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The Role of Non-Negotiated Input and Output: A Case Study of L2 Development via Web Chat

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The present paper aims to explore the role of non-negotiated input and output in language acquisition in the context of free Web chat. In order to examine how input and output contribute to language acquisition, with or without meaning negotiation, the present study examined a Korean EFL learner's chat data collected over 6 months. Chat texts across 43 chat sessions were analyzed, along with her comment notes and interviews. The input and output negotiated for meaning were traced throughout all sessions to find evidence that they were linked to acquisition. Other input and output in the interaction were also traced to ascertain if they contributed to acquisition. The chat text analysis, comment notes, and the interviews revealed that the opportunities of meaning negotiation in a free Web chat context was quite limited and that the learner acquired language even in the absence of meaning negotiation. The findings suggest that input and output via Web chat, whether negotiated or non-negotiated, play their respective roles, contributing to different aspects of acquisition.

[meaning negotiation/non-negotiated input/non-negotiated output/acquisition/ Web chat]

I. INTRODUCTION

The acquisition of fluent oral proficiency may be one of the most desired goals for second/foreign language learners. As oral proficiency develops through oral use of language, second language researchers and educators have sought ways to engage language learners in actual use of language, and the tentative conclusion seems to be that learners should not just practice or produce the language but interact with others in that language. Researchers have claimed that interaction through the target language is the

best solution to language learning because interaction is the locus of meaning negotiation, which invites learners to pay attention to any new features in the input and notice problem areas in their output (Ellis, 2003; Long, 1996; Pica, 1987). The recent surge in popularity of Task-Based Language Teaching has been one of the outcomes of the efforts to seek ideal conditions for meaning negotiation.

Learners, however, should eventually graduate from the limitations of classroom instruction and pursue their own learning path, where they will rarely be setting themselves artificially-devised tasks nor will be able to do pair or group work for interaction. Learners outside the classroom will thus have to find opportunities for authentic interaction on their own.

The availability of computer-mediated communication, or CMC, has provided a promising alternative, enabling English users worldwide to communicate with one another with virtually no restrictions. Especially, synchronous CMC like text-based Web chat has attracted a great deal of attention from language educators because of its strong resemblance to oral communication. As it provides a real-time communication environment, conversational exchanges via Web chat were claimed to indirectly contribute to L2 speaking proficiency (Abrams, 2003, Chun, 1998). In addition, Web chat has already become an important mode of communication in its own right so that it would not be an exaggeration to say that the ability to chat on-line is an important part of communicative competence. The recent increase in the research on synchronous CMC reflects the growing interest in CMC as a venue for language learning.

However, most of the studies on the role of CMC in language acquisition have been conducted under controlled conditions as opposed to free communicative settings. The majority of the findings have been predicated in quantitative terms. Few have delved into the actual process of how learners' knowledge of language undergoes change through interactive communication via CMC. The present study attempts to reveal how an individual learner develops her English language ability through Web chat communication over a sustained period. In doing so, it will highlight the role of input, output, and meaning negotiation in the growth of the learner's knowledge of language in the chatting context.

II. THEORETICAL BACKGROUND

1. Conditions of Language Acquisition

Ever since Krashen's (1982, 1985) Input Hypothesis, the pursuit of the optimal conditions for language acquisition has been at the heart of a heated debate in the field of

second language acquisition. In his Input Hypothesis, Krashen had argued that language is best acquired when learners process language for meaning and when the language input contains something that is slightly above the learner's current level (i.e., comprehensible input). As the innate language acquisition device will take care of subconscious incorporation of the new item in the input into the existing learner language system, Krashen suggested that the teacher's primary role is to provide sufficient comprehensible input, which will in turn lead to natural growth of proficiency in both L2 comprehension and production.

His emphasis on input spurred researchers into a series of research, which modified his original hypotheses to varying degrees. One of the modifications concerns the acquisition value of "output", which had been downplayed in Krashen's Input Hypothesis. Drawing on the results of the French immersion in Canada, Swain (1985, 1995) suggested that massive input does not necessarily lead to corresponding grammatical competence in that comprehension does not usually demand the full processing of forms (Ortega, 2009). She argued that learners should be given sufficient opportunities to produce the target language because production forces the learner to move from the semantic, strategic processing to syntactic processing. Further, when the interlocutor does not understand the learner language including errors, the learner is pushed to reformulate his/her original message so that it can become comprehensible and approximate to the target norm. In addition, output serves a practicing function, Swain noted, that enhances fluency, that is, automaticization of production skills.

A second major modification centers around the notion of "noticing", or "attention", which is widely accepted by cognitive psychologist as an essential component of acquisition. Schmidt (1983, 1995) suggested that exposure to plentiful input does not automatically lead to acquisition. In his Noticing Hypothesis, he claimed that in order to acquire any aspect of the target language, learners need to "notice" the relevant material in the input.

While acknowledging the critical role of input, output, and noticing, Long (1980, 1996) focused on the interactional structure of conversation. Expanding and elaborating on his earlier work (Long, 1980), Long (1996) claimed that input and output are most likely to be linked to acquisition when the interlocutors engage in meaning negotiation, that is, when the interlocutors in conversation strive to resolve communication problems.

This mutual process of getting messages across is typically initiated when one of the interlocutors sends a negotiation signal or "indicator" in the form of clarification requests (e.g., "whaddaya mean?", "uh?", "pardon me?"), confirmation checks (e.g., "you mean X?", "X and Y, right?"), or comprehension checks (e.g., "do you understand?", "know what I mean?"). Once started, meaning negotiation provides two types of critical evidence for acquisition─positive evidence and negative evidence: the learner comes to

notice an unknown or less familiar element in the input, which is then modified by the interlocutor so as to become comprehensible to the learner. Also, the learner comes to recognize the ill-formedness in his/her own output when the interlocutor sends a signal that s/he does not understand it. In an effort to modify the output so as to make it comprehensible, the learner language approximates the target form. The effect can be magnified if the interlocutor provides corrective feedback such as recast, that is, a corrected version of the learner's incorrect output (e.g., A: *I go to the cinema*. B: *Oh, you went to the cinema*.). The juxtaposition of the correct form and the incorrect form in the context of recast might maximize the learner's focus on form (Long, 1996).

Some follow-up studies raised questions regarding the role of meaning negotiation in acquisition. Bialystok (1990) pointed out that native speakers do not always engage in meaning negotiation even when there are clear problems in the learner's language. Further, she suggested that learners frequently notice the problems in their own output without receiving negative feedback and make efforts to solve them (Bialystok, 1990; Larsen-Freeman, 1983). In other words, learners in interaction might acquire language through input and output opportunities, in the absence of meaning negotiation.

Gass (1997), on the other hand, suggested that negotiation serves as a priming device rather than a forum for actual acquisition. Gass (2003) further proposed that the role of negotiation may be critical in providing learners with negative evidence for acquisition, but not as critical in providing positive evidence.

The discussions so far suggest that meaning negotiation creates a favorable condition for acquisition but that its role might be limited to increasing the initial attention to form. They also suggest that learning can take place without meaning negotiation if the learner notices the relevant input and output. Then how do these non-negotiated input and output contribute to acquisition? The present paper attempts to demonstrate how negotiated and non-negotiated input/output enhance acquisition of linguistic features, the focus being on the role of non-negotiated input and output.

2. Evidence of Language Acquisition

Various attempts have been made to present data that can stand as evidence of acquisition. Some have demonstrated the negotiation process where learners express their acknowledgement of understanding (e.g., Learner: *What is obtuse?* NS: *It's being dumb*. Learner: *Ok*.). However, as Hawkins (1985) points out, it is not always the case that acknowledgement of understanding truly reflects understanding.

Others have tried to spotlight learners' repeating the correct form (e.g., Learner: *I wear grass.* NS: *Oh, glasses*. Learner: *Glasses*). But again, we cannot be sure that learners' repetition of the correct form constitutes "evidence that anything other than mimicking is

at play" (Gass, 2003, p. 236). Even if comprehension can be facilitated through negotiation, no such claim can be made for retention (Gass, 2003; Loschky, 1994). As Mackey and Philip (1988) proposed, evidence for acquisition should be something that shows "delayed effects". Gass and Varonis (1989) also suggested that true instances of learning would be better demonstrated when the negotiated forms are incorporated into learner production at "later" turns.

More over, from a skill-acquisition point of view, learning is defined as the gradual conversion of processing mode from controlled to automatic (Bialystok & Sharwood Smith, 1985; McLaughlin, 1987). This process of transition, also called proceduralization or automaticization, is known to not only increase the speed of language processing but also involve the conversion of knowledge from explicit/declarative to implicit/ procedural (Ortega, 2009). This suggests that explicit L2 knowledge learned in the instructional context can later become implicit or subconscious knowledge, through practice. Therefore, evidence of acquisition from skill-acquisition perspectives should be something that demonstrates that the learner acquires stronger control over language forms.

In view of the discussions so far, acquisition seems to encompass at least the following different aspects and processes: (i) the initial noticing of a new form in the input, (ii) the initial noticing of a hole in one's own output, (iii) comprehension of a previously unknown item, (iv) reformulation of an erroneous output into a correct version, (v) long term retention, and (vi) transition from declarative knowledge to procedural knowledge. Therefore, any input or output, whether negotiated or not negotiated, can be said to be effective if they promote any of the above processes.

3. Synchronous CMC and Language Acquisition

Since the research on real-time communicative exchanges via CMC emerged in the early 1990s, numerous studies have attempted to show the various aspects of synchronous CMC, especially Web chat. Text-based Web chat, as a hybrid between writing and oral conversation, bears resemblance to oral conversation in many ways. Just like oral conversation, it involves real-time two-way exchange that is conducted under time pressure. Yet the time pressure in Web chat is not as heavy as in oral conversation, since the Web chatters have to type in their message in the chat window, which takes longer than speaking and thus allows more processing time for the interlocutors. Further, the typed message stays for a while on the chat window so that the chatters can go back to the previous lines/messages.

In the L2 context, studies have demonstrated both similarities and differences between the two modes of communication. Just as in face-to-face conversation, learners have

been found to employ diverse communication strategies (Kötter, 2003; Smith, 2003), and were even found to be more active in using these strategies during Web chat (Kern, 1995). Learners were also found to negotiate meaning in synchronous CMC as actively as in face-to-face conversation, although the patterns of meaning negotiation in the two modes were slightly different (Blake, 2000; Fermandez-Garcia & Albelaiz, 2002; Pellettieri, 1999; Smith, 2001). Synchronous CMC was reported to result in more learner production and increased complexity in morphology and syntax (Chun, 1994; Kern, 1995), as well as greater variety in discourse structure (Kern, 1995). From an affective point of view, CMC was found to help learners build up confidence and overcome their apprehension about writing. It was further suggested that the written competence gained via CMC can be transferred to oral proficiency (Chun, 1998).

While the research on synchronous CMC so far has focused on its conversational attributes in comparison with oral conversation and its possible contribution to the increase in oral proficiency, the findings were mostly about the conditions for acquisition. There have been few studies that have shown how these conditions have actually led the learners to acquire the linguistic features they were exposed to via CMC. Moreover, most studies have been conducted within experimental conditions where multiple subjects were engaged in chatting in L2. Few studies delved into the process of how an individual learner acquires what was unknown or only vaguely known, and how s/he does this while exposed to input and output opportunities or engaged in meaning negotiation. Studies that explore this process in a non-experimental, natural context are even sparser.

The present paper is an attempt to explore this process of change over time, which can only be revealed by a longitudinal study of an individual learner. It sought to explore the role of meaning negotiation, input, and output in a free, natural Web chat setting, based on the Web chat data of one Korean EFL learner J, who has communicated with English users worldwide via Web chat over six months.

III. METHOD

1. Research Questions

The present study raised the following research questions regarding Web chat in the natural, non-instructional context:

(1) Do negotiated input and output promote acquisition? If so, to what extent?
(2) Do non-negotiated input and output promote acquisition? If so, to what extent?

In this paper, negotiated input was defined as input that has triggered meaning negotiation. Negotiated output was defined as output that has triggered meaning negotiation. Non-negotiated input was defined as input that has not triggered meaning negotiation. Non-negotiated output was defined as output that has not triggered meaning negotiation.

Meaning negotiation was operationally defined in terms of negotiation indicators as mentioned in II.1 (Ellis, 2003; Ortega, 2009; Varonis & Gass, 1985). To be specific, the negotiation indicators employed to (a) request clarification (e.g., "What is X?", "I don't know", "What is mean?" (J's interlanguage version of "What does it mean?")), (b) confirm meaning (e.g., "You mean X?", "Is X Y?"), or (c) check the interlocutor's comprehension (e.g., "Do you know what I mean?) were regarded as negotiation markers.

In the following extract taken from the present data, "lawl" in line 1 is the input that triggers meaning negotiation, and the moves in lines 2 and 3 serve as an indicator (Varonis & Gass, 1985).

<line 1> S: lawl	[Trigger]
<line 2> J: sorry I have question	
<line 3> J: what is lawl?	[Indicator]
<line 4> S: go ahead? (=response to line 2)	
<line 5> S: lawl = LOL	[Response]
<line 6> J: I see	[Reaction to Response]

In line with our discussion on the diverse aspects of acquisition discussed in Section II.2, any change that involves one of the following processes will be regarded as a change that contributes to acquisition: (a) the learner notices a new or unfamiliar item in the input; (b) the learner incorporates the new or unfamiliar item in her own production, immediately or later; (c) the learner reformulates her output that originally included erroneous features; (d) the learner produces an item that she has never used in production; and (e) The newly emerged item recurs in the learner's production.

2. The Informant

J, the informant of this study, was a freshman majoring in English education at university. She had never been abroad. She learned English in middle school and high school in formal instructional setting. As she entered university, she took English-related courses offered by the department, including two English conversation classes taught by a native English speaker, as well as English Reading 1, English Grammar 1, and English

Writing 1 taught by Korean instructors. She took the TOEIC test twice while the data was being collected. The first TOEIC score was 570 and the second 635. J had never tried Web chat in English before the present study.

J had enrolled in a writing class taught by the researcher. In her writing class, J was one of the slowest writers. During a one-on-one conference right after the semester, J told the researcher that she wrote only those sentences that she felt quite safe with in terms of vocabulary and grammar. J described herself as a passive student in her conversation classes. While she was thinking about the needed vocabulary and sentence construction, she confessed, her other classmates had already started talking and she almost always lost her turn.

As a way to improve her speaking and writing proficiency, the researcher recommended her to try Web chat. As text-based Web chat allows longer planning/writing time for the users than oral conversation, but still requires them to write on a real-time basis, it was expected to impose sufficient, but not overwhelming, time pressure on a learner like J, and thus help her to increase her writing speed. The fluency gained through Web chat was also expected to eventually lead J to become fluent in oral conversation as well. Besides, the interaction via Web chat was expected to invite ample meaning negotiation opportunities that would facilitate acquisition.

3. Data Collection

1) Web Chat Data

At first, J started Web chat via Omegle, an on-line service that randomly pairs up users into chat windows on a one-on-one basis. For the first few months, J chatted only with strangers via Omegle, but as she made some friends there—and as she gradually became tired of being exposed to offensive language by some anonymous chat partners—she came to prefer communication with known people via MSN or Facebook, although she did not completely quit chatting via Omegle. As the on-line chat was not a part of her regular classes, she chatted with strangers and friends in her spare time on a voluntary basis. J's chat data has been collected for six month and sent to the researcher, with her willing agreement. Although J participated in chat sessions more than twice a week on average, she deleted the records of some chat sessions that she considered to be too personal or to contain inappropriate language. As a result, a total of 43 chat sessions—25 sessions with native English speakers (NS) and 18 sessions with non-native English speakers (NNS)—have been copy-pasted and sent to the researcher (For details of the interlocutor information, see Appendix).

2) Interviews and Self-Comment Notes

The researcher had two interview sessions with J in order to clarify the meaning of some of her chat utterances, to check her comprehension during the Web chat, to ascertain whether a form in the input was new or whether a form in her output was attempted for the first time, or to clarify what came to mind at a particular moment in the chat. J informed the researcher of her perceptions while chatting, whether she had any comprehension problems at a certain point of communication, whether a certain form was new or familiar at the moment of chatting, and why she responded in a certain way online. In addition, J voluntarily added some retrospective comment notes to her original chat texts, which also assisted the researcher in interpreting the data.

4. Data Analysis

To examine the frequency and the effect of meaning negotiation, all the occasions of meaning negotiation throughout all the chat sessions were identified. The meaning negotiations were divided according to whether they were triggered by input or output. The study then examined how the meaning negotiations contributed to acquisition (See III.1 to be reminded of the various changes related to acquisition). The data was also investigated in terms of whether there were any new target language features which were acquired through mere exposure to input or opportunities of output, in the absence of meaning negotiation. The occasions of meaning negotiation were tallied by the researcher and were double checked by a second analyzer. Meaning negotiations due to typo were not included in the count. Only the occasions that were identified by both analyzers as cases of meaning negotiation have been reported in the present study.

IV. RESULTS AND DISCUSSION

A total of 48 tokens of meaning negotiation were identified across 43 sessions, with only 1.12 negotiations for meaning per session. Considering that the average text size per session amounted to 350 lines of utterances, negotiations between J and her chat partners can be said to be infrequent. While J made numerous grammatical mistakes such as "I hate scared movies", "you looks like Korean", and "I was given my parents a necklace", she rarely received negative feedback on forms from chat partners.

Let us now turn to the input and output that triggered negotiation for meaning, and examine whether and how the negotiated input and output promoted acquisition. We will

then move to the question of whether and how non-negotiated input and output contributed to acquisition, which is the main concern of our study.

1. Negotiated Input and Acquisition

J negotiated for incomprehensible input on 35 occasions. Thirty one of them─20 negotiations for incomprehensible lexical items and 11 negotiations for globally incomprehensible sentences─were attributable to J's own language deficiency. J frequently skipped negotiation for lexical meaning, guessing it from the context or from the composition of the word, especially when part of the item was familiar to her. Such compensation strategies sometimes led to misunderstanding. In the following excerpt, for instance, J interpreted "culinary arts" as an art genre such as music or fine art. J recalled in the interview that she could not relate culinary art to being a chef at the moment of chatting.

(1) J: what is your major
NS: its a culinary arts school
J: wow
art
That;s cool
NS: im going to be a chef
J: really?
very good (Session 1)

According to J, one reason why she did not actively initiate meaning negotiation was that her chat partners seemed to dislike such a procedure. The lack of willingness to engage in meaning negotiation might be one of the major features that differentiate natural Web chat from task-based Web chat in the instructional context.

The negotiation processes at the lexical level were generally quick and simple. J's request for clarification or confirmation of uncertain lexical items was always answered by her interlocutor's rephrasing, to which J briefly expressed her acknowledgement of understanding.

(2) NS: i used to run in high school, and now i just like playing my xbox and reading mostly
J: what is xbox?
NS: a gaming system
J: I see (Session 3)

(3) NNS: ur camera resolution is gud
J: resolution?
NNS: mm
its abt technology
J: ok
I see (Session 29)

The negotiated lexical items are listed in Table 1.

TABLE 1

Negotiated Lexical Items in the Input

Shortened forms/Internet terminology	Others
SK (=South Korea)	jacksonville
4m (=from)	barbarian
grp (=group)	boom
xams (=exams)	xbox
der (=there)	obtuse
anime (=animation)	the states
fsu (=a univ. name)	resolution
lawl(=laughing a whole lot)	fag
	fast (=not eat)
	floorball
	sick
	mess around with it

The fact that meaning negotiation on these items took place indicates that they were noticed. J's acknowledgement of understanding also seems to suggest that J might have reached comprehension. However, it is not clear whether J actually processed the target items so that they became part of J's knowledge, as no overt evidence that J incorporated these negotiated target words was found in her own utterances in the following turns or other sessions, except for one occasion ("fast"=not eating).

J's negotiations for incomprehensible input at the sentential level were even sparser, although the negotiation process was generally longer and more complex.

(4) J: I love small city
NS: Haha then i guess you would like chatham
J: me?
NS: Yes you
Since its small
J: my picture?
she isnt me

haha
NS: No i meant you would like chatham, the city I live in
J: yeah can u show me your city? (Session 34)

While the interlocutor provided modified input in the course of negotiation, neither the original input nor the modified input occurred in J's later production. There was thus little external evidence that the items in the input had been processed deeply enough to be incorporated into J's developing interlanguage competence. However, if the negotiation of input in the present Web chat indeed served as a priming device as Gass (1997) proposed, whose effect can be observed only later, we need to consider the possibility that the negotiated items in the input were made more salient so that they might be stronger candidates for later acquisition.

2. Negotiated Output and Acquisition

J's chat partners were even more reluctant to initiate meaning negotiation. As J's interlocutors, including native English speakers, tended to be more proficient than J, they rarely had comprehension problems due to their own lack of vocabulary or grammar. Besides, her chat partners tended to be lenient with J's inappropriate use of words as long as the global meaning could be reached. As a result, many non-targetlike expressions, such as "heard classes" (=had classes/took classes), "war rest" (=truce), "takes about 5 o'clock" (=takes about 5 hours), "I profile assignment" (=My assignments are piling up), were not corrected.

Throughout the 43 chat sessions, J's output invited only six negotiations for lexical meaning by her chat partners. Among them, four negotiations were triggered by J's erroneous lexical use and three of them were linguistically modified, leading to comprehension on the part of the interlocutor.

At the sentential level, seven tokens of meaning negotiation regarding J's output have been identified, six of which were triggered by J's erroneous production. Negotiation of output at the sentential level tended to invite a longer process of negotiation once it started, probably because the errors at the sentential level were global in nature and thus could not be repaired as easily as local lexical errors. It is noteworthy, however, that these long negotiation processes did not necessarily involve J's direct reformulation of the problem area. On only one occasion did J directly address the error in her output, as shown in the following example.

(5) NS: Guess that's what happens being on the other side of the world
J: <u>what about aspect?</u> (=about what aspect?)

NS: Aspect?
J: yeah
NS: Sorry i dont understand:S
J: sorry :D
about what? (Session 34)

On the other occasions, J resorted to circumlocution strategies in order to achieve her communicative purpose rather than correcting the erroneous part of her utterances.

(6) J: is there ur letter? (=Does your language have its own letters?)
NNS: wut?
J: finnish
it looks like alphabet
:D
NNS: what?
J: ur national language
:)
NNS: yes?
NNS: finnish
J: yeah
it is similar to alphabet
is it right?
and turkish
NNS: yes, we use normal alphabet (Session 38)

Therefore, even though J was pushed to modify her output, that modified output was not structurally relevant to the original erroneous utterance. Furthermore, J's chat partners provided no corrective feedback. The negotiated lexical and sentential items are listed in Table 2 and Table 3.

TABLE 2

Negotiated Lexical Items in the Output

Trigger in the Output	Intended meaning
-funny	=fun
-sing room	=karaoke
-Kurude	=Kurd
-penpal	=pen pal

TABLE 3

Negotiated Sentential Items in the Output

Trigger in the Output	Intended meaning
-we different language order	=The two languages have different word orders.
-How do I say "hi" by using Arabic?	=How do you say "hi' in Arabic?
-Is there ur letter?	=Does your language have it own letters?
-What about aspect?	=In what aspect?
-Weekend?	=Is it Saturday today?
-I wish I could	=I hope I can

3. Non-Negotiated Input and Acquisition

Our chat data yielded rich evidence that J has acquired lexical/sentential entities through the input in the absence of meaning negotiation. The most noticeable change triggered by non-negotiated input concerns the transition of passive, declarative knowledge into active, procedural knowledge. For example, J was exposed to the word "insomnia" in Session 3, which she managed to recognize in reading but had never used in speaking, according to her retrospective report in the interview.

(7) J: why didn't u sleep?
NS: i don't
i have insomnia (Session 3)

Then in Session 4, she brought that word into active use while communicating with another interlocutor.

(8) NS: Can't sleep.
J: why did n u sleep>
insomnia?
NS: Yeah, pretty much. (Session 4)

It is evident that "insomnia", which had previously existed as only passive knowledge, turned into a more active item that can be retrieved at the recall level.

J acquired some slang words as well via chatting, where the style is usually informal. J took up the slang word "suck" meaning "contemptibly bad," via Omegle in Session 22. The word then became part of her active vocabulary in later sessions (Sessions 37 & 41).

(9) NS: back injuries suck
J: yeah:(
verrrrrrrrrrry
verrrrrrrrry suck (Session 22)

(10) NNS: yeah did u see the referee?
he is from uruguay
J: they all suck (Session 37)

J also picked up new words or new collocations in the input, which is evidenced by her incorporation of these expressions at her later production. This type of picking-up of new items in the absence of meaning negotiation typically occurred when J was able to guess the meaning from the context. For example, J got exposed to the expression "add you" in Chat Sessions 1, 6, and 8.[1]

(11) J: I have facebook
NS: can I add you (Session 1)

(12) NS: i have to go to work, I added you all to msn and XXXX to facebook (Session 6)

Then from Session 9, she began to use it as one of her most frequently used expressions (Sessions 9, 10, 11, 12, 20, 22, etc.).

(13) J: do u have facebook or msn?
I have to go to bed
NS: Yes I have my msn is XXXXXX
J: nowadays I am preparing midterm exam
thank u
I add u (Session 9)

The findings so far clearly demonstrate that learners can notice a new or less familiar form and incorporate it in their language system, merely by being exposed to input in the interactive context. Some of the input items that had been incorporated in J's later production are listed in Table 4, along with the sessions where J used them in later chats.

[1] While J knew the words “add” and “you”, she had never been exposed to them in co mbination to refer to “including a new person in the chat friend list.”

TABLE 3

Non-Negotiated Input: First Exposure via Web Chat and Incorporation

Input Item	1st Exposure	Incorporation
add you*	Session 1	Sessions 4, 9, 10, 11, 12, 20, etc.
spare time**	Session 1	Sessions 18, 19, 20, 22, etc.
gf*	Session 1	Session 1
bf*	Session 1	Session 1
insomnia**	Session 3	Session 4
real girl*	Session 7	Session 7
suck**	Session 22	Sessions 22, 37, 41
picture of you**	Session 34	Session 34
bug**	Session 40	Session 41

[Note] *: new word or new collocation
**: not new but never used in production

4. Non-Negotiated Output and Acquisition

The experience of output production also gave J opportunities to learn words, collocations, and syntactic structures in a few important ways. First, the output phase allowed her to voluntarily attempt the expressions she had heard or read somewhere but never used before. For example, J had heard the ejective "dear" in American sitcoms quite often, but she could not use it in her oral conversation due to the time pressure. But by trying it for the first time in Web chat, J informed, it became part of her active vocabulary not only in Web chat but in her output in her regular English conversation classes.

(14) NS: im sleepy
J: dear
hehe
you go to sleep (Session 1)

(15) NS: im good considering its 5am
J: very early
where r u from?
NS: well sleeping doesnt come so well to me
J: sorry dear (Session 3)

Another interesting case concerns idioms like "snap out of it", which she had memorized a short time before, while preparing for an idiom quiz in another class. When she was put in the right situation and tried them, J informed, she was excited to find that

they really worked, which encouraged her to use them repeatedly in other chat sessions as well.

(16) NNS: well i should really be studying right now but I dont feel like it
cos i had work today so im a bit tired
J: I see:(
snap out of it:) cheer up! (Session 15)

(17) NS: I had a candy bar for dinner
J: :(:(
snap out of it
:)
NS: haha, thanks, but i cant afford... (Session 34)

J's production efforts in the Web chat also activated some words that had been consciously memorized and stored only as passive items. "Distort" in the following excerpt from Session 41 was one such item. According to J's comment note, the word didn't come naturally when first used, but that it became easier as she used it repeatedly in other contexts. This change clearly indicates that "distort" goes through the process of automaticization or proceduralization.

(18) NNS: are they have weapons?
J: of course, they are the strongest nation whole over the world like usa
but they distort their history [J's note: "Distort" didn't come easily. So I had to squeeze it out.]
J: (after some more turn-taking)
and they insist Kimuchi is thiers
and they distort their history
J: (after some more turn-taking)
we cant call the history, if it isnt a fact
but they distort like this.. (Session 41)

The examples above suggest that once an expression is put to use in the learner's output phase, it raises the level of activation in memory so that the item becomes easier and faster to retrieve next time. And the Web chat environment seems to promote the opportunity for declarative knowledge to convert to procedural knowledge.

Some of the expressions J tried for the first time in production are listed in Table 5 along with the sessions where these items recurred in her output.

TABLE 4

Non-Negotiated Output: First Occurrence and Recurrence

Output Item	1st Occurrence	Recurrence
dear	Session 1	Sessions 3, 4
snap out of it	Session 15	Sessions 18, 34, 38
benefit	Session 26	Session 31
dim	Session 26	Session 37
dictator	Session 27	Session 37
accommodation	Session 37	—
it is no use -ing	Session 37	—
be supposed to	Session 37	—
distort	Session 41	Session41(three times)
deceive	Session 41	—
famine	Session 41	—

Secondly, the output phase provided the opportunities to reflect upon forms and reformulate her language at both lexical and syntactic levels. J applied her learned collocational knowledge to her production while chatting. As J continued her exchanges via Web chat, she became bold enough to try longer chunks such as "be supposed to-" and "it is no use -ing". In the following extract from session 37, J tries the expression "be supposed to", which she learned through her grammar lessons, although the attempted output turns out to be erroneous ("*It is supposed to go to usa").

(19) J: first, it is supposed to go to usa, but my plan is changed
I am going to go canada next march
NNS: cool (Session 37)

She recalled in the interview that she felt the sentence would be incorrect at the moment of chatting, and that she should have written "I am supposed to go to usa(=USA)." Note that J did not receive any negative feedback from the interlocutor either on form or on content.

Moreover, some expressions she felt uncertain of gradually developed to more target-like expressions through her output, without any meaning negotiation or negative feedback from her chat pals. J reported in the interview that when producing "race discrimination" in Session 22, she felt that this might not be the right expression. Later when she happened to hear "racism" on the TV, she picked it up, and used it in following sessions.

(20) NS: yeah a lot of international students are from south korea
J: I worried about race discrimination :(

NS: you should be ok (Session 22)

(21) NNS: i hav found sum really pathetic racist ppl here! i hate such ppl !
J: I cant understand
that mean
u hate racism?
NNS: yeah ! (Session 42)

Her interlanguage also went through some change in terms of grammar. One example of her syntactic acquisition through output regards her Wh-construction. When J initially used Wh-questions, they typically lacked Subject-Aux conversion. The most frequently used ill-formed wh-question was "what is mean? (=What does it/that mean?)". While "What is mean?" functions as a signal for meaning negotiation, this section focuses on the structural ill-formedness of "what is mean?" and its syntactic change over time.

As shown in the extracts below, J's constructions lack the auxiliary as well as the sentential subject.

(22) NS: we get of to day
J: what is mean?
get of to
NS: oh
: sorry
J: get off today (Session 1)

The same ill-formed construction persisted until Session 26, where J noticed that her constructions had something missing, as her comment note demonstrates. Then probably with the provision of the correct form in the input in Session 33, she began to use the correct version, "What does it mean?" from Session 36.

(23) J: is it difficult?
NNS: P: hmmm
its okk
now i got to used to
J: what is mean? [J's note: "I felt this was not a correct expression"]
I got to used to? (Session 26)

(24) J: have u ever been abroad?
NNS: abroad :O ?

what does that mean
J: another nation (Session 33)

(25) J: I m in my hometown
NNS: oh
where else would you be?
J: maybe I will stay at home until August
what does it mean?
aww
I live near my school (Session 36)

(26) NNS: why don't we talk?
i mean speak
J: what does it mean? (Session 37)

The data suggests that the acquisition of "What does it mean?" is not the sole function of input. J's consciousness of the grammaticality concerning the expression had grown through her realization of the ill-formedness in her output. The growing consciousness gained through her output probably raised her attention level at the moment when the correct input was provided, leading her to finally acquire the correct form.

In the interview, J informed the researcher that she gained control in using Wh-constructions in general. She recalled that her questions had been limited to Yes/No question. As her exposure to Wh-questions in the input and her opportunities to produce them through her chat communication increased, she gradually learned how to make Wh-questions, including quite a tricky one such as "Who did you go with?" (Session 30).

5. The Respective Roles of Negotiation, Input, and Output

The findings so far lead us to a series of questions regarding the effects of meaning negotiation, input, and output on acquisition via Web chat. The first question is why the non-negotiated items were easily incorporated in J's production, while negotiated items were not. While there might be multiple reasons, the comparison of the two sets of items seems to provide a clue to this question. Most items that triggered meaning negotiation were ones that were completely unfamiliar to J. They might have been psychologically too remote to be incorporated in production. As acquisition is a gradual process, a single noticing can hardly convert a non-acquired item into an acquired one. As suggested by Gass (2003), meaning negotiation might only serve the initial priming function although this initial priming might be vital for the noticed item to be later incorporated in the

learner's L2 system, with repeated exposure.

In contrast, most of the non-negotiated but incorporated items were either those which were new but were comprehensible with the help of the context or those which J had heard, seen, or memorized in the past but had only weak familiarity with. So, finding them being actually used in meaningful contexts of interaction might have heightened the familiarity level of these items to the extent that they can be used in production as well. Further, unlike input in oral conversation, the input in Web chat is visible and stays in the conversation window for a while. The durable nature of Web chat input may have allowed longer attention and deeper processing. This line of logic leads us to a tentative generalization regarding the respective role of negotiated input and non-negotiated input: (a) in the Web chat context, negotiation serves as a priming device for acquisition as suggested by Gass (2003); (b) in the Web chat context, comprehensible input facilitates acquisition and converts passive or less familiar vocabulary into active or more familiar one.

Another important question regards the reason why J tried some expressions that she had never dared to use in face-to-face conversation. As mentioned, Web chat, as a hybrid between conversation and writing, allows longer processing time so that J could mobilize her consciously learned knowledge, which is less likely to happen in oral conversation (Krashen, 1985). Hence, one of the key roles of output in Web chat is to trigger the proceduralization of what used to remain as declarative knowledge so that the learner can gain greater automaticity.

Finally, we should explain what encouraged J to modify her own output although she was given no negative feedback through meaning negotiation. Considering the finding that learners notice the problems in their output and voluntarily attempt to correct them (Bialystok, 1990), a partial answer could be that the Web chat context allowed more time for J to monitor her own output and to notice the gap between what she produces and what is correct. In this respect, Web chat output is a forum where one can notice the deficiency in his/her interlanguage at a deeper level, so that relevant incoming input can be made salient.

V. CONCLUSION

The findings and implications of the present paper can be summarized as follows. First, meaning negotiation occurred infrequently in J's free Web chats, and further, the input and output items that had been negotiated were seldom incorporated in J's own production data. Therefore, it seems that while meaning negotiation is a clear evidence of noticing, one noticing of new items is not enough for their incorporation in the learner

language. On the other hand, we obtained robust evidence for acquisition with regard to input and output in non-negotiation contexts. J was found to notice new items in the input in the absence of meaning negotiation and incorporate them in later productive uses. Likewise, she was found to produce new expressions and some of the dormant items she had never used in conversation. While producing, she also noticed the deficiency in her output with no meaning negotiation or corrective feedback.

Our discussion so far suggests that negotiated input/output and non-negotiated input/output contribute to different aspects of acquisition. Within the limitation of free Web chat context, we might be able to generate a few hypotheses on their respective roles in acquisition as follows. First, meaning negotiation provides the initial stepping stones for acquisition, although it is seldom directly linked to the final attainment of a linguistic item. Second, learners tend not to engage in meaning negotiation if the item is weakly familiar, or if it is unfamiliar but still comprehensible in the interactive context. This kind of non-negotiated input is more likely to be incorporated in the learner language when presented in interaction. Finally, output opportunities while in interaction are effective in raising learners' awareness of their own language and creating greater automaticization for real-time processing.

While the present research was on voluntary Web chat exchanges outside the classroom, we might also consider the possibility of introducing Web chat as a regular part of EFL classroom activities, as our study clearly indicates its potential contribution to promoting acquisition. Still, teachers should beware of some undesired consequences that might be invited by incorporating Web chat in EFL teaching. As shown in J's case, chatters can be exposed to inappropriate language like slangs, which can be unhealthy from an educational point of view. Also, Web chat, as a constantly evolving communication mode, is characterized by overly shortened forms, chat jargons, and loose grammar. The question of whether to accept this variety of language in formal education requires serious consideration.

As a case study, the present research findings should be interpreted with caution. Readers should be reminded that J was an English major, and as such, she was very motivated by her own language development. It is quite possible that a learner might not gain as much from chatting, if he or she is not as highly motivated as J. As a qualitative investigation, the present study has attempted to present concrete data that demonstrate the processes of acquisition. As it focused on highlighting typical examples, statistical analyses were not provided except for the simple counting of meaning negotiation tokens. Further studies with a larger group of informants as well as more rigorous measurement are desired to verify the hypotheses generated in this study.

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APPENDIX

Information on J's Web Chat Interlocutors

Chat Session	NS/NNS	Nationality	Familiarity
Session 1	NS	US	stranger
Session 2	NS	US	stranger
Session 3	NS	UK	stranger
Session 4	NS	US	stranger
Session 5	NS	Australia	stranger
Session 6	NS	US	stranger
Session 7	NNS	France	stranger
Session 8	NNS	Denmark	stranger
Session 9	NS	UK	stranger
Session 10	NS	US	stranger
Session 11	NNS	Turkey	stranger
Session 12	NNS	Italy	stranger
Session 13	NS	UK	stranger
Session 14	NNS	Turkey	stranger
Session 15	NNS	Turkey	familiar
Session 16	NS	Australia	stranger
Session 17	NS	US	stranger
Session 18	NS	US	stranger
Session 19	NNS	Japan	stranger
Session 20	NS	UK	stranger
Session 21	NS	US	stranger
Session 22	NS	US	stranger
Session 23	NNS	US	stranger
Session 24	NS	Canada	familiar
Session 25	NNS	-	familiar
Session 26	NNS	India	stranger
Session 27	NNS	Germany	stranger
Session 28	NS	US	familiar
Session 29	NNS	India	familiar
Session 30	NS	Canada	familiar
Session 31	NS	Australia	stranger
Session 32	NS	US	stranger
Session 33	NNS	Sweden	stranger
Session 34	NS	Canada	stranger
Session 35	NS	US	familiar
Session 36	NNS	Lebanon	familiar
Session 37	NNS	Turkey	familiar
Session 38	NNS	Finland	stranger
Session 39	NNS	Turkey	familiar
Session 40	NS	Canada	familiar
Session 41	NNS	Turkey	familiar
Session 42	NNS	Denmark	stranger
Session 43	NNS	Finland	familiar

Examples in: English
Applicable Language: English
Applicable Level: Secondary, Tertiary

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