Acknowledgements

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Notes

1. Transfer appropriate processing is only one basis for arguing for the importance of improving the match between instruction and testing. Another might be termed ‘educational fairness’. I recently observed an example of mismatch in a second-grade class in a dual language bilingual education program. Each class is made up of both Spanish-dominant and English-dominant students, and students have learned to work in teams, to collaborate, to help each other. Thus, when they work in their second language, students can always work with others who are more proficient. Teachers have been trained to emphasize this kind of cooperative learning. At the end of second grade, students were tested on reading and writing in each of their languages. They were required to put up little screens to ensure that no one could see their paper and that they could see no one else’s. Several students who were able to function successfully in their second language in a variety of classroom activities ended up with scores of zero, suggesting that they had learned nothing. The cognitive processes required in the testing context were utterly different from those required in the learning context, and these students were not yet able to transfer their knowledge for use in the new context. The assessment was neither a learning opportunity for them nor a useful diagnostic tool for their teachers.

2. For extensive discussion of how task demands may limit or enhance attention to, and retention of, language features, see Robinson (2003).

3. Priming has also been shown to affect the likelihood that learners will use certain language forms, including syntactic structures (McDonough & Mackey, 2006).

4. It is worth noting that language features that are ‘rare’ in classroom interaction are not necessarily ‘unimportant’. A striking example was provided by Merrill Swain (1988), who found that verbs in the past tense were rare in French immersion history classes. Similarly, Lyster (1994) found that students in French immersion had little opportunity to learn the contrast between tu and vous, the familiar and polite second person pronouns in French. Such language features would seem to be quite basic for a second language learner’s knowledge, but students in these classes had few opportunities to learn them in the ongoing content-based instruction they experienced.

5. I thank ZhaoHong Han for drawing this article to my attention.

Chapter 4
On the Role of Meaning in Focus on Form

ZHAOHONG HAN

Over the last 25 years, focus on form (Long, 1991) has emerged as a leading paradigm for second language acquisition (SLA) research on the interface between theory and practice. Numerous studies have been conducted to assess its efficacy as it is implemented in a variety of instructional settings. The findings, on the whole, point to the understanding that focus on form selectively facilitates second language (L2) development in some linguistic domains, with others such as inflectional morphology not quite susceptible to its influence.

In this chapter, I use the role of meaning in focus on form as a lens through which to identify conceptual and empirical problems that may have contributed to its relative lack of efficacy for L2 morphosyntactic learning. First, I will provide some general background for focus on form. Then, I will review the main tenets of focus on form and examine one of its instantiations, recasts, with a view to revealing the gaps between the theory and the research. After that, I will advance the argument that meaning is a learnability problem. Finally, building on the insights gained from the preceding analysis, I will present a pedagogical model for recasts that may increase their efficacy for morphological restructuring.

Some Background

Second language acquisition, like first language acquisition, proceeds largely through functions, featuring the primacy of communicative meaning. Semantics appears to take precedence over syntax and morphology, and pragmatics, in turn, takes priority over semantics (Lightbown & Spada, 2006; Skehan, 1998; Slobin, 1973; VanPatten, 1996). This seeming commonality notwithstanding, the outcome of second
language learning is almost always different from that of first language learning (passim the L2 literature). ‘In fact, it can be argued that it is the enormous contrast between the two phenomena that needs explaining, rather than either of the two phenomena per se’ (DeKeyser, 2005: 1). Accounts of the disparity in achievement have indeed been sought, and in fact, well established, in cognitive and biological terms (for review, Han, 2004c).

Cognitively, by general understanding, the initial state of second language learning is *tabula repleta*, and not *tabular rasa* as characterising first language learning (N. Ellis, 2006a). Specifically, second – not first – language learners come to the learning task with minds already entrenched in the knowledge and experience of a prior linguistic system (i.e. the L1) (MacWhinney, 2001, 2006). This cognitive state, henceforth, functions as a constraint and filter in L2 input reception and output generation, the key processes of acquisition. For the majority of L2 learners, the learning of a second language begins in post-pubescent years; that is, it happens, biologically, after the close-off of the neurologically based critical period (Lenneberg, 1967). In consequence, the ‘developmental sharpening’ (Doughty, 2003), which figures in first language acquisition, only has a weak presence in second language acquisition. Second language learners lack the capacity and efficiency they had when learning the first language to respond to environmental stimulation; that is, they exhibit low sensitivity and flexibility on encounters with L2 input. As Doughty puts it,

> An unfortunate drawback to the extreme efficiency of L1 processing, in particular to the developmental sharpening that it entails, is that adults are rendered ‘disabled second-language learners later in life’ (Cutler, 2001). This is because speech-processing abilities are altered, through experience with the native language, so that adults acquiring their L2 typically process input with mechanisms already attuned to their L1. (Doughty, 2003: 284)

Due to conspiracy between biological and cognitive constraints, second language learning, uniquely, displays (1) ‘lack of equipotentiality’ (Schachter, 1996), (2) local impairments or ‘fossiliation’ (Han, 2004c; Han & Odlin, 2006; Selinker, 1972), and (3) lack of implicit learning, among other disadvantages. In terms of lack of equipotentiality, learners tend to react differently to different target languages, depending on the typological proximity between the native and the target language. When the distance between the two languages is small, the target language feels easy to acquire (see, however, Kellerman, 1983), but it feels difficult when the distance is large (Schachter, 1996). Another manifestation with respect to the lack of equipotentiality is that learners’ acquisition of some linguistic features is easy, but difficult when it comes to others.

As regards local impairments, certain linguistic features either consistently evade L2 learners’ attention or are systematically processed in an idiosyncratic, biased manner, leading to persistent non-targetlike representations and behaviour. These features include, but are not limited to, grammatical morphemes (e.g. DeKeyser, 2005; N. Ellis, 2006a; Han, 2004c; Saggar, this volume) and the so-called ‘interface structures’ that involve interaction between morphosyntax and other domains such as semantics and pragmatics (e.g. Geeslin & Guijarro-Fuentes, 2006; Sorce, 2005; Strauss et al., 2006).

A third ubiquitous phenomenon is that L2 learners generally have an attenuating capacity for implicit learning. Simultaneous processing of natural, communicative input for meaning (i.e. semantic information) and form (i.e. linguistic code feature) rarely happens. Instead, learners’ processing of input is largely – if not solely – orientated to constructing meaning, viz., comprehension (Gass & Selinker, 2001; Lightbown, 2000 and this volume; Sharwood Smith, 1986; Skehan, 1999; VanPatten, 1996, 2004b), and this is often accomplished through resorting to nonlinguistic cues (cf. Lightbown, this volume), resulting thereby in (1) little attention to how form encodes meaning (i.e. intake), (2) biased processing of form (VanPatten, 1996, 2004b), and/or (3) ‘shallow processing’ (Clahsen & Felser, 2006) – all adverse to acquisition.

To mitigate these tendencies, over the past 25 years, a considerable number of L2 researchers have set out to identify compensatory strategies, strategies that may increase learners’ metalinguistic sensitivity to input. This line of research was undergirded by cognitive theory of attention in general, and its SLA derivations in particular (Robinson, 1995; Schmidt, 1990, 1994, 2001; Tomlin & Villa, 1994). For example, Schmidt’s noticing hypothesis – that there is no intake without conscious attention – has motivated an array of pedagogically orientated proposals. Among them three proposals are particularly popular, namely, input enhancement (Sharwood Smith, 1991, and this volume), processing instruction (VanPatten, 1991), and focus on form (Long, 1991), all, contextualized in meaningful use of language, attempting to draw learners’ attention to select features of input by, respectively, (1) enhancing their salience, (2) instilling an explicit understanding of form–meaning relations, and (3) providing implicit corrective feedback. The three proposals have each led to a flurry of empirical research into their efficacy, and the resultant
findings were mixed (for reviews, see Norris & Ortega (2000) on focus on form, Han (2005) on input enhancement, and VanPatten (2004a) on processing instruction). The remainder of this chapter is concerned with one of the proposals, focus on form, in part because this proposal has spawned the greatest number of empirical studies to date, and hence established itself as a leading paradigm for theory and research on effects of instruction on learning, but, more importantly, because it is in this widely pursued proposal and its follow-up empirical research that meaning is found to have been inadequately treated.

Focus on Form

‘Focus on form’ was introduced by Long (1991) to contrast with a traditional, structural approach to instruction which he termed ‘focus on forms’. In his words,

[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 draws students’ attention to linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning or communication. (Long, 1991: 45–46; emphasis added)]

For Long, the overt but incidental focus on form in a meaningful context may constitute an effective strategy to redress learners’ natural – and often persistent – tendency not to notice, process, and learn communicatively redundant, perceptually non-salient, or infrequent and rare forms in input (cf. Doughty, 2003; Schmidt, 2001), and hence, may be beneficial for continued interlanguage (IL) development (Long & Robinson, 1998).

For the purposes of this chapter, it is interesting to note that in this initial definition of focus on form, meaning was accorded a very general sense, referring to the content in focus, content that is made clear from the context. This context referent of meaning is reaffirmed seven years later by Long and Robinson:

Focus on form refers to how focal attentional resources are allocated . . . During an otherwise meaning-focused classroom lesson, focus on form often consists of an occasional shift of attention to linguistic code features – by the teacher and/or one or more students – triggered by perceived problems in communication. (Long & Robinson, 1998: 23)

It is clear, then, that in the theoretical conceptualization of focus on form, form is the pedagogical target, meaning providing ‘the cognitive processing support’ to it (Doughty & Williams, 1998a, p. 3). Simply put, meaning occupies the background and form the foreground. In attentional terms, focus on form requires a temporary shift of focal attention away from meaning to form (Doughty, 2003; emphasis added). Given so, the relation between form and meaning is loose, at best.

However, there appears to be a closer tie between form and meaning in Long’s more recent characterization of focus on form, as seen in the second definition above, where ‘perceived problems in communication’ is noted as the trigger of focus on form. This thereby narrows down the scope of possible incidence of focus on form to only those cases where there is (or is likely to be) a comprehension/production failure, implying that focus on form should be reactive in nature, and not preemptive (see, however, Doughty & Williams, 1998a). On this conception, a typical event of focus on form should, then, have the following sequence shown in Figure 4.1. As generally paraphrased in the literature, such a sequence means that communication breakdown prompts negotiation for meaning, which, in turn, results in focus on form (negotiation of form), thereby providing the learner with an opportunity to acquire a particular form.

This sequence reveals that form is ultimately responsible for ‘perceived problems in communication’. Thus, again, it is form that is at the foreground. Moreover, the sequence predicts that negotiation of form, prompted by negotiation for meaning, will, of necessity, involve certain items to the exclusion of others (cf. Foster & Ohta, 2005; Skehan & Foster, 2001). In all likelihood, and as has indeed been empirically attested (e.g. Brock et al., 1986; Day et al., 1983), those items are mostly lexical words (the so-called ‘content words’), which are able to contribute essential semantic information to communication, as opposed to grammatical morphemes (the so-called ‘functors’), which are semantically light.

![Figure 4.1 Sequence of a focus on form event](image-url)
communicatively redundant, and perceptually non-salient. Nonetheless, the latter are precisely the ones that focus on form initially set out to target, because they have long been empirically established as hard to acquire by learners with or without instruction (e.g. DeKeyser, 2005; N. Ellis, 2006a; R. Ellis, 1994; Sagarra, this volume; Íterell, 1991; VanPatten et al., 2004; Young, 1991).

One problem arises: If focus on form ends up directing learners’ attention and noticing to lexical items rather than morphosyntactic features, it not only makes itself redundant, but, more profoundly, it may potentially have an adverse impact on learning by reinforcing a natural bias, as noted earlier, for meaning in L2 input processing. According to VanPatten (2004b, p. 14), the processing bias entails, inter alia, (1) that ‘learners process input for meaning before they process it for form’, (2) that ‘learners process content words in the input before anything else’, and (3) that ‘learners … tend to rely on lexical items as opposed to grammatical form to get meaning when both encode the same semantic information’. This bias functions not only in L2 written input processing, but also in oral input processing, as the next section will show.

In sum, focus on form, as Long has conceptualized it, hinges on a communicatively meaningful environment in which it exclusively targets surface form. It is based on two tacit assumptions: (1) that form-meaning mapping will, ipso facto, occur for the learner as long as the pedagogical act is embedded in a meaningful context, and (2) that learning difficulty lies in form, not in meaning. Long’s more recent definition (Long & Robinson, 1998), which designates communication breakdown as the trigger of focus on form, has a built-in prediction that focus on form will direct attention to meaning-laden forms to the exclusion of meaningless forms, even when the latter are its intended targets.

In the next section, I turn to the empirical dimension of focus on form by examining one of its popular instantiations, recasts. I will illustrate how meaning is treated there, and in so doing, demonstrate that the underlying assumptions of focus on form are problematic, and that as practiced, focus on form is low in efficacy and reinforces the natural bias for meaning in L2 input processing.

Recasts: A Case in Point

The L2 literature of the last 15 years has seen an exponential growth of studies of recasts (for summaries, see Gass, 2003; Long, 2007; Nicholas et al., 2001). This interest, still in ascendance today, was largely kindled by Long’s (1996) interaction hypothesis and its pedagogical corollary, focus on form, but also by an observational study by Lyster and Ranta (1997) showing, among other things, that recasts are the most frequent type of feedback in L2 French immersion classrooms, in spite of their ‘ineffectiveness at eliciting student-generated repair’ (1997: 37). In his recent review, Long (2007) has, nevertheless, claimed that ‘of all the many ways negative feedback is delivered, in and out of classrooms …, implicit negative feedback in the form of corrective recasts seems particularly promising’ (2007: 76; emphasis in original).

Long (2007) defines a corrective recast as ‘a reformulation of all or part of a learner’s immediately preceding utterance in which one or more non-target-like (lexical, grammatical, etc.) items is/are replaced by the corresponding target language form(s), and where, throughout the exchange, the focus of the interlocutors is on meaning, not language as object’ (2007: 77; emphasis in original). Long further notes that ‘unlike various traditional pedagogic procedures for delivering “error correction,” the “corrections” in recasts are implicit and incidental’.

Although definitions of a recast have not been identical from one researcher to another, most of them have, to a greater or lesser extent, adhered to the following properties. A recast (1) is adjacent to an ill-formed utterance, (2) reformulates it, (3) expands it in some way, and (4) retains its central meanings. These are illustrated in [1] and [2] (Han & Kim, in press).

[1]
1 S: I did not know I hurt her feeling.
2 T: You hurt her feelings.
3 S: Yes, but I didn’t know.

[2]
1 S: I cannot get angry easily to others.
2 T: I don’t get angry easily. I don’t get angry easily. If you don’t get offended easily, you’re ‘thick skinned’. Thick skinned.
3 S: We have same idiom.

In [1], the student’s utterance in Turn 1 is immediately followed by the teacher’s recast (Turn 2), which reformulates the utterance by making a grammatical change to ‘feeling’. In [2], the student’s utterance in Turn 1 leads to a recast by the teacher (Turn 2) who not only reformulates the trigger utterance by changing ‘cannot’ into ‘don’t’, but also expands it with additional utterances. Thus, in light of the four properties of recasts, the recasts in [1] and [2] are both reformulations of an ill-formed
utterance, but differ in that [2], but not [1], expands on the trigger utterance. Incidentally, in the literature [1] is known as an isolated declarative recast and [2] an integrated declarative recast (e.g. Lyster & Ranta, 1997). With regard to properties (3) and (4), it appears that [1] retains the meaning of the trigger utterance, but [2] both retains and expands it. Finally, both [1] and [2] are adjacent to the trigger utterance.

Long (2007) hypothesizes that recasts may potentially contribute to acquisition because

[They] convey needed information about the target language in context, when interlocutors share a joint attentional focus, and when the learner already has prior comprehension of at least part of the message, thereby facilitating form–function mapping. The learner is vested in the exchange, as it is his or her message that is at stake, and so will probably be motivated and attending, conditions likely to facilitate noticing of any new linguistic information in the input. The fact that the learner will already understand all or part of the interlocutor’s response (because it is a reformulation of the learner’s own) also means that he or she has additional freed-up attentional resources which can be allocated to the form of the response, and, again, to form–function mapping. Finally, the contingency of recasts on deviant learner output means that the incorrect and correct utterances are juxtaposed. This allows the learner to compare the two forms side by side, so to speak, and to observe the contrast, an opportunity not presented by non-contingent utterances, i.e., models. (Long, 2007: 77–78; emphasis in original)

According to this statement, recasts should only concern forms in the learner’s utterance, not their meaning, because the meaning, as set forth in the definitions, should be retained. In other words, what corrective recasts essentially do is re-encode the meaning of the learner utterance by correcting its grammatical violation(s). In a nutshell, where acquisition is conceived of as a form–meaning connection process, recasts deal with problems in form, leaving meaning, on the other hand, intact, or taking it for granted.

Although the general thrust of the existing empirical research has been to examine the nature of recasts and their efficacy, descriptive and confirmatory studies have been undertaken to assess and understand the impact on learners’ representations and behaviour of recasts as a function, internally, of their varied configurations (e.g. length, complexity, single vs. multiple errors), externally, of contextual demands, or of their interaction with individuals’ cognitive differences. Although many of the findings are still largely contingent (for reviews, see Long, 2007; Nicholas et al., 2001; for recent collections of studies, see the special issue of Studies in Second Language Acquisition [SSLA] edited by Mackey & Gass, 2006; also Mackey, 2007), the jury being still out on Long’s hypothesised advantages, there is at least one categorical finding: learners are better at recognising and utilising information contained in phonological and lexical recasts than in morphosyntactic recasts (e.g. Braidi; 2002; Carpenter et al., 2006; Kim & Han, 2007; Lyster, 1998; Lyster & Ranta, 1997; Mackey et al., 2000; Nabei & Swain, 2002; Oliver, 1995; Pica, 2002; Sheen, 2004), notwithstanding the fact that the latter type of recasts far outnumbered the former types, an interesting paradox. Furthermore, even where morphosyntactic forms were the exclusive focus of the study, recasts appeared to be more helpful for some (putatively simple), but not for other (putatively hard) forms (Doughty et al., 1999; cited in Long, 2007; Iwashita, 1999; Leeman, 2003; Long et al., 1998; Ortega & Long, 1997). Long (2007; see also Leeman, 2003) attributes the latter finding to the differential salience of different linguistic forms, and surmises that ‘conversation was selectively facilitative of acquisition’ (emphasis in original), echoing Sato (1986). He calls for further research to assess the impact of perceptual salience and/or other qualities of the target forms on the efficacy of recasts, rationalizing that

Knowing which classes of problematic target language features can be addressed successfully via implicit negative feedback, and which, if any, require more explicit treatment would be both theoretically important, because it could help explain how recasts work, and pedagogically useful. (Long, 2007: 110)

In much the same vein, I believe that an equally (if not more) important piece of the recast puzzle to solve is the first, more generic finding, viz., the above noted paradox of learners’ low perception of morphosyntactic recasts against their high frequency in the communicative environment, to which I now turn.

In a recent study, Kim and Han (2007) offered a detailed analysis of learners’ interpretation of the recasts provided by their native-speaking teachers in intermediate, communicative English as a Foreign Language (EFL) classes, taking account of the possible influence of (1) the type of teacher intent (corrective or communicative), (2) the type of addressee (direct or indirect), (3) the type of linguistic target (morphology, syntax, phonology, or lexis), and (4) the form of recast (declarative or interrogative). Results from analyses of 20 students’ stimulated recall protocols on 68 audio-recorded recast episodes yielded, among other things, an inverse relationship, particularly for the complex recasts (i.e. targeting
communicative value than morphosyntactic forms, the former are more salient than the latter, and hence more noticeable (e.g. Carpenter et al., 2006; Mackey et al., 2000). Another account draws on the observation that lexical and phonological recasts tend to be shorter than morphosyntactic ones, and from a processing perspective, it is argued that the former are more salient and easier to process than the latter (Carpenter et al., 2006). Also among the explanations is that the former are often accompanied by negotiation, whereas the latter seldom are, and negotiation helps draw attention to the language (Mackey et al., 2000), a point I return to later.

Given the mounting evidence and the existing explanations, it will only seem logical to conclude that recasts are not the most effective for treating morphosyntactic errors in communicative language environments. Mackey et al. (2000: 493) assert that ‘using recasts to provide morphosyntactic feedback may have been suboptimal’ (see also Lyster, 2004; Panova, 2005). Similarly, reviewing a sample of the existing studies, Long (2007: 112) concludes that ‘It is quite possible that future research will support what current findings already suggest: recasts or other delicate, unobtrusive forms of corrective feedback work satisfactorily for some linguistic targets, for example, meaning-bearing items, better than others, but that more explicit, more intrusive, intervention is required for communicatively redundant, acoustically non-salient forms’ (see also Lightbown, this volume). Indeed, such claims would seem plausible were it not for the fact that there are several discrepancies between the theory and empirical research on focus on form that have hitherto remained out of the general purview. These discrepancies, two of which are singled out and discussed below, might give us cause for rethinking the observed paradox.

**Gaps In and Between Theory and Research**

As noted previously, according to Long’s focus on form proposal, breakdowns in communication should be what trigger pedagogical interventions; that is, any focus on form incidence must arise from negotiation for meaning. Instead, the majority of recasts were not actually occasioned by communication breakdowns, and consequently, there was lack of negotiation for meaning at the time of recasting (cf. Mackey et al., 2000). For one thing, following Long’s proposal, one should expect to see more communicative recasts (i.e. naturally resulting from negotiation for meaning as in [3]) than corrective recasts (i.e. artificially contrived to focus the learner’s attention on language as in [4]) (e.g. from Brock et al.,

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**Figure 4.2** Recasts: A paradoxical finding

more than one error), between the frequency of the recasts and students’ ability to recognize gaps between the recasts and the trigger utterances, as schematically illustrated in Figure 4.2. Figure 4.2 shows that all forms of recasts (morphosyntactic, lexical, and phonological), morphosyntactic recasts were the most frequent, as indicated in the left column, and yet, the students were the least able to recognize gaps between them and the trigger utterances, as shown in the right column.

Interestingly, the same pattern, independently, emerged from two other studies, one study on beginner-to-lower-intermediate English as a Second Language (ESL) and Italian as a Foreign Language learners (Mackey et al., 2000) and one on advanced ESL learners (Carpenter et al., 2006). Mackey et al. (2000), investigating learners’ perceptions about interactional feedback, showed that although morphosyntactic recasts were more frequently provided to ESL learners than lexical and phonological recasts, they were the least correctly perceived, as judged from students’ recall protocols. Morphosyntactic recasts also elicited the least amount of uptake, as measures of the students’ immediate responses to the recasts indicated. Likewise, Carpenter et al. (2006: 210) reported that ‘morphosyntactic recasts were less accurately recognized than phonological or lexical recasts’, even though the former were greater in number than the latter.

The observed paradox thus appears to be consistent and pervasive, transcending learning contexts, proficiency levels, and target languages. In an interesting way, it demonstrates the earlier noted input processing bias. In this case, the bias occurred in the processing of oral negative input (i.e. oral recasts). Several explanations have been proposed for the phenomenon. One explanation invokes the intrinsic communicative value of the lexical and phonological items versus that of morphosyntactic forms, arguing that because lexical and phonological items carry more
In contrast, the empirical research reports that there is greater deployment of corrective recasts as in [4] than of communicative recasts as in [3] (cf. Hauser, 2005). This is one gap between the theory and the research.

[3] Communicative recast
1 NNS: I go to New York yesterday.
2 NS: You went yesterday?

[4] Corrective recast
1 NNS: I go to New York yesterday.
2 NS: You went. (declaratory intonation)

Another gap, related to the first, pertains specifically to the conceptualisation of recasts in contrast to the research on recasts. On the one hand, Long's conception is that any recast should be incidental and implicit such that ‘throughout the exchange, the focus of the interlocutors is on meaning, not language as object’ (Long, 2007: 77), and that recasts (or any implicit feedback, for that matter) should address the issues the learner is struggling with at the time of interaction (Long, 1996). On the other hand, a preponderance of the existing empirical studies has featured an explicit, intentional focus on forms. In these studies, morphosyntactic recasts – typically delivered in the manner illustrated in [4] – outnumber lexical and phonological recasts, notwithstanding the fact that morphosyntactic forms, because of their relative lack of semantic content, are usually the forms the learner is least likely to struggle with during communicative interaction.

Thus, there exists a conflicting picture concerning the theory, research, and efficacy of focus on form, as illustrated in Figure 4.3. Outlined in

Figure 4.3 are four aspects of focus on form, indicated by the boxes. The upper-left box represents the theoretical motivation of focus on form, the lower-left box the target of empirical research on focus on form, the upper-right the default prediction of focus on form, and the lower-right empirical findings. In addition, the two double-arrowed solid lines indicate congruence and the four double-arrowed broken lines suggest incongruence. A detailed explanation follows.

As shown in Figure 4.3, on the one hand, focus on form is motivated by the pedagogical desire to address those forms that the learner is not likely to learn on his/her own (e.g. morphosyntactic forms), a learnability concern, and the ensuing empirical research has indeed targeted them. On the other hand, focus on form – as a theory – has an inherent prediction that negotiation for meaning, triggered by communication problems, will direct the learner’s attention to lexical and phonological items, and this has indeed been borne out by research indicating that learners perceive lexical and phonological recasts better than morphosyntactic recasts, regardless of the abundance of the latter in their communicative environment.

This picture points up a number of difficulties with focus on form as an SLA innovation. A first difficulty is that at the theoretical level, there is a discrepancy between the learnability motivation for focus on form and its inherent or default prediction. A second difficulty lies at the interface between theory and research. There is a discrepancy between the learnability motivation of focus on form and the empirical findings suggesting a shortfall of its desired efficacy. A third difficulty, the focus of the remainder of the chapter, resides in the empirical research itself showing a departure from the theoretical tenet of focus on form and for that matter, the interaction hypothesis: morphosyntactic recasts are typically delivered in the absence of negotiation, as pointed out in Mackey et al. (2000). However, unlike Mackey et al., who viewed the role of negotiation as serving largely as an attention-getting device, I contend that lack of negotiation entails that meaning is, wrongly, ruled out as a learnability concern, to which I now turn.

Meaning as a Learnability Problem

Meaning maintenance in recasts

In Long’s accounts of focus on form, meaning retention serves as the lynchpin of the hypothesized acquisitional benefits. In the case of recasts, it is what motivates and enables the learner (by releasing attentional resources) to attend to input contained in recasts and to
subsequently make cognitive comparisons, a process crucial for representational restructuring (Nelson, 1987; Saxton, 1997). The meaning maintenance mechanism, however, does not seem tenable in the face of the observed paradox, as discussed above. In particular, it does not explain away why morphosyntactic recasts, despite their high frequency, nevertheless tended to go unnoticed by the learner, importantly, when meaning seemed to have been held constant, as illustrated in [5] (Mackey et al., 2000):

1 NNS: There is a three bird my picture.
2 NS: Three birds in your picture?
3 NNS: Three bird yeah.

What, then, explains the NNS’s lack of sensitivity to the corrective input on the plural form -s? Although several factors – including the salience and communicative value that were mentioned earlier (see also Sagarra, this volume, on working memory) – may have played a role, none of them, alone or in combination, appears to be adequate enough to account for the lack of sensitivity, and more generally, for the widely noted pervasive and persistent lack of processing and acquisition among L2 learners of grammatical morphemes. Salience, for example, is increasingly proposed as a major predictor of difficulty (e.g. DeKeyser, 2005; N. Ellis, 2006a, 2006b), and yet it cannot explain a very simple fact, namely that instructed learners, of all proficiency levels, have trouble with grammatical morphemes for which they have received abundant explicit instruction. Apparently, instruction-induced salience has little impact on their acquisition.

By way of illustration, let us look at a segment of conversation in a Korean EFL classroom, drawn from the same database as [1] and [2] (Kim & Han, 2007).

[6]
1 T: Good, we’ll be preparing … okay … Chapter three … so … question is what is the most unusual dish you’ve ever eaten? What is the most unusual dish you’ve ever eaten? The most unusual …
2 S1: Grasshopper fried snack.
3 T: What? What is that?
4 S1: Snack.
5 T: Snack?
6 S1: They were … are made of grasshopper.
7 T: They are grasshoppers?

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8 S1: Yes.
9 S2: Where?
10 S1: In Thailand.
11 T: Thailand.
12 S1: They look … they looked like real grasshopper, but it was fried.
13 T: It was deep fried, wasn’t it?
14 S1: Yeah, deep fried, and it was very crispy.
15 T: Really?
16 S1: Yes, it was very delicious.
17 T: Delicious?
18 S1: Yes
[Laughing]
19 S1: I can see their leg.
20 T: I could see their legs.
21 S1: I could see.
[…]
22 T: […] I don’t think I’ve had deep fried grasshoppers. What do deep fried grasshoppers taste like?
23 S1: It is like corn-chip.
24 T: Corn-chips?
25 S1: Yes no taste. No smell. If you don’t see their appearance, you don’t know if this is grasshopper.

The segment of interaction above involves a teacher (T) and two students (S1 and S2). As illustrated, S1’s production showed lack of acquisition of the plural -s. Her utterance in Turn 6 was immediately followed by the teacher’s recast, which reformulated S1’s utterance by attaching -s to ‘grasshopper’. However, as shown several turns later, in Turn 12, S1’s production continued to feature zero use of the plural -s. In the subsequent interaction, S1 had a few more opportunities to notice the plural -s. In Turn 19, her utterance triggered another recast (Turn 20), which changed the original singular form ‘leg’ into ‘legs’, but, again, as shown in Turn 21, S1’s production did not incorporate the correct form. In Turn 22, T’s utterance contained two models of the plural form. In Turn 23, S1’s non-use of the plural -s triggered a third recast changing ‘corn-chip’ into ‘corn-chips’. In spite of the multiple, contextualized learning opportunities, Turn 25 shows that none of them had a noticeable impact on S1’s production. The recasts, therefore, did not have any discernable efficacy, even though they all seemed to have retained the original meaning of the learner’s utterance.
This raises several questions. First, when S1 produced the singular, instead of the plural, did she really have a plural meaning in mind, as I construed? Second, what was S1’s conception of ‘grasshopper,’ ‘leg,’ and ‘corn-chip’? Do they represent concrete or abstract entities to her? Third, are these nouns subject to plural marking in her native language? Finally, how would she say these things in a similar situation in her L1?

Contemplating these questions might open up alternative avenues for understanding the function of recasts. For example, if the answer to the first question turned out to be negative, then the teacher may have imposed his own meaning on the learner’s utterance – different from what the learner had intended. Conversely, if the answer turned out to be affirmative, the teacher was, then, right in supplying the plural form through his recasts. Either way, it seems clear that without an investigation of the intended meaning of the learner, there will not be a definitive answer. Language, as Hauser (2005: 310) notes, is inherently ambiguous, and, likewise, ‘the meaning of a turn is ambiguous, indexical, and open to negotiation and renegotiation’.

Focusing on the coding criteria deployed in the L2 empirical research on recasts, Hauser (2005: 294) objects to the narrow conception of meaning, embedded in those criteria, as ‘propositional content and/or the speaker’s intention, separate from both its context and linguistic encoding’. Drawing on Billed’s (1986) two-folded conception of meaning as propositional content and as action, Hauser argues that the practice of coding has relied on the former, ‘the criteria ostensibly used to code particular turns as “corrective recasts” treat[ing] the propositional content of the “error turn” and the “corrective recast” as readily identifiable and identical’ (2005: 296), while ignoring the latter (i.e. meaning as action), resulting in ‘the transformation of the data that obscures what is happening in the interaction’ (2005: 295). Although Hauser’s criticisms are directed at the off-line conception and application of the coding criteria, they are clearly relevant to the on-line delivery of recasts.

Driven by the theoretically circumscribed need to maintain the central meaning of the learner utterance, recasts contain grammatical changes made according to some norms of the target language, and more importantly, on the basis of one’s intuition about what the propositional content ought to be, ‘what the interlocutor perceives to be the learner’s intended message’ (Mackey & Philp, 1998: 342). As a result, it is possible that the re-encoding (i.e. recasting), although targetlike, may deviate, at times, from the original meaning, hence distorting the learner’s intention. A case par excellence is where a recast is provided in response to a learner’s utterance made up of disjointed and incoherent words and/or phrases such that it is impossible to decode, not even with the help of the local context, let alone re-encoding it accurately (e.g., Hauser, 2005, Segment 1). Compounding the difficulty of maintaining the learner’s meaning is that an error turn (i.e. the trigger utterance) may be recast in more than one way (e.g. Hauser, 2005, footnote 20), thus giving additional cause for the potential existence of perverted recasts. Furthermore, from a linguistic relative point of view, reformulation of others’ words may have implications for meaning. All these amount to suggesting that, regardless of whether the learner’s utterance is discrete or continuous, insofar as the forms chosen for the utterance are carriers of any idiosyncratic meaning and intention (e.g. Bardovi-Harlig, this volume; von Stutterheim & Klein, 1987), meaning maintenance can be elusive in practice, and hence, that while providing target samples, recasts may lose their correcting efficacy.

Such, I believe, is the case with recasts of grammatical morphemes, and, as I will argue below, it is both unjustified and unjustifiable – given the relative lack of efficacy of morphosyntactic recasts noted earlier – to attribute morphosyntactic errors exclusively to inadequate acquisition of certain grammatical norms of the target language. Doing so is fallacious, too, because it conceals the fact that acquisition may equally and possibly to a greater extent be hindered by the lack of a targetlike semantic and/or conceptual system (for evidence, see, Coppieters, 1987; Ioup et al., 1994). As von Stutterheim and Klein (1987: 193) have aptly pointed out, ‘A structural analysis will overlook or cannot cope with the majority of those cases where learners have built up a system of their own by using L2 structures with meaning or function other than those of the L2’.

**Meaning as a source of difficulty**

Meaning is receiving increasing attention from L2 researchers, as seen in the recent literature. VanPatten et al. (2004: 4), in their opening chapter to a volume entitled *Form–Meaning Connections in Second Language Acquisition*, state that ‘L2 forms can . . . be connected to meanings that are not L2-like’ (see also Odlin, 2003).

In an attempt to deconstruct the notion of grammatical difficulty, DeKeyser (2005) explicitly identifies and tackles several constituents, including complexity of form, complexity of meaning, and complexity of the form–meaning relationship (cf. Larsen-Freeman, 2003). Where complexity of meaning is concerned, he claims, on the basis of available
empirical evidence, that novel and abstract meanings, such as those encoded by grammatical morphemes, are particularly ‘hard to acquire for native speakers of L1s that do not have them or that use a very different system’, and that ‘these elements are even strongly resistant to instructional treatments’ (DeKeyser, 2005: 5).

Similarly, Selinker (2006: 204) asserts that those elements ‘easily get fossilized’, on the grounds that they ‘appear impervious to correction in the contexts where they occur’ and are permeable to transfer effects (Selinker & Lakshmanan, 1992). Citing diary data of spontaneous L2 utterances by native speakers of Italian and Spanish, such as [7] and [8], Selinker illustrates how very advanced speakers of L2 English can still flounder over grammatical morphemes, making non-targetlike form–meaning mappings.

[7]
That happened all over the places.

[8]
If you do your best, she said, I will keep your name in the play.

Subjected to a surface analysis, [7] is flawed because it shows overuse of the plural -s, and [8] is flawed, because of a redundant article, the, hence the conclusion that the speakers have not acquired the morphemes. A deeper analysis, considering not only the linguistic environment of the errors but also extra-linguistic factors such as the speakers’ amounts of experience with the target language and the level of sophistication of their linguistic and academic performance in other discourse domains, however, suggests otherwise. The driving force for the errors is not any lack of knowledge of the morphemes per se, but rather the semantic and conceptual system that the speakers possess, a system different from that underlying the target expressions. The errors concern English idiomatic expressions ‘all over the place’ and ‘in play’, whose syntax is fixed or frozen, so to speak. By inserting the grammatical morphemes in [7] and [8], the speakers gave literal meanings, resulting in referential ambiguity. In this case, the speakers appeared to have mapped their idiosyncratic meanings to the expressions. But exactly what those meanings are needs to be empirically determined. As Selinker (2006: 204) has emphasised, ‘since interlanguage data [are] often ambiguous, one must find out systematically what the intended interlanguage semantics is’.

In an interactional setting, negotiation, needless to say, is the default way to identify interlanguage meanings. Nevertheless, it is equally clear that not every meaning can be clarified through negotiation, and this may be particularly true of errors involving grammatical morphemes. For want of any empirical research yet to confirm this, I speculate, based on the general findings on recasts, that even if those errors are open to negotiation, it is unlikely that the ongoing communication will not be disrupted, a designated pedagogical advantage of recasts, nor is it likely that the brief on-line negotiation will shed much light on the learner’s semantic system – more likely, perhaps, on a transient meaning. Yet, what is transient must be differentiated from what is systematic – a classic insight from Corder (1967).

It would seem, then, that a fundamental understanding of grammatical morphemes as a pervasive and persistent acquisition problem cannot derive from anything other than a crosslinguistic analysis of the semantics of the interlanguage and the native language.

Interlanguage as a function of NL semantic influence

DeKeyser and Selinker, as mentioned above, both have underscored the interference of the native language in the acquisition of form–meaning mappings of grammatical morphemes, wherein, to be sure, it is not so much the target forms themselves, but rather their meanings that are interfered with by the L1. Indeed, such insights have long existed in the literature, dating back to the early era of L2 research (e.g. Hakuta, 1976; Hakuta & Cancino, 1977). For instance, Hakuta (1976), in a longitudinal case study of Ugisui, a five-year-old Japanese girl learning English in a naturalistic environment, found that Ugisui’s acquisition of English articles was not only delayed but also persistently marked by semantic deviance from the target, due to a lack of grasp of the underlying definite and indefinite contrast. In this case, the absence of similar semantic discriminations in the native language created a learnability problem for the L2 learner.

That learners depend on their L1 semantic and syntactic system for bootstrapping into L2 grammar – more so for adults than for children for apparent reasons – has been both suggested and documented in the SLA literature. Von Stutterheim and Klein (1987: 196) have stated that ‘the way in which the learner organizes his utterances is heavily influenced by the conceptual structure present and by the way in which this conceptual structure is encoded in the [native] language’. This statement was advanced on the basis of an extensive study of L2 acquisition of temporality by learners of an array of L1 backgrounds, which showed, inter alia, that ‘dominant conceptual categories – the grammatically marked ones, for instance, as well as specific structural patterns in the first
language – form the “equipment” of the learner at the beginning of the acquisitional process and lead to a certain form of selectivity in dealing with the L2 input’ (1987: 197). As an example, because the Turkish verbal system makes a distinction between ‘near past’ and ‘remote past’, beginning Turkish learners of German, correspondingly, developed a two-fold adverbial system ‘vorher’ (before) and ‘ganz vorher’ (very before), but this was not found in the data of beginning Italian and Spanish learners.

The ‘dependence’ on L1 semantics and syntax, for better or for worse, often continues into the advanced stage of L2 learning (e.g. Hopp, 2003, 2005; Sorace, 2000, 2003, 2005). A longitudinal case study of two advanced L1 Chinese speakers of English by Han (1998, 2000, 2006) indicates that in spite of the subjects’ extended stay (>5 years) in English-speaking countries, the L1 topic-comment semantics and its syntactic expression remain the driving force for their production of a number of interlanguage constructions featuring over-passivisation (e.g. passivised unaccusatives) as well as under-passivisation (e.g. novel unaccusatives or pseudo-passives).

This kind of cross-linguistic influence is usually unconscious (Kelleman, 1995). The famous linguistic relativist Whorf (1940) referred to it as the ‘binding power’ of the native language, suggesting that explicit instruction might ease its grip on the learner (for discussion, see Odlin, 2005). There is, however, abundant evidence in the L2 literature showing that the bond can be so strong that it defies instruction, or any consciousness-raising intervention for that matter, leading to ‘fossilisation’ (Selinker, 1972; see also Han, 2004c). An example can be found in Odlin (2005) of the persistence of native speakers of Polish— all instructed learners, by default—in using the English pronoun ‘we’ to denote a singular referent, as in ‘We were at the theatre with my brother yesterday’, as a result of semantic and pragmatic transfer from the L1 (cf. Gotti & Michalak-Gray, 1997). That is, the word ‘bylism’, the Polish counterpart for ‘we were’, has a singular meaning in some discourse contexts.

Given the empirical role of L1 semantics in L2 acquisition, a brief discussion of the relationship between language and thought, within the scope of the present chapter, may shed further light on meaning as a learnability problem.

**Linguistic relativity in SLA**

Experience and knowledge of language develop in tandem with a conceptual system, the outcome being a language-specific world view. Such is the gist of ‘linguistic relativity’, commonly known as the Sapir-Whorf Hypothesis, a linguistic theory on the proactive influence of language on cognition (see also Cook, this volume). A strong version of the theory proposes that language shapes thought—hence known also as ‘linguistic determinism’, and a weaker version states that language selectively influences thought such, as explained in Athanasopoulos (2006), that

[C]ertain patterns of language may highlight certain patterns of reasoning/thinking more than others. In this respect, we are likely to pay more attention to those aspects of reality that are coded in our language than those that are not. (Athanasopoulos, 2006: 89)

In spite of the difference, both the strong and weak versions subscribe to the view that people who speak different languages conceptualise the world differently.

What implications, then, does this view hold for second language acquisition (see also Cook, this volume)? According to von Humboldt (1836),

To learn a foreign language should … be to acquire a new standpoint in the world-view hitherto possessed, and in fact to a certain extent this is so, since every language contains the whole conceptual fabric and mode of presentation of a portion of mankind. But because we always carry over, more or less, our own world-view, and even our own language-view, this outcome is not purely and completely experienced. (von Humboldt, 1836: 60)

Thus, a major prediction made on the premise of linguistic relativity (LR) is that acquisition of an additional language, be it a second, a third, or any, will never be complete, due to the interference of the L1-based conceptual system. In a similar vein but more concrete terms, Slobin (1996) states

Each native language has trained its speakers to pay different kinds of attention to events and experiences when talking about them. This training is carried out in childhood and is exceptionally resistant to restructuring in adult second-language acquisition. (Slobin, 1996: 89)

Invoking the term ‘thinking for speaking’, Slobin underlines that it is the L1-specific system for conceptualising and verbalising experience that will serve as the semantic and syntactic substrate for L2 perception and production. Included in that system are certain grammaticalised conceptual categories such as aspect, definiteness, and voice. These categories are likely to breed learnability problems in L2 acquisition—meaning that acquisition of corresponding or non-corresponding categories in the L2
will not be amenable to the influence of the usual, positive and/or negative input.

Indeed, evidence of lack of success in L2 acquisition, instructed or naturalistic, of tense, aspect, definiteness, gender, and number is extensive and robust and continues to accrue. Although the previous sections have only offered a glimpse of it, the existing research, regardless of the perspective taken, has, for one thing, uniformly pointed up the recalcitrant nature of interlanguage nominal and verbal morphology (passim the SLA literature), most, if not all, of the studies holding L1 as largely accountable for the attested persistent lack of targetlike attainment (for a recent study, see Franceschina, 2005). Even so, it can be argued that these studies have, at best, provided indirect evidence of the validity of linguistic relativity in SLA, because direct evidence of the putative relationship (or lack thereof) between language and cognition needs to come from research that investigates the performance of (ideally, the same) bilingual speakers in both linguistic and non-linguistic cognitive domains.

A study by Athanasopoulos (2006) is one such an attempt (for a review of previous studies, see Odlin, 2005). The study examined the plural marking behaviour of intermediate and advanced Japanese speakers of L2 English, against monolingual speakers of Japanese and English. Given that Japanese is a non-plural marking language and English plural marking, comparisons between L2 speakers and monolinguals of either language may attest whether L2 speakers’ cognitive behaviour has changed as a result of their experience with a non-native language, and if so, in which direction the change has occurred. Fourteen English monolinguals, 28 Japanese monolinguals, and 38 Japanese speakers of L2 English (21 advanced and 17 intermediate) served as subjects. Five sets of pictures provided stimulus materials, which depicted different types of objects corresponding to the target types of noun phrase (i.e., animals, implements, and substances). Subjects were tested individually by seeing five sets of pictures and subsequently judging the degree of similarity between pictures within each set and identifying the closest match between the original picture (the first in a set) and one of its five alternatives. However, the purpose of this task, as Athanasopoulos explains, ‘was not to measure the participants’ VISUAL ABILITY to spot the differences between the pictures, but rather to measure their COGNITIVE DISPOSITION towards changes in the number or amount of the relevant target objects in each picture’ (Athanasopoulos, 2006: 93; emphasis in original). Immediately following the picture-matching task there were a grammaticality judgement task and a general proficiency test, intended respectively to measure L2 subjects’ local linguistic knowledge (i.e., plural marking) and global proficiency. The main results were as follows. First, there was a correlation for the two L2 groups of their cognition, as measured by the picture-matching task, with their proficiency in the L2, as there was with their performance on the grammaticality judgement task. Second, the results from the picture-matching task demonstrated cognitive differences between the two groups of monolingual speakers (Japanese versus English), as predicted by the linguistic relativity hypothesis, but, interestingly, also between the two L2 groups, intermediate and advanced Japanese speakers of L2 English. In the latter case, the intermediate L2 speakers behaved like monolingual speakers of Japanese, on the one hand, and the advanced L2 speakers like monolingual speakers of English, on the other.

This cognitive pattern of behaviour, albeit contrastive, provides supporting evidence for the operation of linguistic relativity in SLA. The operation, thus, begins with the L1 conceptual system serving as the substrate to be then followed by a ‘cognitive shift’ towards the L2 conceptual system, as proficiency in the L2 advances. Crucially, in both phases, language influences cognition. In Phase 1 (as represented by the intermediate L2 speakers), the L1 is the main source of influence, but in Phase 2 (as represented by the advanced L2 speakers), the L2 is. The linguistic relativity process is schematically shown in Figure 4.4. The figure shows that when the two languages come into contact, as indicated by the L1 and L2 boxes partially overlapping, the L1 linguistic and conceptual system will initially exert a dominant impact on the L2. However, as proficiency in the L2 increases, the L1 system gradually gives way to the L2 and its attendant conceptual system, a dynamic process, as indicated by

Figure 4.4 Linguistic relativity in SLA
the embedded boxes within the two big boxes representing respectively the L1 and the L2. This is not to suggest that the role played by the L1 will eventually be supplanted by the L2 system. Rather, the development of linguistic knowledge in the L2, as a result of linguistic restructuring, produces a corresponding restructuring in the conceptual system of the learner. The extent to which the restructured systems approximate the target systems might, then, vary as a function of individual differences vis-à-vis learning environment, and psychological, cognitive, and neurological conditions. Furthermore, in Phase 2, the evolving L2 conceptual system, at a certain point, may, as indicated by the arrow, ‘backwash’ into the L1 (e.g. Cook, 2003, and this volume).

On this LR-based account, conceptual systems are not without vicissitude, including, I believe, the L1-based semantics and conceptions underlying the L2 learner’s use of grammatical morphemes. So the question now becomes ‘Under what conditions might semantic and conceptual restructuring occur?’ And, given the focus of this chapter, what kind of input is likely to facilitate the restructuring? More specifically, can recasts be employed for the mission, and if so, how? The next section addresses these questions.

A Pedagogical Model for Recasts

As discussed in earlier sections, focus on form faces a number of issues on both theoretical and empirical fronts, which militate against its validity and efficacy. Recasts, for one thing, have not been found as helpful for acquisition of morphosyntax as they are intended to be, much of their lack of efficacy being attributable to a problematic view of meaning and its role in the L2 form-meaning mapping process. In this penultimate section, building on my argument on meaning as a learnability problem and taking the English plural marking as an example, I will illustrate the nature and scope of its lack of learnability, challenging, therefore, the widely accepted conclusion based on morpheme order studies that the plural -s is easy and hence acquired early by L2 learners. Furthermore, highlighting the context-rich property of recasts, I will argue that recasts may improve their efficacy for morphosyntactic errors, if delivered in a certain way. Finally, I will propose a pedagogical model of how recasts may assist L2 acquisition of grammatical morphemes in general.

The English plural -s as a learnability problem

SLA research in the 1970s featured a keen interest in establishing a developmental sequence for grammatical morphemes, and comparing it to that derived from first language acquisition research. As it turned out, the orders were strikingly similar, though not identical (for review, see Goldschneider & DeKeyser, 2001). For example, the English plural -s ranked high on both the L2-based and the L1-based order, meaning that it was found to be acquired early by both first and second language acquirers (e.g. Bailey et al., 1974; Dulay & Burt, 1973, for L2; for L1, see Brown, 1973; de Villiers & de Villiers, 1973). Although the observed order for L2 has not been without its challenges (e.g. Larsen-Freeman, 1979) and there has been a continued paucity of follow-up research (DeKeyser, 2005; Goldschneider & DeKeyser, 2001), the developmental sequence itself has nevertheless been widely taken for granted and indeed, has been deployed as a foundation for SLA theory and research, and even as a basis for pedagogical recommendations.

In his book-length account of task-based language instruction, R. Ellis (2003), for instance, treated the plural -s as formally simple, functionally transparent, and metalinguistically simple to explain. This view was, again, implied in the R. Ellis (2005a) empirical report on the measurement of explicit and implicit knowledge of a second language, wherein the plural -s is listed as an early acquired grammatical structure. However, there is evidence outside the body of literature on morpheme ordering indicating that the plural -s is, in fact, a long-term challenge for many learners (e.g. Lardiere, 2007; Long, 2003; Young, 1989), including those who were early starters, as demonstrated in Shin and Milroy (1999). The interlanguage forms created tend to be persistent and resistant to pedagogical interventions (see Examples [5] and [6]; see also Panova, 2005). Lightbown (2000: 451) has noted that ‘Francophone students in intensive ESL classes fail to produce English plurals correctly, even when they are fairly advanced’.

Studies of grammatical morphemes often assume a particular scoring method that relies on so-called obligatory contexts for assessing acquisition accuracy. The methodological practice, as many have pointed out, may have yielded an incomplete picture, because, following Bley-Vroman (1983), a reliance on ‘obligatory contexts’ and hence on the target language is premised on a comparative fallacy that assumes interlanguage as a product of imitation of the target language rather than as a system in its own right (cf. Cook, this volume). Any interlanguage analysis founded on the comparative fallacy must necessarily focus on the surface, formal deviances, therefore obviating their underlying semantic and conceptual impulse (cf. Larsen-Freeman, 2006). Thus, concerning the form of the noun ‘research’ in [9], [10], and [11] below, an analysis based on the obligatory contexts would reveal no more than that the usages are non-targetlike.
[9] With quite a number of research done on age effects (even if they are not fully conducted to strongly and absolutely support 'the earlier is better' idea), I cannot deny the fact that there is an age factor influencing second language acquisition.

[10] Based on Pienemann's teachability hypothesis and subsequent researches to prove or disprove the hypothesis, Lightbown and Spada's (1999) study is intended to investigate the interaction of instruction, first language influence and developmental readiness in second language acquisition.


In contrast, an analysis based on the linguistic relativity hypothesis would focus on the variable behaviour, sometimes 'research' being marked as plural but sometimes not. More importantly, such an endeavour would look beyond the interlanguage and into the conceptual, semantic, and grammatical properties of nouns in the native language. With regard to [9], [10], and [11], produced by an advanced Korean speaker of L2 English, an examination of the local environments surrounding the 'errors' in question, that is, 'a number of research', 'subsequent researches', and 'a research', indicates that in spite of the above noted formal variation, on the semantic level the three tokens of 'research', invariably convey a countable meaning. This consistency, in turn, mirrors a conception which, somehow, views 'research' as discrete and hence quantifiable. As it turns out, both the interlanguage semantics and the conception are accountable to corresponding representations in the L1: in Korean, yon-gui ('research') (1) is, conceptually, quantifiable; (2) semantically, may carry a singular or plural meaning; and (3) grammatically, has its plural meaning encoded not by morphological inflection but through, dul, a free morpheme known as a unitiser or classifier. For one thing, Korean allows both 'a number of research' and 'a number of researches', but semantically, the former makes a generic reference to the amount of research, and the latter a specific reference to individual studies. In sum, the cognitive impetus for (persistence of) the 'errors', as it should be clear now, was crosslinguistic semantic and conceptual differences, the influence being implicit yet powerful, referred to by Kellerman (1995) as 'transfer to nowhere'.

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**Figure 4.5** Crosslinguistic variation in plural marking

The above example elucidates that with respect to plural marking, languages may differ in, at least, three aspects: (1) what noun phrases take plural marking, (2) how to encode plurality, and (3) when to mark plurality. The choices taken by each language, in light of the earlier discussion on linguistic relativity, constitute a language-specific conceptual system, as illustrated in Figure 4.5.

Take 'hair' as in 'He has dark hair' for an example. In English, the prototypical use of the word 'hair' suggests that it is primarily an uncountable noun, because, grammatically, it does not take the plural -s. By contrast, in Italian, the word 'capello' is countable, and grammatically, its plurality is marked by changing the word-final vowel letter 'o' into 'i' to render 'capelli'. Then, in between the two ends of the spectrum, there is Chinese, a language that treats all nouns as potentially quantifiable (or not), and grammatically, uses classifiers to quantify nouns, as in 'san1 gen1 tou3 fa3' (three hairs). Given these differences, it is conceivable that speakers of the three languages may conceptualise 'hair' differently. So, to monolingual speakers of English, 'hair' could be non-discrete, but discrete to speakers of Italian, and to speakers of Chinese, discrete or non-discrete depending on discourse purposes.

In their discussion of form–meaning connections in SLA, VanPatten et al. (2004: 11) speculate that 'Words that relate to concepts that are firmly grounded in physical reality are more likely to share conceptual features from L1 to L2, but more abstract words do not necessarily share the same boundaries and may vary in attributes across languages'. Although the second part of this statement is apparently true, the above
This interactional episode shows that the learner (NNS) underused the plural -s, not because he did not know that 'key' can take plural marking nor how to pluralize it, but because, as his/her recall protocol makes apparent, the plural -s was more or less taken to be semantically 'empty' and hence, its suppliance optional (see also Jiang, 2004). In this case, the plural -s was part of the learner's grammar, but not yet part of his/her semantic and conceptual system, a system that might still be L1-entrenched.

The discussion so far has provided for at least two understandings. First, the plural -s is semantically and conceptually related to the abstract notion of number, which, in turn, intersects with other abstract notions, such as definiteness/ indefiniteness. It therefore presents itself as a learnability problem on multiple levels and in multiple dimensions. Related to this, secondly, what may eventually render the plural -s unlearnable for some learners is its distributional constraints, due to L1 semantic and conceptual interference.

What, then, does L2 acquisition of English plural marking entail? In view of Figure 4.5, the form (relating to the 'how' aspect), the meaning (the 'what'), and the function (the 'when') are the essential elements, just as Larsen-Freeman has advocated all along for grammar instruction (e.g. Larsen-Freeman, 2001, 2003), but fundamentally, as this chapter has so far made apparent, conceptual restructuring needs to occur. What instructional strategy might facilitate this process? Traditional and current pedagogical approaches have, for the most part, been discrete in nature, inasmuch as they tend to focus on one or two of the elements, a less than desirable outcome of which is that they enforce and reinforce a separation of the three otherwise interrelated elements. In the section that follows, I will propose that the recast has the potential to provide an integrated approach to facilitate the acquisition of the underlying form—meaning—function relations of grammatical morphemes through triggering conceptual restructuring.

A pedagogical model

Given what is known about characteristics of instructed learning, the acquisition of the plural -s is likely to proceed in three identifiable yet
Stage 1: No suppliance
Stage 2: Variable suppliance
Stage 3: Targetlike suppliance
(Underuse, overuse, etc.)

Figure 4.6 A developmental continuum

Continuous stages on a developmental continuum, as illustrated in Figure 4.6, Stage 1 is marked by no suppliance of the morpheme, Stage 2 by variable suppliance, including underuse and overuse, and Stage 3 by targetlike suppliance. Linking these stages, then, to the three elements of acquisition referred to above (i.e. form, meaning, and function), the focus of learning is likely to be on form at Stage 1, on meaning at Stage 2, and on function (distributional characteristics) at Stage 3.

This view is premised on the fact that humans are limited information processors, so much so that their attention can only be selective (for discussion, see Han & Peverly, 2007; Lightbown, this volume). The three developmental stages, taken together, square with Terrell’s (1991: 57) binding and access model which conceptualizes acquisition as consisting of ‘the positing and storing of ... form-meaning relationships and the restrictions on the appropriate access of these forms to express an intended meaning’.

A point was made in the last section about the potential insurmountable challenge that acquisition of distributional restrictions may present to L2 learners, for it requires restructuring of a primarily L1-based conceptual system. All too often, the challenge is compounded by a limited amount of exposure to naturally contextualized usages of the target form, a problem epitomized in English as a Foreign Language settings. Natural contexts are, nevertheless, crucial for acquisition of the distributional characteristics of linguistic forms inasmuch as they are the loci for individual form-meaning associations. Following the developmental path delineated within the framework of connectionism, spanning from individual items to low-scope patterns and then to creative constructions (N. Ellis, 2002, 2003, 2006a, 2006b), experience with numerous contexts is likely to induce (1) an awareness and understanding of the network of rules governing the associations or distributional constraints and simultaneously (2) a restructuring of the L1-based conceptual system. On this supposition, recasts have the potential to become an effective pedagogical strategy.

Due to their non-obtrusive nature, recasts, as Doughty (2003) has noted, ‘[d]o not detract from learners’ attention to meaning, and this facilitates – rather than hinders – the mapping of form and meaning’. A related valuable property of recasts, from my perspective, is that they are context-rich, in two ways. First, as classroom research has revealed, they naturally and frequently occur in meaning-based classroom discourse. Second, they do so in response to a variety of linguistic and comprehension needs. As such, recasts have the capacity to provide numerous, repeated opportunities for the learner to see and test one form in many of its contextual manifestations. Hence, as far as acquisition of form–meaning–function relations is concerned, they are unparalleled by any explicit instruction method which is, more often than not, contextually restrictive or impoverished, limiting itself to one form–meaning association at a time and thereby inducing overuse of the target form, which may prove hard to undo later on. Furthermore, although explicit instruction faces the difficulty of converting declarative knowledge into procedural knowledge (i.e. implicit knowledge), recasts directly build implicit knowledge.

However, before recasts may exercise their contextual power on the acquisition of distributional constraints on the plural -s or any other grammatical morpheme, a few pedagogical conditions must be satisfied. The most basic one is an unambiguous understanding of the meaning of the trigger utterance. As I pointed out earlier, a major problem that weakens the efficacy of recasts is the neglect of the intended meaning of the learner. Therefore, in the event of the learner utterance being ambiguous, the teacher should adopt a ‘wait and see’ stance until further exchange with the learner clarifies the underlying intention or, as studies of recasts have suggested (e.g. Kim & Han, 2007; Han & Kim, in press), use ‘interrogative recasts’ to negotiate meaning with the learner. In a connectionist or emergentist perspective, meaning is not located in a particular form; it is a function of the global state of the system, and it emerges in the interaction (Han & Larsen-Freeman, 2005; Varela et al., 1991).

A second pedagogical condition is that recasts must be focused, meaning that they should focus on one grammatical morpheme at a time, although not necessarily that particular form alone. As has already been suggested, in terms of triggering semantic and conceptual restructuring, recasts would be better off if they target a cohort of interlanguage constructions that represent various grammaticised ways of encoding the abstract notion. Thus, in the case of the plural -s, they could be
provided not only on errors concerning the application (or non) of the morpheme but also subject–verb agreement, article usages, and even a cope like [14].

I have received many such letters, and I have discarded it.

where there is nothing wrong with the plural -s per se, but there is a problem with the anaphoric, object pronoun, it, and its referent, letters. Research on recasts has shown that focused recasts are effective in inducing restructuring — presumably because ‘focused’ renders the positive and negative evidence in recasts perceptually salient (e.g. Doughty & Varela, 1998; Han, 2002; Mackey & Philip, 1998).

Finally, a third condition requires that recasts be sustained, meaning that they should be ongoing (cf. Lighthown, this volume) and systematic. When recasts are systematically provided over a period of time, as opposed to randomly and one time only, they are more likely to bring about conceptual restructuring, a long, gradual, but not necessarily linear process.

A pedagogical model for recasts, in conjunction with the developmental continuum (Figure 4.6), provides intensive recasting for Stage 1, non-intensive recasting for Stage 2, and selective recasting for Stage 3, as presented in Figure 4.7.

As shown, this model predicts that intensive recasting at Stage 1 will lead to increased sensitivity on the learner’s part to the target of the recasts. As a result, the learner will become aware, and his/her output will show variable suppliance of the morpheme, and gradually, self-corrections and even hyper-corrections (Stage 2). At this point, the teacher should shift to non-intensive recasting to counterbalance the learner's

![Figure 4.7 A pedagogical model for recasts](image)

hyper-sensitivity. However, this hyper-sensitivity is likely to continue for an extended period of time, even after the learner appears able to use the target form correctly in a majority of contexts (Stage 3), in which case, the teacher should resort to selective recasting to primarily target errors of overuse.

This model, needless to say, is only an abstraction, and because of that, adjustments must be made during its implementation. Indeed, as Larsen-Freeman (2006: 198) has suggested for grammar instruction in general, For maximum effectiveness, the pedagogical intervention . . . designed to address the particular learning challenge . . . [should be] customized for the learner and the learning context. Only with optimal learning conditions will learners’ full learning potential have a chance to be realized’.

Conclusions

This chapter offered an analysis of the role of meaning in focus on form. One of its main findings is that focus on form, as currently constructed and empirically applied, evinces a lack of attention to the role of learners’ semantic and conceptual system in interlanguage development. As a result, its pedagogical efficacy is compromised, as the research on recasts — a popular instantiation of focus on form — has amply shown.

It was subsequently argued that inasmuch as acquisition consists, broadly, of form—meaning associations, meaning can be a greater source of difficulty than form, and in that vein, grammatical morphemes encoding abstract notions are likely a long-lasting learnability problem for most L2 learners, due to the underlying interference of their L1-based semantic and conceptual systems. Drawing on the linguistic relativity hypothesis, I hypothesised that conceptual restructuring is what is ultimately responsible for targetlike acquisition of grammatical morphemes. By way of illustration, I briefly examined L2 acquisition of the English plural -s morpheme, making a case that existing morpheme order studies have erred in relying on obligatory contexts — ‘a target-centric perspective’ (Larsen-Freeman, 2006) — in assessing acquisition accuracy and supporting, instead, a more interlanguage-orientated approach. I subsequently proposed a pedagogical model that deploys recasts to stimulate conceptual restructuring vis-à-vis grammatical morphemes.

Admittedly, parts of my account were more speculative than I would have liked, but I hope they will provoke much empirical research. Apparently, some of the claims, such as those concerning the pedagogical model, would be best tested through longitudinal case studies. As Long (2007: 113) has speculated, ‘Implicit negative feedback, such as corrective
recasts, is more likely to be successful than explicit 'error correction' when applied in long-term treatments of hard learning targets' (emphasis added). Yet, unlike Long who believes that extended use of recasts will, ipso facto, lead to acquisition of the 'hard learning targets', I contend that an attention to interlanguage semantics (and conceptions, for that matter) is critical to making that happen.

SLA empirical research has yet to develop instruments sensitive to interlanguage semantics and conceptions as a state as well as a process, a domain that has been by and large ignored, due in part to the continued predominance of a form-orientated approach to SLA research, but more importantly, to the long-standing research tradition of relying on the target language in trying to understand interlanguage, this in spite of numerous theoretical claims and abundant empirical evidence on L2 acquisition being parasitic on the L1 in the literature. Overcoming the comparative fallacy (Bley-Vroman, 1983; Cook, this volume) should constitute a paramount priority for SLA research in the coming years, particularly for researchers who strive for a better understanding of any unrelenting learnability problem.

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Notes

1. For evidence of the functional approach, one does not have to look beyond two simple facts. Both first and second language acquirers begin by producing (1) the so-called 'telegraphic speech', that is, utterances that are devoid of grammatical functors, and (2) formulaic speech, that is, chunks of language, without knowledge of internal structure (e.g. Myles, 2004). Both types of speech have high functional value in communication (for discussion, see Hakuta & Cancino, 1977).

2. A recent meta-analysis by Mackey and Goo (2007) of 28 interaction studies reveals an interesting finding, namely that 'interaction tends to be more beneficial for lexis than grammar in the short term, but more beneficial and durable for grammar in the longer term. Recasts seem to be developmentally helpful, with large effect sizes across all posttests ...' (p. 409). At first blush, this finding provides counter-evidence to the logical conclusion I am describing here, but close inspection of the meta-analysis soon allays the concern. In arriving at the above finding, the meta-analysis lumped the interaction studies together, without, that is, differentiating between studies involving recasts and those that did not. Hence, the extent to which recasts are effective for grammatical features is not entirely clear, nor are their putative delayed effects convincing, given that the finding is based on a small number of studies that administered short-term delayed post-tests. A further mitigating element to the finding is that, constrained by the lack of studies on different types of interactional feedback in the literature, the meta-analysis examined interactional feedback as a whole, rather than isolating and comparing different types of feedback. Accordingly, it is still very much of a conundrum whether recasts are superior to other feedback types when grammatical features constitute the targets of correction.

3. One could argue, as Patsy Lightbown, a reviewer of this chapter, points out, that this may only be a reflection of lack of 'uptake', and not necessarily an indication of lack of learning.

4. The semantic and conceptual systems overlap but may not be identical – an insight from Odlin (2005; cf. Levinson, 1997) who distinguished between meaning transfer and conceptual transfer as follows: 'All conceptual transfer involves meaning transfer but not all meaning transfer involves conceptual transfer. In effect, conceptual transfer is a subset of meaning transfer' (Odlin, 2005: 6). In my discussion, I, however, assume that the two systems are interconnected, one (semantic) being concrete and local, and the other (conceptual) abstract and global. Thus, talking about one necessarily entails the other.

5. Kathleen Bardovi-Harlig, who also served as a reviewer for this chapter, offered a different interpretation: '[The learners] are just regularizing grammatically odd expressions'.

6. In English, it is possible to pluralise 'hair' in some pragmatic circumstances. For example, while It made the hair on his head stand up is a standard expression, it is also possible to say It made the hairs on his head stand up, where the plural form, 'hairs', refers to each hair individually.

7. Evidence suggesting a close interface between explicit and implicit knowledge is as yet non-substantial. Hence, the debate continues over the extent to which explicit knowledge contributes to the underlying linguistic competence (cf. Lightbown, 2000, this volume; R. Ellis, 2005).

8. L2 pedagogy should benefit greatly from theoretical linguistic findings of clusters of syntactic and morphological properties, but unfortunately, not many have been found. The few that are available, for example, question formation and adverb placement (White, 1991), and the correlations between the prodrop parameter, subject inversion, and that-trace effects (Rizzi, 1982), have not really been put to pedagogical application in the way suggested here (cf. Ying, this volume).