Rethinking the Role of Corrective Feedback in Communicative Language Teaching
Zhao Hong Han
RELC Journal 2002 33: 1
DOI: 10.1177/003368820203300101

The online version of this article can be found at:
http://rel.sagepub.com/content/33/1/1

Published by:
SAGE
http://www.sagepublications.com

Additional services and information for RELC Journal can be found at:

Email Alerts: http://rel.sagepub.com/cgi/alerts
Subscriptions: http://rel.sagepub.com/subscriptions
Reprints: http://www.sagepub.com/journalsReprints.nav
Permissions: http://www.sagepub.com/journalsPermissions.nav
Citations: http://rel.sagepub.com/content/33/1/1.refs.html

>> Version of Record - Jun 1, 2002
What is This?
RETHINKING THE ROLE OF CORRECTIVE FEEDBACK IN
COMMUNICATIVE LANGUAGE TEACHING

ZHAOHONG HAN
Teachers College, Columbia University

Abstract

The history of second language teaching has witnessed changing perceptions of corrective feedback. Under the extreme view of communicative language teaching, which appears to be prevailing in some communicatively-oriented classrooms, learning can only come about through learner-learner interactive output practice. Form-focused instruction is deemed detrimental. Corrective feedback is consequently accorded low status in classroom processes. In this paper, I examine the ‘equation’ drawn between communicative language teaching and the exclusion of form-focused instruction and error correction. By bringing in a cognitive-skill-acquisition perspective to bear on the role of corrective feedback in second language acquisition, I argue that in communicative language teaching, corrective feedback remains an important vehicle for facilitating L2 knowledge construction and enhancing knowledge use. Issues related to the actual provision of corrective feedback in the classroom are considered, which include matching teaching and learning, teacher adaptation, and output enhancement. Pedagogical insights are provided into two questions that are of major practical concern to L2 teachers: namely, how to increase the effectiveness of corrective feedback in the classroom and how to integrate corrective feedback into communicative language teaching to enhance learning.

The history of second language teaching has witnessed changing perceptions of corrective feedback (Celce-Murcia, 1991). As a matter of fact, views on the role of corrective feedback can be highly diverse, even polarized. The Audiolingual Approach, for example, advocates minimal or no tolerance of learner errors and suggests that every effort be made to prevent them. On the other hand, the Natural Approach considers error correction unnecessary and counterproductive. The latter view is also shared notably by the
Communicative Language Teaching (CLT) approach that has come to dominate L2 classrooms since the early 1970s. CLT stemmed from an effort to shift away from an exclusive focus on forms manifest in the previous structure-oriented approaches towards a focus on meaning and use. Its primary concern is development of fluency.

Over the years, in their pursuit of CLT, second language teachers in general have not only transformed their way of teaching but more profoundly, altered their conceptualization of teaching and learning. Springing out of the movement is also an extreme conception that learning can only come about through learner-learner interactive output practice and that teachers’ responsibility lies in providing interesting activities which will engage students in using the target language. Form-focused instruction is deemed detrimental. Corrective feedback consequently is accorded low status in classroom processes (cf. Doughty & Varela, 1998; Lightbown, 1991; Lightbown & Spada, 1990; White, 1991).

For many L2 teachers, the shift of focus from the form of the target language to its use requires that a more tolerant attitude be adopted towards learner errors, which entails “an acceptance of a wide margin of deviance from so-called ‘standard’ forms and structures of the target language” (Hendrickson, 1978). Underlying this interpretation are a number of assumptions: that errors are a natural outcome of the development of communication skills and a necessary part of the learning process (see, e.g., Hendrickson, 1978; Larsen-Freeman, 1981); that error correction violates many of the usual conventions of discourse; that error correction distracts the learner’s attention from executing the communicative task — it forces the learner to focus on form at the expense of meaning; and that error correction activates the learner’s affective filter, which hinders rather than promotes learning. Over-driven by these assumptions, teachers tend even to ignore errors in classrooms. Horner (1988) reported that as a result of the emphasis on the communicative dimension of language, the amount of teacher correction is significantly reduced.

The implicit ‘equation’ that is drawn between communicative language teaching and the exclusion of form-focused instruction and error correction can be, and has been, challenged. Lightbown and Spada (1999) observed:

Recently, some researchers and educators have reacted to the trend toward communicative language teaching and have
revived the concern that allowing learners too much ‘freedom’ without correction and explicit instruction will lead to early fossilization of errors.

(p. 121)

Researchers (e.g., Harley, 1993; 1994; Kowal & Swain, 1997; Lightbown, 1991; Lightbown & Spada, 1990; Swain, 1995; Swain & Lapkin, 1989) note, among other things, that as a result of an exclusive concern with meaning-based activities, teaching makes available to L2 learners input that lacks in quality. The extensive student-student interaction, devoid of any linguistic assistance from the teacher, generates abundant output, which then turns into input for the students themselves. This kind of input is not a sample of the authentic target language, but rather of other learners’ interlanguage. In most cases, it is not qualitatively superior to that possessed by the learner himself. The errors and inaccuracies students hear are likely to reinforce their own misanalysis of the target language, thus creating a vicious circle. Worse still is the case where students share the same native language. Usually, communication conducted by L2 learners with a homogeneous L1 background is less likely to break down, and hence negotiation of form between learners rarely occurs. This is partly because accompanying the same L1 is also the fact that these learners share the same conceptual framework; they have highly homogeneous ways of conceptualizing and verbalizing their life experiences. Thus, even if a student gets stuck in conveying a particular message because of lack of linguistic resources, his peers are nevertheless able to figure out what he is trying to say. Moreover, research (e.g. Kowal & Swain, 1997) has shown that even when communication difficulties do arise during student-student interaction, students do not always have adequate resources to overcome them. My speculation is that when this scenario occurs, learners will in all likelihood be pushed so far that they produce additional interlanguage forms.

SLA research over the past three decades has equipped us with the understanding that in learning a second language, learners develop, through ‘intake’ (i.e., mental processing of input), an interlanguage system based on their experience with input, and this system enables them to produce linguistic output (see Fig. 1). In L2 classes that largely feature meaning-based learner-learner interaction, what happens is that learner output (i.e., learners’ L2 production) supersedes natural authentic input as well as pedagogical input which aims at facilitating intake. This heavy reliance on learner-generated output as classroom input would seem to violate conditions that favor L2
acquisition, jeopardizing the opportunity for L2 learners to develop their language system in the direction of the target. Learning in such an environment may have a fossilizing effect on interlanguage development (cf. Harley, 1994), with 'false fluency' being the likely outcome.

![Fig.1: A model of second language acquisition and use (VanPatten & Sanz, 1995)](VanPatten & Sanz, 1995)

The need to redress the imbalance in the teaching format referred to above is pressing and should be met, in my view, by making two important 'additions': first, more natural language data should be introduced to the classroom to improve second language learners’ exposure to the target language; and second, provision of pedagogical input including form-focused instruction and error correction should be built into classroom processes to facilitate L2 learners’ knowledge construction and enhance knowledge use. It is nevertheless clear that prior to any concrete rectifying attempts it is central that teachers understand why the additions are necessary.

The focus of this paper will be on one of the two additions, corrective feedback, and my intent is to assist teachers in understanding the role of error correction in second language classrooms that have a communication orientation. The way I proceed in the remaining part of this paper is as follows: first, I will introduce a skill-acquisition perspective on SLA — a perspective that highlights cognition as well as practice — and elaborate on the role of corrective feedback in second language acquisition and further in second language classroom; then, I will highlight several issues in connection with classroom provision of corrective feedback and discuss them in light of SLA findings; and finally, three recent studies are reviewed to show the feasibility of integrating form-focused instruction into meaning-based teaching.

**SLA as cognitive skill acquisition**

Researchers on skill acquisition seem to concur in finding cognition and practice to be two distinct yet not necessarily separate activities in acquisition of any skill. Fitts and Posner (1967), for example, recognize three stages: the cognitive stage, the associative stage and the autonomous stage; Anderson (1982) distinguishes between declarative stage and procedural stage. The
homologies between skill acquisition generally and second language acquisition specifically are convincing (Johnson, 1988; 1996; Moerk, 1992). Johnson (1996) eloquently argues that learners approach a second language in much the same way as they might learn to play tennis, pilot an aircraft, and play a musical instrument. In his perception, between skills and use of skills on the one hand and language and language use on the other, there is a common set of characteristics:

1. being hierarchically organized;
2. being goal-oriented;
3. involving evaluation of data;
4. involving selection;
5. involving ‘combinatorial skill’;
6. being non-stereo-typed

These elements added together, skill acquirers and second language acquirers are comparable, to some extent, to a ‘kind of calculating machine capable of receiving different inputs and producing an output which is derived from the various input parameters acting in concert’ (Welford, 1970: 31; cited in Johnson, 1996).

Thus both skill acquisition and second language acquisition involve interaction between input, the learner’s cognitive system and his perceptual motor system. Cognition and motor behavior are two sides of one coin: repeated practice without cognition leads only to rapidness, and that practice with cognition leads to improvement.

One variable that has been singled out by studies of skill acquisition (Adams, 1971; Anderson, 1982; Bourne, 1966; Irion, 1966; Johnson, 1988, 1996; Moerk, 1992) as central to the learning process is the accountability for outcomes, i.e., feedback. Skill acquisition is found to typically follow the learn-perform-learn sequence (Johnson, 1988) in which feedback is genetic. Feedback in this connection is not so much a reinforcer as provider of information: it has the properties of informing, regulating, strengthening, sustaining and error eliminating (Adams, 1971; Annett, 1969; Bilodeau, 1966; Bourne, 1966).

Analogical to skill acquisition, SLA is a process of problem-solving, a rule-inductive process whereby learners, when interacting with input,
formulate hypotheses, test them and revise or reject them as necessary. The acquisition process can be conceived of as a communication channel, with learners being operators receiving signals from their internal and external environment. In this process, learners, among other things, wish to be assured as to the correctness of their hypotheses. They need to know, in particular, what has gone wrong, when it went wrong and how to correct it. In other words, they desire feedback, a point to which I will return repeatedly.

Feedback can be positive or negative. Positive feedback has the function of affirming, whereas negative feedback has the function of disapproving. A crude example of each is given in [1] and [2]:

1 Positive feedback
   Yes, that’s correct.

2 Negative feedback
   No, that’s wrong.

Vigil and Oller (1979) discuss how positive or negative feedback may have differential impact on learning. They distinguish cognitive feedback from affective feedback, and further different configurations therein derived, as illustrated below:

<table>
<thead>
<tr>
<th>Cognitive feedback</th>
<th>Affective feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

In their view, the configuration made up of cognitive feedback being negative (-) and affective feedback positive (+) is most likely to stimulate change/development.

In second language learning, learners are often found to be unable to cut back on overgeneralizations even when there clearly exists in the input the correct form that should in theory be competing with and pre-empting what has been overgeneralized (Schachter, 1991). When this happens, feedback in the form of negative evidence, that is, negative cognitive feedback in Vigil and Oller’s terms, can be useful in helping the learners recover from overgeneralization.
In SLA research corrective feedback is generally considered to be a necessary condition for second language learning (e.g., Bley-Vroman, 1986; White, 1991; see, however, Schwartz, 1993). This is particularly the contention of those who believe that consciousness plays a significant role in learners’ construction of qualitative L2 knowledge and that explicit instruction has a useful contribution to make to boosting learners’ awareness of aspects of the target language. Dekeyser (1994) and Schmidt (1994), for instance, both view corrective feedback as an essential component of explicit teaching that aims at raising the learners’ awareness of the formal features of the input and facilitating their noticing of the gap between these features and those in their own interlanguage. Similarly, Sharwood Smith (1991) considers corrective feedback an important means by which input can be enhanced to facilitate learners’ noticing.

Second language classroom learners are known to long for corrective feedback. Cathcart and Olsen’s study (1976; see also Chenoweth et al., 1983) shows that students want to be corrected more than teachers generally feel is necessary. One of the subjects in Cohen and Robin’s study (1976), Ue-Lin, reported that being corrected made her feel that she learned something. Studies by Day, et al. (1981), Faerch (1985), Kasper (1986), Doughty (1993) and Han (1995) all provide evidence that L2 learners are indeed responsive to various forms of error correction, though the extent to which they are varies. Chaudron (1988) asserts that for most learners, the use of corrective feedback may constitute the most potent source of improvement in target language development.

The Role of Corrective Feedback in L2 Classroom

Let me address this by way of a quick comparison of classroom learners and ‘street learners’ in terms of feedback they received in each setting.

A product comparison of two different learning situations, i.e., classroom learning and naturalistic learning (the so-called ‘street learning’), appears to suggest that a classroom learner is generally more accurate, whereas a street learner is less so but more fluent. Among the various contributing factors identified, corrective feedback is thought to be central: namely, a learner receives more corrective feedback in a classroom than in a naturalistic setting.

The difference can further be elaborated in the light of a distinction, made in the skill acquisition literature, between extrinsic feedback and intrinsic
feedback. The classroom offers much space for extrinsic feedback on learner output. In the naturalistic setting, on the other hand, the learner has to rely almost exclusively on intrinsic feedback, i.e., feedback that springs from the situation itself (Johnson, 1988) and from the learner himself. Typical cases where intrinsic feedback may arise include the learner failing to get his message across and his detection of his own error. In the case where the learner does get extrinsic feedback, it is most likely contingent upon communication breakdown. Thus, many errors will go unaddressed in naturalistic setting.

The relative paucity of extrinsic corrective feedback in naturalistic setting is, however, by no means an indication that L2 learners in such an environment have little need for it. In actuality, ‘street learners’ may need as much of it as do the classroom learners. Although, in terms of exposure to natural L2 data, they appear to be better off than classroom learners, much of what they are exposed to is said to be noisy, heterogeneous, unordered, incomplete, uninformative, and even misleading (Carroll & Swain, 1993; Chomsky, 1981, 1986, 1988; Hornstein & Lightfoot, 1981; White, 1989). There is an increasing awareness that learning in the naturalistic setting is as much a struggle as in the classroom, which involves arduous cognition and practice, and extrinsic corrective feedback would likewise contribute to knowledge development and use. Corder (1967) aptly points out that the absence of feedback in the case where a message gets transmitted despite linguistic errors may encourage their continuous existence. Carroll (1977) observes that good L2 learners, regardless of their learning environment, always actively seek information on the correctness and appropriateness of their efforts.

Research in skill acquisition (e.g. Lewis & Anderson, 1985) suggests that extrinsic feedback excels intrinsic feedback in improving performance. Many SLA researchers (e.g., Hendrickson, 1978; Lightbown & Spada, 1990; Schachter, 1991; Van Lier, 1988) maintain that some components of learner language depend on extrinsic corrective feedback for further development and improvement. This is particularly so when it comes to eliminating persistent and solitary errors, i.e., errors that are not accessible to a learner’s own detection. In a longitudinal case study of Thai-Norwegian interlanguage, Han (forthcoming; see also Han & Selinker, 1999) documented that fine-tuned extrinsic corrective feedback provides a cure for persistent errors that are resultant from multiple factors working in tandem.
Corrective feedback is in theory capable of accelerating the learning process. As sporadically mentioned above, L2 learning is a process whereby learners develop an interlanguage moving gradually towards the target, given motivation and sufficient exposure to input. This process features hypothesis formation and revision. The time a learner takes in arriving at a correct hypothesis can vary from a few seconds to a lifetime. Corrective feedback may make a significant difference here. Schachter (1991) observes that even the information ‘no, it’s not that way’ may be of tremendous help to a learner in cutting his hypothesis space, thereby narrowing the set of possible hypotheses to be tested.

It is worth noting in passing that extrinsic feedback in a foreign language classroom has an added value in that it may compensate for the lack of natural authentic input (cf. Corder, 1967). It is found that in such an input-poor environment (see also above), learners tend to be more dependent on the teacher as a source of input (Tudor 1992).

Further, to echo one of the points made earlier, classroom learners generally bring to the training setting (i.e., classroom) the expectation that their errors be corrected. As Chaudron (1988:133) puts it, students “derive information about their behavior from the teacher’s reaction, or lack of one, to their behavior”. The absence of corrective feedback may therefore produce negative reinforcement; it sends a signal to a learner that his behavior is flawless rather than otherwise. Moreover, according to Horner (1988), non-correction can lead to confusion among other class members. Students need confirmation of their suspicion when they sense that an error has occurred.

Classroom provision of corrective feedback: The issue of ‘matching’

Despite its theoretical value, corrective feedback, in practice, does not always appear to be facilitative. Classroom research has revealed that the actual procedures that teachers use for provision of correction are often at fault.

Long (1977) succinctly summarizes the problems found in classroom provision of corrective feedback as being arbitrary, idiosyncratic, ambiguous and unsystematic, with which he associated the general suspicion of efficacy of correction in the classroom. Researchers (Allen, et al., 1990; Burt, 1975;
Chaudron, 1988; Hendrickson, 1978; Hyland, 1990; Lyster, 1998a; Mendelsohn, 1992; Murphy, 1986; Schachter, 1991; Tomasello & Herron, 1988; see, however, Lyster, 1998b.) Over the years have further attributed the problems to a lack of understanding on a teacher’s part of what, when and how to correct, and they subsequently centered their research efforts around these questions. Most of these studies, it is worth noting, display an exclusive focus on teacher perspective by way of suggesting correction techniques for teachers to use in the classroom; very little attention is given to learner perspective. Han (1994) cautions that a teacher-oriented approach to learning problems may potentially lead to a mismatch between teaching and learning (cf. Sharwood Smith, 1991). The teacher-centered approach is seen, among other things, encouraging learner-adaptation rather than teacher-adaptation. Her contention is that for teaching to be effective, the course of learner-adaptation to teaching needs to be reversed. In other words, only when teachers begin to adapt themselves to their students’ learning processes can their teaching positively affect learning.

The issue of mismatch is rather acute in teachers’ provision of feedback. For example, in studying ESL teachers’ responses to students’ writing, Zamel (1985:86) discovered that teachers “misread student texts”, “make arbitrary corrections”, “write contradictory comments”, “provide vague prescriptions” and “impose abstract rules and standards”. She holds the teachers’ authoritarian attitude and their ignorance of writing process responsible for these problematic procedures.

Sharwood Smith (1991) also alludes to the issue of mismatch. In his discussion of the notion of ‘input enhancement’, of which corrective feedback forms an essential part, he suggests that a purely teacher-centered approach to engineering the salience of input is likely to create a mismatch between teacher-created salience and learner-perceived salience. As he puts it, “what is made salient by the teacher may not be perceived as salient by the learner” and “hence will have no effect on development” (p. 120). Implicit in his view is that if mismatch occurs, internally-created salience, i.e., learner-created, will override externally-engineered salience, i.e., teacher-created, and that it is important that teachers attend to learners’ “automatic learning processes” (ibid.). In a similar vein, Chaudron (1988) suggests that the effects of feedback hinge on the learners’ readiness for and attention to the information available, hinting that if there is a mismatch between the learner’s attention and the teacher’s call for attention, corrective feedback will not have any positive effect on learning.
Following on from these arguments, learning can only be enhanced when teaching harmonizes with learners’ natural cognitive processes (cf. Corder, 1981; McLaughlin, 1987). The issue of matching has been a concern for SLA researchers almost since the inception of the field. As early as 1967, Corder spoke of L2 learners possessing a ‘built-in’ syllabus, i.e., an internally programmed sequence of learning. Under the assumption that such a syllabus dictates a learner’s intake, i.e., the mental registering of input, he forcefully argued that we cannot really teach a language other than creating conditions, and further that:

We shall never improve our ability to create such favorable conditions until we learn more about the way a learner learns and what his built-in syllabus is. When we do know this, we may begin to be more critical of our cherished notions. We may be able to allow the learner’s innate strategies to dictate our practice and determine our syllabus; we may learn to adapt ourselves to his needs rather than impose upon him our preconceptions of how he ought to learn, what he ought to learn and when he ought to learn.

(p. 169)

Although the exact nature of the ‘in-built’ syllabus remains elusive in spite of several decades of SLA research, the awareness that the learner, rather than the teacher, has a greater role to play in making learning happen is widely felt. In second language teaching, a notable manifestation is the notion of ‘learner-centeredness’ within CLT, which incorporates, among other things, accommodating individual differences, maximizing learners’ interaction with the target language and minimizing the gap between classroom learning and real communication outside the classroom. Learner-training, which encompasses understanding and improving learning styles and learner strategies (Oxford, 1990; Winne & Ronald, 1980), forms one part as well and is in fact taking on increasing significance. Furthermore, ‘learner-centeredness’ is associated with allowing learners to participate in developing their learning program, involving them in setting goals for teaching and learning, in regulating the pace of teaching, and in adjusting the format and orientation of learning activities (Tudor, 1992). In essence, ‘learner-centeredness’ calls for teacher-adaptation rather than learner-adaptation. The latter seems to have prevailed for the most part in the history of language teaching, with learners seen to be adapting themselves to the various teaching styles.
In terms of classroom provision of corrective feedback, the aforementioned problems, summarized by Long, are in my view directly ascribable to the absence of teacher-adaptation. Due to lack of understanding of the learning process, a teacher has no guide but his intuition to tell him which kinds of mistakes are important to correct, and the learner is left on his own to process the teacher’s correction or otherwise. This practice often results in ‘mismatch’ between the teacher’s intention and the learner’s interpretation (Gass & Selinker, 1994; Han, 1995; Han & Selinker, 1999; Han, forthcoming; Kellerman, 1987).

What does teacher-adaptation then entail for provision of corrective feedback? First and foremost, it requires a change in conception of error. Viewing error as “symptomatic of ignorance, forgetting, lack of attention, or laziness” would only result in hasty and rude correction — perhaps reprimand or even punishment — that would most likely become a hindrance to learning initiatives (Schmidt, 1994:11). Conversely, viewing error as a natural product of learning would lead to an attitude that desires to understand error so as to help the learner correct it.

Equally important is the teacher’s knowledge of his students, which includes understanding their learning background, level of proficiency, learning styles, cognitive strategies, and, even more importantly, their readiness to learn a particular linguistic feature at a certain point in time. This latter point is of tremendous importance. SLA research evidencing fixed developmental sequences (e.g. Pienemann, 1985; Pienemann, 1997; Pienemann, Johnston & Brindley, 1988) suggests that the effectiveness of instruction has a lot to do with learners’ readiness, i.e., readiness to process certain input, and that teaching would be ineffective if learners have not shown signs of reaching the prerequisite stage. For corrective feedback, this implies that teachers should build up a sensitivity to his students’ readiness for correction. This readiness may be linguistic, but it may also be psychological.

Further, the teacher’s conception of how improvement takes place may directly inform his expectation of the result of correction. Skill acquisition, as mentioned, features a recurring sequence of learn-perform-learn which involves a critical phase of retrial. Johnson (1988), as well as Johnson (1996), claims that an important requirement for eradicating faulty performance is the opportunity to repractice, particularly in real operating conditions that “vary from moment to moment and place variable demands on the learner’s ability to process” (p. 94). Improvement takes time. This is particular true
of assimilating and incorporating corrective feedback. Sharwood Smith (1991) suggests that knowing the locus of error by the learner does not necessarily lead to instantaneous improvement. "There is a period in which learners continue to use the old incorrect structure despite having come into possession of a means of detecting the relevant error" (p. 124). It thus seems natural that learners go through several cycles of the learn-perform-learn sequence before producing any visible change in performance. The teacher should accordingly make allowance for the process by repeating the corrective attempt.

Repetition of correction is, however, not to be conflated with pervasive correction. Whereas the former concerns focused correction, the latter implies extensive correction. Research has suggested that subject to cognitive constraints such as limitations on memory capacity, attention span and information processing ability, correction needs to be selective, focused so as to be effective. Pervasive correction, among other things, is liable to generate a mismatch in attention between the teacher and the student. Lyster and Ranta's study (1997) of recasting, a form of corrective feedback, reveals that diffuse and unplanned recasting led to little uptake on the learners' part. Doughty and Varela (1998) reported that "students are not comfortable with receiving more than one or two instances of correction within one exchange" (p. 137). Moreover, pervasive correction can be demotivating; namely, learners can be made to feel that his learning is not progressing, no matter how hard he has tried and hence it is worthless to make any more effort. A further side effect identified by research is that frequent correction may create a total dependence in learners on external feedback. Schmidt et al. (1989), for example, showed, through experiments, that when feedback was withdrawn, feedback-dependents generally exhibited a sharp deterioration in their performance.

What is then selective and focused correction? Corder's (1967, 1981) distinction between error and mistake is useful here, according to which error pertains to cognition/knowledge, while mistake concerns practice/use of knowledge. In other words, error is an indication of lack of knowledge. Mistake, on the other hand, shows that the learner has the correct knowledge but is not able to use it properly. Furthermore, error is systematic, but mistake is not and is akin to 'slip of the tongue'. Given awareness, an L2 learner is able to self-correct mistake, but not error. Bialystok and Sharwood Smith (1985), drawing on insights from information-processing theories, provide an illuminating perspective on the relationship between error and mistake. They view SLA as consisting primarily of two processes: knowledge and control. That is, second language learning is a knowledge building process and at
the same time a process wherein L2 learners learn to develop control over the knowledge while engaging in various forms of language use. Both are developmental in that each involves a potential movement from ‘low’ to ‘high’ or from ‘weak’ to ‘strong’. In both processes, learners may err, resulting respectively in error and mistake.

Two immediate implications for selective correction are deducible from these theoretical insights. First of all, L2 teachers may prioritize their targets of correction. In the paucity of class contact time, it seems to make sense to focus corrective attempts on errors rather than correcting everything that sounds deviant. Second, L2 teachers should develop a range of options for treating errors and mistakes and subsequently apply them **differentially** to different learning problems. Broadly, there are two major types of strategies: explicit and implicit. Explicit correction is also synonymous with direct correction which involves explicitly drawing learners’ attention to deviance with or without an explicit rule explanation. Implicit correction, on the other hand, is synonymous with indirect correction and may take various forms such as giving signals (including facial expressions such as frowning and grimacing), repetition, clarification, paraphrase and recast. In principle, for treating learning problems that fall into the category of error, explicit correction is necessary, while for those that belong to mistake, implicit correction should be sufficient.

The question that arises then is: How can we tell which is an error and which is a mistake? Ideally, a teacher should maintain a longitudinal perspective on his students’ linguistic development. By keeping track of his students’ progress or non-progress over a period of time (e.g., days, weeks), he can establish for himself a reliable context within which to diagnose the nature of the learning problems and further to treat them effectively. Research studies (e.g., Han, 1995, 2000, forthcoming; Han & Selinker, 1999; Lardiere, 1998; Lennon, 1991; Mukattash, 1986) have revealed that some learning problems can be extremely resistant and persistent. To tune corrective feedback in to them, it is necessary to perform longitudinal observation in order to gain an understanding of their underlying causal factors. Han and Selinker (1999) refer to this way of pedagogical intervening as **empirical pedagogy** and have demonstrated its efficacy.

Much of the decision as to what to correct, when to correct and how to correct, however, is to be made on the spot, i.e., in on-line classroom interaction. In a classroom that is communicatively-oriented, i.e. meaning-
based rather than form-based, this may appear to be a daunting task, an issue into which the next section may provide some insights.

Integrating corrective feedback in a communication-oriented classroom

Recent classroom SLA research (Doughty & Varela, 1998; Kowal & Swain, 1997; Leeman et al., 1995; Lightbown, 1991; Lightbown & Spada, 1990; Long, Inagaki & Ortega, 1998; Mackey & Philip, 1998; Spada, 1987) has suggested that it is not only possible to integrate a focus on form with a focus on meaning but also that “accuracy, fluency, and overall communicative skills are probably best developed through instruction that is primarily meaning-based but in which guidance is provided through timely form-focus activities and correction in context” (Lightbown & Spada, 1990; 443; 1999; see also Long, 1991).

It is important to note at this point that the ‘focus on form’ in the communicative teaching context is different from the metalinguistic focus manifested in the structural approach to second language teaching. To capture the difference, Long (1991) posits a distinction between focus on form and focus on forms as follows:

Whereas the content of lessons with a focus on forms is the forms themselves, a syllabus with a focus on form teaches something else—biology, mathematics, workshop practice, automobile repair, the geography of a country where the foreign language is spoken, the cultures of its speakers, and so on—and overtly draw students’ attention to linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning, or communication.

(pp. 45-46)

On this conception, the metalinguistic focus within the Structural Approach should be viewed as focus on forms, while that in CLT as focus on form. Further, focus on form should be incidental in nature as opposed to being dominant and overriding. There, however, arise two immediate questions: 1) Why is such a focus on form necessary in CLT? 2) How is it to be realized?

In CLT, communicative activities alone are found to be insufficient for second language acquisition (e.g. Harley, 1993; 1994; Leeman et al., 1995; Swain & Lapkin, 1989). L2 learners trained in the meaning-only environment are reported to suffer a low level of accuracy. This environment generally has two noticeable inadequacies: deficient input and excessive learner output. In
many a CLT situation, as mentioned earlier, the pedagogical mission is typically reduced to setting up student-student interactive activities which engage students mostly in generating output. While learners under such learning conditions do not get adequate exposure to natural authentic input, they are forced to concentrate on producing output using a linguistic system that is under-developed, with little external assistance from the instructor. It is beyond the scope of this paper to consider the consequences of lack of natural authentic input for learning, but it falls within its concern to go into some of the theoretical ramifications that an emphasis on learner-generated output has.

A natural focal point of any current theoretical discussion of learner output is Swain’s *Output Hypothesis* (Swain, 1993, 1995). Swain proposes four functions of output in SLA. The first is that output in the sense of ‘practicing’ enhances fluency. The second is that output promotes ‘noticing’. Swain (1995) argues that:

\[
\text{[In producing the target language (vocally or subvocally), learners may notice a gap between what they want to say and what they can say, leading them to recognize what they do not know, or know only partially. .... This may trigger cognitive processes which might generate linguistic knowledge that is new for learners, or which consolidate their existing knowledge. (p. 126; emphasis in original)}
\]

The third function that Swain suggests is that output itself is a process of hypothesis testing. She thus explains:

\[
\text{[P]roducing output is one way of testing a hypothesis about comprehensibility or linguistic well-formedness.... Sometimes this output invokes feedback which can lead learners to modify or ‘reprocess’ their output. (ibid.)}
\]

The fourth function of output is that metalinguistically, it may provide a point of learner reflection that potentially leads learners “to control and internalize linguistic knowledge” (ibid.).
It is clear that Swain, while recognizing that output as a process of practice contributes to the development of fluency in SLA, associates its value also with development of accuracy (see functions 2, 3 & 4). Output is mostly deemed a potential means to raise metalinguistic consciousness. What is worth noting in the latter connection is the implication, derivable from her claim, that output does not necessarily, in and of itself, improve accuracy. Considering her remarks such as “under some circumstances, the activity of producing the target language may prompt second language learners to consciously recognize some of their linguistic problems; it may bring to their attention something they need to discover about their L2” and “sometimes this output invokes feedback which can lead learners to modify or ‘reprocess’ their output” (Swain, 1995:126; emphasis added). In a nutshell, the role of output in promoting linguistic development is not unconditional.

Swain also argues that output as a process forces learners to analyze language, over which learners are in control. Of interest is the question of how much control a learner has over the process. It is true that in outputting, a learner would have to create meaning and linguistic form, but is it equally true that he is simultaneously fully aware of what he is producing? Research (e.g. VanPatten, 1990) reveals that L2 learners, in particular early-stage learners, find it difficult to attend to form while attending to meaning. Though findings like this come mainly from research on input processing, one would naturally assume that they hold true of output processing, where the cognitive load is even greater. It is therefore not unreasonable to suppose that when the focal attention is on meaning, voluntary attention to form is highly limited.

This understanding is in line with our earlier analysis of acquisition in naturalistic setting. It may be recalled that L2 learners in naturalistic setting generally have to rely on intrinsic feedback, i.e., feedback that springs from the communicative situation itself, for attention to form, but that such feedback is generally infrequent and so many errors in learner output go unnoticed. The point to be made is that in a communicatively-oriented classroom, if the process of learner output becomes a mere replication of that of real communication outside the classroom, the metalinguistic functions of output that Swain proposed may hardly materialize, and hence output itself would not necessarily generate higher accuracy; instead, fossilization is likely to result.
Of the three accuracy-promoting functions, the ‘noticing/triggering’ function, for Swain, is inherent in the output process itself. Her reasoning is as follows:

In producing the target language, learners may encounter a linguistic problem leading them to notice what they do not know or know only partially. In other words, the activity of producing the target language may prompt second language learners to consciously recognize some of their linguistic problems; it may make them aware of something they need to find out about their L2.

(Swain, 1995: 129)

My contention is, however, that while the focus is on meaning, there is a limit to how much an L2 learner can introspect the sufficiency of his own linguistic resources. Also, even if the learner consciously recognizes at that point what he lacks, there is no guarantee, for various reasons, that he will subsequently be able to tune himself in for a solution in the future input, or even if he is, he may not be able to tell whether what he sees as a potential solution is actually the correct solution. Rather, external feedback or extrinsic feedback, I shall argue, may significantly facilitate the fulfillment of the ‘noticing’ function.

The Output Hypothesis appears to be predicated on the condition that some form of pedagogical intervention is in place. In a communicatively-oriented classroom that heavily utilizes learner output as a source of input, it seems desirable to employ a pedagogical technique, which can be called ‘output enhancement’, parallel to the ‘input enhancement’ technique advocated by Sharwood Smith (1993) for instructed SLA. ‘Output enhancement’ requires that form-focused instruction and corrective feedback be integrated into meaning-based activities such as to — in Swain’s words — “stimulate learners to move from the semantic, open-ended, non-deterministic, strategic processing equivalent in comprehension to the complete grammatical processing needed for accurate production” (Swain, 1995: 128). It should be noted that the idea of output enhancement is in accord with insights from skill acquisition research, namely that repeated practice without cognition leads only to rapidness; practice with cognition leads to improvement.
In the last decade, empirical evidence began to accrue from SLA studies of communicatively-oriented classrooms that show benefits from combining focus on meaning with focus on form. A detailed review of these studies is clearly beyond the scope of the paper, but it may be instructive to look at three studies (i.e., Lightbown & Spada, 1990; Kowal & Swain, 1997; Doughty & Varela, 1998) in some depth from an output enhancement point of view.

Lightbown and Spada (1990) performed a fine-grained analysis of classroom observation data collected from 4 intensive ESL classes as well as the language data produced by the students in these classes on an oral – communication task. The researchers started with a macro-analysis to measure the communicative orientation of classroom instruction. Using a modified version of the Communicative Orientation of Language Teaching (COLT) scheme, they were able to do an on-line analysis of a range of classroom behaviors such as type of activity, participant organization, modality practice, and content of the activities. They then carried out a microanalysis, which is a post-hoc analysis of the audiotapes and transcripts of what was observed. Through this analysis, the researchers were able to tease apart the teachers’ form-focused behaviors that were ‘instructional’, i.e., explaining a language point, from those that were ‘reactive’, i.e., providing corrective feedback.

The two-tier analysis thus enabled the researchers to pin down what it was that a particular teacher was focusing on when he injected the form-focus element in a communicative classroom, and further, it allowed a connection between form-focused instruction and student output to be established. The four classes were found to be primarily communicative in their approach with the classroom interaction focusing on meaning most of the time. However, in terms of focus on form, they differed from each other with regard to the total amount of time they devoted to it. If there is anything in common, it is that all the teachers were reactive rather than instructional; “their form-focused behaviors were almost always reactions to learners’ errors or to student request for assistance with some aspect of language use” (Lightbown & Spada, 1990: 437).

The researchers’ analysis of learner language centered around the students’ accuracy on four language features: plural -s, progressive -ing, adjective placement in noun phrases, and possessive determiners. Their
results suggested an overall correlation between students’ accuracy and the amount of time the teachers devoted to accuracy-related procedures. Specifically, they noted:

In class 1, where the most form-focused instruction was provided, the learners were more accurate in their use of the progressive -ing, were more likely to use the presentational forms preferred by native speakers (there is rather than you have), and were at more advanced stages in their use of possessive determiners. .... Students in class 4 had the lowest accuracy on all the features examined in the analysis of spontaneous language samples. The teacher in this class was the only one who virtually never focused – however briefly – on grammar. When language was in focus, it was generally because the teacher was reacting to vocabulary difficulties that students were experiencing.

(Lightbown & Spada, 1990:443)

This study, among other things, lends support to the notion of ‘output enhancement’ in that form-focused pedagogical intervention, in the above case, corrective feedback, being interwoven into the meaning-focused output process, improves linguistics knowledge and performance.

In reporting about two other focus-on-form experimental studies, Lightbown (1991) states that ‘focus on form is most effective, not in advance of communicative contexts, but at the moment when learners know what they want to say, indeed are trying to say something, and the means to say it more correctly are offered to them’ (p. 193).

Output enhancement’, however, does not have to be confined to provision of corrective feedback during the output process itself. Recent research suggests that insofar as form-related instruction is placed within a communicative context, it will contribute to improving learner output. The study by Kowal and Swain (1997) is of note here.

Inspired particularly by the ‘reflective’ role of output as advanced by the Output Hypothesis, Kowal and Swain (1997) experimented, in a French immersion classroom, with two tasks that were intended to assist learners in moving from semantic processing to syntactic processing. The study is underpinned by the belief that in meaning-based context, through externalizing metalinguistic knowledge followed up by negotiation of form
among members of a group, L2 learners may develop their syntactic processing skills. The tasks attempted by the researchers are ‘dictogloss’ (Wajnryb, 1990), and a cloze task. It is worth noting that both targeted linguistic features that students had shown through their output that they had trouble with. The activities were set up such that students worked in groups, engaging in negotiation of form and in associating form with function. Analysis of the transcripts of the audio recordings, made while the group work was in progress, showed that the activities on the whole did promote students’ syntactic processing. Working in groups ‘forced’ students to pool their linguistic resources, and in their effort to co-obtain the best answer, the students had to convince each other by articulating a justification for their choice of form. Kowal and Swain argued that this process characterized by peer feedback helped to refine and develop students’ linguistic knowledge. Importantly, it was also admitted that both tasks would be incomplete if they were not complimented by teacher feedback, because as the researchers noted, the students were “not always successful in their final choice” (Kowal & Swain, 1997:305).

In fact, Kowal and Swain considered the role of teacher feedback to be critical to ensuring the success of the interactive, form-related activities. In concluding their study, they stated:

In terms of the quality of the student interaction, the data show clearly that students can provide useful feedback to one another and that these tasks do encourage students to hypothesize about French syntax. However, students can make wrong hypotheses and they do not identify all mistakes. We consider some form of final corrective feedback to be an essential feature for such tasks and agree with Loschky and Bley-Vroman (1993) that feedback needs to be provided for the learning experience to complete, especially as we are suggesting that these tasks be used to help clarify misconceptions that have, in part, come into existence because of the many other opportunities students have had to hear and use incorrect forms that have not been corrected. (Kowal & Swain, 1997:306)

Thus, as the two studies showed, output enhancement may assume different forms and accordingly occur at different times in the course of communicative teaching. In Lightbown & Spada’s study, it is largely reactive and therefore closely adjacent to the on-going learner output, a point which will be further
discussed below. In the Kowal and Swain study, however, it is realized in problem-oriented practice; that is, it provides learners with concentrated practice in areas of problem which emerged from prior learner output. Both studies clearly suggest that corrective feedback is a major vehicle for refining learner knowledge and enhancing learner output in CLT.

A quintessential element of focus on form, Doughty and Varela (1998) claim, is “its dual requirement that the focus must occur in conjunction with - but must not interrupt - communicative interaction” (p. 118). It follows from this contention that implicit corrective strategies are to be preferred to explicit corrective strategies in CLT in the process of raising students' metalinguistic awareness. Implicit strategies include recast, repetition, clarification and comprehension checks, all of which being interwoven with students on-going output production, are considered non-intrusive and thus least likely to distract students from their focus on communication. By way of illustration, let's look at one episode of a classroom transcript (cited in Lightbown & Spada, 1999: 142):

(The students are practicing following instructions; one student instructs, others color.)

S1 : Make her shoes brown.  
T  : Now her shoes. Are those Mom's shoes or Dad's shoes?  
S2 : Mom's.  
T  : Mom’s. How do you know it’s Mom’s?  
S1 : Because it’s her shoes.

In this little episode of a communicative activity, the teacher is using repetition to heighten the student’s metalinguistic awareness of his correct use of the possessive her. This is done in the knowledge that French-speaking learners of English have difficulty with his and her due to cross-linguistic differences. The teacher’s ‘intervention’ apparently did not disrupt the flow of communication.

Among the implicit corrective strategies, recast appears to have received most attention from L2 researchers (e.g., Doughty & Varela, 1998; Han, 2001; Leeman et al, 1995; Lyster, 1998a, b; Long, Inagaki & Ortega, 1998; Mackey & Philip, 1998); it is considered to best satisfy the afore-mentioned dual requirement. Recast, as defined by Lightbown and Spada (1999: 104),
involves "the teachers reformulation of all or part of a student’s utterance, minus the error". Doughty and Varela (1998) further distinguish between recast and corrective recast in that the latter is more explicit than the former. Corrective recast is a two-step procedure: 1) repetition (usually with rising intonation) to draw attention followed by 2) recast to provide, contrastively, the necessary target exemplar.

In their study, Doughty and Varela (1998) experimented with corrective recast in an ESL content-based classroom. Through a pretest-posttest-delayed posttest control group design, the researchers were able to establish correlations between corrective recasts and the students’ subsequent interlanguage development. Informants for the study were thirty-four intermediate ESL middle school students from two different science classes, with twenty-one of them forming the experimental group and thirteen the control group. The researchers targeted past tense reference in the informants’ oral and written versions of science reports, which typically summarized the scientific problem, experimental procedures, hypothesis, results and conclusion. Focus on form is realized through corrective recasts provided to the experimental group in addition to science content instruction during three pedagogical lab sessions following the pretest and preceding the posttest, while the control group received only the science content instruction. An example of the teacher’s use of corrective recast is given below:

Corrective recast:
Jose : I think that the worm will go under the soil.
Teacher : I think that the worm will go under the soil?
Jose : (no response)
Teacher : I thought that the worm would go under the soil.
Jose : I thought that the worm would go under the soil.

(cited in Doughty & Varela, 1998:124)

Analysis of data (i.e., transcribed oral and written lab reports) from the pretest and the immediate posttest shows that the experimental group manifested “significant and large gains” in terms of their past time use on both oral and written measures (p. 129). Moreover, a comparison of results from the immediate post-test and the delayed-posttest administered two months later indicates that the experimental group were able to retain the linguistic gains exhibited on the first posttest.
During the study, Doughty and Varela made a number of important observations:

1. Focus on form should be brief and immediate and should be provided when more than one student is involved in speaking;
2. Students believe that they can pay attention to meaning, communication, and form at the same time;
3. Some students are not comfortable with receiving more than one or two instances of correction within one exchange;
4. Teachers should be aware of their students’ desire for comments on the meaning of the message as well as on the correctness of the language;
5. It is possible to incorporate a focus on form with no risk to the content curriculum as long as the tasks are carefully created and incorporated into authentic content lessons already in place.

(pp. 136-137)

Taken together, these insights shed important light on several crucial issues pertaining to the implementation of focus on form in content-based classrooms, such as feasibility, procedures, and timing of focus on form.

Conclusions

Corrective feedback, in light of the skill acquisition analogy, is necessary in SLA, particularly in classroom SLA. I hope that the foregoing discussion has made it sufficiently clear that in classroom learning context, meaning-based practice between students is in itself insufficient for language development, and therefore needs to be enhanced by pedagogical intervention featuring form-focused instruction and correction. As recent SLA research has demonstrated, it is not only possible to combine focus on form with focus on meaning but also much more beneficial than if either dimension constitutes the only focus of teaching and learning.

The review of the literature appears to suggest that central to the efficacy of corrective feedback is fine-tuning, which I would define as reaching harmony on at least two levels: 1) between a teacher’s intention and a student’s interpretation; and 2) between a teacher’s correction and a student’s readiness for it. It is contingent more upon a teacher’s understanding of his student’s
learning processes than on a student’s willingness to respond to the teacher’s correction. In tuning feedback to learning problems, it seems important that a teacher has a range of strategies readily available so as to be able to adopt one that is most fitting to the targeted problem as well as to the on-going dynamics of the communicative activities.

Unfortunately, SLA research to date has offered limited insights on the differential impact of different corrective feedback strategies on learning, and even less on conditions under which each strategy may function effectively. Whilst waiting in anticipation of future research to enable a sound understanding of these variables, L2 teachers should continue with the trial-error approach, namely, “to take risks in their classrooms and to refine their pedagogy based on the outcome of these risks” (Kowal & Swain, 1997:286).

References


Acknowledgements

I am grateful to Gillies Haughton and the anonymous reviewers for their helpful comments on an earlier version of this paper. Any errors are my own.

1 The product of the declarative stage is declarative knowledge, i.e., ‘knowing that’, while the procedural stage leads to the development of procedural knowledge, i.e., ‘knowing how’.
2 ‘Extrinsic feedback’ is provided by an external party, e.g. a teacher, an interlocutor, while ‘intrinsic feedback’ comes from the learner’s own observation.
3 This is a claim typically made by UG theorists. Non-UG theorists would argue that this is an unconvincing argument and that grammatical FT supplies learners with quite well-ordered input data.
4 This assumption, of course, precludes the case in which fossilization occurs.
5 Here a distinction is made between foreign language classroom and second language classroom. A foreign language classroom is taken to be one situated in a foreign language environment where students have little exposure to the target language beyond the classroom, whereas living in the second language environment, students in a second language classroom generally do have continuous exposure to target language outside the classroom.
6 From data collected from 4 immersion classrooms, Lyster (1998b) identifies, through quantitative analysis, a number of correction patterns and thus provides counter-evidence to the observation that teacher correction is generally unsystematic and arbitrary. It is worth noting, however, that the patterns appear to be rather spontaneous. In other words, presented the way they are, they appear to be driven by natural intuition rather than a clear understanding of the nature of the learning problems. It is in fact rather odd if all the teachers are resorting to identical strategies to deal with learning problems that we know are much divergent and idiosyncratic.
7 This is a teaching technique whereby the teacher dictates a short yet dense text to the students, who, after jotting down words and phrases, work in groups to reconstruct the text.
8 French possessives use the grammatical gender of the object possessed while English uses the natural gender of the possessor in selecting the appropriate possessive form.
9 The following is an example:

S1 When you’re phone partners, did you talk long time?
T When you were phone partners, did you talk for a long time?
S2 Yes, my first one I talked for 25 minutes
S1 Why you don’t like Marc?
T Why don’t you like Marc?
S2 I don’t know, I don’t like him.
(cited in Lightbown and Spada, 1999:104)

10 The three pedagogical labs spanned four weeks.