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RECAST SEEN THROUGH MULTIPLE INTELLIGENCES' LENS

Research Article

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Abstract

There has been a host of research on recast so far, despite which it is still controversial if it is any effective. The main argument against recasts is that they often go unnoticed by students due to their implicit nature. It is hypothesized in the light of the theory of Multiple Intelligences (MI) that certain intelligences might affect the noticeability of recasts. Therefore, this paper aimed to find if certain intelligence help learners notice recasts. To fulfill this, 121 pre-intermediate EFL learners in 9 different classes were selected using convenience sampling. A questionnaire was used to measure their MI. Moreover, they were observed for 104 hours for the occurrence of recast and uptake using a checklist. For data analysis, multiple regression was used to find out if any components of MI were significant predictors of recasts' success in leading to uptake. The results indicated that musical, visual, and verbal intelligence significantly predicted whether recasts will be perceived by students as corrective feedback. Therefore, it was concluded that it is essential to build MI into the picture when evaluating the efficacy of recasts on the grounds that students with certain dominant intelligence benefit from subtle clues which in turn help them notice recasts.

Keywords: recast, multiple intelligences, uptake, corrective feedback

1. Introduction

One of the issues English teachers are concerned with is how they ought to react to students' errors. Some tend to ignore them, especially the ones not hindering communication, while others opt to respond to them in one way or another. Corrective feedback (CF) is such a reaction to students' errors, which can take many forms. There are basically two broad CF categories each of which encompasses different CF: (a) reformulations: recasts and explicit correction, (b) prompts elicitation, metalinguistic clues, clarification requests, and repetition (Lyster & Ranta, 1997; Lyster, Saito, & Sato, 2013). The most common CF has been found to be recast (Havranek, 1999; Lyster & Ranta, 1997; Sheen, 2006).

Lyster and Ranta (1997) defined recast as "the teacher's reformulation of all or part of a student's utterance, minus the error" (p. 46). Some researchers argue that recasts are useful in showing learners how their current interlanguage is different from the target (Long & Robinson, 1998), while others contend that recasts are ineffective since they, being implicit in nature, are ambiguous and thereby may not be perceived by learner as CF on form but only as confirmation of meaning (Lyster, 1998). In other words, although recast is categorized as implicit negative feedback in typical taxonomies of various types of feedback (e.g., Long, 2007; Long & Robinson, 1998), it includes positive (i.e., the provision of target-like input) as well as negative evidence. The probability of recasts to be perceived as positive evidence is even more in classes where the focus is on meaning rather than form (Carroll, 1997; Lyster, 1998).

Consider an example of recast which is taken from Nicholas, Lightbown, and Spada (2001):

S: The boy has many flowers in the basket.

T: Yes, the boy has many flowers in the basket.

As seen in this scenario, the recast serves two main functions: (1) interactionally, it verifies the content of the previous turn and thus attempts to increase or maintain positive affect, and (2) as CF, it provides an alternative (target-like) model of the attempted utterance (Nicholas et al., 2001). As argued earlier, the learner might understand the first function only and thereby fail to notice the gap in his or her interlanguage.

A related concept discussed in CF literature is uptake. Lyster and Ranta (1997) defined uptake as "a student's utterance that immediately follows the teacher's feedback and that constitutes a reaction in some way to the teacher's intention to draw attention to some aspect of the student's initial utterance" (p. 49). Uptake includes a range of learner responses, from a simple "yes", verifying that the learner has heard the teacher's utterance to a repetition of what the teacher utters, and "self-repair," in which the student produces a more accurate utterance on his or her own. Lyster and Ranta (1997) demonstrated that the most frequent corrective feedback type, i.e., recast, led to the least uptake; only 31% of recasts resulted in uptake. Other studies have also indicated similar results substantiating the patterns observed by Lyster and Ranta. Panova (1999) found that a low percentage of recasts led to learner uptake in adult ESL classes. Lochtman (2000) investigated the preference for recast in German foreign language classes in Belgium finding that only little uptake occurred.

Li (2015) investigated if the efficacy of recasts was mediated by individual differences variables. The results indicated that the effectiveness of recasts is constrained by cognitive factors such as language analytic ability and working memory. Furthermore, Rassaei (2017) compared the impact of face-to-face recasts and computer-mediated recasts during video-conferencing on learners' second language development. The study also explored the accuracy of the learners' interpretations of recasts in the face-to-face and computer-mediated scenarios. The results demonstrated that there were not any significant differences between the two conditions in terms of the effectiveness of recasts as well as the accuracy of learners' interpretations of recasts.

This issue is used to argue against recasts by some researchers (e.g., see Goo & Mackey, 2013). Apart from the cases raised by Goo and Mackey to cast doubt on those criticisms, the success of recasts is also expected to depend on learner characteristics on the grounds that after all it is the learners who receive and process CF, so it is important to consider them as defining variables among others. One of such variables is multiple intelligences (MI) which can enable practitioners to teach for greater and enhanced understanding of important topics and themes for students (Chan, 2000). MI is a perspective of human intellectual competence put forth by Gardner (1983), which embodied seven intelligence: logical-mathematical, linguistic, musical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal (Gardner, 2004). Gardner's theory of MI appeals not only to psychologists but also to educators seeking to put it to practice in their classes (e.g., Armstrong, 1994; Blythe & Gardner, 1990; Campbell, 1991; Gardner & Hatch, 1989; Lazear, 1994, 2000). In fact, there is a growing body of research delving into potential relationships between MI and CF (Biedron & Pawlak, 2016; Hashemian, Mirzaei, & Mostaghasi, 2016; Havranek & Cesnik, 2001).

According to MI, the same learning task might not be appropriate for all students on account of being 'differently' intelligent. For instance, whereas people with a strong logical intelligence may learn a complex grammar explanation more effectively, his or her peer may do well with diagrams and physical demonstrations in case their visual area is stronger. Similarly, students

having a high interpersonal intelligence might require a more interactive learning environment if their learning is to be effective (Harmer, 2001, p. 47).

In one of the recent studies, for example, Hashemian, Mirzaei, and Mostaghasi (2016) probed the relationship between oral CF preference of English learners and their interpersonal and intrapersonal intelligence. According to the results, there was a strong positive correlation between intrapersonal intelligence and explicit types of CF. On the other hand, repetition, paralinguistic signs, clarification requests, and translation were highly correlated with interpersonal students. Biedron and Pawlak (2016) aimed to identify the interface between the findings of research on cognitive variables such as intelligence in L2 and classroom practice. The authors suggested that teachers "try to build upon the dominant intelligence or hone those that are somewhat lacking" (p.412). Employing multiple intelligences based instruction, Bas and Beyhan (2010) studied its effects on L2 development and learners' attitude toward English lessons. The results revealed that the treatment improved students' attitude to a larger extent than the traditional approach. In addition, learning gains of the students instructed by multiple intelligences were significantly greater than those in the control group.

2. Purpose and Research Question of the Study

Recasts are the most frequent CF type employed by teachers to correct students' mistakes (Sheen, 2006). In spite of their frequent use, it has been alleged that recasts do not actually amount to much on account of not being perceived as CF by learners. Nevertheless, there exist many factors influencing the efficacy of recasts including language and class setting, type of task, and teacher (Goo & Mackey, 2013). It was also argued in this paper that learner factors can also impact the effectiveness of recasts. MI, a learner feature, is hypothesized to be an important variable which may determine to some extent whether recasts will be perceived as CF by the learner and thereby lead to uptake.

Given that, the present study was an attempt to examine the success of recasts in leading to uptake through the lens of MI. More specifically, it was examined whether students with certain strong intelligence would be more likely to perceive recasts as CF and thus utter uptake. Inspired by this hypothesis, the following research question guided this study:

Are there any components of MI which can predict the success of recasts in leading to uptake?

3. Method

3.1. Design

This study was correlational research in which multiple regression was used to predict the success of recasts in leading to uptake by considering different dimensions of MI. More specifically, seven components of MI, namely, verbal/linguistics, logical/mathematical, visual/spatial, musical, bodily/kinesthetic, intrapersonal, and interpersonal, were the independent variables (predictors), whereas uptake resulting from recast was the sole dependent variable. It was sought to find out whether there are any MI components predicting the success of recast in leading to uptake.

3.2. Participants

The participants consisted of 121 pre-intermediate Iranian EFL learners. They were 48 male and 73 female students with the age range of 17 to 33. They were studying English at an institute called Safir English Academy, Tehran, who were selected based on convenience sampling. The participants were in 14 classes in 9 different branches at the time of data collection.

3.3. Instrumentation

For collecting the data, the Multiple Intelligences Inventory for Adults questionnaire by Armstrong (1994) was used. The questionnaire is comprised of 70 items using a 5-point Likert scale, with 1 representing ‘strongly disagree' to 5 ‘strongly agree.' The reliability of this instrument was established through 46 similar students in a different institute in Tehran as calculated by Cronbach's alpha. The internal consistency of all the components of MI, as well as MI as a whole, were computed using this statistical test. As it turned out, the reliability of verbal, logical, spatial, musical, kinesthetic, intrapersonal, and interpersonal components and MI as a whole was .75, .81, .86, .74, .70, .87, .68, and .79, respectively.

As for recast and uptake, the authors used a checklist to register recasts given by the teachers as well as uptake produced by the students. The checklist consisted of the name of the students in each class, the number of recasts provided by the teacher, and the number of uptake occurrences (and non-occurrences) as expressed by the students. For instance, when the teacher provided a student with a recast, it was noted whom the recast was given to and if the student uttered uptake. The checklist was chosen to be the only instrument for recording the occurrences of recast and uptake for the simple reason that we could not get the permit for audio- or video-recording of the classes, which would be more reliable.

3.4. Procedure

At the outset of the course, the Multiple Intelligences Inventory for Adults questionnaire was completed by the students. The courses lasted 16 sessions and the authors took part as non-participant in 5 sessions which aggregated 104 hours for all the classes. The sessions that we participated in were chosen randomly but were consistent for all the 14 classes. The classes were conducted as usual with a difference that we were also present there with a checklist. During the sessions, we were careful to take notice of recast and uptake occurrences. As the only thing that had to be done was a check mark on the checklist, it was virtually impossible to miss any recast or uptake. However, in order to ensure the reliability of the checklist results, we both took part in a session across classes aggregating 14 sessions altogether so that we could check the inter-rater reliability. As expected, the inter-reliability was quite high (r=98.8).

3.5. Data Analysis

SPSS version 22 was the only software used for analyzing the data. For inter-rater reliability, Cohen’s kappa was calculated. The mean, standard deviation, normality, skewness, and kurtosis of the data MI were checked using descriptive statistics. Finally, to answer the research question, multiple regression analysis was computed.

4. Results

The current study was an attempt to predict the probability of recast in leading to uptake through MI. Table 1 shows the descriptive statistics for MI components and uptake. As mentioned earlier, responses in MI components had a range of 1 to 5. As for uptake, the percentage of its occurrence was calculated after recasts were provided by the teacher. For example, for a student uttering uptake half the times he or she was provided with a recast, 50 was inserted on SPSS data sheets.

Table 1. *Means and Standard Deviations of Uptake and MI Components*

	Mean	Std. Deviation	N
UPTAKE	49.84	18.78	121
kinesthetic	3.18	.79	121
intrapersonal	3.26	.81	121
interpersonal	2.91	.91	121
visual	3.30	.78	121
verbal	3.15	.82	121
logical	3.14	.77	121
musical	3.02	.99	121

In order to answer the research question, multiple regression was run using stepwise as a method. This method is used to find the best predictors of a dependent variable instead of forcing all the independent variables into the model. For doing so, first, the assumptions of multiple regression were checked. The linearity was checked through scatterplots, multicollinearity through correlation and coefficient tables in SPSS, homoscedasticity by checking the scatterplot of the residuals, and finally the normal distribution of the dependent variable via the Kolmogorov-Smirnov normality test. For saving space, these tables and figures are not included in this paper; however, they will be sent to interested readers online upon request. Having observed these assumptions, multiple regression was run.

Multiple regression analysis yielded the following results as shown in Table 2. It turned out that 3 components of MI were the best predictors of recast success in being perceived as CF by the learners. The predictive power of the other 4 MI components was not strong enough to be included in the model. R signifies the correlation of the 3 predictors, namely musical, visual, and verbal, with the dependent variable, i.e. uptake (r = .51). The next column is R Square, which shows the amount of variance in the dependent variable as explained by the predictors. That is, the 3 MI components of musical, visual, and verbal account for 26% of the variance in uptake.

Table 2. *Results of Multiple Regression for MI Components and Uptake as the Dependent Variable*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.51	.26	.23	16.38

Predictors: (Constant), musical, visual, verbal
Dependent Variable: UPTAKE

The results of the ANOVA test are included in Table 3, which provides the F value as well as its level of significance. According to Table 3, the model is statistically significant in its power to predict the dependent variable (df = 3, F = 13.55, p = .00).

Table 3. *Result of ANOVA for the Regression Model*

Model		Sum of Squares	df	Mean Square	F	Sig.
3	Regression	10916.08	3	3638.69	13.55	.00
	Residual	31419.92	117	268.54		
	Total	42336.01	120			

Dependent Variable: UPTAKE
Predictors: (Constant), musical, visual, verbal

Yet, Table 2 and 3 provide only a general picture of the model and do not offer any detailed information about each of the predictors. For such information, the coefficients table is also included here as Table 4. Standardized Beta enables us to compare the predictive values across independent variables. As seen in Table 4, musical intelligence is the best predictor of uptake occurrence following recast (Beta = .42, p = .000) followed by visual (Beta = .23, p = .005), and finally verbal (Beta = .18, p = .028). Note that all these p values are significant at the alpha level of .05. Collinearity statistics column indicates the extent to which the independent variable is correlated among themselves, which is one of the assumptions of multiple regression. Tolerance ranges from 0 to 1, with 0 signifying perfect correlation and 1 no correlation at all. A tolerance value of .2 or above is acceptable, which in this case the tolerance values are well above .2 indicating a minimal correlation among the predictors (Larson-Hall, 2015, p. 194).

Table 4. *Predictive Power of the Independent Variables*

		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)				-.51	.61		
	musical	7.87	1.52	.42	5.15	.00	.97	1.02
	visual	5.51	1.91	.23	2.87	.00	.97	1.02
	verbal	4.10	1.84	.18	2.23	.02	.95	1.04

5. Discussion

The answer to the research question raised in this study in the light of the results is that some of the components of MI were found to mediate the extent to which recasts lead to uptake. More specifically, that whether recasts will be perceived as CF by learners can be to some degree at the mercy of musical, visual, and verbal intelligence. It's thus noteworthy to delve into these intelligence in relation to recasts one by one to explore how they do it.

Musical Intelligence and Recasts

Musical intelligence refers to the capacity to recognize and use the non-verbal sound: pitch, rhythms, and tonal patterns. In other words, it is the ability to recognize and use rhythmic and tonal patterns and the sensitivity to sounds from the environment, the human voice, and musical instruments (Gouws, 2007).

Moreover, musical intelligence has been proved to have a significant relationship with foreign language learning (Saricaoglu & Arikan, 2009). This is also confirmed by Fonesca-Mora, Toscano-Fuentes, and Wermke's (2011) observation that the ability to perceive rhythm, pitch and melody is critical in the language learning process. Furthermore, musically intelligent second language learners claim not find learning an L2 a really hard task, while language

learning seems difficult, particularly its phonetics/phonology, for learners with less musical intelligence (Zybert & Stępień, 2009).

As such, in the context of the present study, when teachers give their students feedback in the form of recasts, they might utter words in a way that is different from when they produce them for communicational purposes only. There might be only subtle differences between the two scenarios, which makes it difficult to distinguish between them. Musically intelligent students, however, might have such a prowess to 'hear' them apart.

This does not have to be a conscious process. In fact, such a capacity has most probably been with them since they were born, and thus they can use them so naturally and automatically that they might not even notice that gift. In addition to this special ability that musical intelligence equips individuals with, Gardner (1983) suggests that it is closely tied with visual and verbal intelligence (p.130). Referring to poets, who are endowed with musical intelligence to a great degree, Gardner (1983) states:

> … one sees at work with special clarity the core operations of language. A sensitivity to the meaning of words, whereby an individual appreciates the subtle shades of difference between spilling ink "intentionally," "deliberately," or "on purpose." A sensitivity to the order among words—the capacity to follow rules of grammar, and, on carefully selected occasions, to violate them. At a somewhat more sensory level—a sensitivity to the sounds, rhythms, inflections, and meters of words—that ability which can make even poetry in a foreign tongue beautiful to hear. And a sensitivity to the different functions of language—its potential to excite, convince, stimulate, convey information, or simply to please. (1983, p. 81)

This piece of finding is in part substantiated by some other investigations. Slevc (2006) sought to explore if there was any relationship between musical intelligence and language learning. The results of regression analysis showed that musical ability predicted ability with perceiving and producing L2 phonology even when other factors were controlled for. As a consequence, he concluded that learners who are better able to analyze, distinguish, and recall simple musical stimuli can better handle receptive and productive L2 sounds, too. These findings are also confirmed by the study by Zybert and Stępień (2009), the results of which indicated that a relationship exists between musical intelligence and the ability to perceive and produce some aspects of phonetic features in the second language.

In conclusion, students gifted with higher musical intelligence can consciously or subconsciously better perceive if the teacher's utterance is communicational or in fact CF in the form of a recast. They are likely to do this by recognizing the tonal and rhythmic subtleties embedded in the utterance produced by the teacher. Moreover, as musical intelligence is interlinked with visual and verbal intelligence, musically intelligent learners have more cognitive resources at their disposal, mostly because visual and verbal intelligence are also found as predictors of recasts' success in leading to uptake (Gardner, 1983; Gunter & Friederici, 2001).

Visual Intelligence and Recasts

Simply put, visual intelligence is the ability to perceive the visual-spatial world accurately. As a result, visually intelligent people tend to see things that other people probably miss. Just as we use our eyes to perceive the world, students too view the environment of the classroom, their peers, and their teacher. Hence, visually intelligent people are expected to notice some subtle moves by the teacher other less visually intelligent students might fail to perceive. These moves can range from the movement of the hands, eyebrows, or head to the way he or she looks at the students.

Similarly, when recasts are given, they might be accompanied by some subtle movements of the hands, eyes, and so forth on the part of the teacher. These nuanced moves might be one of the differences distinguishing them from communicational utterances. For instance, one teacher may decide to slightly raise his eyebrow as a clue to indicate that he is providing CF. The teacher might do this deliberately or unintentionally, just as the students may perceive them consciously or without giving it any thought. What matters most here is the privilege of the visually intelligent learners to perceive those clues and thereby produce uptake.

Verbal Intelligence and Recasts

The third and last predictor of the occurrence of uptake following recasts, verbal or linguistic intelligence is "the ability to use language to reflect upon language, to engage in meta-linguistic analysis" (Gardner, 1983, p.83). To elaborate on this, verbal intelligence involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to achieve certain goals. This intelligence is the ability to use language effectively in rhetorical or poetical expression and language as a means of remembering information (Chau, 2005).

Following these lines, students who are verbally intelligent tend to tinker around with their interlanguage, and thus are more attentive to what they produce and what feedback they receive so that they can move their linguistic proficiency one step further. Therefore, it is likely that students with rather low verbal intelligence do not notice recasts since they are not linguistically sensitive enough to perceive recasts as opportunities by which they can modify their interlanguage. Verbally intelligent students, on the other hand, might juxtapose their utterance with teacher feedback spontaneously and decide if the teacher feedback was positive (communicational) or negative (recast).

6. Conclusion

This study sought to find out if there are any components of MI which impact the efficacy of recasts. The findings indicated the odds that recasts will be noticed by students might be at the mercy, at least partly, of certain components of MI. That is, musically, visually, and verbally intelligent students are more likely to perceive recasts as negative evidence. The pedagogical implications of these findings may be negligible, as it might not be practical for teachers to provide individualized feedback in class most importantly because it would be too demanding a task for the teacher to tailor the feedback type to the style of the students on the spur of the moment. Another possibility is to group students who have certain intelligence in common in order for the teacher to give recasts or more explicit types of CF to the respective group. There are, however, two problems with this method. First, there are so many variables based on which to group students, such as proficiency level, gender, age, intensiveness of the class and so forth that it will most probably be unrealistic to expect the decision makers to group students based on their MI in the hope that it will make recasts more effective. The second problem concerns practicality. Grouping students based on their MI requires a rather large number of students in each proficiency level, which is not the case in most language institutes and schools. Grouping students in this manner might result in a class that consists only of one or two students.

The contribution of this study is for the most part on the theoretical level. As stated earlier, there has been a constant tug-of-war between proponents and opponents of the use of recasts in class. The main battlefield concerns whether recasts can be noticed by students. The findings of the present study shed light in this respect by introducing MI into the equation. As seen, MI proved to be a strong mediator in that the likelihood of recasts' success in leading to uptake depended on the MI of the students. Simply put, the higher musical, visual, and verbal intelligence, the more likely that students will notice the intended function of recasts, i.e. CF.

There are at least two limitations to this study, which makes a word of caution in place. The first problem concerns uptake, which was the only benchmark for recasts' efficacy. Uptake is often criticized for being an inadequate measure of recasts' effectiveness (Goo & Mackey, 2013; Mackey & Philp, 1998). These authors suggest that pre-test-to-post-test effects are more reliable evidence. As stated earlier, we were not given the authority to do experiments nor to videotape the classes. However, future researchers could carry out such experimental studies to provide stronger proof as to whether recasts are more effective when given to musically, visually, and verbally intelligent students compared to students with other dominant intelligence. Second, how musical, visual, and verbal intelligence might have helped the students notice recasts was explained to some extent. Nonetheless, no matter how much detailed these explanations are, they only mirror the authors' viewpoints and the sources used for this research. Qualitative studies are needed to delve into the matter by eliciting data from the learners to explore how *they* notice recasts. For instance, this could be done through stimulated recalls where the researchers show video-taped recast scenarios to the students who have produced uptake and ask them how they noticed them.

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