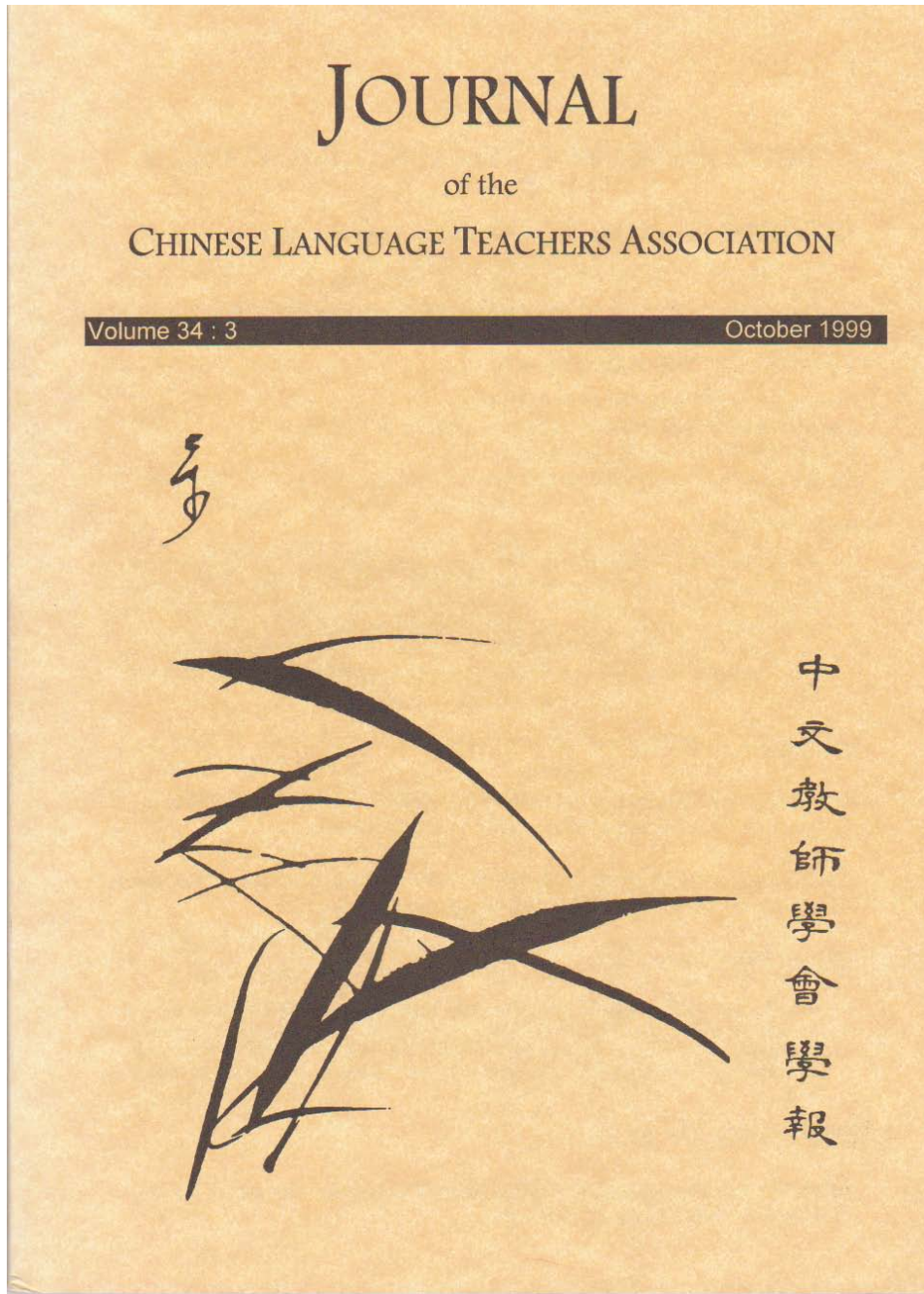


The first article in the issue



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Articles	Page
Error And Corrective Feedback <i>Xiaohong Wen, University of Houston</i>	1
Employing Feature Films in Chinese Studies: A Pedagogical Proposal <i>Zuyan Zhou, University of Florida</i>	23
Challenges of the Rise of Global Mandarin <i>Yeng-Seng Goh, Nanyang Technological University, Singapore</i>	41
Theme and Rheme in Chinese: A Cognitive Psychological Perspective <i>Alvin Leong Ping, National University of Singapore</i>	49
A Syntactic Account for the Inseparability of the Verb and the Classifier in the Structure V + C + N in Tone Sandhi <i>De Bao Xu, Hamilton College</i>	77
 Reviews	
Wenlin Software for Learning Chinese <i>Gloria Bien, Colgate University</i>	91
Literature and Society: Advanced Reader of Modern Chinese <i>Michael Everson, the University of Iowa</i>	97

Error And Corrective Feedback¹

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Introduction

When acquiring a foreign language, a learner creatively uses the language to express his / her ideas as much as possible. Throughout the process, a learner is expected to and does make all types of errors. Research has shown that errors reveal learning strategies (Selinker 1974; Carroll, Roberge, & Swain 1992). They are usually systematic and part of the developmental process that learners will inevitably go through. Errors can be utilized in several aspects, such as in determining an individual's current level of interlanguage, and thus yield important diagnostic information (Omaggio Hadley 1993).

The study of the role of error correction has direct practical and theoretical implications in the field of second language acquisition (SLA). In first language acquisition, research has shown that children do not receive negative evidence, i.e., corrective feedback (Pinker 1989). Even if children do, they do not understand it, nor are they capable of making use of it (Pinker, 1989). In the foreign language classroom, teachers frequently correct learners' errors with the assumption that students will learn from their errors and not make similar types of errors in future. On the other hand, teachers like to know whether there is any real point in correcting students' errors.

Traditionally, underlying the practice of error correction is classical conditioning of stimulus and response with explicit feedback to the learner. While this learning theory of behaviorism has been rejected, in recent years scholars in SLA have speculated that adults who learn the language in formal learning situations may need negative feedback for their acquisition and may actually potentially benefit from various forms of feedback (Schachter 1986; Birdsong 1989; Bley-Vroman 1989). These arguments are based on the theoretical assumption that language learning is an inductive process. In other words, part of SLA is a type of problem solving that requires

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learning strategies such as metalinguistic awareness and conscious monitoring. Such learning processes require feedback to help learners narrow down the range of possible hypotheses that they have formulated from the input to which they have been exposed (Zock, Francopoulo, & Laroui 1989). The “logical problem” of language acquisition would have been resolved if the input could include negative evidence, i.e. negative feedback². Carroll and Swain (1993) claim that “if language is learned through induction, then there can be no theory of language learning as induction without a theory of feedback.” (p. 358).

Error correction becomes an important issue also when productive skills are emphasized. Higgs and Clifford (1982) proposed an output hypothesis which states that learners should be encouraged to express their own meanings within, or even slightly beyond, the limits of their current level of competence on the one hand, and for teachers to provide appropriate feedback on the other. Along a similar line, Swain (1985) proposed the comprehensible output hypothesis, which states that students should be encouraged to produce “pushed” output. She argues that not only the comprehensible input, but also the “pushed” output are important in formal learning situations. She suggests that “negotiation of meaning needs to incorporate the notion of being pushed toward the delivery of a message that is not only conveyed, but that is conveyed precisely, coherently, and appropriately” (p. 249). When learning a second language, learners should feel pushed to get across his or her messages, and at the same time, be provided with corrective feedback.

The present paper will discuss the research on error correction and negative evidence, i.e. corrective feedback. It will examine the sources of errors in the interlanguage of English-speakers learning Mandarin Chinese (henceforth, Chinese) as a foreign language in colleges in the United States. It will also review the research on the effects of error correction and instruction provided by teachers in formal language learning settings. Finally, it will discuss the strategies in providing students feedback and error correction.

Sources of error in interlanguage

² Baker (1979) pointed out a now-well-known paradox on language acquisition. Children are generally not corrected or receive feedback for their ungrammatical utterance; furthermore they do not simply imitate adults' speech but form productive rules. Yet they make limited mistakes in their language hypotheses. Even though they make mistakes, they are able to correct them all by themselves. So, the logical question is how children restrict the possibilities of grammar formation and correct their hypotheses that are not compatible to the target language when negative evidence is unavailable to them and they are creative in their language acquisition.

To understand sources of errors contributes to a better understanding of students' learning processes, their cognitive operating systems, their communicative strategies, and their interlanguage. Interlanguage is the learner's systematic knowledge of a second language that is independent of both the native and the target language, and mediates between the two at a transitional stage.

Selinker (1974) identified five principle processes operating in interlanguage. These processes can also be considered as sources of errors in interlanguage. The first is language transfer that may occur in all linguistic aspects of pronunciation, vocabulary, syntax, and discourse. The second is overgeneralization where learners use the old rules or forms and inappropriately apply them to new situations and functions. Research has shown that overgeneralization is one of the most often used strategies by both first language (L1) and second language (L2) learners (Clark, 1973; Richards, 1974). The third is transfer-of-training, or errors being misled due to misrepresentation of the language from learning materials and class activities. Lu (1994) proposes that transfer of training errors have immediate implications for classroom instruction and should be of concern for teachers when they are reviewing their curriculum design and strategies for instruction. The fourth process is L2 learning strategies themselves, defined as "identifiable approaches by the learner to the material to be learned" (p. 37). And the fifth, strategies of second language communication, are "identifiable approaches by the learner to communication with native speakers." (p.37). In acquiring a L2 or a foreign language, learners use these strategies to reduce the difficulty level of their learning task, and as a result, their interlanguage is frequently simplified.

There may not be a single or primary cause for a set of errors. In addition to the sources identified by Selinker, other sources include universal communication strategies such as sentence-topicalization, that is, the structure of a sentence is composed of topic and comment. The role of topic-comment structure in the acquisition of English as a L2 was investigated by Fuller and Gundel (1987). Their subjects were speakers of the highly topic-prominent languages of Chinese, Japanese, and Korean, and the relatively less topic-prominent languages of Arabic, Farsi, and Spanish. Fuller and Gundel compared spoken narratives by their subjects with those of native English speakers. The results showed that all subjects produced more topic-comment sentences in their interlanguage narratives than did English speakers, irrespective of their first languages. Fuller and Gundel concluded that "English interlanguage as a whole is clearly more topic-prominent than native English" (p. 15) and SLA is generally characterized by a topic-comment stage, a universal stage in early interlan-

guage development. Duff (1990) studied several interrelated interlanguage structures in the intermediate-level English production of native speakers of Mandarin Chinese. She suggests that in addition to L1 transfer, many learners use the pragmatic strategies and universal communication strategies such as topicalization and simplification, e.g., article deletion and no subject-verb agreement.

As Duff (1990) notes, the same set of errors often stems from the interaction of a number of sources. Consider the following sentences produced by English speakers learning Chinese as a foreign language in a formal learning setting.³

1. *有三十五本中文书在那个图书馆。
Yǒu sānshíwǔ běn Zhōngwén shū zài nàge túshūguǎn.
Exist thirty five M Chinese books in that M library
There are 35 Chinese books in that library.
2. *我的家有妈妈，爸爸，弟弟和我。
Wǒde jiā yǒu māmā, bàbà, dìdì hé wǒ.
My family exist mother, father, younger brother and I
There are my mother, father, younger brother and I in my family.
3. *他不喜欢听他妈妈。
Tā bù xǐhuān tīng tā māmā.
3sg not like listen he mother
He does not like to listen to his mother.
4. *我六点起来，我念一个钟头，然後我去教室，我八点上课。
Wǒ liùdiǎn qǐlái, wǒ niàn yíge zhōngtóu, ránhòu wǒ qù jiàoshì, wǒ bādiǎn shàngkè.
I 6 o'clock getup, I study one hour, then I go classroom, I 8 o'clock have class
I got up at 6 o'clock, I studied for an hour, then I went to the classroom, I had class at 8 o'clock.
5. *三本法文词典在那个图书馆。
Sānběn Fǎwén cídiǎn zài nàge túshūguǎn.
Three M French dictionary at that library
There are three French dictionaries in that library.

³Sentence 4 is from the data in Wen's (1994) study; Sentence 5 is from Jin's (1994) study; Sentence 6 is from Polio's (1995) study.

6. *他开自行车，自行车，啊……他……走了。
Tā kāi zìxíngchē, zìxíngchē. a... tā... zǒule.
3sg drive bicycle, bicycle 3sg walk PFV
He rode a bike. He left.
7. *来明德以後，我不胖。
Lái Míngdé yǐhòu, wǒ búpàng.
Come Middlebury after, I not plump
I did not put on weight after coming to Middlebury.
8. *我想我进步进得不错。
Wǒ xiǎng wǒ jìnbù jìnde búcuò.
I think I progress progress Part. not bad
I think I made good progress. Uh
9. *以前他/她喝了很多酒，现在他/她不喝酒。
Yǐqián tā hēle hěnduō jiǔ, xiànzài tā bù hē jiǔ.
Before 3sg drink PFV very much wine, now 3sg not drink wine.
He/She used to drink a lot and now he/she does not drink anymore.
10. *以前他/她喝很多酒了，现在他/她不喝酒。
Yǐqián tā hē hěnduō jiǔle, xiànzài tā bù hē jiǔ.
Before 3sg drink very much wine Part, now 3sg not drink wine.
He/She used to drink a lot, but now he/she does not drink anymore.
11. *我没有去过什么地方都。
Wǒ méiyǒu qùguo shéme dìfang dōu.
I not go Exp what place all
I have not been to anywhere yet.
12. *我想做什么都。
Wǒ xiǎng zuò shéme dōu.
I want do what all
I want to do everything.
13. *别扔这些菜在水。
Bié rēng zhèxiē cài zài shuǐ.

Not throw these vegetable in water
Don't dump these vegetables in the water.

L1 Transfer and Productive constraints. Sentences 1-3 are literal word translations from the learners' L1. Although Sentence 1 is of a topic-comment form, it has the identical word order as an English canonical existential structure when the dummy subject 'there' is deleted. The word order in Sentence 2 is very much influenced by the English-speaking culture where *mother* is addressed first and me, last. This order of addressing family members does not fit the Chinese idiomatic way of addressing family members.

Sentences 4 and 5 are identified as language typological transfer by Jin (1994) and Wen (1994), respectively. Jin (1994) examined whether subject prominent features, such as a "lack of null elements, and overuse of subjects" are transferable to the target language that is topic-prominent. She investigated the interlanguage of 46 native English speakers learning Chinese as a foreign language in an American college. She found that English-speaking learners went through a process of systematically transferring the subject-prominent features to Chinese (e.g. Sentence 4) until they reached a certain level of proficiency, at which time the concept of topic emerged. Jin concluded that "the process of learning Chinese as a topic prominent language is a process of typological transfer, in which certain grammaticalized structures will be reanalyzed and assigned new value" (p. 120). Furthermore, subject prominence is a transferable typology that characterizes the early interlanguage of English-speaking learners of Chinese.

The canonical sentence type of Chinese is of topic-comment form, while that of English is of subject-predicate form. Topic in a Chinese sentence is at the initial position. Semantically, it is definite or generic, and is what the listener already knows about. Wen (1994) investigated the topic-comment structure of Chinese existential sentences acquired by English speakers. Sentence 5, produced by English speakers learning Chinese at the beginning level, is an existential sentence of subject-predicate form that is, at least, noncanonical in Chinese. Wen interpreted the sentence as the transfer of subject-predicate form from the students' first language.

A similar phenomena of overusing pronouns by English-speakers learning Chinese as a foreign language is accounted for differently by a more recent study. Polio (1995) examined the use of zero pronouns by non-native speaking learners of Chinese. Her study had a sample of 21 English and 21 Japanese speakers learning Chinese as a foreign language at a large Chinese language center in Taipei. Her study

did not find any evidence of L1 transfer of the overuse of pronouns in the learners' interlanguage, but found evidence of productive constraints. Learners had no difficulty in using zero pronouns when there was a syntactic or semantic restriction, but experienced difficulty at the discourse level. At the discourse level, learners were constrained in producing zero pronouns for the sake of clarity. A pronominal at the subject position is used as a placeholder to keep track of one's own speech, or a pause is used after the pronoun while thinking about the rest of the sentence, as illustrated in Sentence 6.

Overgeneralization. Overgeneralization is the strategy that learners at early stages of language development use frequently. Overgeneralization is the process of misapplying existing knowledge to new interlanguage forms or functions. It is preferred by both L1 and L2 learners. Sentences 7-9 are examples of overgeneralizing the form for different functions. As Sentence 7 illustrates, learners overuse the negative marker *bu* at the early stage of their acquisition (Wang, 1997). The negative markers *bu* and *mei* have a similar meaning but different grammatical functions. Learners apply the semantic cue to produce the form. The overuse of the structure of verb copying is another example (Sentence 8). Sentences 9-10 suggest that learners over-rely on contextual cues in determining the use of certain words. For example, they use temporal words as a cue to determine whether *le* should be used. If there is a past time expression, the particle *le* is consistently produced, as illustrated in sentences 9-10 (Wen, 1995).

Psycholinguistic processing constraints. Psycholinguistic processing constraint is another source of errors. Within a psycholinguistic framework, Clahsen (1984) proposes that second language acquisition is critically affected by mental systems that operate on linguistic structures and govern some vital aspects of learning processes. The structures that require a high degree of processing capacity will be acquired late and the ones that are most consistent with the learner's language processing strategies will be acquired early. Certain linguistic structures are more perceivable, memorable or learnable than others are. Clahsen has drawn on three language processing strategies to explain the order of acquisition of word order in German. The results of his study reveal that the first interlanguage structures to emerge are those that conform to strategies such as canonical word order of subject-verb-object (SVO). Later acquisition of certain word order is believed to be a consequence of processing constraints.

Pienemann (1987) tested Clahsen's hypothesis and concluded that learners acquire word order in a natural sequence. Certain linguistic elements can be acquired

only when a learner attains the prerequisite stage of the structure, and thus is ready to incorporate the new rule or structure into his /her interlanguage system. Before a learner reaches the relevant stage, he /she is not able to produce the structure correctly. Along a similar line, Wen (1998) investigated how instruction affects the acquisition of Chinese word order among English speaking learners of Chinese. Sentences 11-13, taken from Wen (1998), were produced by students at the beginning stage of their acquisition. Learners at this stage have a strong preference for SVO word order, and their production of word order is characterized with the strategy of SVO. They produced the incorrect form of the inclusive construction, and avoided use of the *ba* construction (Sentences 11-13) because they had not reached the stage of being able to move the object around with a flexible word order other than SVO.

Effects of error correction

The primary question in SLA is whether negative evidence is a necessary condition for learners to acquire a L2 or a foreign language; in other words, can negative evidence initiate change in a L2 learner's underlying grammar? Research on the effects of corrective feedback has shown the complex nature of this issue, with many of the findings being controversial and inconclusive. It may be that the effectiveness of error correction may also depend on feedback variables such as what kinds of errors are made and how errors are corrected.

According to the theory of Universal Grammar (UG), the ultimate form of any human language is a function of language universals, a set of fixed and determined abstract "principles" that are innate with human beings (Chomsky 1965; Cook, 1985). UG helps the learner build a core grammar that is congruent with universal principles, as well as with a peripheral grammar that consists of "parameters" which are language specific and not part of UG. Children's exposure to natural language triggers the setting of the appropriate parameter for the language being acquired. Children do not receive negative evidence. Even if they do, they do not make use of it. Because children are equipped with UG that restricts the possibilities of grammar formation available for acquisition, they can correct a hypothesis that is not compatible with the target language and acquire the knowledge that is not provided in the input.

The UG model claims that the only input necessary for SLA is the positive linguistic forms provided to learners in communicative situations. Learners are equipped with a set of universal principles that constrain their hypotheses on the language to which they are exposed. Exposure to positive evidence is sufficient to trig-

ger the resetting from the L1 parameter to L2 with L2 learners. Negative evidence is, therefore, not a necessary condition for acquisition to occur (Schwartz 1993).

Krashen's (1982) Monitor Model adopts the same theoretical premise as UG on the issue of negative evidence. The model proposes five hypotheses on SLA which have pedagogical implications for formal learning settings. It focuses the acquisition-learning distinction, comprehensible input and affective filter. The first hypothesis distinguishes two ways in which adult learners achieve language competence, "acquisition" and "learning". "Acquisition" is a subconscious process and occurs when a learner engages in natural communication that focuses on meaning. "Learning" is a conscious process and occurs as a result of formal study where a learner is focused on the rules and metalingual skills. Therefore, "learning" can be used to monitor performance. Learners acquire new structures only when being exposed to "comprehensible input", and when affective conditions are optimal and thus, learners are free from anxiety. Krashen suggests that error correction should be minimal in the classroom because error correction raises the "affective filter" and the level of anxiety. When the affective filter is high, learner's affective conditions will not be optimal for learning and acquisition. Consequently, comprehensible input will not be processed by the learner.

Theoretically consistent with the Monitor Model is the Natural Approach, a teaching methodology proposed by Terrell (1977). Terrell argues that there is no evidence to show that the correction of speech errors is necessary in SLA. In fact, such correction is negative in terms of motivation, attitude, and embarrassment, "even when done in the best of situations" (p. 330). Walker (1973) reported that students believe that frequent correction destroys their confidence and prefer to be allowed to communicate freely without constant intervention from the teacher.

In formal learning situations, adult learners generally receive much more correction than children. Several scholars hypothesize that adults may need negative evidence in order to learn a L2 (e.g. Schachter 1988; Bley-Vroman, 1989). Language instructors are concerned with maximizing teaching effectiveness and improving student learning. Furthermore, instructors frequently have students who request that their errors be corrected thoroughly. A number of empirical studies discussed below provide evidence that negative evidence may be necessary for SLA.

White (1991) investigated the development of adverb placement by francophone students of grades five and six learning English as L2 in Quebec, Canada. The purpose of her study was to examine whether form-focused classroom instruction in-

cluding negative evidence was more effective than positive input alone in helping L2 learners arrive at the appropriate properties of English. Francophone learners of English have to learn that English allows Subject-Adverb-Verb (SAV) word order and that it does not allow Subject-Verb-Adverb-Object (SVAO) word order. White demonstrated that francophone learners of English incorrectly assumed that English, like French, allowed raising of the main verb over an adverb. They accepted and produced sentences in the SVAO word order:

14. * Mary takes usually the metro.

White's study consisted of classes of English L2 learners in intensive English programs. The experimental groups were given explicit instruction on adverb placement including error correction on English adverb placement. All the L2 learners were given pretests, posttests immediately following the treatment sessions, a second posttest five weeks later, and a follow-up test a year later. The results of her study revealed that both experimental and control groups started out with the L1 parameter setting, accepting and producing SVAO order in English. Only the group that received form-focused instruction and negative evidence on adverb placement revealed knowledge of the impossibility of SVAO order such as Sentence 14 in English. White concluded that negative evidence might be necessary to trigger parameter resetting in SLA and effective in helping L2 learners realize that SVAO is ungrammatical in the target language when it is grammatical in their L1. The effects of form-focused instruction with negative evidence, however, did not remain for the long term.

While White's (1991) study reveals that negative evidence may be necessary to trigger a parameter resetting in a learner's grammar, it does not show if positive evidence alone, without negative evidence, is sufficient for language acquisition. Trahey and White (1993) conducted another study to investigate whether an "input flood" of positive evidence in the L2 classroom is sufficient to trigger parameter resetting. Their study consisted of fifty-four francophone children at the age of 11 in intensive ESL programs in Quebec, Canada. The subjects were exposed to a 2-week input flood of adverbs used in communicative situations. Subjects were pretested prior to the input flood, posttested afterward, and tested again 3 weeks later. The results of the study revealed that there was a dramatic increase in the use of the English SAV order as a consequence of the input flood but little decline in incorrect usage of SVAO. Therefore, the flood of positive evidence was not sufficient to detect the ungrammaticality of SVAO sentences.

Positive results of corrective feedback are also found in Carroll and Swain's (1993) experimental study. Carroll and Swain investigated the effects of various types of negative feedback on the acquisition of the English dative by 100 Spanish-speaking learners of English as a L2. They included several different types of feedback conditions. Subjects were divided into five groups according to which type of feedback they received when they made an error in dative alternation. Group A subjects were given explicit metalinguistic information about the generalization; Group B subjects were simply told that their response was wrong; Group C subjects were corrected when they erred and were given a model of the desired response; Group D subjects were asked if they were sure about their response. The control group received only positive evidence of acceptable dative alternation syntax. Subjects were tested twice on the feedback items plus a number of novel items to determine whether they had generalized from the feedback items. The results of the study revealed that all four of the experimental groups outperformed the control group that received only positive evidence of acceptable dative alternation syntax. The results suggest that "adult learners can and do use feedback to learn specific and abstract linguistic generalizations and correctly narrow the application of those rules." (p. 358)

Research on corrective feedback on writing is far from conclusive. Robb, Ross, and Shortreed (1986) conducted an empirical study to evaluate the effects of different types of feedback on errors in the written work of Japanese speakers learning English as a foreign language. Their study contrasted four methods of providing feedback on written errors. They had four treatment groups: 1) instructor corrects all errors of word choice, syntax, and levels of style; 2) instructor codes errors for the student to correct; 3) instructor identifies errors but offers no indication for correction; 4) instructor indicates in the margin the number of errors in each line but not precisely where errors occur or how to correct them. In all four treatment groups, the students performed identical classroom activities and wrote identical composition assignments, which they were all required to revise. The amount and the type of writing practice were held constant, while the only manipulated variable was the type of instructor feedback. They found that as the course progressed, the improvement of students' writing was independent of any type of the feedback. The study does not support the practice of direct correction of surface error and highly detailed feedback on sentence-level mechanics. They concluded that improvement in writing relates mainly to the practice of writing itself.

The study by Fathman and Whalley (1990) that investigated the effects of varied feedback on improving students' written work also produced mixed results. They had 72 ESL students in their study. The subjects were asked to rewrite their composi-

tions in class in response to four different feedback conditions: 1) no feedback; 2) grammatical feedback (where errors were underlined); 3) content feedback, and 4) both grammar and content feedback. Their findings revealed that there was a significant reduction in grammatical errors for students receiving grammatical feedback (conditions 2 and 4). Most of the students who received only content feedback (condition 3) improved their content scores, but 35% of them made more grammar errors in their revisions. When students received both grammar and content feedback (condition 4), they all improved significantly on grammar, and 77% also improved on content. When teachers underlined grammatical errors (condition 2), students made fewer grammatical errors in rewriting their compositions than when no such feedback (condition 1) was provided. Fathman and Whalley concluded that both grammar and content feedback positively improved students' rewriting. Grammatical feedback had more of an effect on the correction of errors than content feedback had on the improvement of the content of the students' second draft. On the other hand, their study also revealed that students who received no feedback still made useful revisions. In fact, they generated more new language during the rewriting phase than students who received either form or content feedback.

The effectiveness of feedback may depend, in part, on a number of variables such as the level of student motivation, their current level of proficiency, their cognitive style, the clarity of the feedback given, the way feedback is used, and the attitudes of students toward their teacher and the class. Omaggio Hadley (1993) has made comments on the inconsistency of the findings in this area of research. She suggests that it might be useful to distinguish among various forms of corrective feedback, ranging from very direct and immediate feedback to more indirect and delayed feedback. It is possible that the "feedback" or "correction" provided to students, and the conditions and manners under which students are corrected differ considerably from study to study, therefore yielding inconsistent findings. Omaggio Hadley posits that those who have argued that no error correction should take place in the classroom may actually advocate indirect correction via more comprehensible input, or negotiation of meaning among interlocutors.

Strategies for error correction

Although the research on the effects of negative evidence is inconclusive and frequently controversial, L2 and foreign language educators carry out daily teaching in the classroom, interact with students and provide them with positive and corrective feedback. Strategies in error correction concern how teachers should respond to

the errors in order to provide helpful feedback without decreasing student motivation and stifling their learning creativity.

Teachers need to develop a whole range of feedback mechanisms and determine when and how to use them to maximize the effectiveness of their instruction. When providing students with correction, a number of concerns need to be taken into consideration. First, error correction must be done in a positive and encouraging manner. The teacher's attitude is important and should be respectful and polite. Second, correction strategies should be varied to accommodate the needs of the learner in terms of the level of performance, the difficulty level of the learning task, the purpose of the activity, and the modality of the task. Third, error correction should be encouraged among the students themselves before the teacher's correction. Students are frequently capable of self-correction, and good at helping their peers. Walz (1982) suggests three procedures: 1) self-correction with the teacher's help, 2) peer correction in a collaborative learning environment, and 3) teacher correction which can vary from direct to indirect, and immediate to postponed.

Self-correction and problem solving strategies. Lalande's (1982) study provided clear evidence on a useful type of form-based feedback, namely, error marking using a coding system for self-correction. Lalande compared the effects of self-correction versus teacher-correction on compositions in German classes at the college level. The study consisted of two groups. Students in the control group were corrected by their teachers and asked to rewrite their compositions. Students in the experimental group received error codes and charts indicting where they made errors and were asked to self-correct using these aids. Self-correction in this second condition was done in class, with students engaged in problem-solving using the codes, their texts, and teacher or peer assistance if necessary. The self-correcting group had statistically fewer errors at the end of the experimental period than did the control group. Lalande concluded that the combination of awareness of one's own errors and rewriting with problem-solving techniques was highly beneficial for developing writing skills.

Self-correction can be frequently used while practicing speaking skills with the help of the teacher. Below is an illustration of an oral activity in practicing the Chinese *Shi...de* construction. The activity is form-focused and communication-based. The teacher invites the student to self-correct through the interaction. The conversation occurs between the teacher and the student at the beginning level in a Chinese language classroom.

15. T.:今天你是怎么来学校的?
Jīntiān nǐ shì zěnmē lái xuéxiào de?
How did you get to school today?
16. S.:我是……啊……
Wǒ shì... a ...
I am...uh...
17. T.:你是开车还是走路来学校的?
Nǐ shì kāichē háishì zǒulù lái xuéxiào de?
Did you drive or walk to school?
18. *S.:我是开车来。
Wǒ shì kāichē lái.
I drove.
19. T.:哦，你是开车来的吗?
Oh. Nǐ shì kāichē lái de ma? (The teacher emphasized *de* in the sentence)
Oh, you drove to school?
20. S.:我是开车来的。
Wǒ shì kāichē lái de.
I drove to school.
21. T.:我也是开车来的。你呢？你也是开车来学校的吗？
Wǒ yě shì kāichē lái de. (Asking another student) Nǐ ne? Nǐ yě shì kāichē lái xuéxiào de ma?
I also drove to school. What about you? Did you also drive to school?

In Sentence 17, the teacher provided the options to prime the incomplete sentence so that it became much easier for the student to produce the answer. As the conversation continued, instead of correcting the error in Sentence 18, the teacher asked the question (Sentence 19) to provide the cue, i.e. the correct form, to the student. As a result, the student corrected the error and produced an accurate sentence (Sentence 20). The teacher positively confirmed the student's answer (Sentence 21) and provided the opportunity to another student to practice the construction in real communication.

Indirect corrections. The teacher may respond to students in more open-ended, communicative exchanges to indirectly provide the corrective feedback and negotiate the meaning. The purpose of the conversation is on the meaning, while the instructional focus is on the form. The strategy gives the student the opportunity to process the feedback provided by the teacher. The following dialogue, produced between a teacher and a first-year student learning Chinese as a foreign language, illustrates the idea:

22. T.:请说说你的爱好。你会游泳吗?

Qǐng shuōshuo nǐde àihào. Nǐ huì yóuyǒng ma?
Please talk about your hobby. Can you swim?

23. *S.:我会。我游泳得不好。

Wǒ huì. Wǒ yóuyǒng de bùhǎo.
I can. I do not swim well.

24. T.:嗯，你游泳游得不好，那你唱歌唱得好吗?

En, nǐ yóuyǒng yóude bùhǎo. Nà nǐ chàngē chàngde hǎo ma?
Oh, you do not swim well. Do you sing well?

25. S.:我唱歌唱得很不好。

Wǒ chàngē chàngde hěn bùhǎo.
I really do not sing well.

In this dialogue, instead of directly pointing out the incorrect form (sentence 23), the teacher provides the positive evidence to confirm the meaning (sentence 24), and additionally proposes another question to provide the students with the opportunity to use the form again for real communication. Through such negotiation of meaning and practice on form, the student becomes aware of the difference between his / her production and the teacher's, modifies his / her speech, and incorporates the correct target language form into his / her interlanguage system.

A number of scholars (e.g. Gass & Varonis 1989; Ellis 1985) propose negotiated interaction through which learners are provided with indirect corrective feedback. Negotiation, i.e. conversational interactions, makes the input comprehensible. Comprehensible input is a necessary condition for acquisition (Long 1983; VanPatten & Sanz 1995). Through negotiation characterized by questioning and clarification of the meaning, a mutual understanding is reached. The role of negotiation in language acquisition, as Gass (1995) states, is to lead learners to notice that there is a mis-

match between what they are producing and what native speakers of the target language produce. In other words, negotiation leads learners to a type of metalinguistic awareness. Through the process, students become aware of errors in their speech, whether in grammar, pronunciation, content, or discourse. In this way, learners have the opportunity to learn the target form as well as the linguistic environment in which the form would fit, and thus, ultimately increase their knowledge of L2.

What to correct. Walz (1982) summarized four basic criteria for selecting errors to be corrected:

1. **Comprehensibility.** The errors that interfere with understanding and communication should be corrected first.
2. **Frequency.** More frequently occurring errors should be corrected consistently, while mistakes such as slips of the tongue can be left alone because students can correct themselves.
3. **Pedagogical focus.** Teachers need to be consistent and have a clear pedagogical purpose. It is best to correct errors that reflect misunderstanding or incomplete interpretation of linguistic input that is the focus of current classroom activity. Not correcting such errors confuses the learner who may be expecting to have his / her hypothesis confirmed or rejected by the teacher. Other students who notice the mistake may also become confused about their own understanding of the concept.
4. **Individual student concerns.** Teachers need to get to know students well enough to be able to sense their reactions to various correction techniques. For example, more capable, secure students will benefit more from the correction of minor errors than will students who feel less capable. Students who do not feel secure in their performance, on the other hand, may benefit most from the correction of their major mistakes only.

In addition, error correction should be incorporated into the classroom activities. Different feedback should be provided to students according to the purposes of the activities in which they are engaged. If the activity is to practice certain linguistic forms, students may benefit most from direct and immediate corrective feedback. When the activity focuses on encouraging students to communicate ideas in an open-ended fashion, the most beneficial feedback may be a positive response such as Sentence 24, which provides students with positive evidence that is meaningful and communicative in nature. Direct and immediate correction may be disruptive and discouraging for learners who are concentrating on getting their messages across.

Summary

In summary, the research studies that have tried to find a relationship between corrective feedback and enhanced language acquisition have been inconclusive. However, given the findings that students develop language proficiency through meaningful and communicative interaction, and because it is practically impossible to correct all the errors a learner has produced⁴, the pedagogical focus should be, first, on providing meaningful and comprehensible language input to students. Many SLA scholars (e.g. VanPatten & Sanz, 1995) suggest that the linguistic structures and rules presented to learners must be, first of all, “processable” and usable by learners. To be “processable” means that the input is comprehended by the learner so that the input can be processed to become intake. To be usable refers not only to the form, but also to the appropriate function of the form needed to be acquired so that learners can retrieve the structure and use it in a semantically and functionally appropriate manner. In this way, instruction has the potential to increase the rate of acquisition.

Second, classroom activities should be form-focused within a communicative framework while instruction may explicitly deal with grammar, vocabulary, and pronunciation. In addition to the classroom activities that provide students with opportunities for negotiation of meanings, form-focused instruction and activities are important. Lightbown and Spada (1990) hypothesize that “form-based instruction within a communicative context contributes to higher levels of linguistic knowledge and performance” (p. 443). Their empirical study suggests that accuracy, fluency, and overall communicative skills may be best developed through primarily meaning-based instruction in which guidance is provided through timely form-focused activities and correction in context.

Third, corrective feedback may help learners become more aware of the discrepancy between their production and the target language through which they can develop useful strategies to monitor their performance. Clear corrective feedback should be provided to students in varied ways such as indirect, direct, immediate, and postponed according to pedagogical focus, activity purpose, linguistic modality, and learner interest. Correction should not only be on the sentence level but also beyond the sentence level in the discourse. In addition, learners should be directly involved in the correction and “consciousness raising” (Rutherford 1988) process in which the

⁴ As Gass (1995) claims, in practice only a small percentage of errors are actually corrected. Furthermore, it is impossible to discern all errors, especially the errors of interpretation “for which there may be no evidence that an error has even occurred” (Gass, 1995, p. 169). Interpretation and comprehension errors that have occurred in the learner’s processing operations do not necessarily reveal themselves in their production.

learner is aware of the difference between his/her interlanguage production and the target language. Self correction with the help of the teacher and peers especially serves this purpose.

Fourth, timing of corrections is important. Corrections should be provided when learners reach the stage where the relevant linguistic elements emerge in the learners' spontaneous production (Lightbown & Spada 1990; Pienemann, 1989). Teachers should respect their learners' developmental stages, and not expect errors to be eliminated and newly introduced structures to emerge as soon as they have been identified and taught in the classroom. As research findings (e.g. Pienemann, 1987, 1989) suggest, the acquisition of new rules takes time, and learners cannot acquire the linguistic structures that are far beyond their current stage of interlanguage development despite the instruction and activities provided to them in the classroom.

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