

## Enhancement in Learners' Perception of Recasts as Corrective Feedback through Explicit Moves

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Recasts have been shown to be an effective type of negative evidence to enhance L2 grammatical acquisition (Doughty & Varela, 1998; Long, Inagaki & Ortega, 1998; Mackey & Philp, 1998). However, they often fail to be perceived by learners as corrective feedback due to their inherent ambiguity (Lyster, 1998). This study explores ways to heighten learners' recognition of recasts' corrective nature so that they better serve L2 acquisition. Two explicit moves were implemented in an experiment for this purpose: emphasis and repetition. They were examined in relation with recast length and target form stage. Sixty Korean college students were assigned to four groups that received recasts with different explicit moves. The results were: (a) emphasis only benefited perception of long recasts; (b) short recasts were better perceived irrespective of existence and type of explicit move; (c) perceptual effects of emphasis remained constant across target form stages; and (d) repetition had no perceptual effects irrespective of recast length and stage. The findings lead to suggesting the selective use of explicit moves according to the way recasts are provided and to presenting some issues for a better understanding of how focus on form arises through recasting.

### I. INTRODUCTION

A lot of research has suggested that attention to form is a prerequisite for second language (L2) acquisition. Schmidt (1990, 1995, 2001) claimed in his Noticing Hypothesis that attention is necessary because input cannot become intake in its absence, making it impossible to further process language for acquisition. Gass (2004) argued for the role of attention as "a mechanism that unites the context with internal mental activity of learners" (p. 82). Tomlin and Villa (1994) elaborated the notion of attention by proposing its three components: alertness, orientation, and detection. Leow (1998) found that detection, defined as "cognitive registration of sensory stimuli" (Tomlin & Villa, 1994, p. 192), is the most crucial component for turning input into intake.

Recognizing the necessity of attention in acquisition has led to a series of research on ways that it can be heightened. Some researchers primarily focused on manipulation of input, referred to as input enhancement (Sharwood Smith, 1991). With this technique, the input was altered in a way that makes target features more salient than others so that they are more likely to be noticed by learners. Perhaps, the most explicit way to increase salience of target form would be to isolate it from the input and provide relevant metalinguistic accounts. There are many studies that report favorable effects of this technique on acquisition of a range of L2 structures, which implies a positive relationship of this technique and attention (Doughty, 1991 for English relativization; Pienemann, 1984 for German word order; White, 1991 for English adverb placement).

Input flooding is a less explicit way for higher salience, and its positive effects on L2 acquisition have been found in some studies (Trahey & White, 1993 for English word order; Williams & Evans, 1998 for English participles and passives). White (1998) added another technique to input flooding. White (1998) manipulated the written input by graphically highlighting target forms-English third person singular possessive determiners-using enlargement, bolding, italics, and underlines. This type of input enhancement, however, turned out to be ineffective in acquisition. White (1998) cautioned that the results are not evidence for ineffectiveness of input enhancement as they arose from inadequacy of research design such as failure to control for learners' proficiency and familiarity with target forms.

Some researchers contend that verbal interaction between the more competent interlocutor (e.g., the native speaker [NS], teacher) and the non-native speaker (NNS) learner is a good context to enhance the input. Long (1996), in his Interaction Hypothesis, valued a particular type of interaction, known as negotiation of meaning, because selective attention is "brought together most usefully, although not exclusively, during negotiation for meaning" (p. 414). Long (1996) further stated that "negative feedback obtained during negotiation work or elsewhere may be facilitative of L2 development" (p. 414). Negative feedback is a factor to initiate negotiation of meaning and it is predominantly given by the more competent interlocutor. Thus, "*negotiation for meaning*, and especially negotiation work that triggers *interactional* adjustments by the NS or more competent interlocutor, facilitates acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways" (Long, 1996, pp. 451-452).

Many studies have been conducted to see whether and how effectively negative feedback provided in the learner-involved negotiation results in L2 acquisition. Of negative feedback types, the recast is one that has been most widely studied. (Inagaki & Long, 1999; Long, Inagaki & Ortega, 1998; Mito, 1993; Ortega & Long 1997; Richardson, 1995; Tomasello & Herron, 1988, 1989; Yamaguchi, 1994). Overall findings revealed that recasts are positively related to L2 acquisition. Compared with studies of recasts and

acquisition, there have been a relatively small number of studies looking into the relationship between recasts and attention. Although some studies reported the positive role of recasts in drawing attention (Philp, 1999, 2003), others claimed that the efficacy of recasts as an attention-drawing device is limited due to their own distinctive characteristics (Carroll & Swain, 1993; Lyster, 1998). This study aims to analyze those limiting features and, building on the analyses, explore ways to increase the attentional efficacy of recasts so that they can better serve acquisition processes.

## II. RECASTS FOR ATTENTION

The reason that recasts have been extensively investigated stems partly from the fact that they are the one that is most widely employed by instructors of all feedback types in the classroom. Indeed, after observing NS teacher and NNS learner interaction in four French immersion classrooms, Lyster and Ranta (1997) identified six different types of negative feedback provided by teachers on learners' nontargetlike utterances: explicit correction, recasts, clarification requests, metalinguistic feedback, elicitation, and repetition. Analysis of teachers' error correction behaviors showed that recasts were used 55% of the time, followed by elicitation and clarification, with repetition being least adopted.

### 1. Definition of Recasts

Recasts are a negative and corrective feedback in which a more competent interlocutor reformulates a learner's immediately preceding ill-formed utterance by changing one or more erroneous sentence parts while still maintaining its central meaning. (1) is an example where a teacher provides a recast in an inter-student conversation:

(1)

S1: Why you don't like Marc?

T: Why don't you like Marc? (Recast)

S2: I don't know, I don't like him.

(Lightbown & Spada, 1999, p. 104)

In (1), when providing a recast, the teacher (T) rephrases the first student's (S1) incorrect utterance by changing the word order to produce the correct version. It is evident that S1's intended meaning is still retained in the recast in that the second student's (S2) response to S1's question could also semantically be the natural response to the recast.

Recasts are implicit in that no clear indication of the learner's utterance being incorrect-making a statement such as 'You can't say', 'You should say', or 'You mean'-is given with them. This is what distinguishes recasts from "explicit correction," which explicitly indicates existence of the learner's error with provision of the correct form as seen in (2):

(2)

S: The dog run fastly.

T: 'Fastly' doesn't exist. 'Fast' does not take -ly.

That's why I picked 'quickly.' (Explicit Correction)

(Lightbown & Spada, 1999, p. 104)

There is one thing common to recasts and explicit correction. They both contain and present the correct form, which is not provided through the other types suggested by Lyster and Ranta (1997). (3) is a segment of a teacher-student conversation that involves an instance of elicitation.

(3)

S: My father cleans the plate.

T: Excuse me, he cleans the ??? (Elicitation)

S: Plates?

(Lightbown & Spada, 1999, p. 105)

Although the correct form (i.e., plates) appears in (3), it is not in the teacher's elicitation move but in the student's response.

## 2. Merits of Recasts in Drawing Attention to Form

Thornbury (1997) divided Schmidt's claims in Noticing Hypothesis into two aspects: learners "attend to linguistic features" and "notice the gap, i.e., make comparisons between current state of their developing system ... and the target language system" (p. 326). According to researchers (Doughty, 2001; Long & Robinson, 1998), there are some advantages to recasts over the other feedback moves with regard to both aspects of noticing.

Humans have limited capacities to consciously process incoming language data for meaning and form (Schmidt, 2001; VanPatten, 1994). VanPatten (1990, 1996) argued that it is very difficult, if not impossible, for learners, particularly those at early stages of development, to attend to content and form simultaneously. Faced with the input, learners

tend to prioritize allocation of their attentional resources for processing meaning over form. Attention to form can only occur if those resources are still left available after comprehension of the input. One advantage of recasts lies in the fact that meaning of the learner's erroneous utterance remains intact in recasts. This may free up the learner's attentional resources, which otherwise would be used for processing meaning, to attend to form (Doughty, 2001; Long & Robinson, 1998).

Another advantage of recasts relates to their location in interaction. Recasts are juxtaposed with the learner's problematic utterances as the former is provided immediately following the latter. This juxtaposition, as Doughty (2001) stated, makes it easier for the learner to make direct comparisons between output (i.e., the learner's erroneous utterances) and input (i.e., recasts) and thus to notice the gap between targetlike and nontargetlike forms.

### 3. Demerits of Recasts in Drawing Attention to Form

In order for negative or corrective feedback to serve as attention-drawing device, it should be perceived by learners as intended to correct their ill-formed utterances. Corrective feedback, however, is not necessarily taken as having that intent all the time. In particular, recasts are said to have many disadvantages in this respect.

The most striking problem of the recast stems from its inherent ambiguity. For example, the teacher can repeat the learner's utterance in teacher-learner conversation irrespective of its well-formedness. Unlike "repetition of ill-formed utterances" which is one of the corrective feedback types in Lyster and Ranta (1997), "repetition of well-formed utterances" is noncorrective in the sense that there is no form to be corrected. The function of such noncorrective repetition could be confirmation of the learner's message, as seen in (4) from this study's data:

(4)

S: The lady is looking in the pond.

T: Yes, she is looking in the pond. (Noncorrective repetition)

The teacher is confirming what the student said by repeating it in the above example. Lyster (1998) pointed out that recasts can also have this noncorrective function of confirmation in addition to correction of language form. For instance, the teacher might be simply attempting to confirm the student's message when saying "Why don't you like Marc?" in (1). The fact that recasts could have a message-confirming function means that recasts may not necessarily draw attention to form.

Moreover, unlike explicit correction, recasts include nothing to clearly point to the

ungrammaticality of the learner's utterances. As a result, it is likely that the learner perceives the recast as a variant or synonym of his or her utterance, rather than the corrected version, even if the learner recognizes that the recast was intended to give information about form.

Another factor that makes matters worse is teachers' certain language behavior. Lyster (1998) found that when teachers provide recasts, they also give positive feedback 27% of the time. Such feedback, referred to as signs of approval by Lyster (1998), includes affirmation or acknowledgement words (e.g., OK, right) and praise words (e.g., Brovo, Good, Perfect). (5) is an English translation of an excerpt of L2 French conversation from Lyster (1998):

(5)

S: Is it in, I think it's inside Europe.

T: It's in Europe. (Recast) Yes, you're right. (Sign of Approval)

(Lyster, 1998, pp. 70-71)

Signs of approval occurring alongside with recasts such as one in (5) are feedback responding to the content, not the form, of the learner's utterance. Coexistence with such message-focused feedback is likely to lead the learner to view recasts as fulfilling the function of confirmation rather than that of correction, weakening recasts' corrective force.

### III. RESEARCH QUESTIONS

A corollary to several aforementioned factors that avert learners' attention away from revised form in recasts is that not all recasts are perceived as having corrective purpose. In fact, Philp (1999) showed that 30% of recasts were not taken as corrective feedback. There are other factors that affect perception of recasts. Philp (2003) revealed that the likelihood of recasts being perceived as corrective was higher when learners' level was higher, the recasts were shorter, and fewer changes were made in recasts. Mackey, Gass, and McDonough (2000) considered grammar areas and found that recasts on vocabulary and phonology were correctly perceived 83% and 60% of the time respectively. However, the rate was down to 13% for morphosyntax. These results corroborate claims that correctiveness of recasts may not be recognized implicitly on their own (Carroll & Swain, 1993; Pica, 1988) and that intentional addition of more explicit moves to recasts may be necessary to increase perception of their corrective nature, given that recasts can draw attention only when they are perceived as corrective feedback.

There has been research looking into the effects of recasts accompanied by more

explicit devices on L2 acquisition (Doughty & Varela, 1998; Tomasello & Herron, 1989; White, 1991). However, it has not been explored whether recasts can be perceived more clearly with the help of more explicit moves. It seems worthwhile to address this issue, given the high frequency with which recasts are used by teachers in the classroom context. This study involves two types of explicit moves: emphasis and repetition. If these additional explicit devices turn out to be effective, then it would be also worth investigating how the effectiveness of such devices interact with other factors such as recast length and stages of target form. Through such investigation, findings of prior research (Philp, 2003) that such factors as length affect perception of recasts could be more finely examined. In addition, more affecting factors such as target form stage could be identified. These considerations lead to the following research questions:

1. Are recasts better perceived as corrective feedback with explicit moves?
2. Which type of explicit move is more effective in regard to perception of recasts as corrective feedback, emphasis or repetition?
3. Is the effectiveness of explicit moves affected by recast length and stages of target form?

With regard to question 1, it is expected that recasts will be better perceived with explicit moves. As such moves, like recasts, are devices intended for noticing and correcting errors in the learner's utterances, their co-occurrences will help highlight recasts' corrective potential.

With regard to question 2, "repetition" refers to an act of repeating the learner's ill-formed utterance with corrective purpose, thus excluding repetition of well-formed utterances which is meaning-focused and noncorrective. To accentuate its corrective attribute, repetition is to be spoken with rising intonation and with stronger stress placed on errors than on any other component in it. "Emphasis" refers to an act of assigning stronger stress to rephrased elements than the others within recasts. (6) comes from this study's data:

(6)

S: What she is holding in her hand?

T: What **she is** holding in her hand? [intonation rises] (Repetition)

What **is she** holding in her hand? (Emphasis in recast)

In (6), the teacher is using both moves. As the teacher provides repetition, he repeats the student's utterance, giving stronger stress to the problematic component 'she is' (represented in bold) and raising intonation at the end. To apply emphasis, the teacher is

imposing stronger stress on the reformulated component 'is she' in the recast. Both devices involve assignment of stronger stress to targeted components, but there is no shift in intonation in the recast.

These moves proved to be effective in acquisition of L2 English past and past conditional forms in Doughty and Varela (1998). When it comes to recognizing recasts' corrective purpose, repetition is predicted to be more effective. The reasoning is that repetition makes juxtaposition of ill-formed and well-formed utterances more salient because both utterances happen within the same turn of the teacher, which in turn would help focus on corrected form in recasts.

With regard to question 3, a plausible prediction based on the findings of Philp (2003) mentioned earlier is that the effectiveness of additional moves will be greater with shorter recasts containing reformulated form at lower stages.

## **IV. METHOD**

### **1. Participants and Group Assignment**

The participants were a researcher and sixty Korean students who were all freshmen enrolled in a Korean university. The students were randomly assigned to one of four groups that received recasts in different conditions during interaction with the researcher who acted as a teacher. The four groups were: emphatic recast group, or G(ER), which received emphatic recasts, that is, recasts with added stress on reformulated elements; repetition recast group, or G(RR), which received repetition plus non-emphatic recasts; repetition emphatic recast group, or G(RER), which received repetition plus emphatic recasts; and simple recast group, or G(R), which received only non-emphatic recasts (i.e., no explicit move), thus functioning as the control group. Each group consisted of fifteen students. The students were familiar with the researcher at the beginning of the experiment as they all had been in his class.

### **2. Targeted Form**

English question structures were chosen as targeted L2 form of recasting for several reasons. As indicated in Mackey, Gass, and Mcdonough (2000), morphosyntax is the grammatical area in which recasts are less correctly perceived compared to vocabulary and phonology. It makes investigations into morphosyntax more urgent and worthwhile. Particularly, question form is one of those syntactic structures that are used most frequently in and out of class. It is also a type of structure that can be easily induced in

teacher-learner interaction. In addition, it has been identified in previous studies (Mackey, 1995; Mackey & Philp, 1998; Pienamann & Johnston, 1987; Spada & Lightbown, 1993) that there are six stages in the development of question formation (see Appendix). As each stage involves different substructures of the question, it is possible, through targeting questions, to see whether perception of recasting a certain form varies according to the stage at which that form is found.

### 3. Measurement of Perception

Following Philp (2003), “cued immediate recall” was implemented as an instrument to measure perception of recasts as corrective feedback. In this recall task, the teacher knocked on the table two times right after providing a recast. To the cue of the knocking sound, the student repeated the recast as shown in (7) from this study’s data:

(7)

S: Where the woman is going?

T: Where is the woman going? [two knocks]

S: Uh, where is the woman going?

When the student succeeded in accurately repeating, or recalling, a recast as shown in (7), it was regarded as an instance of a recast being correctly perceived. As perception is the working of the internal mind, any measure has some sort of limit in fully and objectively capturing it and cued immediate recall is no exception. As Philp (2003) stated, “learners may notice input yet be unable to recall it” (p. 109) for reasons such as working memory limitations. However, recalling a recast precisely presupposes attending to its form, which in turn requires perceiving its corrective nature. Thus, every case of accurate recall can be taken as an indication that perception of recasts as corrective feedback has taken place.

### 4. Procedure

Each student engaged in spot-the-difference tasks in one-on-one oral interaction with the teacher for three days over a three-month period of the experiment. During task activities, each participant held one of two slightly different pictures and the goal was to find differences between the pictures in a way that the student only asked wh-questions and the teacher only answered them based on the picture he was holding. Every time the student’s question was ill-formed, the teacher provided a recast which was immediately followed by two knocks on the table. To prevent the potential influence of approval signs, the teacher

did not use any type of them when giving a recast. To the knockings, the student was required to repeat what he or she heard right before the knocking sound (i.e., the recast). A different picture was used each day. All task activities were audio-recorded and later transcribed for analysis.

Recasts in transcripts were classified into two sets according to length (i.e., short vs. long ones) and stage (those at stage 4 vs. stage 5) to address research question 3. The length of recasts was determined by a random criterion-recasts consisting of six words or more were considered long. Question structures at stages 1 and 2 cannot be provided in the form of recasts as they are not targetlike (see Appendix). It was shown in transcripts that recasts at stages 3 and 6 were too rare to be analyzed, which resulted in inclusion of recasts only at stages 4 and 5 in the analysis.

## V. RESULTS

One-way analysis of variance (ANOVA) was conducted to address the research questions. The alpha level was set at .05 for statistical tests. Table 1 displays mean scores and standard deviations for the four groups' instances of correct recall of total, short, long, stage 4 and stage 5 recasts respectively. Percentages of correctly recalled recasts are shown in Table 2.

**TABLE 1**  
**Instances of Correct Recast Recall by Group**

Group	Total		Short		Long		Stage 4		Stage 5	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
ER	11.73	4.83	3.80	3.19	7.93	3.61	5.93	4.25	5.07	2.96
RR	11.07	4.64	4.53	2.85	6.53	3.96	5.07	2.81	5.93	2.71
RER	8.93	3.17	3.73	2.87	5.20	2.31	4.67	2.47	4.07	2.05
R	9.07	5.04	3.80	2.40	5.27	3.86	4.27	2.49	4.73	3.24

**TABLE 2**  
**Percentages of Correct Recast Recall by Group**

Group	Total	Short	Long	Stage 4	Stage 5
ER (n=15)	70.12% (176/251)	80.28% (57/71)	66.11% (119/180)	76.72% (89/116)	69.72% (76/109)
RR (n=15)	54.25% (166/306)	82.93% (68/82)	43.75% (98/224)	53.15% (76/143)	55.28% (89/161)
RER (n=15)	53.82% (134/249)	76.71% (56/73)	44.32% (78/176)	59.83% (70/117)	48.03% (61/127)
R (n=15)	57.14% (136/238)	86.36% (57/66)	45.93% (79/172)	59.26% (64/108)	56.35% (71/126)

**TABLE 3****One-way ANOVA for Four Groups on Total Correct Recast Recall**

	Sum of square	Df	Mean square	F	Sig.
Between groups	2118.39	3	706.13	2.37	.080
Within groups	16680.86	56	297.87		
Total	18799.25	59			

**TABLE 4****One-way ANOVA for Four Groups on Correct Short Recast Recall**

	Sum of square	Df	Mean square	F	Sig.
Between groups	338.40	3	112.80	0.14	.937
Within groups	45169.52	56	821.26		
Total	45507.92	59			

**TABLE 5****One-way ANOVA for Four Groups on Correct Long Recast Recall**

	Sum of square	Df	Mean square	F	Sig.
Between groups	4578.73	3	1526.24	3.23	.029
Within groups	26494.85	56	473.12		
Total	31073.58	59			

**TABLE 6****One-way ANOVA for Four Groups on Correct Stage 4 Recast Recall**

	Sum of square	Df	Mean square	F	Sig.
Between groups	3641.52	3	1213.84	2.29	.088
Within groups	29151.56	56	530.03		
Total	32793.08	59			

**TABLE 7****One-way ANOVA for Four Groups on Correct Stage 5 Recast Recall**

	Sum of square	Df	Mean square	F	Sig.
Between groups	3858.71	3	1286.24	2.69	.055
Within groups	26819.90	56	478.93		
Total	30678.61	59			

Tables 3-7 display results of one-way ANOVAs on the five sets of correct recast recall data in percentage. Table 3 indicates that there was no significant difference among all groups even though G(ER) is shown in Table 2 to have a much higher percentage than the other groups. When only short recasts were considered, no significant difference was found either as seen in Table 4, which would be expected from similar percentages across groups as seen in Table 2. With long recasts, however, Table 5 indicates that there was a significant difference. A post-hoc LSD test revealed that the percentage score of G(ER) was significantly higher than those of the other groups. However, neither G(RR) nor

G(RER) saw any significant difference from G(R) which is the control group. When stage was considered, Tables 6 and 7 show that no significant differences were found among all groups whether recasts were at stage 4 or 5.

## VI. DISCUSSION

With regard to research question 1, which asked whether recasts are better perceived as corrective feedback with explicit moves, mixed results were produced. When all recasts were considered, there was no sign of explicit move benefits, as no difference was found in subjects' perception of recasts with or without such moves. However, with recast length taken into account, the efficacy of explicit moves surfaced. That is, an emphasis move worked to enhance correct perception of recasts when they are long as identified in G(ER)'s higher score than the other groups'. But this emphasis effect did not occur with short recasts. In the case of repetition, there was no positive influence on recast perception irrespective of length.

This outcome provides an answer in favor of emphasis to research question 2, which asked which type of explicit move is more effective for perceiving recasts as corrective devices. But emphasis' superiority was valid only on the condition that recasts were long. What needs to be noted is the fact that G(ER) outperformed G(RER) for long recasts. It indicates that the effect of emphasis is reduced when it is implemented following repetition. In addition, there was no difference in performance among G(RER), G(RR) and G(R). This further demonstrates that repetition may not just diminish but completely remove the effect of following emphasis (i.e., added stress embedded in recasts). These phenomena indicate a likelihood that, despite added stress on errors and shifts in intonation, learners still take teachers' exact repetition of their ill-formed utterances as a move responding to the content rather than form. Once learners' cognitive processing is steered by repetition toward what is being said rather than how it is being said, learners will more likely get to process the subsequent recasts, even if equipped with emphasis, for meaning over form as well.

Research question 3 was about whether the effectiveness of explicit moves is affected by recast length and stages of target form. As for stage, there existed no stage influence. There was no difference in performance among all groups whether recasts were at stage 4 or 5. On the other hand, inter-group performance was different according to recast length, which was caused by emphasis having positive effects only for long recasts.

Besides comparisons between groups, additional t-tests were carried out to compare accuracy in recast recall within each group for length and stage. When it comes to length, the results of t-tests revealed that all groups except G(ER) performed better on short recasts than on long ones ( $t = .75$   $p = .459$  for G(ER);  $t = 3.28$   $p = .002$  for G(RR);  $t = 4.23$

$p = .000$  for G(RER);  $t = 3.26$   $p = .003$  for G(R)). G(ER) performed similarly on short and long recasts.

Cognitive processing of language requires investing a certain amount of attentional resources. However, as mentioned earlier, L2 learners have limited capacity to mobilize and exert attentional resources at a time (Schmidt, 2001; VanPatten, 1994). For the efficient use of these limited resources, when processing the input, learners first allocate them for processing meaning and then, if there are still cognitive resources left, the learners handle form (VanPatten, 1990, 1996). The nature of recasts to retain learners' meaning may make it unnecessary to assign attentional resources for comprehending meaning. And this, in turn, most likely allows those resources to be used solely for perceiving corrective purpose and attending to reformulated elements of recasts. Nonetheless, the t-test results for G(RR), G(RER) and G(R), indicated that, even with such exclusively reserved resources, perception and subsequent attention may get more difficult as recasts are longer. This implies that the longer a recast is, the more resources it may take to perceive its corrective intention and attend to its targeted form. On the other hand, the similar levels of performance on short and long recasts seen in G(ER) seem to be due to the positive effect of emphasis on the recall of long recasts which was spotted only in this group.

Unlike length-related performance, the t-test results relevant to stage showed that there was no significant difference between performance on stage 4 and 5 recasts for any group ( $t = .73$ ,  $p = .471$  for G(ER);  $t = -.39$ ,  $p = .700$  for G(RR);  $t = 1.81$ ,  $p = .081$  for G(RER);  $t = .56$ ,  $p = .581$  for G(R)). This outcome might be connected to the fact that, for learners, structures at later stages are not necessarily more cognitively demanding to process (i.e., requiring more attentional resources) than those at earlier ones. This is because developmental stages simply represent the observed order of acquisition, which are not "connecting with the operation of a limited-capacity system" (Skehan, 1998, p. 81). Thus, it may be that similar amounts of cognitive resources might have been demanded for perception of and attention to recasts even at different stages, leading to no difference in recall within any group.

## VII. CONCLUSION

This study dealt with the issue of how to enhance learners' perception of recasts as responses to erroneous form in their speech, which could be hampered by both recast-internal factors such as ambiguity and recast-external factors such as co-occurrence of various types of approval signs. External problems are perhaps handled with relative ease in instructional settings, for instance, by simply avoiding use of approval signs when recasting. On the other hand, the present study showed that one solution to internal

problems can be to add explicit moves. However, it was also determined that the effects of explicit moves may vary according to the type of recast and move employed.

As for emphasis, results showed that an act of adding extra stress on the reformulated parts of recasts heightened learners' recognition of the recasts' corrective function but this happened only when recasts were long. Such effect was not seen for short recasts. However, this does not mean that short recasts have inferior value. In fact, short recasts were perceived better than long ones in most groups. Learners' level of perception for long ones was raised to the level demonstrated for short ones only when long recasts were assisted by emphasis. This brings up two instrumental techniques teachers are encouraged to adopt when using recasts for focus on form. Teachers can attempt to make their recasts as short as possible even if learners' utterances are long. One way to do this would be to segment error-containing parts from learners' utterances and only include rephrases of those segments in recasts. When such shortening is not plausible, then they may alternatively want to put added stress on corrected elements in the long recasts.

Unlike emphasis, repetition did not positively contribute to raising perception regardless of recast length. Rather, it removed the effect of emphasis when the two were implemented together. Thus, teachers need not and, in some cases, must not provide repetition, particularly prior to emphasis-imposed long recasts.

No association was found between explicit moves and stage of target form from either inter-group or intra-group comparisons. Neither move raised perception of recasts at either stage. No difference was reported between perception of stage 4 and that of stage 5 recasts within any group. This suggests that there is no need for teachers to conduct different explicit moves in consideration of stages of form corrected in recasts.

There are some limitations in the design of this experimental study that require precaution in generalizing the results to different teaching contexts and deserve to be addressed in future research. One cause to circumscribe the generalizability comes from the setting in which the experiment was done. Recasts were provided in one-on-one interaction between the teacher and the learner in this study, which is at best rare particularly in English as foreign language classrooms. In such classroom contexts, recasts are more likely to be given to the whole class, which means that, most of time, learners get recasts based on utterances produced by others, not their own. Perception of whole-class vis-à-vis one-on-one recasts seems worth investigating in future research, given predominance of the former in the classroom. Another drawback is related to stages of target form. Only question forms at stages 4 and 5 were analyzed, and no stage effect was revealed. This result cannot be definitive until analyses of stage 3 and 6 forms are added. Moreover, to further check on generalizability of the findings, more linguistic features including not only syntactic structures like question form but various morphemes and vocabulary are to be explored.

An additional crucial point for studying how recasts work is to adequately measure the extent of actual mental activities such as perception, noticing and attention. Both online (e.g., uptake, immediate recall, note-taking, think-aloud) and retrospective (e.g., stimulated recall, interview) measures have been used in different studies but none—including that adopted here—is as yet perfect because of the difficulties involved in objectively and directly capturing what is happening inside learners' minds. Even so, measures of higher sophistication will constantly be in need as future research looks into recasts in connection with more linguistic features and more diverse teaching contexts. An alternative way to enhance the measuring precision would be to use two or more measurements together as done by Mackey, Gass and McDonough (2000), who utilized immediate recall and uptake, and Izumi (2002), who employed reconstruction as a supplement to note-taking. Given that attention to form is necessary for its acquisition and can be achieved through corrective feedback, and in light of the fact that recasts are the most likely used corrective feedback type in the classroom, research on ways to highlight the corrective nature of recasts has much potential to contribute to L2 teaching practices.

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## APPENDIX

### Developmental Stages for ESL Question Formation

Stages	Examples
<b>Stage 1</b>	
Single words	Hamburger?
<b>Stage 2</b>	
SVO?	Old woman have hairstyle?
<b>Stage 3</b>	
Do + SVO?	Does he look at the clock?
Be + SVO?	Is someone get out of car?
Wh + (do/be) +SVO?	Where you can find cups? Where is the woman get umbrella?
<b>Stage 4</b>	
Wh + copula +S	What color is traffic now?
Auxiliary except 'do' in yes/no Q	Can you see stairs?
<b>Stage 5</b>	
Wh + auxiliary + S	What is a man having?
<b>Stage 6</b>	
Negative question	Why didn't you join us for dinner? (+)
Tag question	Hamburger store is wet floor, isn't it?
Embedded question	Who do you think take out?

\* This is adapted from Pienemann, Johnston, and Brindley (1988).

\* All examples are from this study's data except the one marked (+).

Applicable levels: tertiary education

Key words: recasts, perception, noticing, emphasis, repetition, developmental stages

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