

This article was downloaded by: [University of Leeds]

On: 21 December 2008

Access details: Access Details: [subscription number 773557620]

Publisher Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## Language Learning Journal

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title-content=t779637218>

### Corrective recasts: what teachers might want to know

Zhao-Hong Han <sup>a</sup>; Ji Hyun Kim <sup>a</sup>

<sup>a</sup> Teachers College, Columbia University, New York, USA

Online Publication Date: 01 June 2008

**To cite this Article** Han, Zhao-Hong and Kim, Ji Hyun(2008)'Corrective recasts: what teachers might want to know',Language Learning Journal,36:1,35 — 44

**To link to this Article:** DOI: 10.1080/09571730801988371

**URL:** <http://dx.doi.org/10.1080/09571730801988371>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

## Corrective recasts: what teachers might want to know

Zhao-Hong Han\* and Ji Hyun Kim

*Teachers College, Columbia University, New York, USA*

Teachers, in particular those who operate in communicatively oriented classrooms, frequently use recasts (i.e. reformulations) when interacting with students. Research has nevertheless shown that, as a corrective feedback strategy, recasts are the least effective, particularly in terms of helping students to recover from grammatical errors. One reason for the lack of efficacy is that recasts are sometimes intended to fulfil a corrective function and sometimes a communicative function. In consequence, the corrective function, when intended, is often obscured and hence ignored. This paper garners insights from the existing research, presenting them in the form of five pedagogic strategies buttressed with authentic classroom examples. The goal of these strategies is to increase the saliency of the corrective function of the recasts so that they become more noticeable, and hence more effective in drawing learners' attention to gaps between their interlanguage and the target grammar.

### Introduction

Recasts are a very frequently used interactional strategy by teachers in second language classrooms, in particular, where meaning-based interaction is emphasized. Some classroom-based studies have, nevertheless, shown that it is the least effective in treating learner grammatical errors (see Lyster and Ranta 1997). Two factors among others have been singled out as being able to modulate their efficacy. One factor, as first noted by Lyster (1998), is that teachers sometimes use recasts as a communication strategy (hereafter 'communicative recasts') to maintain the flow and coherence of, or scaffold, the ongoing conversation, but sometimes they use them to treat errors in learners' utterances, hence as an error correction strategy (hereafter 'corrective recasts'). The two functions are illustrated in (1) and (2). The examples supplied in this article are taken from a corpus we recently compiled, which comprises 200 minutes of teacher–student conversational interaction in four communicative EFL classes in a private language school in Korea, taught by two native speakers of American English (henceforth, the 'Korean EFL corpus'; see Kim and Han 2007).

#### 1. The corrective recast:

- 1 T: Has anyone tried horsemeat? ... XX, have you?
- 2 S: No, I am not adventurous of food.
- 3 T: *I am not adventurous with food.*
- 4 S: Adventurous with?

---

\*Corresponding author. Email: han@tc.columbia.edu

## 2. The communicative recast:

1 S: It means I am not familiar about that?

2 T: *No, it doesn't mean that you're not familiar with that. You're familiar with that, but you don't like it.*

3 S: Oh, I see.

In (1), in response to a question from the teacher (T), the student (S) produced a non-targetlike utterance (Turn 2), which then triggered a corrective recast (Turn 3) from T. S's subsequent uptake shows that she noticed the alternative form, the preposition 'with', contained in the recast. By contrast, in (2), T's recast is communicative in nature; it was a response to the uncertainty and a request for confirmation carried in S's non-targetlike utterance in Turn 1. The non-corrective intent was made apparent by S's ensuing affirmation of understanding.

Owing, therefore, to the two functions assigned to recasts, it is not always clear to the learner which function, corrective or communicative, is actually being deployed. In consequence, the corrective function of recasts often remains unfulfilled.

The second oft-noted factor is that corrective recasts tend to be provided at random, concerning miscellaneous errors and in varying forms, lengths and frequencies. Researchers have, correspondingly, argued that non-systematic provision of corrective recasts makes it difficult for learners to notice their presence, not to mention processing them (see Doughty and Varela 1998). Noticing, following Schmidt (2001), is a prerequisite for learning.

In terms of the forms of recasts, Lyster (1998), based on his observation study of French immersion classes, identified four, namely (a) the isolated declarative recast, (b) the isolated interrogative recast, (c) the incorporated declarative recast, and (d) the incorporated interrogative recast. Examples of each follow in (3)–(6).

## 3. The isolated declarative recast:

1 S: I can see their leg.

2 T: *I could see their legs.*

3 S: I could see.

## 4. The isolated interrogative recast:

1 S: Live shrimp. . .

2 T: *Raw shrimp?*

3 S: Raw shrimp, yeah.

## 5. The incorporated declarative recast:

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.

## 6. The incorporated interrogative recast:

1 S1: What does truffles taste like?

2 T: *What do truffles taste like? They taste a little bit like mushrooms. But they are a lot stronger. Different truffles taste different things. The one I tried, hmmm . . . to be honest, tasted like rotten fruits. I didn't like them at all. Maybe it wasn't meant to taste like that.*

3 S2: Why is it so special?

As can be inferred from (3)–(6), two criteria were used to determine the form of a given recast: (a) whether the recast assumes the form of a statement or a question; and (b) whether or not it expands on the meaning of the learner's utterance. Importantly, these different forms of recast carry differential salience for learners (Lyster 1998). Our analysis of the Korean EFL corpus yielded the following findings: declarative recasts are, in general, perceived by learners as corrective, but interrogative recasts are not. Rather, they are often taken as an invitation for topic continuation. Similarly, incorporated recasts are not as accurately perceived (i.e. as corrective in intent) as isolated recasts, though for a slightly different reason: incorporated recasts extend, or even revise, the communicative intent of the original learner utterances, thereby overriding their corrective function. Clearly, interrogative and incorporative recasts are the main loci of ambiguity.

Longer corrective recasts are correlative with less noticing on the part of learners (Kim and Han 2007). Philp's (2003) experimental study, isolating *inter alia* the length of the recast as an independent variable, shows that recasts containing more than five morphemes were generally not as accurately noticed as recasts having fewer morphemes. The researcher attributed this to learners' limited attentional capacity.

Corrective recasts of low frequency are generally found to be ineffective in drawing learners' attention (see e.g. Mackey and Philp 1998), even though high frequency is no guarantee of it, either. Mackey, Gass and McDonough (2000), for example, show that in task-based dyadic interaction between NS and NNS, the number of recasts on morphosyntactic errors far outstripped the number of recasts on phonological and lexical errors, yet they elicited the least amount of learner uptake, a common measure of learner noticing. This finding, which is experimentally derived, is corroborated by our Korean EFL corpus as well as by Lyster (1998). It thus appears that the greatest area of difficulty for L2 learners lies with the morphosyntax of the target language but that recasts may not be a desirable strategy for treating grammatical errors (Mackey et al. 2000). Should corrective recasts, then, be forsaken in communicatively oriented pedagogical environments? We argue not, and while not suggesting that recasts are, by default, superior to other forms of corrective feedback (e.g. explicit correction, metalinguistic feedback, elicitation), we would like to suggest a number of research-based pedagogical strategies for enhancing their efficacy.

### Why corrective recasts?

As noted above, recasts are inherent in the discourse structure of meaning-orientated interaction. Removing them from the classroom would therefore be artefactual, and it would simply add to the already alleged lack of authenticity of classroom interaction (cf. Tarone and Swain 1995). Also, teachers, according to Seedhouse (1997), generally prefer implicit, over explicit, feedback strategies, including recasts. By virtue of their implicitness, recasts are non-obtrusive and hence tend not to be interruptive of the natural flow of meaning-based interaction – a characteristic well-suited to communicatively oriented teaching.

Equally, if not more, important from a theoretical standpoint is the fact that corrective recasting has several unique features which may facilitate learning in ways unparalleled by any other corrective strategies, such as explicit correction and metalinguistic feedback. For one thing, being semantically contingent on the learner's utterance, a corrective recast is of direct relevance, and should therefore be of instant interest, to the learner. For another, its immediate juxtaposition to his/her utterance may bring the learner into an awareness that the form he/she produced was erroneous. Furthermore, by limiting itself to a change

(or changes) in form – as opposed to meaning – to his/her utterance, the corrective recast may even prompt the learner to make a focused comparison of relevant forms between the recast and his/her utterance. If gaps were then accurately spotted, it could lead to destabilization of certain of the interlanguage rules that the learner had embraced, allowing him/her to establish correct form–meaning mappings. This scenario is illustrated in (7).

7.

1 S: According to my Japanese manager speaking. . .

2 T: *According to my Japanese manager . . .*

3 S: OK, according to my Japanese manager, every single Korean woman is so aggressive.

As shown in (7), S's utterance in Turn 1 was immediately responded to by T with a recast (Turn 2), which was subsequently recognized by S and incorporated in his utterance (Turn 3).

From this account, it would seem that the corrective potential of recasts can be fulfilled, but only strategically. The next section presents and discusses five strategies that can be used to increase the salience of the recasts so that they become more noticeable, and hence more effective.

### Strategy 1: cultivating metalinguistic sensitivity

Teachers who are inclined to use recasts for corrective purposes *ipso facto* cultivate in their students a propensity to process recasts for their corrective information (for a review see Sheen 2004). Our analysis of the Korean EFL corpus reveals that students in the EFL environment are generally able to differentiate corrective from communicative recasts. This suggests that learners' sensitivity to corrective recasts can be increased through minimizing the ostensible ambiguity in teachers' deployment of recasts. One way to do it would be to capitalize on learners' natural, perceptual tendency by aligning simple declarative recasts with the corrective function, on the one hand, and interrogative and incorporative recasts with the communicative function, on the other.

### Strategy 2: keeping a narrow focus

Recasts may take different forms (see (3)–(6)). As mentioned earlier, research has adduced evidence suggesting that isolated declarative recasts are more effective than interrogative and incorporative recasts in drawing learners' attention to form. There are, however, other parameters that can be manipulated to engineer salience.

A recast may advance one change to the learner utterance, the so-called 'simple recast', or it may contain several changes, the so-called 'complex recast'. Examples are given in (8) and (9) respectively.

8. The simple corrective recast:

1 S: We can know the taste after eat.

2 T: *We can know the taste after eating.*

3 S: After eating.

9. The complex corrective recast:

1 S: Sometimes, people make violation.

2 T: Violation?

3 S: Yeah, it cause vio ... violation.

4 T: *It causes violence.*

5 S: Violence.

Research shows that simple recasts are more effective than complex ones in getting learners to correct their errors (Lyster and Ranta 1997; Philp 2003). Shown in (9) is a complex recast (Turn 4) whereby the teacher corrected two errors in the student's utterance, i.e., the omission of the third person singular *-s* from the verb 'cause' and inaccurate word choice of 'violation'. As a result, the student noticed one of them, the lexical correction, but ignored the other. Philp (2003) shows that the more changes that are embodied in a recast, the further it deviates from the original learner utterance, and hence the less likely it is that the changes will be noticed by the learner.

Furthermore, simple recasts can be divided into full and partial recasts. A full recast is one which overlaps with the original utterance entirely except for the erroneous form, as illustrated in Turn 2 of (8). A partial recast, on the other hand, singles out and recasts the error, without, therefore, repeating the rest of the learner utterance. An example appears in (10).

10. The partial recast:

1 S: Yeah, I went to convenience store.

2 T: *A convenience store ...*

3 S: A convenience store ... to buy cigarette.

Research has established (a) that the narrower the focus of the recast is, the more likely it is to be noticed by the learner, and, furthermore, (b) that the shorter the recast is, the more likely it is to be noticed (Doughty and Varela 1998; Mackey and Philp 1998; Philp 2003). Both findings are often considered in terms of learners' limited attentional and memory capacities: as a result of the functioning of these learner-internal constraints, only those forms that are perceptually salient will be selected for attention and processing. Salience, on this account, derives from those recasts that are short and involve only one change to the learner utterance. It is thus quite conceivable that, all things being equal, the following hierarchy of salience obtains for corrective recasts:

Simple partial recasts > simple full recasts > complex recasts

According to this hierarchy, simple partial recasts (see (10)) are more salient and hence more noticeable than simple full recasts (see (8)), which, in turn, are more noticeable than complex recasts (see (9)).

### Strategy 3: negotiating recasts

The interaction hypothesis (Long 1996; Pica 1994), which has guided much second language acquisition research over the past two decades, highlights the contribution of negotiated interaction to learning, on the assumption that negotiation, among other things, brings about corrective feedback, which in turn aids the development of an L2. By this account, corrective feedback is an epiphenomenon of interaction, triggered by negotiation of meaning. This view, though true of some forms of corrective feedback, does not apply to recasts. Mackey et al. (2000), in investigating learner perceptions about interactional feedback, noticed that unlike clarification recasts, comprehension checks,

and confirmation checks, which arose naturally in meaning-based negotiation, the recasts provided did not always result from negotiation. Indeed, the researchers subsequently argued that the relative lack of efficacy of recasts vis-à-vis grammatical errors may be associated with the absence of negotiation. Given this insight, coupled with a similar finding from our analysis of the Korean EFL corpus, we recommend that recasts be provided via negotiation. An illustration is given in (11).

11.

- 1 T: Hi, how are you?
- 2 S1: Busy. More busier than usual
- 3 T: *Busier than usual?*
- 4 S1: Busier?
- 5 T: Yeah, I am busier than usual.  
Why are you busier than usual?
- 6 S1: Hmm ... because salesman is left to ... hum. ... salesman went business trip.
- 7 T: *A salesman has gone to a business trip.*
- 8 S1: Yes.
- 9 S2: Business trip or vacation?
- 10 S1: Not vacation ... business trip. So, I am busier than usual. All salesman ... they...
- 11 T: *Oh, all salesmen? Not one. All salesmen have gone to a business trip?*
- 12 S1: Three salesman is in Suwon office ... for new product training.
- 13 T: All salesmen from your department?
- 14 S1: No, one salesman in ... in Seoul office. Two salesman from ... in Suwon office.
- 15 T: *They are in the Suwon office now? Or they usually work in the Suwon office?*
- 16 S1: Usually work in Suwon office.
- 17 T: *One of the salesmen is from the Seoul office. The other two are from the Suwon office?*
- 18 S1: They went to Hunan.
- 19 T: *They've gone to Hunan ... Very nice!*
- 20 S1: I envy them so much.
- 21 S2: Me, too.
- 22 S1: Some of salesman got back to the Hunan.
- 23 T: *Got back from Hunan.*
- 24 S1: Yes, got back from Hunan. And then will go to Australia.
- 25 T: *Oh ... so... they will come back from Hunan ... and then they will go to Australia?*
- 26 S1: Yeah.
- 27 T: Excellent!
- 28 S1: I envy so much. I am not salesman. I usually don't have opportunity to go abroad.

In this segment of interaction (see also (9)), the teacher attempted several recasts (i.e. Turns 3, 7, 11, 15, 17, 19, 23, and 25). While they each targeted a particular error, it was not until Turn 25, after much negotiation, that he was finally able to provide a recast that was congruent with the original communicative intent of the learner.

Negotiation can thus help to clarify the meaning of the learner utterance, which in turn may inform the teacher's decision about what to recast and how to deliver the recast.

This said, we hasten to add that not every corrective recast must be preceded by negotiation. After all, providing corrective feedback must be predicated on understanding the nature of the relevant target form and, by the same token, the nature of the error. Some forms are purely formal, such as the third person singular *-s*, while others bear discourse-sensitive meanings, such as the context-bound usages of articles. Clearly, it is in dealing with the latter type of errors that negotiation becomes critical as it can elucidate the speaker's intent (cf. Hauser 2005). In sum, the goal of a corrective recast is to reformulate the learner utterance, with changes to its form but without changing its meaning. Ensuring that the latter is the case is important, from an information processing perspective: it releases the learner's attentional resources, which he or she may then allocate to processing forms contained in the recast.

#### Strategy 4: promoting self-negotiation

The role of negotiation goes beyond clarifying meaning. Researchers have noted that negotiation cognitively stimulates attention to, and processing of, linguistic form (Mackey et al. 2000; Swain 1995). Moreover, studies comparing the effects of different implicit feedback strategies (e.g. recasts, elicitation, repetitions and clarification requests) have shown convincingly that the strategies that invite learners to explore their own resources – such as clarification requests – outperform those that afford models directly, such as recasts, in that they engender more learning (Lyster 2004), thus suggesting the benefit of prompting learners to self-negotiate, that is, to explore their own existing knowledge and subsequently revise their own output. To be clear, self-negotiation is an *internal* process which manifests itself *externally* in self-repair. An illustration is given in (12).

12.

1 S: I quarreled with my brother.

2 T: *Uh?*

3 S: I quarreled with my brother when I was young. I just came out ... I've just memorized. ...

4 T: *Memorized?*

5 S: I've just memorized. ...

6 T: *OK, I've just remembered ...*

7 S: Yeah, I've just remembered I quarreled with my brother. I hit him when I was young.

8 T: Did he hit you back?

9 S: Sure.

In (12), T, through a clarification request (Turn 2) and a confirmation check (Turn 4), gave S two opportunities to self-negotiate/repair (Turns 3 and 5) before providing a recast, and when the recast was delivered, S, as shown in Turn 7, not only noticed and understood it but was also able to incorporate it into his new utterance, the best conceivable result of corrective recasting.

Thus, one consequence of self-negotiation is that it foregrounds the recast for the learner, hence making it salient. Another – more profound – consequence is that it induces in the learner a deeper level of processing of the recast. The modified output *en route*, according to Swain (1995), could be a representation of 'the leading edge of a learner's interlanguage' (131). Similarly, Lyster and Ranta (1997) noted that self-repairs help to 'automatize the retrieval of target language knowledge that already exists in some form' (57).



Self-negotiation (and repairs, for that matter) can be encouraged through clarification requests, repetitions, metalinguistic clues, elicitation, separately or in combination (Lyster 2004). Doughty and Varela (1998), for example, experimented with a technique whereby the recast was preceded by repetition, with intonational stress for emphasis, which successfully brought the learners' attention to the form in focus, as shown in their increasing self-repairs.

### Strategy 5: seeking out teachable moments

The timing of the corrective recast may also contribute to its salience and efficacy. Teachers should, accordingly, look out for 'teachable' moments so that the recasts provided will have the best chance of being noticed, processed and incorporated. In theory, the ideal moment would be when the learner is temporarily switching to a hypothesis-testing mode.

Swain's (1995) output hypothesis theorizes several roles for learner output, one of which is that in producing output, the learner can choose to test a particular hypothesis he has held about a certain aspect of the target grammar. In practice, such hypothesis-testing moments can manifest themselves in a number of ways, including learner self-repairs, hesitations, delays, perturbations, requests for help and even non-verbal orientations, among others. Examples follow.

#### 13. Self-repair:

- 1 T: XX, when is the last time you offended someone?
- 2 S: I didn't ... I never offended.
- 3 T: *I have never offended anyone.*
- 4 S: I have never offended anyone.

As shown in (13), upon hearing the student's self-repair (Turn 2), the teacher provided a recast (Turn 3), which in turn was followed by the student repeating it (Turn 4) and thus repairing his earlier utterance.

#### 14. Perturbation:

- 1 T: You don't like Singapore? Why you don't like Singapore?
- 2 S: Singapore ... it is not ... uh... demo ... democracy country.
- 3 T: *It is not a democratic country.*
- 4 S: What's oppo ... opposite of democratic?

In (14), the student was displaying (in Turn 2) some difficulty in finding the right form of a word, perhaps being unable to choose between 'democracy' and 'democratic.' This thus presents a teachable moment for the teacher, and as shown, when the corrective recast was provided, the student recognized the correct form and subsequently integrated it into his new utterance.

#### 15. Delay:

- 1 S1: Good smell from your drink ... what's that?
- 2 S2: Vanilla latte.
- 3 T: Is it good?
- 4 S2: Yes. Better than café latte.
- 5 S1: Will it ... will it fat you if you drink?

- 6 T: *Will it make you fat?*  
 7 S1: Will it make you fat?  
 8 S2: I think so, with big cream, it will make you fat.

In (15), a delay is shown in Turn 5, which led to a non-targetlike utterance. The teacher grabbed the moment, recasting it in Turn 6, which incited a correct uptake from the learner (Turn 7).

16. Hesitation:

- 1 S2: You look happy. What happened?  
 2 S1: My lotto is selected? My lotto...  
 3 T: Lotto?  
 4 S1: Lotto...  
 5 T: *Lottery?*  
 6 S1: Lottery. I bought a lottery. I was right on the money. My lotto is selected, lottery number.

(16) displays uncertainty on the part of S2 on the form 'lotto' (Turn 2). Through a confirmation check (Turn 3), T prompted S2 to self-repair, but S2 again was unsure about the word. T then responded with a recast, which was immediately confirmed by S2 to be the word she was seeking. As further shown in Turn 6, S2 was able to incorporate it in her new utterance.

17. Request for help:

- 1 S: I even couldn't try it?  
 2 T: I couldn't even try it.  
 3 S: Yes, I couldn't even try it.

In (17), S's statement with rising intonation in Turn 1 conveyed a request for confirmation on its well-formedness. T responded to it with a simple declarative recast, which, as shown, led to immediate uptake and repair by S.

To sum up (13)–(17), recasts provided at these teachable moments were efficacious inasmuch as they resulted in the learners (a) attending to and understanding the alternative form provided; (b) subsequently adopting it in place of their own version; and/or (c) integrating it in their new utterance. Such a chain of processes, which exhibits development of targetlike form-meaning mappings, is precisely what corrective recasts have sought to promote.

## Conclusions

Research on recasts has, hitherto, produced mixed findings, hence raising concerns about their efficacy, in particular for grammar learning in the meaning-orientated classroom. While the debate is still going on, the already abundant research, observational as well as experimental, has uncovered a number of external factors that can affect their efficacy. These insights were presented here in terms of strategies that teachers can possibly employ, should they wish to utilize recasts as a means to enhance students' language learning besides content. It must be noted, however, that these strategies are, at best, interim examples of current understanding of recasts. It is beyond doubt that as empirical research continues, further insights, particularly along the line of how external factors interact with

learner-internal factors to modulate the efficacy of recasts, will become available, which will lead to a greater understanding than presented here. But until then, teachers might wish to test the feasibility of these five research-based suggestions in their own classrooms.

## References

- Doughty, C., and E. Varela. 1998. Communicative focus on form. In *Focus on Form in Classroom Second Language Acquisition*, ed. C. Doughty, and J. Williams, 114–38. Cambridge: Cambridge University Press.
- Hauser, E. 2005. Coding 'corrective recasts': The maintenance of meaning and more fundamental problems. *Applied Linguistics* 26, no. 3: 293–316.
- Kim, J.H., and Z.H. Han. 2007. Recasts in communicative EFL classes: Do teacher intent and learner interpretation overlap? In *Conversational Interaction in Second Language Acquisition: A Series of Empirical Studies*, ed. A. Mackey, 269–300. Oxford: Oxford University Press.
- Long, M.H. 1996. The role of the linguistic environment in second language acquisition. In *Handbook of Second Language Acquisition*, ed. W.C. Ritchie, and T.K. Bhatia, 413–68. New York: Academic Press.
- Lyster, R. 1998. Recasts, repetition, and ambiguity in L2 classroom discourse. *Studies in Second Language Acquisition* 20: 51–81.
- Lyster, R. 2004. Different effects of prompts and recasts in form-focused instruction. *Studies in Second Language Acquisition* 26: 399–432.
- Lyster, R., and L. Ranta. 1997. Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition* 20: 37–66.
- Mackey, A., S. Gass, and K. McDonough. 2000. How do learners perceive interaction feedback? *Studies in Second Language Acquisition* 22, no. 4: 471–98.
- Mackey, A., and J. Philp. 1998. Conversational interaction and second language development: Recasts, responses, and red herrings? *The Modern Language Journal* 82, no. 3: 328–56.
- Philp, J. 2003. Constraints on "noticing the gap": Non-native speakers' noticing of recasts in NS-NNS interaction. *Studies in Second Language Acquisition* 25, no. 6: 99–126.
- Pica, T. 1994. Research on negotiation: What does it reveal about second-language learning condition, processes, and outcomes? *Language Learning* 44: 493–527.
- Schmidt, R. 2001. Attention. In *Cognition and Second Language Instruction*, ed. P. Robinson, 3–32. Cambridge: Cambridge University Press.
- Seedhouse, P. 1997. The case of the missing 'no': The relationship between pedagogy and interaction. *Language Learning* 47: 547–83.
- Sheen, Y. 2004. Corrective feedback and learner uptake in communicative classrooms across instructional settings. *Language Teaching Research* 8, no. 3: 263–300.
- Swain, M. 1995. Three functions of output in second language learning. In *Principles and Practice in Applied Linguistics*, ed. G. Cook, and B. Seidlhofer, 125–44. Oxford: Oxford University Press.
- Tarone, E., and M. Swain. 1995. A sociolinguistic perspective on second language use in immersion classrooms. *The Modern Language Journal* 79: 166–78.