山里边在隧道，在开凿隧道……（AI；2）

152. 他们需要，er，合作，然后一起来建，建造这条铁路。（3）

153. 可能是在协调上没有出现，er，没有很好的协调好，所以它就出现了一些问题。（EL；2；er；2）
154. 队员，两方的队员则是袖手旁观。（AI；2）
155. 看，看着，这个，两个领导在这里边，en，喋喋不休的争吵。（3）
156. 这个，en，这个图反映的这个，en，现实……（en；3）
157. 工作，en，不仅是工作，这个，进程要受到阻碍……（AI；2；en）

Appendix III

Interviewing

1. 在本科生的时候读研究生，报研究生，就是想读这个专业的研究生。（EL；3；1）
2. 然后除了旅行社，旅行社是这样子。（3）
3. 像酒店这些，其实更加深，更加严重。（EL；2；2）
4. 但是没有经济学那些专业，那些系出来的学生……（AL；2；2）
5. 我意识到这个困难的时候是我已经，er, 本科(四声)，那个, 本科(一声)的时候意识到这个困难。（ET；2；那个；2，3）
6. 包括一些，er，一些非常具有悬念的一些，一些电影。（3）
7. 我觉得给我印象比较深刻的是今年暑假看了一部电影，叫做，电视剧，叫做……（EL；3；1）
8. 它是拍摄了我国, 啊, 在战, 战争时期, 这个, 啊, 建国初期……（EL；3；这个，啊；1，3）
9. 它从中表现了很多中国军人, 那种在艰苦岁月下, 舍大家, 啊, 舍小家保大家的一种风范。（EL；3；啊；2）
10. 它都是一种，表现一种，人的一种，一种品德，一种，一种，一种高尚的一种情操。（3）
11. 让人第一眼能知道结束，能知道结尾的片儿呢。（EL；2；2）
12. 应该在情景的安排上或在故事的发展上，能够，能够，至少能够栓住人的眼球吧。（AI；2；3）
13. 王菲的声音特别有金属感，感觉挺，在流行歌坛中来说，挺脱俗。（AI；2）
14. 他们俩其实也挺长时间了，从我上高中开始，不对，上大学的时候……（EL；3；不对；2）
15. 他曾经说他很想报考北京医科学, 北京大学医科学院。（AI；3）
16. 但是当时我信心，我很，很，就是觉得信，为他的信心很足的。（3）
17. 只觉得，现在觉得计算机作为一个很普及的一个使用的，使用的一个东西。（3×3）
18. 有的时候就，就，就会，女生就会缺乏了。（3）
19. 我不是很，我不是，并不是很，那个，婉约的那种女孩子。（3×2）
20. 我这个人有点，en，就是，属于，我是属于很，就是，思维，思维比较理性化。（3×2）
21. 像一个，像张曼玉……（EL；2；2）
22. 在花样年华里面那个概(三声)，那个概(四声)念。（ET；2；2）
23. 每天也不是，也不是说，生活漫无目的。（3）

24. 我家，怎么说呢，我特别，我感觉我特别幸福，就是，我妈和我爸爸特别，就是，他们，特别，家庭特别和睦。（3）
25. 在家里，就是说，er，比较，人，人权比较，看得比较重。（3×2）
26. 自己也曾经学，学习什么，自习什么的一些东西。（3）
27. 咱们中国连，甚至连自己的操作系统都没有。（AI；2）
28. 做咱们，为咱们祖国做些事情。（EL；3；1）
29. 参，参加出国班，其实我自己，刚开始我觉得我父母是不会同意的。（3）
30. 我妈和我爸都没有，没有过高的文化（3）
31. 就是我和我姐姐都在，都在外面上学的。（3）
32. 然后，er，怎么说呢，每天打电话了什么的，就特别，特别那种，让你觉得特别温馨的一个，一个家。（3×2）
33. 我母亲一直是，一直是以，啊，以我骄傲的。（啊，3×2）
34. 那时候不是，不是那种太注意，就是只不过是一些……（3）
35. 正，正经的接触英语是初中的时候。（3）
36. 然后，我们初中 er，英语，初中英语老师也挺棒的。（3）
37. 他是我们全，全市的，最好的英语老师。（3）
38. 自己没有用功吧，然后，er，现在的基础不，不太好。（3）
39. 性格，我，um，朋友方面，我没有，我只有交到更多的朋友，没有丢失过任何一个朋友。（EL；3；2）
40. 我比较注重朋友之间，之间的关系什么的。（3）
41. 或，或许是有这个天赋在里边。（3）
42. 我觉得还有，还，我觉得我是还可以的。（3×2）
43. 然后就自己，自己打拼一出……（3）
44. 自己打拼一出，一片天下来。（EL；2；2）
45. 我觉着，还是，不，不是太难的吧。（3）
46. 也，也，也许是因为这是民办的。（3）
47. 因为，也许是因为没有去过外面。（AI；2）
48. 反正就是，反正就这个目标啊。（3）
49. 过去，er，现在在这里把基础打好，过去再慢慢来吧。（EL；2；er；1）
50. 最差，他，最，最，最，最差的打算就是住那了。（AI；2，3）
51. 就初中时的那个，那些运动，都挺喜欢的。（EL；2；2）
52. 我，我以后的工作也就是，也就是围着计算机转的。（3×2）
53. 关加，关心时事大事。（EL；2；2）
54. 你要，你对客人的好或者对客人不好……（EL；2；2）
55. 但是他自己并没有意识，意识到这个问题。（3）
56. 国外非常注重小孩的，从小就培养孩子一种自我选择，自我做决定的一种能力。（A；4）
57. 已经到成人，但是没有自我，自我，自我，自我选择的能力。（3）

58. 当初（二声），当初（一声）吧……（ET；2；2）
59. 因为当时学(xu-)，会英语的人比较少。（EL；1；1）
60. 由于这个环境，外部环境不是非常理想。（AI；2）
61. 其实在真正，真正的一个，一个英语国家……（3×2）
62. 但最好向金融方面发展比较，比较理想。（3）
63. 你还有，有，有，有一个发展的余地。（3）
64. 它不可能发展大规模的什么建，就是，建，什么生产，生产企业的。（3×2）
65. 上海的经济，经济方面……（3）
66. 本科的时候，考研的时候，我想考……（EL；3；1）
67. 拿，拿我来说，那我可能说以后想去，去，去高校啊，如果去，去一些从事教育行业或研究，研究的行业什么的……（3×4）
68. 那么，能够掌握到一手，第一手的资料。（AI；2）
69. 这是对我而言，那么对他，别人来说呢……（EL；2；1）
70. 那可能会有，会有很大的优势。（3）
71. 它主要是依托英语系的一些学科，作为二级学科，来，来，来，来开展的。（3）
72. 像，像北京的话……（3）
73. 然后在，那个，在英语系的依托之下。（那个；3）
74. 真正的像，有一些像，社，社科院啊，像，像，像，像上海大……（3×3）
75. 像上海大，啊，复旦大学的那个，那个研究……（EL；3；啊；1）
76. 美国学主要是依托美国，是英语系和，英语系和历史系，这两科，两个学科之后建立，建立起来的一个跨学科，成为美国学。（AI；2；3×2）
77. 我倒想以后，我会，还是，还是会和英语系……（3×2）
78. 这是我的，这是我的目标吧。（3）
79. 因为你，一个老师的话……（EL；2；1）
80. 现在考，现在考试的话……（3）
81. 一科，一科世界史……（3）
82. 像，像文艺复兴啊……（3）
83. 你要了解，了解，了解美国的话……（3）
84. 那，那种宗教改革啊……（3）
85. 从事，从事英语教学的……（3）
86. 然后才能给学生上一，开一些比较好的课。（EL；3；1）
87. 有的事情，有的时候……（EL；2；2）
88. 我想打，打算在考试之前也不准备找工作。（3）
89. 考试的时候，考完试以后再说。（EL；2；2）
90. 北大出题还是比较，比较大……（3）
91. 一科的考试就是四篇文章，三，三个小时。（3）

92. 我，我，我到暑，暑期的时候去北大听了一个，er，一个他们博导的课。（er；3×3）
93. 啊，其实不是城市，其实更多的是一个小乡村，小，小乡镇。（3）
94. 说老实点，九点，en，八点以后可能就宵禁了。（EL；3；en；1）
95. 桐城啊，是一个非常古老的，这样一个文气，文都。（EL；2；2）
96. 英语专业从事的东西啊，固然，固然很多。（3）
97. 而，而从另外一个方面来说呢……（3）
98. 高校老师并不意味着，就是，就是特别古板。（3）
99. 像有的老师，同样也是在三尺讲台上教出一些，啊，并不是一个，en，怎么说呢，我觉得古代说得好……（A；en，怎么说呢；4）
100. 那中国呢，可能，er，大的环境还是，er，还是不是，不是让人很乐观。（er；3×2）
101. 你的思想，你的世界观，包括你的为人处世方面，的，要，要的确像一个受过高等教育的，这样一个人的标准。（3）
102. 要，要做得还很多……（3）
103. 而比方在现代，现在的社会……（EL；2；2）
104. 也就是说男的不光要在外面，啊，要，要打拼，要照顾家的，家里照顾孩子，妻子，儿女。（3）
105. 都应该，都应该像一个，像外面一样，这样尽职尽责。（EL；2；2，3）
106. 在教师，做教师呢……（EL；3；1）
107. 在学习语言的过程中，接触到了，er，西方的，不同的，er，还有，不同的文化。（er；3）
108. 吃的特，特别多。（3）
109. 还有那个，网，网吧……（3）
110. 因为他那个，那个，那个，同，那个，学生，一般很多没电脑吗。（EL；2；那个；1）
111. 湖大和师大都挺古，挺古，古旧的。（3×2）
112. 那些楼什么的都挺，挺烂的。（3）
113. 就那个书啊什么的，书目什么的都给出来了。（AI；2）
114. 我没，没，没想过我会考上。（3）
115. 有一篇杨泽，杨振林写的……（EL；2；2）
116. 就是挺，挺麻烦的。（3）
117. 就是待在，得待在寝室。（AI；2）
118. 有些吃的东西就挺，挺恶心的。（3）
119. 我觉得逛景点，逛景点，因为你，所以景点逛了一遍，以后就不想再逛了。（3）
120. 搭地不管是大公车，还是坐地铁，都很，都很夸张。（3）
121. 你坐在，堵在车里面……（EL；3；1）

122. 你, 你, 你参加工作也好……（3）
123. 可能我毕业了以后, 还, 还想在这, 留, 留, 留一, 两年。（3×2）
124. 你定在这, 还, 还过挺滋润。（3）
125. 我, 我, 我, 我觉得我, 我可能, 就是, 没, 没那个, 没那个厉, 厉害度可以, 可以定, 定在这。（3×7）；
126. 到时候, 早（zhao）, 早（zao）晨起很早……（ELI; 2; 1）
127. 所以, 我觉得, 那个, en, 但是我觉得, 就是你, 你如果, 你如果, 就是, 你让我在北京很……（3×3）
128. 我去看过一个, 那个, 房, 那个, 楼盘。（EL; 2; 那个; 1）
129. 因为我, 我, 我已经……（3）
130. 当了两年, 当了一年半的老师了。（EL; 3; 2）
131. 那我觉得就, 就再, 再说呗。（3×2）
132. 这个, 我, 我是觉得, 反正就是, 也, 也不知道今后会怎么样。（3×2）
133. 相对来说, 比, 比那个, 北外啊, 北大啊什么的, 要好考一点。（3）
134. 我觉得要考就上, 就是, 稍微稳定一, 稳当一点的。（AL; 3; 2）
135. 如果你自己没有特别高的想法的话, 我觉得也不至于, 这种, 竞争得很, 很激烈。（3）
136. 而且家, 因为家那边太冷了。（EL; 3; 1）
137. 安庆首先是, 就是, 因为你们可能会比较了解, 它, 了解它, 首先可能, 它, en, 它, 因为它是一个历史文化名城吗。（en; 3×2）
138. 还有那个, 就是, 孔雀东南（四声）, 东南（二声）飞啊……（ET; 2; 2）
139. 这个就是我们的, 这种, 文, 文, 历史文化吗。（AI; 2, 3）
140. 只是后来又被, 把它封, 就是湖南的衡山。（A; 4）
141. 所以正好中西, 东西南北吗。（EL; 3; 2）
142. 我觉得, 那个, 天, 天麓山, 它, 就是, 可能, 没有发挥自己, 没把自己的特色, 那个, 挖掘出来。（3）
143. 我们那个山呢, 可能只是附近的人, 然后, 我们省, 我们省里的人, 还有湖北, 湖南那边的人, 可能会知道。（3×2）
144. 我当, 我以前是在北广吗……（EL; 2; 2）
145. 因为是一心想, 想上……（3）
146. 我们班, 我们班组织了一些竞赛, 就是参加英语, 参加我们安徽省的还有全国的。（3）
147. 然后就觉得, 啊, 自己觉得……（AI; 2; 啊）
148. 好象英文还, 觉得, 觉得, 啊, 这个, 还, 还行。（3×2）
149. 我本, 我现在学的也是……（EL; 2; 2）
150. 我现在学, 学习也是学二, 学这个美国研究。（EL; 2; 2, 3）
151. 就是不计结果吧, 只重过, 过程。（3）
152. 我其实以前也, 也曾经考虑过……（3）

153. 但是,就,就气候,还有……（3）
154. 我比较倾向于一个,比较倾向于一个中等,中,中等城市。（3×3）
155. 就是这样兼,兼顾一下吧。（3）
156. 合肥,其实我,在那儿,在那儿,其实一点不了解,只是在那经过。（3×2）
157. 那城市比较适合,比较适合居住。（3）
158. 其实,当时,我就是,就是觉得,en,我很喜欢……（3）
159. 就觉得在北京能看到,en,各种各样的演出啊什么,觉得在北京都会被看到。（A；3，5）
160. 各种各样的演出啊什么,它会,都会来北京吧。（EL；3；1）
161. 就不会去,说,去辽,去大连那样的一个地方。（EL；2；说；2，3）
162. 就觉得,Z,既然要,而且在那呆了四年了吗。（A；4）
163. 没准,没准儿,就是,就回大连去养老。（AI；2）
164. 一看,一看就知道它会演什么。（3）
165. 它的那个外,外表,那个包装……（3）
166. 你都可以从,从中,就是感觉到现代流行什么时尚什么东西。（3）
167. 爱情你看的,东,东西……（3）
168. 就是感觉,可能,女的她,一个女的她渴望的东西都能在里面得到实现。（AI；2）
169. 那个女演员,哦,太幸,太幸福了。（3）
170. 它就是有那种,有那种韩国的那个,传统的那个韩,韩,韩服。（3×2）
171. 就是有点,有点古,有点洋的那种。（3）
172. 那种,那种船鞋……（3）
173. 这个,这个绝对不会学那个……（3）
174. 那时候觉得,觉得,就是特别有绅士风度啊。（3）

Appendix IV

Pictures Used in the Experiment
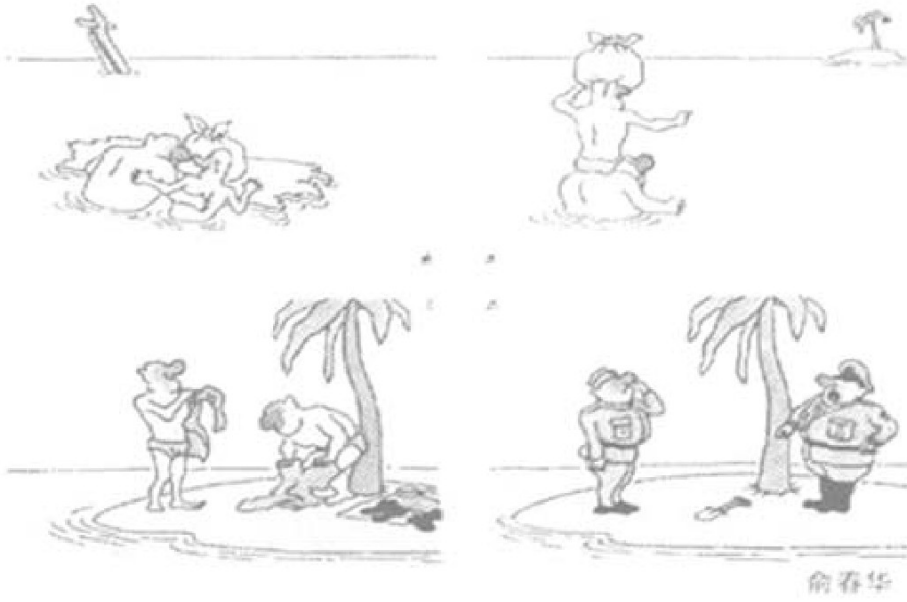
Team Work

成　绩	优秀

指导教师评语

　　朱丽妹同学的论文，"言语产生中心理语言学角度的自我修复研究"，从"自我修复相关研究的文献综述"，"自我修复的内部机制"，"归类与分析自我修复"，"中国国语自我修复行为实验"以及"对今后研究与实践的启示与思考"五个方面讨论了自我修复的内部机制，分析了自我修复的研究角度并侧重探讨了发展多种语言研究自我修复的问题。自我修复研究不仅是心理语言学言语产生研究中普遍关心的问题，而且也是相关学科研究中值得深入探讨的一个研究课题。该文作者能抓住这样的主题，较好地运用所习得的专业知识、语言技能并通过自己的实验较好地阐述、证实了作者提出的问题和观点。该文立意较好、立论明确，论据充实，是一篇既有理论阐述，也有实证的论文。该文语言基本流畅，思想组织合理，具有一定程度的创新性，是一篇符合硕士学位论文写作要求的论文。鉴于上述，本人给予该文以"良好"的评价，因此同意该文作者参加论文答辩。

汪榕培

二〇〇十年三月六日

导师签名		年　　月　　日