ELECTRONIC DICTIONARY USE IN NOVICE L2 LEARNER INTERACTION

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ABSTRACT

This microanalytic study focuses on the mutimodal word look-up practices of Japanese foreign language learners of English at the novice level using electronic dictionaries (e-dictionaries) in pair conversations. Not yet investigated with a Conversation Analysis (CA) approach, this analysis examines reoccurring interactional and collaborative repair practices (Scheglof, Jefferson, & Sacks, 1977; Schegloff, 2000) of the learners’ look-ups, and explicates from the sequential turn-taking procedures (Sacks, Schegloff, & Jefferson, 1974), the underlying social organization of the e-dictionary look-up sequence. Recent research has found that not-yet-fluent learners are capable of relatively smooth turn-taking (Carroll, 2000, 2004), and they employ various embodied actions (Olsher, 2004) to complete their turns. Nonvocal resources such as gaze movement (Goodwin, 1981) and gestures were also investigated in order to better understand how learners collaboratively utilize vocal and nonvocal resources in hybrid actions, to co-construct the meaning of look-up words, and maintain intersubjectivity. While enrolled in a university intensive English program, thirteen native speakers of Japanese video-recorded thirty-minute conversations; and during these conversations, they completed look-up sequences as interactional achievements. The results indicated that EFL novice learners display sophisticated competencies when using e-dictionaries for communication. While collaboratively completing look-up sequences, they display multimodal competencies by noticing trouble with words, initiating look-ups, making candidate proposals of word translations, correcting themselves, mutually acknowledging their understanding, and maintaining intersubjectivity and sequential relevance. In terms of language learning, learners’ collaborative learning of words
demonstrates instances of learning-as-interaction (Brouwer & Wagner, 2004; Firth & Wagner, 2007), making public the participants’ socially situated cognition. Indications of a change in the participants’ cognitive state can emerge in the look-up sequential organization. A lack of knowledge is displayed publically in before-look-up actions, encouraging collaboration in the look-up. Multiple proposals and acknowledgement sequences, often displayed in embodied expansions, provide multimodal indications of a possible change in cognitive state and possible gain in knowledge. Thus, the look-up sequence organization is proposed as an interactional organization for the learning of vocabulary. Finally, the understanding of sequential structures and practices that interactants use in looking up words can inform teachers concerning the efficacy of e-dictionary use in the classroom.
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To my wife, Taeko, and John and Julie.
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CHAPTER 1
INTRODUCTION

The Background of the Issue

Recently, the electronic dictionary (e-dictionary) has replaced the paper dictionary in the English classrooms of the Japanese university where I teach. It is being used not only as a data retrieval device for the search of word meaning, but for communication. My students carry their e-dictionaries in their bags and pockets, and during conversation in English, quickly look up a word and try it, before returning to the conversation topic. Even during conversations at home with my bilingual family members, we pull out the e-dictionary to look up a word that we want to use in our conversation and sometimes show the screen to each other to gain understanding. This interaction with the e-dictionary, a data retrieval and language learning device, is becoming integral to the way that we communicate among ourselves and across languages.

All teachers are participant-observers in the classroom and some colleagues of mine ban the use of e-dictionaries in Oral English classes based upon the observation that learners are not paying attention to each other when they look up a word. However, there is little understanding among teachers as to what actually occurs during a look-up during conversation. Looking up a word and sharing word knowledge during a conversation is a complex multimodal interaction of hybrid vocal and nonvocal practices. The understanding of this look-up organization, composed of sequential structures and practices that the interactants use in sharing and developing understanding of looked up words, is crucial to advising teachers concerning e-dictionary use.
Purposes of the Study

This study addresses how not-yet-fluent Japanese learners of English utilize e-dictionaries to look up words during face-to-face conversation with other novice speakers. In particular, this study has been designed to examine one basic question. What are the reoccurring practices of e-dictionary use that emerge during conversation? This requires an investigation of how novice learners collaboratively utilize all the resources available to them during interaction. In a broader sense, by exploring the structures of interaction that occur with the e-dictionary, the impact of the e-dictionary upon conversational practices of novice speakers of English can be better understood.

Discerned from the actions of the participants, discovering the sequential organization of e-dictionary look-up procedures is the major aim of this study. In using the e-dictionary to search for the meaning of a word, learners interact using multimodal resources (vocal and nonvocal), often in hybrid forms to begin a look-up, share word knowledge from the e-dictionary, acknowledge mutual understanding, and close the look-up sequence.

Another aim of this study is to explore how second language learners use the look-up organization to learn words. As a learning activity, the look-up of words offers researchers a window into the shared cognitive space of learners. How do learners share their word knowledge in interaction, and in what ways do they communicate their understanding of this shared knowledge?
Significance of the Study

Past studies of dictionary use (primarily paper ones) and interactional studies of novice L2 speakers are fairly extensive, but I know of no major study combining these two research strands. The research on dictionary use has tended to focus on the learners’ strategies of dictionary use and their efficacy in vocabulary learning. To date, researchers have not examined how foreign language learners actually use e-dictionaries in real time during conversation. In focusing on e-dictionary use, this study offers a fresh outlook on the look-up practices of learners.

By revealing the interactional architecture that underlies learners’ interaction with the e-dictionary, an aim of this study is to impact teachers’ use policies in the classroom. Because of its exploratory aim to break new ground, the author intends this study to impact the field of Applied Linguistics and encourage more research in the use of e-dictionaries and other devices in the learning of vocabulary. I expect that the biggest contribution is to describe the interactional procedures that learners use in the learning of words with an e-dictionary.

Another area in which this study breaks new ground concerns embodiment in interaction with e-dictionaries. The use of embodied expansion sequences, hybrid vocal and nonvocal actions, in displaying mutual understanding of looked up words is carefully described. An unexpected finding is the description of an unprojectable later-turn look-up that is used by the hearer to quietly look up a word for a later topic initiation, revealing how learners use the e-dictionary to plan later turns.
Theoretical Perspective

In this study, sequential structures of naturally occurring conversation are examined using the approach of Conversation Analysis’s (CA). Emerging from the field of ethnomethodology, CA takes a data-based, *emic* perspective in which the close transcription of video recordings is essential to describing the underlying social structures of the vocal and nonvocal behaviors under study. Familiarity with the methodology of close transcription and sequential analysis of the data are essential in understanding the explanations of the exemplars presented. I will argue that the best way to investigate word look-ups during conversation is by a moment-by-moment microanalysis of video recordings of look-ups in interaction.

Because the social practices under study are extracted from actual video data, theory and methodology cannot be easily separated in a CA study. In trying to determine the underlying “social practices” of the look-up from the video data, the analyst must describe the micro-actions of the participants as they are occurring sequentially. A socially-based theoretical organization of how look-up behavior operates can emerge from painstaking efforts in documenting the sequential vocal and nonvocal actions of the participants.

Delimitations

This study, for the first time, documents the social practices for e-dictionary use by Japanese novice learners. I claim generalizability to novice learners and provide other researchers with a set of social practices that can easily be applied with other types of learners. Although the number of the participants is small, the depth and detail of
analysis should provide a clear foundation for further research.

As an exploratory study of the e-dictionary use of Japanese novice learners of English, the conclusions may not be generalizable to particular groups of e-dictionary users, such as expert translators or advanced learners. Nonetheless, the sequential relationships claimed in e-dictionary use are based on strong empirical evidence derived from video data. During e-dictionary use, the evidence demonstrates a variety of vocal and nonvocal practices that have been firmly established as “normative” interactional practices in past research for first-language (L1) speakers, and more recently for second-language (L2) speakers. I claim that similar practices can be applied to other learners using e-dictionaries although advanced proficiency or different L1 use might reveal additional practices not documented in this study. These issues are discussed further in the Limitations section of the last chapter.

What this study is not focused on is vocabulary acquisition or communication strategies based on psycholinguistic constructs. Social practices of the look-up of words, their collaborative use in the talk, and the display of understanding are empirically described. Rather than a study of strategies used when encountering trouble with a word, this study is an exploration of the set of social practices in which collaborative “doing learning” of vocabulary occurs during talk in the foreign language.

The Audience for the Study

The main beneficiaries of this study will be foreign language teachers and researchers of interaction in institutional settings, in particular, those interested in interaction with a learning device. Learners could benefit if this study impacts teachers’
e-dictionary use guidelines and e-dictionary designers.

Foreign language teachers and students could use the results of this study to better understand the role of e-dictionary use in vocabulary look-ups, particularly in oral English classes. The use of e-dictionaries in conversation is not understood and teachers’ awareness of look-up practices could lead to more effective use policies in the classroom. Guidelines could help both teachers and students to meet the class goals and requirements in a cooperative manner.

Researchers of classroom interaction will encounter an empirical approach to the examination of e-dictionary use in interaction. The proposed sequential organization and look-up practices aim to encourage researchers to conduct more studies using CA methodology with various types of learners in order to widen our understanding of e-dictionary use in interaction. The conclusions suggest several avenues of future explorations and encourage researchers to get at the heart of vocabulary look-up practices.

This study should also be of interest to e-dictionary designers. The results indicate that productive use in conversation is affected by the design of bilingual e-dictionaries. Thus, designers are encouraged to work with CA researchers in order to design an e-dictionary that meets the needs of learners for productive purposes.

Organization of the Study

This study of eight chapters consists of four introductory chapters (Chapters 1 to 4), three analysis chapters (Chapters 5 to 7), and a chapter on conclusions and implications for teaching.
Chapter 2 is a review of the literature pertinent to this study, in particular, CA’s organization of repair and research conducted on novice speakers of English. Because this study concerns English as a foreign language (EFL) e-dictionary use, literature within the field of Second Language Acquisition (SLA) related to CA is reviewed. The last sections are a review of the findings regarding learner dictionary use. At the end of Chapter 2, the research purposes will be explained.

The Methods section is divided into two parts. Part 1, Chapter 3, is an explanation of the CA approach, how CA’s methodology is applied to “novice” learner data, a detailed explanation of the transcription system, as well as an explanation of how the data were analyzed.

Part 2, Chapter 4, describes the sequential organization of the e-dictionary look-up. It provides an overview of the canonical look-up sequence based on the analysis of a look-up exemplar. Look-up sequences can be formed from a retro-sequence (Schegloff, 2007), not an adjacency pair sequence, in which “noticing” can get the parties to pay attention to a potential trouble source. Other types of frequently occurring sequences are expansions. For example, during before-look-up actions, multiple expansions are possible as inserts; and during the look-up, various insert- and post-expansions are possible. This chapter will give the reader an understanding of the underlying organization of the look-up sequence and the plan for the following analysis chapters. The analysis chapters are divided into before-look-up actions, the look-up, and proposals and acknowledgements.

Chapter 5 is devoted to examining collaborative before-look-up actions that are hybrid vocal and nonvocal actions that occur in the beginning of a look-up. Before-look-up
up actions such as sequence initiating actions and repair initiations occur prior to the look-up. Projectable actions, such as gestures, grammatical cut-offs, stretches of the trouble source, and gaze behaviors, encourage collaboration and contribute to the completion of the look-up sequence. It is argued, with the examination of exemplars, that there are discursive, reoccurring practices in the beginning of the look-up sequence that demonstrate sophisticated competencies.

Chapter 6 is an examination of the canonical look-up sequences and collaborative practices in which a look-up is completed within a speaker’s turn. A number of candidate vocal and nonvocal practices for look-up sequences are presented that conform to the proposed look-up organization. Within a sequence of turns, I look at how participants direct the gaze and hand to the e-dictionary during a look-up and what level of interactional competences are required to coordinate nonvocal and vocal actions. This canonical organization is contrasted with two non-canonical look-up sequences, the abandoned look-up and the later-turn look-up, which do not follow the proposed organization. The abandoned look-up has many commonalities with the before-look-up phase of the canonical look-up; however, in the later-turn look-up, during current speaker’s turn, the recipient goes to her e-dictionary to look-up something that is unprojectable, with none of the canonical before-look-up initiations of repair. How this later-turn look-up is used to plan a later turn such as a topic initiation is examined.

Chapter 7 is an examination of the proposal (e.g., translation candidate word) and acknowledgement (e.g., responses that display understanding) expansion sequences that the participants use to make look-up proposals, acknowledge their receipt, display understanding and agreement, and close the look-up sequence. This involves examining
how learners can design the next turn for a recipient response with nonvocal behavior, such as gaze shifts, nods and gestures, during pauses and overlaps. One characteristic of novice-novice behavior examined in these adjacent positions is the hybrid pairing of embodied actions with vocal acknowledgements to display mutual recognition of the looked up word and associated meaning. Of interest here is the multi-turn mirroring of iconic gestures used by novice interactants to express acknowledgement in adjacent positions when lacking vocabulary, maintain intersubjectivity, and progress the talk without abandoning the look-up.

Chapter 8 is a summary of the results of the analysis with a discussion of implications for education. Implications for the research of language learning are discussed, including the challenges of using CA as a methodology for studying vocabulary learning, along with ideas for future research. Implications and suggestions for dictionary use in the classroom are made and some practical guidelines for dictionary use during conversation are outlined.

In terms of implications for language learning, I consider the possibility of the collaborative look-up of words demonstrating instances of learning-as-interaction (e.g., Firth & Wagner, 2007), making public the participants’ socially situated cognition. As evidence for a potential sequential learning organization, I examine the learners’ collaboration in the look-up with multimodal resources, and the participants’ sharing of their vocabulary knowledge in the creation of look-up proposal candidates. Of particular interest within the look-up organization, beginning with displays of knowledge deficits, are indications of a change in cognitive state sequentially emerging in the proposal/acknowledgment expansions. Thus, a central question is whether the e-
dictionary look-up organization is an interactional organization for the potential learning of words.

Suggestions for future research are made concerning the construction of larger video corpora of e-dictionary interactions of situated learning activities, detailed studies of potential learning sequences, and longitudinal case studies. In focusing on developmental changes in look-up practices, as learners become more proficient in the L2, how does their e-dictionary interaction change? In documenting the learning of words, I discuss how advances in describing the interactional practices used in a shift from a cognitive state of not-(complete) knowing to one of a shared knowing could lead to greater insights into the learning process.

In terms of classroom use, I encourage teachers to observe and reflect upon their students’ e-dictionary use and suggest ways to develop task goals and classroom use policies that can take advantage of the e-dictionaries vast word storage and learning potential. For e-dictionary designers, I implore them to push ahead in developing new technologies for productive purposes that can decrease the abandonment of look-ups, a major complaint of users. I also suggest that technologists work with ethnomethodologists in order to develop technologies and user interfaces for productive purposes. This will result in new e-dictionaries that are easier to use and promote more efficient learning of vocabulary.
CHAPTER 2
REVIEW OF THE LITERATURE

Introduction

Because the approach used for the analysis of data exemplars was based upon CA (Sacks, Schegloff & Jefferson, 1974; Schegloff, Jefferson & Sacks, 1977) (from here on referred to as SSJ, 1974 and SJS, 1977), I will review relevant areas of the CA literature, focusing on studies involving foreign and second language learners. In particular, I will carefully explain the repair organization of CA, as it provided the conceptual framework for the analysis of e-dictionary look-ups. Also, in order to situate this study in the field of Second Language Acquisition (SLA), research on dictionary use by foreign and second-language learners will be summarized and critiqued.

In 1997, Firth and Wagner called for a wider perspective within the SLA research community by encouraging emic examinations of contextual and interactional dimensions with the inclusion of other multilingual speakers of English such as non-native speakers (NNS). It was their expectation that a sequential microanalysis on a moment-by-moment basis could provide new insights into how NNS participants in interaction use their resources in collaborative ways to learn a second language. This challenge of applying the CA approach to SLA has been taken up by a number of researchers in the past decade (e.g., Carroll, 2004, 2005b; Frazier, 2007; Hauser, 2005; Hosoda, 2006; Kasper, 2004, 2006; Markee, 2000, 2004b; Mori, 2004, 2007; Olsher, 2004; Seedhouse, 2004; Wong, 2000, 2004). Two special editions of The Modern
Language Journal (Volumes 88 and 91) edited by Markee (2004a) and Lafford (2007a) contained comprehensive reviews of recent CA contributions.

Up to this point in time, using CA to clearly describe language development is still in its infancy. As reflected in the 2007 focus issue of The Modern Language Journal, socially grounded approaches using painstaking microanalyses of learner data did not easily demonstrate acquisition of linguistic items. In the introduction to this volume, Lafford (2007b) concluded, however, that “... this type of socially grounded research is crucial to the understanding of the effect of contextual features on the cognitive processes by which the products of the target language are acquired” (p. 748). I will review relevant CA for SLA research in later sections of this chapter and the methodology in Chapter 3, but first I will explain the basic principles of CA that underpin this study. In helping describe the sequential L2 learner practices that reoccur in e-dictionary look-ups in real time, a conversation analyst applies by analogy (with certain cautions to be explained in the methodology chapter) the conversation practices documented by CA practitioners over the past thirty-five years.

Before I continue with the literature review, I wish to clarify my position regarding the labels of nonnative speaker (NNS) and native speaker (NS). Because the participants in this study were all NSs of Japanese, the NNS label did not apply. Moreover, some researchers have questioned this dichotomy (e.g., Carroll, 2000, 2004; Firth & Wagner, 1997; Hosoda, 2006; Wong & Olsher, 2000) and pointed out the problems with the labels. The dichotomy could be applied in studies of interaction between NSs and NNSs in which the NNS identity was examined (e.g., Hosoda, 2006; Wong, 2000; Wong, 2004); I apply the dichotomy to those studies reviewed that feature
such an examination. However, when referring to the participants of this study, I will use the labels “novice,” “novice L2 speaker” and “novice-to-novice L2 talk” as suggested by Carroll (2005a). In sum, the terms NS and NNS were only used when referring to research that examined the NS/NNS dichotomy.

Principles of CA

*Analytic Assumptions of CA*

CA has been commonly associated with the ethnomethodological tradition that arose out of the branch of sociology attempting to describe the organization of talk-in-interaction (Garfunkel, 1967). The analysis of talk was centered on the structure and procedures of conversational sequences, turn-taking and repair (e.g., Sacks, 1984, 1992; SSJ, 1974; SJS, 1977). In CA terms, the nature of the organization of interaction was an orderly independent organization of conversational practices with sequential trajectories. Sequential meant that utterances were not analyzed individually but in relation to the utterances that occurred before and after in the flow of talk. A trajectory referred to how a particular utterance, by relating to other utterances in the conversation, could project its influence in the overall flow of talk in a predictable manner. Thus, within the sequential flow of talk, conversation was analyzed in terms of real time orientations to the preferential practices that govern turn-taking and repair.

Fundamentally, conversation patterns were regarded as recursive and the structural resources in conversations were both context-sensitive and context-free (SSJ, 1974). Context-free implied that generic turn-taking and repair practices used by learners were not tied to external circumstances, thus, allowing for collections of interactional
practices to be analyzed systematically. Context-sensitive implied that the participants were addressing what had proceeded in the conversation; thus, the interactants were constructing meaning during their conversation based upon what had been said previously, requiring a sequential analysis of talk in order to understand how the social organization was maintained.

CA in its social action orientation asked the question, Why that, in that way, right now (Hutchby & Woofitt, 1998, 2008)? What action or business was being accomplished with this sequence? How did the participants demonstrate their orientation to it? CA assumed order at all points in interaction with a rational design that was organized and methodic (Sacks, 1984). As mentioned above, conversations were “context shaped” in the sense that sequences were recipient-designed, and context renewed by forming part of the next sequence. No order of detail was dismissed a priori as irrelevant, even when judged as inconsequential in transcripts. Even deviant cases (conceptually similar to outliers in quantitative research) could contribute to the greater understanding of the behaviors under study. As analysis was bottom up and data-driven in beginning phases, a next-turn proof procedure was used to validate sequential relations in an empirical manner: the next turn documents the analysis of the previous turn. Thus, reflexivity implied that the same set of methods or procedures were responsible for both production and the interpretation of actions and utterances (Garfunkel, 1967).

CA researchers strived to empirically describe the interactional practices of social members in terms of what social actions they accomplished in the talk and the practices that they used to maintain their social order (Heritage, 1984). This more specifically
meant describing the interactional competencies that the participants displayed while maintaining their conversation. Table 1 below helps to summarize the important CA concepts (SSJ, 1974; SJS, 1977) that will be discussed in this study and that are carefully explained in introductory treatments such as Hutchby and Woofitt (1998, 2008), Schegloff, (2007) and ten Have (2007). For the reader unaccustomed to CA terms, I have divided them into normative behavior concepts and concepts for sequential analysis. The former formed the principles of CA pertinent to this study and the latter were the analytical concepts that this study focused on.

Table 1. *Principles of Conversation Analysis*

<table>
<thead>
<tr>
<th>Normative behavior concepts</th>
</tr>
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<tbody>
<tr>
<td>adjacency (a first pair-part makes conditionally relevant a second pair-part)</td>
</tr>
<tr>
<td>co-constructed meaning (the participants co-construct meaning during interaction on a moment-by-moment basis)</td>
</tr>
<tr>
<td>intersubjectivity (the participants establish a mutually shared understanding that is displayed in their collaborative actions)</td>
</tr>
<tr>
<td>multimodal (use of multiple resources: vocal, nonvocal and e-dictionary)</td>
</tr>
<tr>
<td>preference (preferred actions are “normal” socially acceptable behavior)</td>
</tr>
<tr>
<td>projection (the participants project ahead what they are going to say or do using vocal and nonvocal resources)</td>
</tr>
</tbody>
</table>

*Table 1 (continues)*
Table 1 (continued)

- recipient-designed (speaker designs talk for the recipient to respond to)
- sequentiality (the immediate talk is related to prior talk and later talk)
- repair (intersubjectivity is restored when a trouble occurs in talk)

Concepts for sequential analysis

- social actions (e.g., receipts, acknowledgement tokens, agreements)
- interactional practices (e.g., of word look-up practices)
  - adjacency pairs (e.g., a question makes an answer relevant)
  - preferences (e.g., there are preferences for self-repair or a timely positive answer to an assessment rather than a disagreement)
  - repair of a trouble source (e.g., backwards repair of items said or forward repair of a word search item)
  - initiation of repair (self-initiation, other-initiation)
  - repair completion (self-repair, other-repair)
- turn-constructions (e.g., the turn-construction unit (TCU) is the basic turn unit, composed of words, phrases, and sentences)
- turn-taking procedures (how speakership is changed)

Concerning normative claims of behaviors in CA, quantitative generalizations often appeared in the CA literature and were expressed in general terms in order to give the readers an idea of the frequency of occurrence (Schegloff, 1993). Expressions of
frequency (e.g., most often, almost always, usually) expressed the relative degree of occurrence, important in making claims of normative behavior in a collection. In social interaction, the norms of behavior conducted in turn-taking and repair reflected the moral force accounting for the participants’ actions (i.e., normative accountability of actions), and provided insights into the social organization of the participants’ activity.

Consider the following example, Excerpt 2.1, from two students comparing the relative difficulty of learning to play the trumpet or guitar.

Excerpt 2.1
01  S8:  _trumpet_
02    (0.6)
03  S7:  un:
04    (0.8)
05  S8:  or:: guitar?
06    (.)
07  S7:  un:
08    (0.6)
09  S8:  wh:ch (1.2) is **difficult**.
10    (1.3)
11  S7:  un:: hh .hh
12    (1.5)
13  S8:  _trumpet_ (0.6) i::s
14    (1.7)
15  S7:  un:
16    (0.6)
17  S8:  "hard"
18    (1.6)
19  S7:  un:: b::ut
20    (0.7)
21  S7:  i:: (0.6) I played (1.1) i::t (. ) fo:r
22    (1.5)
23  S8:  two yea::s
24  S8:  un=
25  S7:  =so
26    (1.0) ((S8 nods))
27  S7:  un (0.3) I (1.4) un (2.5) un I: (1.2) un
28    (0.5)
29  S8:  it tiz-(0.3) little difficu::l
30  S8:  (tttttt) m::m:::
31  S7:  hhh .hhh
32    (0.5)
33  S7:  but guit::r is::
34    (0.4)
35  S8:  very difficul[t
Although the students displayed long gaps and pauses in co-constructing basic utterances in a foreign language, they demonstrated the normative behavior concepts. Excerpt 2.1 is an example of how they co-constructed meaning sequentially and established intersubjectivity. Demonstrating the conversational “pull” of adjacency or conditional relevance (Schegloff, 1968), the excerpt began with a question (lines 1-9) that projected and made an answer acceptably timely and relevant (i.e., not responding promptly could be interpreted as “unsatisfactory”). In line 13, S7 projected meaning grammatically with the “trumpet is ___” utterance (“is” was stretched with falling intonation), and S8 anticipated an adjective related to the word “difficult” (line 9) used in her own opening question. The long gap of 1.7 seconds in line 14 was followed by the stretched un with lowering intonation (a common “thinking voice” in Japanese) and another long pause of 0.6 seconds. In line 17, S8 collaborated in the completion of S7’s sentence by anticipating what S7 was going to say. Thus, in line 17, S8 participated in S7’s turn construction, demonstrating the collaborative social organization of this conversation and the novice learners’ interactional competencies in accomplishing mutual understanding.

Recipient-designed (SSJ, 1974) meant that the speaker-hearer distinction was not based on an abstract model of the message being transmitted from speaker to the hearer where it was processed; instead, the turn was co-constructed by the participants with the recipient (the hearer) in mind, a concept that was central to later analyses of nonvocal resources. For example, to be examined in more detail in later sections and chapters, the
numerous multifunctional *un* and nods (e.g., lines 24 and 26) did not only communicate receipt of an utterance and acknowledgement of meaning (a preferred response), but also could discursively design a particular response from the recipient. Even a gaze shift to the recipient could project and summon a particular kind of response, such as a repetition, an acknowledgement, or agreement.

An important focus of CA researchers concerned adjacency, the projecting force of which could extend over many turns (e.g., reluctantly granting a difficult request after addressing many concerns) (Schegloff, 1990). By displaying a coherent understanding of prior turns with adjacent sequences and normative turn-taking, the interactants could mutually display sophisticated competencies in maintaining intersubjectivity. Schegloff (1992, pp. 1299-1300) grounded the notion of intersubjectivity in the sequential organization of conversation of co-producers of a sequence of interaction. By responding to a question (e.g., “How have you been?”), the recipient of the question could display understandings that the prior question was a finished turn (by starting one’s own turn) and was a question addressed to them. By forming the answer in a certain grammatical way (“I’ve been so busy”), the recipient could demonstrate further understanding of the turn construction, whether the question is a yes/no question, or a wh-question (e.g., when, where), and tense and aspect. By selecting a particular value or judgment (e.g., Not so good + story about an accident), the recipient revealed understanding of the social importance of the event and relationship (e.g., the degree of intimacy and trust).

Thus, based on a co-production of a sequence of social reality, CA researchers viewed intersubjectivity as situated in the participants’ social conduct in which collaborators in a social action publicly displayed a common understanding of what had
been said and done previously in the talk. Intersubjectivity was grounded in interaction, and cognition was considered as a socially shared phenomenon (Schegloff, 1991). The procedures of this “infrastructure of intersubjectivity” (Schegloff, 1992, p. 1299), such as the “normative” contingencies of the adjacency pair, are generic and found in all interaction, including that of novice L2 speakers.

Adjacency Pairs in Novice L2 Interaction

From a CA perspective, turn-taking organization revolved around the adjacency pair and its inherent sequential relevance (SSJ, 1974). Adjacency pairs displayed ongoing understanding of one another’s talk, and because utterances were both context-shaped and context-renewing, understanding of the prior turn’s utterance created the context for the next turn. For example, a potential speaker, using the “current speaker selects next speaker” rule would listen to an utterance to find whether it selected him as speaker or not; the first-pair part of an adjacency pair, such as a question, was analyzed by a potential speaker to determine if he were being selected as next speaker. Adjacency pairs could be spotted in conversations everywhere (e.g., greeting and greeting, question and answer, assessment and agreement) and could account for the orderly and predictable way in which many conversations proceeded.

From the CA perspective, conversation is a string of at least two turns, and a pair of closely related or linked turns is an adjacency pair. Adjacency pairs are ordered pairs of sentences in which the first part of a pair requires a second pair part. In the 1a. rule for turn-taking (SSJ, 1974), the current speaker can select the next speaker by asking a question or making a request that requires a response. People use them everyday to
conduct social actions such as greetings (A: Good morning! > B: Morning!), offers and invitations (the preferable second pair part would be acceptance), and requests (acceptance was preferable to refusal). Ideally, the first and second pair parts occur next to one another and people usually expect them to, however, gaps and insertions can be put between them. People usually prefer a quick positive reply, and a delay or preface such as "Well,..." could signal reluctance or an unexpected answer that was dispreferred (Pomeranz, 1984a).

Normally, in adjacency pairs in yes/no question exchanges, preferred responses were normally produced immediately (Raymond, 2003). However, as in the following except of 2.2, novices sometimes construct them as sentential utterances with long gaps and pauses. In these long turns with multiple pauses, novice-novice utterances could appear as sentential TCUs interspaced with one-word and multi-word utterances (Barrow, 2004; Carroll, 2004, 2005a). Although long gaps could sometimes indicate a dispreferred response, such as disagreement or displeasure (Pomeranz, 1984a), in the case of novice learners, delayed responses could display a slower pace of interaction related to the syntax of a turn under construction (Wong, 2000, 2004).

Excerpt 2.2 (Barrow, 2004)

1  S4: have you ever been to abroad?
2   (0.9)
3  S3: no
4   (0.4)
5  S4: no?
6   (.)
7  S3: no.
8   (0.8) ((S3’s lips are moving))
9  S3: I havu: (0.4) I have nevah: (1.6) >uh I<
10  have never been to (0.5) abroad.
11   (1.8)
12 S3: you (.? aren't you?
13 S4: =ah: I (have been to) (0.7) I have gone
14  to (0.8) ah: (.?) Guam.
15   (.)
For example, in Excerpt 2.2, line 1, a yes-no question formula became a first-pair part, requiring a second-pair part or answer by S3. Following a long gap of (0.9) in line 2, S3 responded in line 3 with a simple “no” and 0.4 second pause, with no elaboration or reciprocating question such as “How about you?” and instead selected S4 as next speaker. Although S4’s hearing and understanding of S3’s simple “no” seemed adequate, S4 probably assessed S3’s simple “no” and pause as unsatisfactory (Pomeranz, 1984b, Gardner, 2004; Kasper & Ross, 2007), indicated by a rising intonation expressing surprise. S4’s “no?” in the third-turn was a candidate other-initiation of repair (to be explained in the next section). Thus, in pursuing a response, S4 addressed the simple “no,” prompting S3 to repeat his answer in line 7 and elaborating in lines 9 and 10. During the long gap (1.8) of line 11, S4 elected not to speak by remaining silent (selecting S3). In line 12, S3 belatedly reciprocated the topic initiation and S4’s latching displayed a normative character in completing the second-pair part with no gap. Thus, the long gaps in lines 2, 4, 8 and 11 were followed by delayed productions in lines 3, 5, 9, and 12. After a long gap (0.9), a terse “no” in line 3 (followed by another pause) could be a candidate dispreferred response indicating sensitivity or some other negative reaction in regards to the topic initiation. However, based upon the sequential relationships, the gaps were due not only to delayed production but also involved the selection of next speaker by current speaker (e.g., line 11). The long gap in line 8 seemed to be due to delayed production as evidenced by S3’s movement of lips before the self-initiated and self-completed repair of the perfect tense in lines 9 and 10. Thus,
this exchange could be an example of a potential novice speaker phenomenon of a dispreferred response (line 3) occurring prior to delayed preferred ones (lines 9 and 12).

Using the general practice of next-turn proof procedure, CA researchers have focused on how participants interpreted the prior utterances, in particular, the first pair part of an adjacency pair. For example, question and answer pairs were ordered in recognizable ways and should be produced near each other. When trouble occurred due to a misunderstanding (e.g., a lack of L2 knowledge or a possible dispreferred response), a gap or a repair sequence could occur after the first pair-part. Understanding could then be displayed by the completion of the second pair part. The normative character of adjacency pairs allowed the participants to draw inferences about the lack, tardiness, or incorrectness of a second pair part. Thus, a CA-inspired conception of competency was based upon the participants’ interactional skills in interpreting prior utterances and their contingencies, and accomplishing actions within adjacency pairs without overly lengthy gaps and repairs. Competency would also need to take into account repair practices and preference organizations that aided in the completion of adjacency pairs, to be looked at in the next section. Thus, one aspect of interactional competency from a CA viewpoint could be seen as the ability to interact in conversation based on the normative behaviors involving adjacency and preference.

**Repair**

Within the repair organization (SJS, 1977, Schegloff, 2000), repair of trouble in the talk could be analyzed in terms of: (a) position relative to initial trouble source, (b) which participant initiated (self- or other-repair) and completed repair (self- or other-
repair), and (c) whether the repair was successful or not. Based upon the precepts established in analyzing L1 talk, canonical repair could occur in four positions. The first and third-position repairs were both self-initiated, and the second and fourth position repairs were other-initiated. Because the definition of repair has undergone some changes in the recent past, it is necessary to consider these changes and put them in perspective regarding this study.

Placement of Repair Initiation

A major conceptual break occurred when SJS (1977) introduced the notion of repair that was not limited to correction or errors, but could include word searches such as a name search, hearing problems due to noise, or uncertain understandings that require confirmation. Repair practices were made up of sequences, the most important one being a repair initiation (See Table 2), distinguishable from proceeding talk, and a

Table 2. Placement of Repair Initiation by Self or Other

<table>
<thead>
<tr>
<th>Self-initiation of repair</th>
<th>Other initiated repair</th>
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</thead>
<tbody>
<tr>
<td>a. within the same turn as the trouble source (first-turn or</td>
<td>a. usually next turn or nearby in second position</td>
</tr>
<tr>
<td>position)</td>
<td></td>
</tr>
<tr>
<td>b. in the transition-relevance place (e.g., at the end of a</td>
<td></td>
</tr>
<tr>
<td>TCU)</td>
<td></td>
</tr>
<tr>
<td>c. in the third-turn (or nearby third-position) to the trouble</td>
<td></td>
</tr>
<tr>
<td>source</td>
<td></td>
</tr>
</tbody>
</table>
repair outcome. First, repair practices could be analyzed in terms of which participant initiated, self (self-initiation) or other (other-initiation).

In the case of self-initiation, the speaker of the problematic talk, known as the trouble-source, initiated the repair within the same turn. Next, the position or placement relative to the initial trouble source was considered in relation to the trouble-source. Repair was initiated around the trouble-source in the same turn as the trouble-source, or right after it in a transition-relevance place, or in the third-turn. Other-initiation usually took place in the next turn (e.g., What?) or nearby (Schegloff, 2000). Each position (except for fourth) will be explained one by one with exemplars.

First-Position Self-repair

In terms of the repair practices of novice-novice L2 talk, one question (SJS, 1977) concerned whether the preference for self-correction and self-initiation over other-correction and other-initiation also applied for NNSs. This preference system was originally based upon first language data and assumed NS competence. In one earlier study dealing with NNS-NNS talk (Schwartz, 1980), the L1 preference for self-completed repair also held for L2 talk. The Schwartz study dealt with NNS-NNS talk in an English as a Second Language (ESL) context in an American university; the participants had higher English proficiency and more experience with NSs than most of the participants in this study of novice EFL learners. However, later research on lower proficiency novice L2 talk conducted by Carroll (2000, 2004, 2005a) and Barrow (2004) corroborated this self-repair preference.

To illustrate this, in Excerpt 2.2, learners’ turn-taking was based around the
attempted application of routine expressions (e.g., “Have you ever been to…?”“I have never been to …”), often first presented in topic initiating first-pair parts, and often followed by simple second-pair parts (Barrow, 2004).

Excerpt 2.2, lines 8-18
8     (0.8) ((S3’s lips are moving))
9     S3: I havu: (0.4) I have nevah: (1.6) >uh I<
10    have never been to (0.5) abroad.
11    (1.8)
12     S3: you (.) aren’t you?=
13     S4: =ah: I (have been to) (0.7) I have gone
14     to (0.8) ah: (. ) Guam.
15     (.)
16     S4: .hhh=
17     S3: =Guam=
18     S4: =Guam hhey

In lines 9-10, S3 completed the adjacency pair initiated in line 1 (Have you ever been to abroad?). The pause-filled self-repair sequences of lines 9-10 and 13-14 show how the learners tried out and self-completed clausal routines. In the case of S3 in lines 9-10, the self-repair of syntactic features was composed of restarts that expanded the clausal structure. Lines 9-10 and 13-14 also showed evidence of a syntax-for-conversation in which current speakers attempted to get repair initiated and completed (with multiple restarts) within the same TCUs or clauses in this case (Schegloff, 1979, 1996).

Carroll (2004, 2005a) pointed out that novice same-turn self-repair could be initiated at any point in a turn. A cut-off often initiated backwards repair on something already produced, so it tended to be post-positioned after the trouble spot (Carroll, 2005a; Schegloff, 1979, 1996).

Excerpt 2.3 (Barrow, 2004)
305 S8: I wanna work (0.5) because I wanna (0.5) I want (1.3) money
In Excerpts 2.3 and 2.4, wanna- and wanna- were cut off as they were trouble sources, initiating a new try. Mid-turn cut-offs and pauses commonly were used as backwards repair initiators in TCUs in-progress as the following examples illustrate. However, these backwards repair initiators did not just repair previous repairables but could contribute to forward repair or progressive repair (Carroll, 2004, 2005a; Schegloff, 1979, 1996). Repair on the prior repairable syntax (I wanna > I want; I want > I wanna) was made; but in addition, the TCU progressed to completion with expansion of the sentence’s complement (Barrow, 2004). These positionally sensitive grammars, proposed by Schegloff (1979, 1996) as progressive repair with native speakers, and corroborated by Carroll (2004, 2005a) in novice L2 talk, could contribute to forward repair. In other words, the backwards repair could be utilized to delay production momentarily in the search of the next part of the TCU.

CA researchers pointed out that the most prevalent form of self-repair in novice L2 talk was forward-oriented repair (Barrow, 2004; Carroll, 2004, 2005a). For example, pauses tend to initiate forward repair, often referred to as word search, on the next item, so they tend to be pre-positioned (Schegloff, 1979, 1996). As in Excerpt 2.2, line 9, stretches occurring before pauses (designated by colon) were common forward repair techniques that pre-positions the repair initiation.

Excerpt 2.2, lines 8-10
8    (0.8) ((S3’s lips are moving))
9    S3: I havu: (0.4) I have nevah: (1.6) >uh I<
10   have never been to (0.5) abroad.
They were capable of occurring anywhere in novice L2 talk. Carroll (2004, 2005a) referred to them as pre-pausals or pauses that were followed by the repair resolution. Numerous pre-pausal stretches (indicated by colons) occur commonly before pauses, either mid-word or word-final and are often accompanied by rising or falling tone pitch as in Excerpt 2.1, lines 11-23.

**Excerpt 2.1, lines 11-23**

```
11 S7: u::n:: hh .hh
12 (1.5)
13 tru↑:mpet (0.6) i:↓s
14 (1.7)
15 u:n↓:
16 (0.6)
17 S8: °hard°((anticipated completion))
18 (1.6)
19 S7: u:n:: b↓u:t
20 (0.7)
21 I:: (0.6) I played (1.1) i:t (. ) fo:r
22 (1.5)
23 two yea↓:s
```

Excerpts 2.1 lines 27-29, 2.2 lines 9-10, 2.3 and 2.4 demonstrated novice learners’ ability to self-correct (i.e., replace) syntactic (e.g., predicate) features during their turn at speaking. Markee (2000) earlier claimed that first-position repairs have no acquisitional consequences; in other words, they do not cause restructuring of input and output. At this time, research into first-position repairs was inconclusive concerning this issue, however, this type of progressive repair behavior, used in maintaining intersubjectivity, is common among not-yet-fluent learners lacking in L2 competence (Barrow, 2004; Carroll, 2000, 2004, 2005a). During speaking tasks, Shehadeh (2001) reported that modified output (Swain, 1985, 1995, 1998, 2000) could arise from self-initiated, self-repair. Gardner (2007b) termed some of these disfluent turn beginnings as “broken-starts” or bricolage turns, and argued that they provided learners an opportunity to plan more
fluent turns, and thus, were seen as potential sites for learning. Most of these broken-starts occurred after speaker had been selected immediately to speak in next turn, and had to rely on whatever linguistic resources they had at that moment. As the learners were “pushing their output to its limit,” these broken-start turns displayed the learner’s struggle with turn construction, and revealed an “interactional space of shared cognition” (Gardner, 2007b, p. 71). In taking this further, Kasper (in press) argued that correctness-focused self-repair embodied socially shared cognition. This implied that first-position self-repairs were both accuracy-focused, perhaps displaying the identity of a foreign language learner, and recipient-designed to maintain intersubjectivity.

Second Position Other-initiation

Schegloff (2000) emphasized the relationship between initiation and position, pointing out that other-initiated repair was usually initiated in the next turn after the trouble source, referred to in SJS (1977) as next-turn-repair-initiators (NTRIs). Self-initiated repair usually occurred in all other positions. Normally, self-initiated repair was initiated by the speaker of the trouble-source and completed in the same turn; however, the recipient of the problematic talk initiated other-initiated repair. After initiating repair, the recipient usually left it to the speaker of the trouble-source to complete the repair in the next turn (e.g., third-position self-repair), indicating a preference for self-repair in talk.

According to SJS (1977), the NTRI occurred in the next turn, as early as possible, relative to the trouble source; however, Wong (2000), observed delayed other-initiated repair sequences in NS/NNS talk, as in Excerpt 2.5 in which the first receipt with “Oh::”
is hearable as ‘unremarkable’ (p. 251). Then, after a delay of 0.2 seconds, Lin initiated repair.

Excerpt 2.5 (Wong, 2000)

TST Beth: so they were gonna go all the way to Montreal in nine days
XXX Lin: Oh::
(0.2)
→ Nine days?
Beth: Yeah
Lin: Jesus

TST: trouble-source turn; XXX: initial response by repair initiator; arrow: repair initiator

In response to Wong’s (2000) observation of delayed other-initiations of NNSs, Schegloff (2000) re-examined other-initiated repair of NS talk and modified the basic definition of repair that had been set down in SJS (1977), referring to them as other-initiations rather than NTRIs because not all other-initiations of repair occur in next turn.

Further work with NS/NNS (e.g., Wong, 2000; Hosoda 2006) talk has shown that NNSs may differ from NSs in the way that they delay or displace the next item due in certain repair contingencies. For example, Hosoda (2006) found that in NS-NNS talk, the participants were usually not concerned about disfluencies or errors. However, during instances of repair, “differential language expertise” could become relevant and produce sequences similar to those of classrooms. In these instances, the NNS took the role of novice (e.g., seeking help) and the NS took on the role of expert (e.g., supplying a lexical item). By delaying production of actions in progress (e.g., initiating word
searches), NNSs displayed their competences in dealing with troubles in the talk.

Fourth-position repairs, also other-initiated, of which there were no examples in the data that I have analyzed as of yet, were rare as they sometimes involved a misunderstood first-turn that was initially replied to. A good candidate position for the study of novice interaction and how repair practices could contribute to mutual understanding was the third-position, examined next.

Third-Position Self-Repair

As SSJ (1974) pointed out, canonical third-position self-repairs occurred in the third-turn of a repair sequence. For example, the hearer responded without signaling any trouble in the second-turn; but, in turn three, the first speaker initiated repair of what she said in turn one. Schegloff (1992, p. 1302) provided the following exemplars for contrast. In Excerpt 2.6, the hearer (Tony) offered a candidate understanding that Marcia confirmed. This was one way, when speaker did not deal with potential troubles of understanding (e.g., ambiguity of “ripped off”), that the hearer could initiate repair in the next turn. The trouble was usually dealt with immediately.

Excerpt 2.6 (Schegloff 1992: p. 1302)
Marcia: ...Becuz the to:p was ripped off’v iz car which iz tfhsay somebody helped th’selfs.
Tony: Stolen.
(0.4)
Marcia: Stolen. Right out in front of my house.

However, there were cases in which speaker said something that was not apparently a repairable and immediately accepted by the hearer as something understandable as in the following example. In the third-turn of Excerpt 2.7, Dan went back and clarified what he said in the first-position.
Excerpt 2.7 (Schegloff 1992: p. 1303)
Dan: Well that’s a little different from last week.
Louise: hey hey hey Yeah. We were in hysterics last week.
Dan: Oh, I mean Al.
Louise: Oh, he . . .

Schegloff (1992, p. 1301) referred to repair in the third-position as “the last structurally provided defense of intersubjectivity in conversation.” Schegloff (1997) then proposed that the transition-relevance place (at the end of a first-position TCU) and third-turn repair were basically differentiated by the presence of a recipient’s turn between the repairable and repaired.

Schegloff (1987, p. 1318) proposed that third-position turns were built in “the turn after a turn containing an utterance analyzably built to be next to some prior” (utterance). This means that speakers could design talk (in third-turn or third-position) to address earlier talk. Schegloff (1997) explained that third-position repairs often took the form of “No, I don’t mean X, I mean Y” (p. 31). In the case that these repairs occurred in a turn later than the canonical third-turn, they were referred to as third-position. Other types of uncanonical third-turn repairs had recipient second-position continuers (e.g., un in Japanese, often with a nod) that Schegloff considered quasi-turns as they passed the opportunity to indicate trouble. Also, appearing in second-turn were various minimal receipts and change-of-state tokens such as “Oh!”.

Not surprisingly, this line of investigation suggested that there was no narrow functionalism at work here, that there were numerous possibilities that could be achieved in the transition-relevance place after first-position. In the case of first-turn terminal parts that were (preferably) repaired by first speaker (in the same turn), such as the search for a word, self-completion was expected to be in the transition-relevance place.
However, if the recipient responded in this space as a second-turn, then the self-repair of the first speaker appeared in third-turn.

Schegloff (1997) offered the following exemplar, Excerpt 2.8, to show that the presence or absence of talk by another differentiated cases of third-turn repair from transition-space repair.

Excerpt 2.8 (Schegloff, 1997)
A: That store has terra cotta floors
   (pause)
→ Not terra cotta, Terrazzo.

In this instance, first speaker self-repaired after a pause. If the recipient were to respond in second-turn, then we could clearly establish this as a third-turn repair. Also, if we had video data, we could analyze the nonvocal responses, such as a nonvocal continuer or side-to-side head shaking during these pauses.

In summing up his definition of repair, Schegloff (2000) defined repair as orderly “practices for dealing with problems or troubles in speaking, hearing, and understanding the talk in conversation” (p. 207). Thus, the definition of repair was narrowed to ‘talk,’ or the understanding of what the other person had just said. This organization of action included initiation and completion or abandonment, actions that could replace other actions. Restrictions to repair were that repair initiations occurred around (i.e., near) the troublesource, and that repairs occurred within a turn space that was relative to their initiations. In comparison to other action types, such as closings or requests, repair organization was “well-defined and circumscribed” (p. 207).
In the novice data displayed in the next section, a sentential TCU could contain long pauses, often filled with nonvocal actions, that projected what word the current speaker was looking for. In second-position, the recipient could anticipate and try to make a guess, followed with a self-completion or acknowledgement by the first speaker in third-position, illustrated in the next section.

Novice Delayed Completions and Collaborative Turn Sequences

The following example of Excerpt 2.9 (Barrow, 2007b) illustrates co-constructions in which the recipient anticipated the speaker’s word search made in first-position and proposed a word for possible completion in second-position, followed by a self-completion in third-position by the first speaker. S7 was beginning to explain how difficult it was to learn the guitar and was trying to explain how the fingertips hardened. This excerpt will be used in other analyses so all 37 lines are provided here.

Excerpt 2.9 (Barrow, 2007b)

01  S7:  "very difficult."
02    (1.1) ((gazes))
03  S7:  so
04  S7:  (0.7) ((raises finger tips))
05  S7:  recently I↓- ((touches finger tips together))
06  S7:  (2.1) ((rubs fingertips; gaze shifts to DICT))
07  S7:  my::: ((rubs fingers faster; head moves to DICT))
08  S7:  (1.1) ((hand & body move to DICT; inputs in DICT))
09  S8:  "finger?" ((as S7 inputs))
10    
11  S7:  un finge::rs zu (0.8) ski:n?
12    (0.4)
13  S8:  a↑:h (0.7) hard.
14    (0.8)
15  S7:  u:n
16    (0.9)
17  S8:  become hard?
18    (0.4)
19  S7:  u:n yeah:: (0.4) s:
20    (0.4)
21  S7:  u:n
S7 projected meaning, first initiating with finger gestures (touching of finger tips) in lines 5 to 7, and syntactically with the stretched “my::”. In line 9, during S7’s e-dictionary look-up, the recipient anticipated “finger” in second-turn based upon the finger gestures. The third-position completion in line 11 appeared to be a candidate syntactic delayed completion (Lerner, 1989, 1991, 1995, 1996) of line 7 (i.e., my + skin). Line 11 was not just the next part of an unfinished TCU but another utterance. It began with un, a possible receipt token, a stretched repetition of the proposed “finger,” a long pause, and the proposal of “skin?,” which provided a vocal candidate for the prior gestures.

For turn-taking, spaces around places of possible completion (e.g., inter-TCU pauses) were used by the participants as possible places of speaker transition. For example, when a TCU was cut-off or interrupted, there were means available to the speaker to continue the talk in a later turn. Lerner (1989) referred to this turn-taking behavior as delayed completion, in that the current speaker projected a later utterance that had a syntactic fit and continued the prior utterance in some way. Lerner pointed out
that in order for a TCU (e.g., uncompleted part of word, phrase, or sentence) to be part of the turn-taking system, it must have “recognizable completion,” and that this “completion must be recognizable prior to its occurrence” (p. 168). In the above excerpt in line 11, the production of the delayed completion of “skin” reduced the relevance of the recipient’s proposed “finger” and retained speakership of the TCU begun earlier by S7.

The delayed completion device described above is similar to what Lerner (1989) called a collaborative turn sequence or preemptive completion. In the second-turn, the recipient produced an utterance that syntactically fit (“finger”). In the third-turn, speaker of the initial TCU could accept or reject (or repair) the collaborative completion. In the case of the excerpt above in line 11, it was repaired (replaced) with “skin.”

Further complicating the analysis of delayed completions of Japanese speakers are Japanese syntactic practices (SOV-based) that tend to be more “loose” (i.e., the ordering of elements preceding the verb is more flexible than English) (Fox, Hayashi, & Jasperson, 1996), and oriented to later or delayed projections (i.e., verb final turn shape concentrated projectable information towards the end of the TCU) (Tanaka, 2000). For example, in comparing the clausal grammatical format of Japanese with English, Thompson and Couper-Kuhlen (2005) noticed differences in next-turn onsets, delayed co-construction, and turn-unit extensions. Because the participants in this study were all “native” Japanese speakers, a cross-linguistic comparison was not focused on. Relevant in this study to the analysis of projection and turn completions were the vocal and nonvocal word search practices novice learners were transferring from their first language (e.g., stretched un). As Excerpt 2.9 showed, the use of multiple modalities (e.g.,
vocal, nonvocal, and e-dictionary) in turn completions (e.g., Bolden, 2003, Goodwin, 2007) allowed the participants to fully collaborate in these co-constructions.

*Embodied Actions in Interaction*

In the previous sections, I explained the evolving CA view on self-repair primarily from a syntax-in-conversation perspective without looking closely at how the speaker designed the talk for the recipient. In interaction, for example in Excerpt 2.9 lines 28-34, the participants could cue in on nonvocal behavior, such as gazes (and off-gazes) and various thinking face expressions (e.g., head tilts), that could indicate searching for a word (Goodwin & Goodwin, 1986; Carroll, 2004, 2005a).

Goodwin (1979, 1980, 1981, 1986), focusing upon the interaction between the speaker and the hearer, proposed that “A speaker should obtain the gaze of his recipient during the course of a turn at talk” (1981, p. 57). Applying this concept to novice self-repair required an examination of how the speaker uses restarts, pauses, and self-repair behaviors to hold one’s turn and summon the recipient’s gaze and attention. This line of inquiry implied the possibility that the speaker was not just trying to repair linguistic items, such as tense and aspect, or trying to recall words, but in the same turn, also avoided overlap, or possibly summoned the hearer’s gaze and collaboration in the look-up. These recipient-designed nonvocal competences that contributed to mutual understanding will be examined in Chapters 4, 5, 6 and 7.

In more recent work (e.g., 1996, 2000, 2002, 2007), Goodwin has looked at the organization of talk-in-interaction in order to build multimodal participation frameworks. Within these frameworks, participants performed tasks as moral, social, and cognitive
actors in institutional situations. The participants organized their bodies to jointly take account of structure and tools in the environment in order to solve problems, revealing five types of stance (Goodwin, 2007): instrumental (e.g., the placement of tools), epistemic (e.g., recognizing the word meaning on the e-dictionary’s screen), cooperative (e.g., the appropriate display of bodies toward each other), moral (e.g., trusted member in the interaction), and affective (e.g., emotions generated through the participation).

The importance of gestures in communication has gained more attention by researchers (e.g., McNeil, 1992, 2000). For example, McNeil (1992, pp. 19-24) pointed out differences between gestures and language; gestures are global, synthetic, and not hierarchical and can present meaning without segmenting or combining with other parts. Although gestures have no standard form, they operate with language in a single system, co-expressing semantically and pragmatically.

In exploring the pragmatic actions (using NS video data) of gestures used in turn-construction, Jarmon (1996) proposed multifunctional “embodied action-turns” that can achieve actions (e.g., pragmatic actions), provide tacit information, and perform enlivened tellings. Jarmon also proposed that these action-turns are used as construction units (as turns) in adjacency pair and repair sequences. Thus, if the analyst assumed that embodied actions were available to interactants for turn construction and used as turn components, then this suggested that the embodied actions should be specified and described within the turn-taking system.
In the last ten years, many CA practitioners in the field of SLA have been exploring how gestures and other embodied actions help L2 speakers accomplish intersubjectivity in interaction, in other words, how individuals display socially shared cognition with gestures (e.g., McCafferty, 1998, 2002, 2004; McCafferty & Ahmed, 2000; Mori & Hayashi, 2006; Olsher, 2003, 2004). McCafferty (2004, 2008) proposed that learners utilize an actional (Kita, 2003) mode of thinking in which gestures carried communicative functions. In particular, constant mirroring (imitation in some form) of each other’s gestures was key evidence that, in many instances, gestures lead speech at both the local TCU level as well at the discourse level (e.g., anaphoric). This suggested “that action may be a central underlying aspect of human cognition and not just a modality for thought, as indeed is suggested by the study of mirror neurons” (McCafferty, 2004, p. 163).

Recent work with novice-novice data, such as that carried out by Olsher (2003, 2004) and Carroll (2004, 2005a), has revealed the hybrid nature of novice interactional resources. Olsher (2003, 2004) investigated embodied actions that included nonvocal resources (e.g., iconic gestures) used in “embodied completions” in order to achieve intersubjectivity. Embodied actions, by projecting meaning with a gesture, could be used in turns in the place of linguistic resources in order to complete TCUs. For example, a novice speaker could begin a TCU with a Japanese or English word or other beginning, stop, and then complete the turn using a gesture. Olsher (2004) described a two-component structure that consists of first a partial TCU that initiated a turn. This was
followed by a second gestural component that completed the action started by the first component. Some kinds of embodied actions identified in these practices were pointing gestures, material actions using objects or the body, and elaborate gestures. Thus, to complete turns in conversation, learners can use iconic gestures to represent words and actions. Embodied actions are contingent on what communicative (social) action is ongoing, how the TCU is progressing at that moment, and what other multimodal resources are available to the participants.

Second Language Learning and CA

Multimodal evidence of second language learning has been growing in recent CA for SLA studies. One common approach has been to document instances of learning-in-interaction, some turning to usage-based theories, such as sociocultural theory (e.g., Lantolf & Thorne, 2006) or multicompetence (Hall, Cheng, & Carlson, 2006), to explain the use of multimodal and multilingual competencies of the participants in various social contexts. For example, Mondada and Pekarek Doehler (2004) argued for a strong socio-interactionist perspective merging CA with sociocultural theory. The sociocultural dimensions and cognitive development of learning processes need to be studied within ordinary learning activities; thus, cognition is situated in the social interaction, made public by the practices deployed in the situation’s context.

One promising research strand with a sociocultural perspective concerns how participants orient to recasted knowledge in interaction. For example, Ohta (2000, 2001a) applied Vygotskian notions in order to explain how a learner recipient, through collaborative experimentation, could indicate understanding (often nonvocally) about
what was wrong with another learner’s (speaker’s) utterance, and then made new proposals on form or lexis as recasts; then, the first (speaker) learner incorporated the new form or lexical item into the next utterance in some way. By utilizing Vygotsky’s (1986) notion of private speech (i.e., quiet reflective talk) in the mediation and practice of something from a prior part of the talk, Ohta showed how learners were able to collaboratively incorporate recasts. In a similar vein, more recently, Mori and Hayashi (2006) found that the third-turn (position) receipt allowed the L1 speaker to provide a more advanced spoken elaboration of a L2 speaker’s prior gesture used to complete a turn. As a kind of recast that re-framed the prior gesture, a more mature vocal version was presented as input to the learner, and this was available for possible noticing.

Also involving recasts but not invoking sociocultural theory at the outset, Hauser (2005) found that, in applying CA to data from a conversation club, the recasts displayed hearings of the learner’s speech that indicated that the meaning was still being negotiated. This suggested that the participants only had a limited orientation to language forms (i.e., let it pass through) when confronted with recasted knowledge. The participants tended to use repetition to index comprehension of what was left unsaid and they deployed metalinguistic knowledge in accounting for errors.

One strand of research in learner interaction involved an ethnomethodological CA approach to learning (Seedhouse, 2004, 2007a, 2007b) that did not invoke a learning theory unless the participants were displaying learning in the talk. For example, two studies by Koshik (2002a, 2002b) seemed to fall into this strand. After analyzing the use of yes/no questions in criticizing and assessing performance in writing conferences with teachers, and explicating how reversed polarity questions were used (e.g., T: Is it clear? 41
S: No.), Koshik (2002a) then explored their implications in the institutional context. In another of Koshik’s (2002b) studies, after describing several types of “designatedly incomplete utterances” that teachers used to elicit a knowledge display from students (e.g., prompt a self-correction), she compared them to practices in ordinary conversation before discussing them as pedagogical practices used to accomplish specific institutional tasks. Some other examples of previously mentioned SLA researchers that conducted ethnomethodological CA studies were Carroll (2004, 2005b), Gardner (2004), Hosoda (2006), and Wong (2000). In these studies and others, although implying socially shared cognition, the analytical focus was on uncovering the social practices methodically. Rather than trying to link the analysis to a theory at the outset, they later concluded with theoretical implications.

Brouwer (2003) also applied CA in a date-driven way in order to assess the learning opportunities available in NNS word searches. Word search practices (SSJ, 1977) had communicative functions, such as projecting what word the learner was thinking about and inviting help in the search. During the display of word search markers, the learners oriented to the interlocutor’s expertise by displaying explicit markers (e.g., How do you say that?) that pointed to the recipient’s word expertise. However, to suggest that a sequence was an opportunity for language learning required more evidence, such as collaborative completions (my wording) and subsequent acknowledgements, which were described above. Brouwer (2003) concluded that for a word search sequence to be considered a learning opportunity, the recipient must be invited to participate, and he must orient to language expertise (i.e., display expert/novice roles).
In applying socio-constructivist theory, Brouwer and Wagner (2004) suggested that learning should be placed in the context of a social process, linking social action to communities of practice. This utilized Lave and Wenger’s (1991) socio-constructivist theory of legitimate peripheral participation that offered a way to analyze learning in communities, which are viewed as sites of knowledge where the participants apprentice to become members. Brouwer and Wagner (2004, p. 44) proposed that, in researching learning over time, learning could be described as “increasing interactional complexity in language encounters.” In maintaining intersubjectivity, they found that over time the participants used more repair initiating techniques and longer sequences for clarification. In terms of sequential organization, the participants expanded their conversational topics and questions with more appropriate use of acknowledgement tokens, relevant next actions, and laughter.

In comparison, He (2004) argued that CA was not a learning theory and not designed to document language acquisition as it was traditionally known in SLA studies. However, if language learning is defined as a problem-solving process with interaction and acquisition united in some way, then CA could be useful in discovering learning and teaching processes. He suggested that CA be combined with other research approaches, such as language socialization, to examine the wider frames of contexts in which learning unfolds.

To take advantage of CA’s potential for analyzing participants’ socially distributed cognition, Kasper (2006) suggested that researchers document how participants co-produce actions and co-display their understanding through interaction. In particular, the perspective of L2 learning as socially distributed learning has potential in the research of
task-based learning activities. In this vein, in order to better evaluate the effectiveness of learning activities, Seedhouse (2004) predicted a shift in research focus from tasks-as-workplan to tasks-in-progress.

As for studying development, Kasper (in press) held up Wootton’s (1997, 2005) work as a promising model for longitudinal case studies. In following his own daughter’s use of request forms, Wootton (1997) documented her progression from the varied use of imperatives from age two to the conventionally indirect form of can you at age three. What differed in particular from studies based on earlier politeness models was that, before the development (up to age five) of inferencing skills used in discerning imposition, the child differentiated varying sequential alignments. In other words, Wootton (2005) implied that children could learn the various interactional contingencies of request forms before developing the inferencing skills needed to discern imposition as is assumed in politeness theory.

Reflecting on a reconceptualized SLA, Firth and Wagner (2007) suggested looking at learning as a social accomplishment. In terms of learning-as-interaction, for example, instances that described lexical learning were embedded in the interaction, and the participants, by doing interactional work to overcome difficulties, established intersubjectivity. Later, by showing how learners could display that they had learned the new word over time, it could be possible to document that learning was accomplished. A second way to look at learning is to focus on the interactional processes as “doing learning.” For example, the participants foregrounded learning by using routines similar to classrooms (e.g., model and repetition). The third way to document learning involves a more complex flow of instances that display progress in sequential work, similar to
Brouwer and Wagner (2004) above. Thus, proving that learning has taken place in interaction has been a challenging endeavor and the use of CA in documenting learning in interaction seems have gained some momentum in the past ten years since Firth and Wagner published their 1997 paper.

**Summary**

In the previous section, I have explained how the basic CA organization of repair has evolved and illustrated how self-initiated and other-initiated repair operates in interaction with various exemplars. Importantly, novice-novice interaction showed a preference for self-repair in first- and third-positions, evidence that novices are capable of displaying “normality” in turn-taking (Carroll, 2004; Gardner & Wagner, 2004). Perhaps to compensate for linguistic deficiencies in English, there was a high degree of collaboration in the completion of TCUs and sequences. This phenomenon will be analyzed in detail later with look-ups. Important in analyzing how the speaker designed the talk for the recipient, much of this collaboration was performed with nonvocal resources. The contributions of nonvocal resources in turn-taking and repair reflected the many competencies that novices brought to the conversation that enabled them to make successful repairs and maintain intersubjectivity during a long sequence of talk. Finally, the contributions of CA to the understanding of the processes of language learning in interaction demonstrated the usefulness of the approach, not only in describing those processes but also in providing a clearer understanding of human cognition in a social context.

In the next section, in order to situate this study more firmly in the field of SLA, I
will review research dealing primarily with printed dictionaries. I will also briefly explain how e-dictionaries are basically designed and used.

**Dictionary Use in Second Language Studies**

*Printed Dictionaries*

In surveying dictionary use among EFL learners, there is a substantial history of research in printed dictionary use among foreign language learners. Tomaszczyk (1979) and Bejoint (1981) corroborated that the vast majority of foreign language learners used dictionaries, and that meaning (for decoding) was the most sought after information, particularly for reading. Looking up words for oral communication use was cited as the least used type. However, Harvey and Yuill (1997) found that spelling was the most common reason for a look-up for learners engaged in writing, and meaning was second. In looking up grammar, Bejoint (1981) reported a higher percentage of users looking up grammar (53%) than Harvey and Yuill (10.5%) did for writing tasks. Concerning collocation and synonomy, which are important in grammatical encoding, Harvey and Yuill (1997) reported that their participants cited poor synonyms as a common reason for the rejection of looked up words. What was interesting in this study was the reported failure of many learners to find adequate information. Harvey and Yuill (1997) reported that 88% of the look-ups were judged as being successful. This rate was slightly higher for spelling look-ups (93%).

Atkins and Varantola (1997) examined what learners did when looking up words for translation in near-natural situations. Based on a collection of case studies of translators who were working on primarily L1-L2 translation tasks in pairs, one as a
translator and one recording, each look-up was recorded during the search of a problem.

One hundred and three users completed 1000 look-ups to solve 574 problems, with 37 ending prematurely. The number of look-ups varied from one to eight as most searches (57%) were completed with one look-up and 25% required a second look-up. The commonest L1-L2 look-up was for an unknown translation equivalent; the next commonest was made to check a L2 word’s acceptability. Most of the participants used bilingual dictionaries and successfully found information by looking up the head word. One in ten look-ups involved a search for collocational information, and one in twenty was made to find grammatical information. The participants looked up the L1 equivalent for L2-L1 look-ups (8%) because they did not know it or wanted to confirm their knowledge. Low proficiency participants tended to translate directly into their L1 rather than into their L2. However, the methodology could not identify successful searches, nor whether the searches shifted from looking up primary information (e.g., L2 translation) to secondary information (e.g., confirmation of meaning or collocations). Interestingly, in 40% of the cases, the users believed that the look-up failed, with L2-L1 translations considered more successful (and much fewer) than L1-L2 ones. Advanced proficiency users reported less success than less skilled translators (e.g., they needed more advanced information, which is more time-consuming to locate). In sum, a number of factors were at work in the word look-ups, such as proficiency level, direction of translation, and type of information sought, each of which could influence the outcome of a look-up. It was no wonder that Atkins and Varantola reported that each look-up was different in some way.
Another commonality of previous research results was the preference for bilingual dictionaries as a vocabulary learning “strategy” or “activity” that enhanced the learning process in some way. Schmitt (1997) collated a taxonomy of discovery strategies, broadly divided into determination and social strategies. Determination strategies facilitated the learning of a new word by helping learners guess from structural knowledge, L1 cognate, context, and using reference materials. The use of bilingual dictionaries would fall into this category. Social strategies involved asking the teacher or a classmate (e.g., for the translation of an English word). Another taxonomy, called consolidation strategies, was divided into social strategies (e.g., group practice), memory strategies, cognitive strategies (e.g., repetition and word lists), and metacognitive strategies (e.g., maximizing practice time for efficient learning). Memory strategies contained a variety of learning activities involving mnemonics, pictures and imagery, related words, unrelated words, grouping (e.g., meaning categories), word’s orthographical or phonological form, word class, chunking and pantomiming. A survey of 600 Japanese EFL students indicated that the most used and helpful strategies in ranking order were “bilingual dictionary, written repetition, verbal repetition, say a new word aloud, study a word’s spelling, and take notes in class” (p. 221). Disappointingly, only half of the students felt that group work was beneficial in learning vocabulary.

Scholfield (1997) referred to the various strategies used with dictionaries as lexical communication strategies. These strategies were divided into choice in reception (e.g., guessing versus looking up) and choice in production (e.g., looking up, asking someone, topic avoidance, and L1 use). The strategies of looking up were divided into look-up in
reception, finding the item and finding the sense. At the end of the look-up, exploiting the information involved understanding the sense, a process that was quick and efficient with a bilingual dictionary. A look-up in production was roughly divided into two areas of reference use. When an L2 word meaning was known but some aspect of it was unknown, this was proposed as an ideal situation for monolingual dictionary use. However, in the case that an L2 word was not known at all, a bilingual dictionary (L1-L2) could obviously resolve the look-up quickly.

*The Electronic Dictionary*

Studies of e-dictionary use have been increasing recently, particularly in Japan where the e-dictionary was mass produced and where it has proliferated widely (Terashima, 2005). Koyama and Takeuchi’s (2003) research on the e-dictionary use of EFL learners in Japan revealed that learners considered the e-dictionary as handy but inferior to printed dictionaries in terms of the amount of information provided. In fact, the respondents reported frustration and failure in finding sufficient information with e-dictionaries. The interface design of the e-dictionary was cited as an influence on the students’ searching behavior.

Koyama and Takeuchi (2004) later reported on a set of experiments (criticized by Loucky, 2005) that demonstrated no significant differences in look-up time between printed and e-dictionaries and better retention of words looked up by a printed dictionary. Koyama and Takeuchi (2004) also suggested that better retention occurred during tasks that had greater involvement, a motivational-cognitive construct of need, search and evaluation proposed by Laufer and Hulstijn (2001). Loucky (2005) reported that the
automatic archiving and review functions (a record of look-ups that can be reviewed again) in later models were considered by users to be one of the e-dictionary’s main advantages for learning new words.

The e-dictionary has most of the features suggested by Nation (1989) for language learners. For example, the bilingual Japanese-English e-dictionary Genius 2 (e.g., on a Casio XD model, now obsolete) has convenient features for scrolling to quickly access the look-up word. For example, if I input bunka (culture), I first see three sets of Chinese characters that have the same sound. I can quickly scroll up or down to see the key L2 equivalents: specialization, culture, and humanity, and each is followed by a short definition in the L1. If I want more detailed information about bunka or culture, I select that word and the full definition appears with several L2-L1 examples (The culture of ancient Egypt …, classic culture, the cradle of culture, American culture, and a maritime culture). If I scroll down further, there are 11 examples of L1-L2 collocations, such as bunkasai (school festival) and bunkashokku (culture shock). At the end of the scroll is the adjectival cultural with an L1 definition and several L2-L1 examples. If I need more details about culture, I can enter it into the English-Japanese dictionary and find information on pronunciation, etymology, grammar, word parts, word family, and three senses.

To use the e-dictionary, the following linear steps take place. First, the users select the dictionary that they want to use, and in the case of EFL students, they usually select either the bilingual English-Japanese dictionary or the Japanese-English dictionary. When using the Japanese-English dictionary, users must key in Japanese hiragana (hi ra ga na, a total of eight keys) on a small Qwerty keyboard of Roman letters, and push the
translation (decision) button after each step. In the example of *bunka* (culture), 5 keys are needed, so during a conversation, this word input step is time consuming and requires that the user’s eyes and one hand be placed on the keys. Next, the user must scroll to find the correct look-up word among homophonic Chinese characters, and then push the translation button to expand to a full screen of information that can be scrolled up or down while reading. In sum, electronic dictionaries are light and compact (compared to carrying around several printed versions), capable of holding over a dozen different kinds of specialized dictionaries, but they require a complex series of bodily actions to retrieve the information. As will be seen in the analysis chapters, this body movement will have a profound effect on e-dictionary look-up behavior in conversation.

**Conclusions and Purposes**

The examination of e-dictionary look-ups using CA has never been attempted before and will be the biggest challenge of this study. For that reason, this exploratory investigation will contribute new knowledge to the field of Applied Linguistics. The main task in applying the CA approach to word look-ups is to discover a generic sequential organization that can be applied to other e-dictionary learning situations.

At the center of this study is the contribution of e-dictionary look-ups, which are considered on type of learning activity, to the maintenance of mutual understanding and the co-construction of word meanings. Although documenting vocabulary learning strategies or evaluating the e-dictionary for learning were not the focus of this study, an ethnomethodological approach can help in the understanding of vocabulary look-up behavior. In fact, in the analysis chapters, some of the previously mentioned look-up
behaviors occur, not as independently occurring strategies, but in a moment-by-moment flow of hybrid vocal and nonvocal actions.

Within the repair organization (SJS, 1977, Schegloff, 2000), look-up behavior could be analyzed in terms of: (a) position relative to initial trouble source, (b) which participant initiated (self- or other-repair) and completed the repair (self- or other-repair), and (c) whether the repair was successful or not. Although adjacency is important in CA, not all interactions fit into an adjacency pair organization (Schegloff, 2007). As I will argue in Chapter 4, there are retrospective sequences in e-dictionary look-ups that fall outside the adjacency pair organization. In this case, a recipient could notice a word said (understood not as an error) in a previous utterance and draw attention to it, after which the speaker initiates a look-up on it. In sum, retrospective noticing as a sequential organization for look-up sequences could explain instances in which noticing draws attention to a trouble source, and initiates a look-up sequence.

The use of bilingual dictionaries for oral expression, the focus of this study, has not been well researched. Although the limitations of both printed and electronic bilingual dictionaries have been discussed in the literature (e.g, Laufer & Levitzky-Aviad, 2006; Loucky, 2005; Piotrowski, 1989), L1-L2 dictionares are useful for quickly expressing oneself in the L2. Because the research results were from educational institutions, parallels can be drawn between traditional paper dictionary and e-dictionary use that might provide insights into learners’ word look-up behavior. For example, the surprisingly large number of abandoned look-ups observed by previous researchers has implications for e-dictionary use as well.

Another gap to fill in the research are the contributions of embodied actions to
word look-ups. As Jarmon (1996) and Olsher (2004) found, embodied actions could occur in a turn space to maintain intersubjectivity. What needs to be considered are the various local contingencies in which gaze, body shifts, and iconic gestures occur and their roles in look-up sequences. I will point out when relevant what nonvocal word search practices novice learners are transferring from Japanese. As described in the commentary on Excerpt 3.8, I will focus on how the use of multiple modalities in turn completions (e.g., Bolden, 2003, Goodwin, 2007) allow the participants to fully collaborate in these co-constructions. These types of collaborative constructions will be further described in the analyses chapters. As this area has never been investigated before with e-dictionaries to my knowledge, this line of investigation could reveal new insights into the role of embodiment in vocabulary learning.

Uncovering the sequential practices and social structure in the use of e-dictionaries of novice L2 learners is the general research goal of this study. Using a learners’ corpus of pair conversations, I will investigate how the participants go to their e-dictionaries to look up a word or phrase successfully or unsuccessfully during a conversation. My investigation of not-yet-fluent EFL learners struggling to become more precise in their word choice will be focused on the following research questions.

1. When looking up words with an e-dictionary, what reoccurring sequences of look-up practices do Japanese novice L2 learners of English use?

2. How do e-dictionary look-ups contribute to the maintenance of mutual understanding and co-construction of word meanings?

3. What are the various local contingencies and roles in which gaze and body shifts and iconic gestures occur in look-up sequences?
CHAPTER 3

METHODS, PART 1: CA METHODOLOGY AND DATA

Introduction

As an *emic* approach, CA uses real and complete communicative events that are recorded and transcribed. By detailed sequential transcription (observations) of the data source, the analyst examines particular cases from the participants’ viewpoint and concentrates on what actions the participants are achieving. With more emphasis on turn-taking practices and sequence structure, analysts can focus on *how* the participants achieve mutual understanding and maintain conversation. A basic premise is that, in current turn, the participants (the recipients of talk), through their turn-taking behaviors, display an understanding of their partner’s (speakers’) previous turn. By describing how the participants cooperatively display their understanding by their actions, the architecture of intersubjectivity (Heritage, 1984) can be understood.

The CA approach is empirical and data-driven, and requires that evidence in the form of recorded data, transcribed by the researcher and shared with other researchers, be described in terms of what is actually observable in the data. The research process starts with an interest in a certain type of social interaction (e.g., novice L2 repair) and is driven by the data that one collects (e.g., pair conversations). In this study, the research process started with the noticing of a “something,” an object of interest, the development of a collection of similar phenomena (in this case, e-dictionary look-ups), and the documenting of practices through the patient analysis of exemplars in the corpus.

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Why CA?

While interacting in English with my apparently disfluent Japanese university students in and outside of class, I realized that there was a need to investigate the practices of L2 conversation, particularly in regard to the ability to maintain a conversation (Barrow, 2000). This led to an investigation of the learners’ overall pragmatic development in conversation classes, in which I concluded that the frequency of repair sequences used in L2 conversation practice were related to the amount of turn-taking in relation to the length of gaps and pauses (Barrow & Tada, 2001). Barrow and Tada (2001) found that, over the period of a semester, the increase in the amount and types of utterances used in clarifying meaning overshadowed other developmental trends, such as syntactic growth, indicating that not-yet-fluent speakers were developing repair practices necessary to maintain an L2 conversation. These earlier research forays in the area of clarification led to the formation of research questions focused upon the practices of repair in order to understand how learners kept a conversation going in a second language.

To gain insights into what learners were actually doing when they encountered trouble in the talk, a CA approach using a sequential analysis of video-recorded learners’ talk was deemed necessary for investigating what learners were doing with their bodies, especially during long silent gaps in their conversations. In the earlier studies when I attempted to code actions with audio data, it was difficult to get high inter-rater agreement on abstract categories such as types of clarification (e.g., confirmation checks and clarification questions). One reason for this difficulty was that single responses (e.g., Ah:) and composite responses (e.g., u:n, OK) required a sequential analysis to
understand their multiple functions (Hauser, 2005; Ohta, 2001b; Schegloff, 2007). *Ah:* in my data (See Excerpt 4.6, lines 11 and 26) could indicate both a forward search mode and a change-of-state (e.g., See Heritage, 1984 regarding *Oh!*), depending on sequential position in relation to prior and later utterances, and prosodic features such as stretching, rises in intonation, and loudness. A composite *u:un, yeah* could be used to both acknowledge a prior utterance and end a sequence (Schegloff, 2007) (See Chapter 7 for further explanations). Another reason for the difficulty is the fact that nonvocal “backchanneling” behavior, or more precisely, minimal responses such as nods, could not be analyzed without video recordings, leaving the analyst in the dark as to whether the recipients were nonvocally signaling continuation or acknowledging understanding during silences. Thus, to empirically describe the multimodal repair behaviors on a moment-by-moment basis required a methodology grounded in video recordings of naturally occurring interaction, with the ability to discursively explicate how the participants organized their conversation.

The danger to novice analysts is applying previously established CA concepts and terms such as “self-repair” or “change-of-state-token” in a law-like way to one’s own data, forgetting that what action is being accomplished by the participants (and not by the analyst) at that moment is an interactional achievement. This kind of analysis is very easy for applied linguists to conduct resulting in a “linguistic CA” type of data coding (Seedhouse, 2004, 2007). In understanding what the participants are “doing with words,” further analytical work in an intense data session (explained later) sometimes reveals a competing “candidate” proposal, casting the interaction in a different light. Rather, we should see previous findings as possible candidate descriptions for the collected
phenomena at hand.

CA methodologists relied on audio recordings with occasional observations about gaze and gestures in the early 1970’s; however, after Goodwin’s (1979, 1980, 1981) groundbreaking work on gaze and the co-construction of utterances, more CA researchers (e.g., Schegloff, 1984) have been addressing nonvocal behaviors in interaction incorporating some of Goodwin’s ideas. CA has evolved into a robust databased approach, providing an empirically “grounded” (grounded in the data) methodology. The sequential analysis of both vocal and nonvocal behaviors has become necessary to understand how both vocal and nonvocal actions sequentially relate to a prior utterance and/or nonvocal action (e.g., as a hybrid form such as uttering a word while gesturing it), and in their turn project a possible next turn.

The Participants, Institution, and Task

The Participants

Central to CA methodology is the development of a collection of exemplars that can be examined for reoccurring discursive patterns. In order to do this, it is first necessary to collect data from the participants that fit the research goals. In this study, the goal was to examine the repair practices of novice English learners and this required video recording students talking freely in English.

The data were collected from freshmen students enrolled in a university’s intensive English program. Twenty highly-motivated students, vetted by written and spoken exams, were elected to enroll in an intensive English course, in which they were expected to speak in English at all times. In this intensive course, they studied only
English every weekday. In terms of proficiency level, a few had attained EIKEN 2 level (The Society for Testing English Proficiency), but most were at the EIKEN PRE-2 level, which is fairly typical of Japanese high school graduates. For a rough comparison, the EIKEN 2 level was (not statistically) equated to a Test of English for International Communication (TOEIC) score of 420 by our university in estimating the entrants’ English proficiency. From my experience, students that entered the intensive program at the EIKEN 2 level could usually clear TOEIC 500 within a year, with some breaching 600 or 700 before graduation.

Of a group of twenty students, I invited anyone who would like to participate in this study that involved videotaping English conversations in pairs in my office. I also offered to compensate them (minimum wage scale) for their time using research funds that I obtained from my university. Among the twelve students that originally volunteered (see Appendix A) at T1 (first recording in the beginning of the semester), two dropped out (their freedom to choose), and a thirteenth student joined late. One student, S6, recorded twice, once to substitute for a student who had dropped out (S4). S13 volunteered to substitute for S2, who had left the program, resulting in six pairs of recordings at the third recording. In sum, there were three hours of video recordings at T3 available for transcription. I received the participants’ consent with the condition that the video data could not be copied. Any use of the data for research requires a non-disclosure agreement (see Appendix B).

For this study, only the third recording at the end of the semester was used because the students did not start using e-dictionaries regularly in my office until the third recording. I was their seminar class teacher (a once a week academic skills class) and I
observed that many of the students were transitioning from paper to e-dictionaries. Also, the recordings were being done by mid-semester at their convenience when I was away from my office, which may have been one reason why e-dictionary use increased. By the end of the semester, the e-dictionary had become an integral tool in their daily life as an intensive English program student.

*The Institution*

The students shared a common L1, so it was not natural for them to speak in English; however, there was a firm rule that they speak in English at all times at the institution. The students had all of their classes in one room and spent most of their school day in the classroom, in an adjacent language laboratory, and in the hallway. All of the instructors were native English speakers and they encouraged the students to speak in English and improve their English skills. The conversation task used in this study could be considered a form of institutional talk, as the students were asked to perform this free-talking task. In this way, the institutional environment could shape the turn-taking and repair; for example, the institutional goals could determine what constituted a troublesource (e.g., Drew & Heritage, 1992). In this task, the difficulty in producing an appropriate word at a particular moment became a troublesource, and the participants resorted to e-dictionary look-ups during the task, an institutional practice noticeable in the video data.

Nonetheless, the topics discussed by the students were relevant to their present situation as members of the same intensive program, a status that gave them a “stake” in the research project, not only as paid informants, but also as observers of their own
progress. Their collaborative use of e-dictionaries in the look up of words was a reflection of the program’s institutional goals to improve the students’ English proficiency, in particular, to increase their speaking vocabulary knowledge, which is essential for success on speaking tests and presentations.

This study differed from institutional talk based upon classroom studies of interaction between professional and client or teacher and student. First of all, this study involved social equals in what is referred to as an equal power exchange system (Markee, 2000) in which either participant could self-select as next speaker and initiate topics and repairs. In unequal power exchanges, different sequential patterns develop as the teacher or professional controls speaker selection and topic initiation. In this study, an equal power exchange system enabled the participants to initiate and modify talk through the use of repairs. Although the data were collected from entirely Japanese native speakers and was institutionally situated, the interaction was based on meaningful exchanges of personal information, and therefore, the need to maintain intersubjectivity was paramount at every moment in the conversation.

Although the participants shared a first language, they communicated in English on a daily basis as members of an intensive course, and as Firth (1996) pointed out, the important point is that the participants made the talk normal and orderly by themselves through interactional work. This interactional work contributed to the institutional goals (e.g., to improve one’s English proficiency and learn new words) and made L2-novice talk appear “normal” in the context of the institutional setting.
The Task

There was no attempt to control the topics that the students addressed in their conversations. The students were instructed to talk about whatever they wanted to in English, conforming to one of SSJ’s (1974) “rules” for talk; however, there was a 30-minute suggested time limit, and this condition differs from mundane talk. Also, the researcher observed the students discussing topics in advance, but because most conversations lasted around 30 minutes, the students talked about a wide variety of topics.

At this point, it is relevant to explain how the type of tasks used can influence the nature of the data collected. Although this study was not concerned with contrasting conversation tasks, some thought went into devising the task to ensure that the students would talk mundanely. Thus, an open conversation in pairs was deemed best to produce “natural” and “mundane” conversation. The students were in the same class, they selected each other as partners, and appointments were made in advance. This arrangement allowed the students to think about topics if they so desired (although they were not instructed to do so). In sum, familiarity with their partners ensured that they were comfortable. One difference from spontaneous talk was that it was possible for the participants to plan topics to discuss before the conversations began. I sometimes observed pairs of students discussing beforehand what topics to begin with; however, the thirty-minute length guaranteed that they would have to initiate many more topics during the conversation.
The Transcription System

CA methodology is based upon a direct experience with the data using a transcription system. The transcription system (shown below and in Appendix B) may be the most important tool that the analyst can apply to the analysis of the data; however, one must always remember that the transcription is not the data but the analyst’s version of it. The data are the video recordings, and when confirming noticings of discursive patterns, the analyst (alone or in a data session) must go back to the video recordings and view them repeatedly. Transcripts can always be improved depending on the researcher’s goals. Ochs (1979) argued that the transcription system greatly influences the analytical outlook of the analyst, so it requires an explanation. For example, the length of sound stretches and rises in tone and intonation can have sequential consequences in later interaction and need to be described carefully. Ignoring nonvocal behavior in the transcription would prevent the analyst from understanding the contributions of embodied actions. In terms of describing nonvocal behavior, without the use of pictures (video framegrabs), the analyst would have to use a complicated system to describe shifts in gaze and body direction. Thus, the decisions regarding how gestures, prosodics, and turn-taking are transcribed and described shape the perceptions of the data and are crucial to fulfilling the research goals.

The transcription system used for this study was based on the Jefferson system (Atkinson & Heritage, 1984; Jefferson, 2004). Because the transcriptions were first done with CLAN software (MacWhinney, 2000), I adopted a version that is integrated into the CLAN software. The following transcription system was adopted from the Talkbank CA
form summary (Open Language Archives Community, 2007), illustrated below in Table 1 and explained in more detail in Appendix B. I will provide examples to illustrate how the transcription symbols work. Many of the following fragments are taken from Excerpt 2.1.

Table 3. *Transcription System*

<table>
<thead>
<tr>
<th>Function</th>
<th>Transcription</th>
<th>Description with fragment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacked brackets</td>
<td>[text]</td>
<td>Left bracket marks the beginning of temporal overlap among utterances produced by two or more speakers. Right bracket marks the end. These must always be paired and stacked one over the other.</td>
</tr>
<tr>
<td></td>
<td>[text]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S8: very difficul[t</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S8: [haha ↑:</td>
</tr>
<tr>
<td>Single =</td>
<td>text=text</td>
<td>A single equal sign indicates no break in an ongoing piece of talk where one might otherwise expect it such as after a completed sentence.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S7: I (1.0) un I went to,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>electo:[n zu school=s ↑ o</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S8: tru↑ mpet</td>
</tr>
<tr>
<td>Timed pause</td>
<td>(0.5)</td>
<td>Measured in seconds, this symbol represents intervals of silence occurring within (i.e., pauses) and between (i.e., gaps) speakers' utterances. These can be placed on their own separate line.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S8: tru↑ mpet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S8: or:: guitar?</td>
</tr>
</tbody>
</table>

*Table 3 (continues)*
Table 3 (continued)

<table>
<thead>
<tr>
<th>Micropause</th>
<th>(.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A timed pause of less than 0.2 seconds that can also be placed on its own separate line.</td>
</tr>
<tr>
<td></td>
<td>S8:  or::: guitar?</td>
</tr>
<tr>
<td></td>
<td>(.)</td>
</tr>
<tr>
<td></td>
<td>S7:  u↑:n↓:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Comma</th>
<th>,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indicates a continuing intonation with slight upward or downward contour that may or may not occur at the end of a turn-constructional unit (TCU), such as in the enunciation of an item in a not yet completed list.</td>
</tr>
<tr>
<td>S7:</td>
<td>I (1.0) un I went to,</td>
</tr>
<tr>
<td></td>
<td>(0.9)</td>
</tr>
<tr>
<td></td>
<td>electo:[n zu school=so↑:</td>
</tr>
<tr>
<td>S8:</td>
<td>[ah</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Period</th>
<th>.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indicates a falling pitch or intonational contour at the conclusion of a TCU (after difficult).</td>
</tr>
<tr>
<td>S8:</td>
<td>tru↑:mpet</td>
</tr>
<tr>
<td></td>
<td>(0.6)</td>
</tr>
<tr>
<td>S7:</td>
<td>u:n↓:</td>
</tr>
<tr>
<td></td>
<td>(0.8)</td>
</tr>
<tr>
<td>S8:</td>
<td>or::: guitar?</td>
</tr>
<tr>
<td></td>
<td>(.)</td>
</tr>
<tr>
<td>S7:</td>
<td>u↑:n↓:</td>
</tr>
<tr>
<td></td>
<td>(0.6)</td>
</tr>
<tr>
<td>S8:</td>
<td>wh↑:i:ch (1.2) is difficult.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question mark</th>
<th>?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rising vocal pitch or intonational contour at the conclusion of a TCU.</td>
</tr>
<tr>
<td>S8:</td>
<td>tru↑:mpet</td>
</tr>
<tr>
<td></td>
<td>(0.6)</td>
</tr>
<tr>
<td>S7:</td>
<td>u:n↓:</td>
</tr>
<tr>
<td></td>
<td>(0.8)</td>
</tr>
<tr>
<td>S8:</td>
<td>or::: guitar?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exclamation point</th>
<th>!</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marks the conclusion of a TCU delivered with emphatic and animated tone.</td>
</tr>
<tr>
<td>S8:</td>
<td>play the guitar?</td>
</tr>
<tr>
<td></td>
<td>(0.6)</td>
</tr>
<tr>
<td>S7:</td>
<td>un=</td>
</tr>
<tr>
<td>S8:</td>
<td>=a little</td>
</tr>
<tr>
<td></td>
<td>(0.2)</td>
</tr>
<tr>
<td>S7:</td>
<td>an:::d trump↑:e:::t</td>
</tr>
<tr>
<td>S8:</td>
<td>WOW!</td>
</tr>
</tbody>
</table>

Table 3 (continues)
<table>
<thead>
<tr>
<th>Hyphen</th>
<th>-</th>
<th>An abrupt halt at the conclusion of a TCU. This mark can also occur within a TCU where it often indicates a retracing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8:</td>
<td>(out of) history (1.0) ah:: ((clears throat)) (0.8) re- (1.0) renaissance</td>
<td>S7: un-un=</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Colon(s)</th>
<th>:</th>
<th>One or more colons indicate sustained enunciation of a vowel or consonant. The more the colons, the longer the stretch. When measured carefully, each colon represents one-tenth of a second stretch.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8:</td>
<td>or:: guitar? (.)</td>
<td>S7: u↑:n↓:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inward angles</th>
<th>&gt;text&lt;</th>
<th>Speech delivered faster than surrounding material.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8:</td>
<td>&gt;do you wanna go&lt; to: Czech?</td>
<td>S7: hmm: ye:s</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outward angles</th>
<th>&lt;text&gt;</th>
<th>Speech delivered slower than the surrounding material. Slow speech usually appears in this study as stretchings followed by pauses, so these are not used.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S8:</td>
<td>wh↑:ch (1.2) is difficult.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Degree signs</th>
<th>°text°</th>
<th>Speech produced more softly than surrounding talk.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7:</td>
<td>tru↑:mpet (0.6) i:↓s (1.7) u:n↓: (0.6)</td>
<td>S8: °hard°</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capitalization</th>
<th>TEXT</th>
<th>Speech delivered more loudly than surrounding talk.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8:</td>
<td>WOW!</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Underscored text</th>
<th>text</th>
<th>Underscoring indicates stress on a word, syllable, or sound.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8:</td>
<td>wh↑:i:ch (1.2) is difficult.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arrows</th>
<th>↓↑</th>
<th>Mark a rise or fall in intonation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7:</td>
<td>u↑:n↓: (0.6)</td>
<td>S8: wh↑:i:ch (1.2) is difficult.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>hhh</th>
<th></th>
<th>Audible expulsion of breath (linguistic aspiration) as in laughter, sighing, etc. When aspiration occurs within a word, it is set off with parentheses.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7:</td>
<td>hhh .hhh</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>dot plus hhh</th>
<th>.hhh</th>
<th>Audible inhalation is marked with a preceding dot.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7:</td>
<td>.hhh ha u::n</td>
<td></td>
</tr>
</tbody>
</table>

*Table 3 (continued)*
Table 3 (continued)

<table>
<thead>
<tr>
<th>words in parens</th>
<th>(text)</th>
<th>Text enclosed in parentheses represents transcribed talk for which doubt exists.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8: (out of) history</td>
<td>ah:: ((clears throat))</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>re-</td>
<td>(1.0)</td>
</tr>
<tr>
<td></td>
<td>renaissance</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>empty parens</th>
<th>( )</th>
<th>Empty parentheses represent untranscribed talk or an unknown speaker. The talk may be untranscribed because the transcriber cannot understand what was said.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8: hhh just</td>
<td>(( )</td>
<td></td>
</tr>
<tr>
<td>S7:</td>
<td>um</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>double parentheses</th>
<th>((comment))</th>
<th>Comments and annotations of any type, including descriptions and asides, with the text in italics.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8: ah:: ((clears throat))</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>italics</th>
<th>chigau</th>
<th>Non-English words. In this study, italics are not applied to the wide variety of the acknowledgment token (Japanese sounding) “un” and its variants.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8:</td>
<td>whi:ch (1.2) is difficult.</td>
<td></td>
</tr>
<tr>
<td>01 S8:</td>
<td>tru:mpet</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>(0.6)</td>
<td></td>
</tr>
<tr>
<td>03 S7:</td>
<td>u:n::</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>(0.8)</td>
<td></td>
</tr>
<tr>
<td>05 S8:</td>
<td>or:: guitar?</td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>(.)</td>
<td></td>
</tr>
<tr>
<td>07 S7:</td>
<td>u::n::</td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>(0.6)</td>
<td></td>
</tr>
<tr>
<td>09 S8:</td>
<td>wh::i:ch (1.2) is difficult.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>(1.3)</td>
<td></td>
</tr>
<tr>
<td>11 S7:</td>
<td>u::n:: hh .hh</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>(1.5)</td>
<td></td>
</tr>
<tr>
<td>13 S8:</td>
<td>tru:mpet (0.6) i::s</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>(1.7)</td>
<td></td>
</tr>
<tr>
<td>15 S8:</td>
<td>&quot;hard&quot;</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>(0.6)</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>(1.6)</td>
<td></td>
</tr>
<tr>
<td>18 S7:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Excerpt 2.1 (first shown in Chapter 2) is used to show how the most common items of the transcription system are applied to video recorded data of e-dictionary use.

Excerpt 2.1
01 S8: tru:mpet
02 (0.6)
03 S7: u:n::
04 (0.8)
05 S8: or:: guitar?
06 (.)
07 S7: u::n::
08 (0.6)
09 S8: wh::i:ch (1.2) is difficult.
10 (1.3)
11 S7: u::n:: hh .hh
12 (1.5)
13 tru:mpet (0.6) i::s
14 (1.7)
15 S8: "hard"
16 (0.6)
17 (1.6)
19  S7:  u:n:: b↑u:t
20       (0.7)
21    I:: (0.6) I played (1.1) i:t (.). fo:r
22      (1.5)
23  two yea:s↑
24  S8:  u:n=
25  S7:  =so
26      (1.0) ((S8 nods))
27  S7:  u:n (0.3) I (1.4) un (2.5) un I: (1.2) un
28      (0.5)
29    it tiz=(0.3) little diffic:↑l
30  S8:  (tttttt) m↓m↓: ((inputting DICT))
31  S7:  hhh .hhh
32      (0.5)
33  S7:  but guit↑ar is↓:
34      (0.4)
35  S8:  very diffi{cult
36  S7:   [very difficult
37  S8:  [haha↑:
38  S7:  [haha

Pauses and gaps on their own lines are usually situated between utterances between speakers as with lines 7 to 11; however, pauses can be transcribed within single turns. For example, lines 11 to 15 can be transcribed on one line as in line 21 depending on the degree of detail that needs to be examined. Generally, it is easier to read if it is on one line, and if there are numerous restarts as in line 27, they will be put on one line if they fit.

Important to the transcription system is the CA notion of the turn-construction-unit or TCU (SSJ, 1974). A TCU can be a word, phrase, or sentence, all of which can be the basic unit of the turn-taking system. Transfer of speakership can occur after a TCU (or an attempt at constructing one) at a transition-relevance place. The turn-taking system will be explained further in the next chapter, but in relation to the transcription system, the pauses at the end of TCUs (e.g., after the token un, one word, a clause, or a sentence) can represent a possible transition-relevance place, and are put on their own line. Often
in novice-novice talk, there are many long pauses and gaps, sometimes followed by
restarts, so it is difficult to transcribe one sentential TCU on one line (e.g., lines 19-23).
In this transcription, if a long sentential TCU does not fit on one line, then it is
sometimes broken up with long pauses on their own lines. In Japanese female interaction
with many response tokens of un, turn-taking is complex as multiple recipient un
responses (e.g., lines 1-9) occur collaboratively within speaker’s sentential turn
construction.

Back-channeling behaviors, or more precisely minimal tokens, featuring un are
highly frequent in Japanese female conversation, so the placement of un here is not
unusual (Barrow, Uematsu, & Dudley, 1999; Maynard, S., 1986). In this instance,
overlapped un does not necessarily signal agreement but can indicate receipt of the SPP.
Sequentially, if certain conditions are met, un could be considered a continuer (Schegloff,
1982). For example, the following conditions might qualify it as a continuer: un is in a
second position, overlapping is possible, the speaker of un is a recipient to an ongoing
talk and does not elect to take a turn in that turn space, head nods may accompany un,
and previous speaker self-selects and continues her talk.

It is also easy to see grammatical projection if the subject and verb occur together
in the same line, followed by a pause and complement structure as in lines 21-23. Thus,
one line does not necessarily equal one turn; one turn can be a sequence of lines as in
lines 19 to 23. Ownership of the silent gap between the turns is in principle neutral (i.e.,
not designated to a participant), as the nonvocal interaction during the silences is often
collaborative. One of the great advantages of using video data in describing talk is that
an analysis of the nonvocal behavior during silences or during talk can determine if the
participants communicate with nonvocal resources as in line 26 (nods) and use the e-dictionary as in line 30. In these instances, if possible, the nonvocal actions are described inside of double parentheses. Within these brackets, actions with the e-dictionary will be referred to with DICT.

In addition to the above transcription system, framegrabs from video clips are used to illustrate nonvocal actions. Framegrabs are taken from Quicktime video clips, cropped and enhanced, and used to show how gestures, body, and gaze shift influence the interaction. Figure 1 illustrates how frame grabs are used (Carroll, 2005c). In line 29, Figure 1, S8 on the right begins a gaze shift to her e-dictionary at the beginning of S7’s completion phase of “little difficult.” ↑ arrow is used to pinpoint exactly where in the interaction the frame grab takes place.

29 S7:  \textit{it tiz-(0.3) little difficul}t

\textit{\uparrow}

\textit{Figure 1: S8 begins a gaze shift to the e-dictionary.}
For transcribing gaze behavior without framegrabs, I originally adapted a system developed by Goodwin (1981), but most of those are not displayed in this study. Only the three shown below are used in describing the timing and placement of gaze movement and pauses, usually with framegrabs.

[ A bracket indicates the point where body movement begins.

. . . A dot or series of dots mark the movement of gaze to another.

(-------) elapsed time of silence, each dash = one-tenth of a second

As in the next example (from Excerpt 4.6, Chapter 4), Japanese phrases are transcribed on three tiers. On the first tier, the Japanese term is in italics. The second tier is a literal translation (i.e., word by word) and the third tier is a translation in “standard English” based on the context of the talk. An extra tier is sometimes used for describing nonvocal behavior.

23 S5: ah [nan yaro
what be
ah what would it be?
[ . . . . .((shifts gaze & body toward DICT))

Unmotivated Looking: Why Electronic Dictionaries?

At this point, I should address the question of how I narrowed the topic to e-dictionaries. When one has collected some recordings of talk and transcribed parts of them, one begins to scout for patterns in the interaction, and attempts to explain the logic of the interaction. In a data-based qualitative enquiry, the patterns to look for lie in the data itself; so even if one were to have a preconceived “motivated” research question based on the CA literature, the patterns that emerge are dependent on what the interactants are doing.
In my case, I was originally looking for learner-specific patterns of repair based upon the observation that novice learners were disfluent English speakers, patterns that I will review in the next chapter. However, during data sessions with other CA practitioners, which is an important step in the CA methodology, and a step that I will explain in more detail shortly, the e-dictionary look-ups, a seemingly unremarkable behavior (and at first considered a waste of conversation time!), began to increasingly draw others’ and my attention. We spent hours discussing what was happening and how the interactants accomplished these look-ups in their conversations. The payoff of unmotivated looking (e.g., Psathas, 1995; Sacks, 1984; ten Have, 2007) is the discovery of phenomena that have not been noticed before or have been noticed in a different way. The examination of e-dictionary use during conversation was at first unmotivated by preconceived hypotheses, and a result of the process of specifying what the participants accomplished during the look-up action sequence. Naturally, this does not mean that the analyst starts from a Lockean tabula rasa (blank slate); he is free to utilize (with caution) the established precepts of the field (a priori generalizations of previous researchers’ experiences), as well as the noticings and analyses of other analysts. Nonetheless, the empiricism of CA is very close to the spirit of the Lockean notion, in that knowledge of what the participants accomplish comes to us from direct experience with the data.

The Data Sessions

Important to both apprenticing in the CA approach and examining exemplars is the informal (but rule-based) data session (ten Have, 2007). In actual CA practice, the data
session is central to the process of understanding the interaction as a shared enterprise with other eyes and ears examining the data. Because the sole analyst has an individual interpretation, it is necessary (particularly in a published study) to put the data through lengthy hours of data sessions with other seasoned analysts in order to accumulate experience with analytical procedures and to attain an understanding with other CA researchers regarding the accuracy of the transcription and observations of candidate sequential patterns. In the end, the goal is to explicate the “procedural infrastructure of interaction” (Schegloff, 1992, p. 1299).

To provide validation that I did follow this methodology, I have provided a summary of the data sessions that I attended with the data providers named (See Appendix D). Unless otherwise stated, the early sessions in 2004 took place in Ashiya-city, Japan, in a rented public facility; from February 2005, the sessions were held at Temple University Japan (TUJ) Osaka. Data sessions that focused on e-dictionary use started in May, 2005. Conference paper presentations were included to indicate when results were presented formally. From August, 2004, the core members of the Ashiya and TUJ data sessions consisted of doctoral candidates working on different data collections, but guests were usually welcome. When possible, a seasoned analyst was invited to comment or introduce more advanced analytical tools, such as the making of framegrabs (Carroll, 2005c).

Procedures for data sessions were usually decided in advance or in the beginning of the session. Typically, the session was conducted based on a video clip or audio recording plus a transcript in an accepted CA format that was watched or listened to repeatedly. At this time, the participants made suggestions for transcript corrections that
were discussed; and they then watched or listened to the recording again until agreement was reached. Differences in perception were resolved through repeated examination and discussion.

One common session practice was to base observations on particular line numbers in the data in order to focus the whole group on a particular action or sequence in the data. When making observations, the participants based observations on CA's analytical principles and practices discussed in the previous chapter. Sometimes an analyst referred to previously published findings, but this was not necessary and sometimes discouraged. A common procedure was to look for sequences, starting with adjacency pairs such as a question and answer. Other observations about sequential relations between various places in the conversation were important to the discussion. In regards to the social actions that the participants (in the video clip) were performing, analysts usually tried to hold off giving a particular action a name, and instead, referred to it as a candidate “something” until further evidence and analysis could better describe the action. Nevertheless, the emphasis was on understanding what the interactants were doing, even though reaching complete agreement on a particular item was sometimes time-consuming.

In terms of session procedural order, all the participants were allowed to contribute observations. Until each participant had contributed his or her observations, full discussion was often deferred until the end of the session. In the case of a large group (e.g., when an experienced CA researcher was leading the session), sessions could become a “marathon” going on late into the evening although we usually tried to limit one segment to about two hours. It was common to limit the comments of each
participant if the group was very large.

The data provider usually selected a small segment of about one or two pages of transcript although some analysts might bring in up to four pages or more of transcript and select a smaller focal segment to work on first. Usually, it was up to the data provider to decide whether to declare a particular analytical focus (e.g., look for particular sequences or actions) or just to select a line to begin the session. In the early stages of research, it was common to just select a line to start the session and not reveal one’s interpretations or research focus. The analyst sometimes asked the group to suggest a starting line. In this way, the session participants were free to explicate from the data a wide range of possibilities leading to possible new noticings. Of course, this was a good opportunity for the data provider to see if the session analysts noticed practices that corroborated the data provider’s own observations. In my case, because my research question was specific (e-dictionary look-ups) and the participants were familiar with my data, I usually suggested a starting line. The primary noticings that made up the analysis chapters occurred during the transcription and collection phase. By sharing my data with other researchers, I was able to sharpen my analytical skills in terms of describing the look-up behaviors and increase confidence in my generalizations (considered “candidate” descriptions), steps that are necessary prior to publication.

At later stages, the researcher may be looking at how an exemplar fits into a collection and will need to first give examples from the collection. To explore the characteristics of the collection more deeply, a common procedure is to examine any deviant cases that do not seem to fit, an issue that is considered in the next section.
The Collection

Important to the CA approach is the examination of the collection of exemplars of the candidate behaviors. ten Have (2007) suggested that the first empirical and inductive phase of research is the data-based study of behavioral patterns that is carried out to establish generalizations. Only after repeated viewings and discussions of exemplars at data sessions can the analyst begin to make generalizations.

Both during and following the phase of collecting exemplars, but not necessarily in linear order, are single case studies that are detailed examinations of the normative assumptions made with the collection. These case studies, which are analyzed at data sessions, include deviant cases that contrast with the growing collection of normative cases. The deviant case analyses are important because they allow the analyst to probe the normative generalizations made in the development of the collection and make changes in generalizations (e.g., sequential order) in order to produce a better fit with the data. All exemplars used in the analysis chapters were examined at data sessions.

In this study, working on a canonical structure (see Chapter 4) of the look-up led to the noticing of look-ups that deviated from the canonical “norm;” thirty-six out of 57 exemplars were currently considered “normative.” As shown in Appendix A, the total collection consisted of 57 exemplars of e-dictionary look-up sequences taken from the corpus. The total of the figures in parentheses, 36, was the number of projectable exemplars that represented the “normative” look-up that is focused on later. One exemplar, Excerpt 4.6, was used in a case study to outline many common features found in the corpus based upon projectability. The notion of projectability is discussed later, but for the time being, there were look-ups that occurred with projectable actions (e.g.,
iconic gestures, or an L1 word) that allowed for collaboration. In other words, what was being looked up by current speaker could be anticipated (guessed at) by the recipient, and this offered the opportunity of collaborative actions that contributed to a successful look-up.

Look-ups such as an abandoned look-up and an unprojectable later-turn look-up are contrasted in Chapter 6 with “normal” or “canonical” look-ups. I noticed that learners would sometimes abandon their e-dictionary searches or the recipient would conduct an independent look-up during the current speaker’s talk. An analysis of these exemplars provided an opportunity to widen the understanding of the normative orientations of the participants and shed light on the underlying structures of social action. In fact, because there were more than a few of them in the collection, labeling them “deviant” may be a misnomer. Perhaps they could be grouped as different types of look-ups with their own normative practices, or perhaps they could be considered “noncanonical.”

As this is an exploratory study, the analyses chapters are based on a relatively small number of exemplars compared to the total corpus. There are several reasons for this. First, exploratory analyses using CA are time-consuming case studies to conduct. All the transcripts used in this study were shared in data sessions outlined in the previous section, which was the major method used to ensure that the transcripts and analyses were not idiosyncratic. Also, because the focus of this study was on understanding and describing the underlying multimodal actions of look-up sequences, it was necessary to gain an intimate familiarity with the participants’ vocal and nonvocal behavior and the sequential relationships of those behaviors. Applying a microanalytic methodology to
gain an emic understanding of the interaction required revisiting the same exemplars repeatedly with other analysts. In the next chapter, I will present an excerpt that was revisited many times over a two-year period in order to ascertain how the participants conducted an e-dictionary look-up.
CHAPTER 4
METHODS, PART 2: THE LOOK-UP ORGANIZATION

Introduction

In this study, e-dictionary look-up sequences during conversation are situated within the CA repair organization (SJS, 1977, Schegloff, 2000). In these novice conversations, the participants interact with a bilingual e-dictionary, a device with vast word knowledge storage in English and Japanese, to search for appropriate word meanings to use in their talk. These forward repair practices, known as a “word search” or forward-oriented repair, exhibit practices such as vocal stretches and restarts (Schegloff, 1979), as well as nonvocal body and gaze shifts that precede and contribute to the completion of the search (Goodwin & Goodwin, 1986). Word search refers to a set of forward repair practices that project to a word that the speaker is trying to recall and/or get collaborative help with.

To distinguish e-dictionary use from other types of word search actions, “a look-up” refers to those actions in which a participant, after shifting gaze, body, and hand to the e-dictionary, then manipulates the e-dictionary to look up a word and share the information. The “look-up” refers to the hybrid actions of the hand manipulation of the e-dictionary combined with other actions, such as giving candidate proposals, that can occur at the same time. The unhyphenated “look up” is used as a verb to describe the action of retrieving information about words from the e-dictionary. A “look-up sequence” is a multiple-turn sequence of talk in which the participants go to their e-dictionary to
look up a word that they do not collaboratively recall, look up an English equivalent for a Japanese term or iconic gesture displayed, or check the meaning of an English word candidate. To narrow the scope, “inputting” is used in the transcripts to describe the gaze and body facing toward the e-dictionary with a hand manipulating the keys to look up a word meaning; naturally, to look up a word on an e-dictionary requires that one participant’s gaze and hand be on it during the look-up sequence.

A central analytical issue is that these actions with the e-dictionary are sequential and there are patterns of actions before and patterns of actions during a look-up of a word. Simply, the whole look-up sequence begins with before-look-up practices and the word search is completed with look-up practices. In order to avoid confusion with “pre“ or prefacing actions that have been documented in the CA literature, I will denote “before,” “during,” and “after” the look up to distinguish actions temporally. For example, gaze going toward (before-look-up) and gaze going away from the e-dictionary are micro-actions that can be discerned sequentially. Although one could be in look-up position with gaze and hand upon the e-dictionary and propose a word, or move the gaze away first and then propose a word, to look up a word and make a proposal requires that at least one of the participant’s gaze and hands be on the e-dictionary at some time in the sequence. Thus, in the sequential organization of forward word repair using an e-dictionary, there are micro-practices that occur before and during the look-up.

It may seem a contradiction to provide research results towards the beginning of a CA study in that it is not a pure representation of the inductive CA approach. By presenting an exemplar for microanalysis first (not uncommon in CA literature), I can demonstrate directly how the following analytical chapters are organized, thus, giving
the reader a better understanding of the findings. My aim in this chapter is not to lay down a hypothetical set of practices, but rather to give the reader the “big picture” view of how the sequential analysis will take shape.

Sequences of Look-ups in Interaction

E-dictionary use in interaction refers to the set of e-dictionary practices that are used to look up a word or words during a multiple turn sequence of talk. All of these actions form the look-up sequence. Sequentially, there are actions that occur before the look-up and during the look-up. Following the repair organization, an initiation of repair can locate a trouble source and invite a repair outcome, or a noticing of a prior word can invite a retrospective repair sequence. Before a look-up, due to some trouble in the talk, repair-initiating actions such as stretches and gaze shifts, iconic gesturing, and Japanese proposals can be positioned as before-look-up actions. Before-look-up actions project an upcoming look-up that can also summon collaboration, inviting anticipatory candidate proposals that result in completions of the look-up sequence. During and after the look-up with fingers, the participants propose candidate replacements of the word looked up. The candidate replacements are often multiple and collaborative; both participants frequently share their word knowledge and e-dictionary results in an effort to complete the look-up. Also, during the look-up and essential to completion are the short acknowledgement sequences that establish mutual understanding and acceptance of a candidate, and that finally end the look-up sequence. In terms of actions, I am proposing the organization shown in Table 4.
### Table 4. *The Look-Up Organization*

<table>
<thead>
<tr>
<th>Before Look-up Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence initiating action (e.g., question, Japanese word or gesture)</td>
</tr>
<tr>
<td>Displays of trouble (e.g., silences, gazes, stretches, or laughter)</td>
</tr>
<tr>
<td>Gaze and body shifts (one or a series of moves to the e-dictionary)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Look Up Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inputting (and reading the e-dictionary screen)</td>
</tr>
<tr>
<td>Proposals of candidate repairs (vocal and nonvocal, English and Japanese)</td>
</tr>
<tr>
<td>Acknowledgements (e.g., repetitions, and overlapping <em>un</em> tokens)</td>
</tr>
<tr>
<td>Closings (e.g., repeated <em>un</em> token and nods)</td>
</tr>
</tbody>
</table>

I will provide exemplars of theses actions shortly, but at this point I wish to outline the sequential organization within which look-ups occur. Look-ups do not operate alone; they occur within a sequence of multiple turns. There are possible sequential expansion types within which look-up actions can operate (Schegloff, 2007).

Based on contingency and contiguity, sequences that have adjacency pairs (not all do) form the base first pair part (FPP) and base second pair part (SPP) of actions (e.g., question-answer, request-grant, or refusal). In the sequential organization described below (Schegloff, 2007, p. 26), adjacency pairs can take expansions, and inserts (within the adjacency pair) of expansions are also possible.
Pre-expansion (e.g., pre-initiating actions, Chapter 5)

A First pair part (e.g., vocal or nonvocal initiating action, Chapter 5)

Insert Expansion (e.g., the look-up, Chapter 6)

B Second pair part (e.g., candidate word proposal, Chapter 7)

Post expansion (e.g., acknowledgements and closing, Chapter 7)

All sequences address relationships of pre-ness and next-ness, and when contiguity is upset, a variety of expansion types are available. Generic post-first insert sequences (follow-ups to the FPP that look backward) could possibly be repair sequences that are begun with other-initiated repair. They address problems in hearing and understanding that affect the construction of a next response, and they insert a base FPP of a repair sequence. For example, other-initiation can operate as pre-rejections and pre-disagreements, in which the recipient of other-initiation reaffirms a prior utterance (Schegloff, 2007, p. 100-102). In Excerpt 4.1 below, B reaffirms a prior utterance in line 4.

Excerpt 4.1
Schegloff et al. (1977, p. 367)
1   A: Were you uh you were in therapy with a private doctor?
2   B: Yah.
3   A: Fb -> Have you ever tried a clinic?
4   B: Fins-> What?
5   A: Sins-> Have you ever tried a clinic?
6   B: Sb -> ((sigh)) No, I don’t want to go to a clinic.

Also, in Excerpt 4.2, other-initiated repair (line 2) allows the recipient a chance to make an adjustment to other-initiation, giving its recipient in line 4 a chance to avoid a dispreferred response. In line 3, Pol reformulates the utterance to get Cal to answer in line 4.
Excerpt 4.2
1 Pol: Fb -> Is she pregnant?
2 Cal: Fins-> Huh?
3 Pol: Sins-> She’s not pregnant is she?
4 Cal: Sb -> I don’t know.

Other-initiation, without signaling rejections, disagreement, or preference, can draw attention to a repairable. In the canonical Excerpt 4.3 below, the FPP of the repair insert (Fi) looks backwards and locates the trouble-source by framing a question word with a repeat of the source. Line 3 locates the trouble-source by framing “whom” with a repeat of “met,” referring to the person’s name that she did not understand.

Excerpt 4.3
Schegloff (2007, p. 217) from Schegloff et al. (1977, p. 368)
1 Cus: Fb-> Was last night the first time you met Missiz Kelly?
2 (1.0)
3 Ser: Fi-> Met whom?
4 Cus: Si-> Missiz Kelly
5 Ser: Fi-> Yes.

Furthermore, multiple expansions are possible if the trouble is not resolved. In the case of look-ups, this would help to explain instances where multiple proposal and acknowledgement sequences occur, an analysis of which I will provide in Chapter 7.

After an other-initiation of repair in second-turn (e.g., What? or Huh?), the beginning of a look-up sequence, operating upon a previous repairable, is a possible scenario for initiating look-ups. However, in the next Excerpt 4.4 in line 16, in response to her “what color” question in line 11, S6 expresses surprise with \HE{} to S5’s answer of “black.” In the summer festivals of Japan, young women often choose to wear a bright colorful cotton kimono called a *yukata*. Choosing black is a conspicuous choice of color as most young women wear a bright mix of reds, pinks, and yellows, in contrast
to accompanying male partners who usually wear a dark single color. Her choice (a dark color with a flower design) could be considered a surprising color to wear for a young woman. Another consideration is the participants’ sensitivity to shades of dark blue.

Excerpt 4.4 (first part)

01 S6: I: (1.6) are you (1.8) going to wear (0.6) yukata?
02 (0.3)
03 S5: unn::: (. ) yes
04 (0.7)
05 S6: really?
06 (0.2)
07 S5: yes
08 (0.6)
09 S5: I: wea::r yukata.
10 (0.7)
11 S6: what color
12 (0.8)
13 S5: black[hh]
14 S6: [un]
15 S5: haha[haha
16 S6: [HE;::
17 (0.5)
18 S5: *bla:ku:::* un:......................
 ((creaky voice))((tilts gaze))
19 nea:................: tha:::
 ((TF shifts to position above DICT))

This is not a canonical other-initiation in second-turn, as S6 first takes receipt with an overlapped *un* in the second-turn of line 14. This delayed “noticing” of the prior “black” follows a receipt token in line 14 and overlaps at the end of S5’s laughter. S5’s laughter also draws attention to “black” as an “unusual” color for a *yukata*. In lines 15 and 16, this possible “co-noticing,” which is expressed with overlapped speaker laughter and recipient surprise, is not the result of misunderstanding or inaudibility, but an indication by both participants that the prior “black” is a “problematic” color term. At line 18, S5 continues to “problematize” “black” with long stretches and other word search behaviors, which I will explain more in detail later in the next two chapters.
In lines 15 and 16 above, there is both laughter and an overlapping expression of surprise, indicating a noticing of a previous laugh/surprise source. This makes “black” noticed as the source of a possible later repair outcome and demonstrates how a retrospective sequence differs from an adjacency pair-based sequence. An adjacency pair FPP makes a SPP conditionally relevant, and this makes non-occurrence of the SPP noticeably absent. In contrast, retro-sequences, which are retrospective sequences that operate from second-position (Schegloff, 2007, p. 217-219) have two types of sequence construction; one locates the trouble, and one deals with the outcome. The trouble source itself does not engender anything. The “noticing” locates the source of an outcome, making “the repair operation relevant next” (Schegloff, 2007, p. 218). In the case of Excerpt 4.4, laughter (by the speaker) and an overlapping surprise expression (by the recipient) announce a noticing of trouble and bring “black” into relevance. In sum, retrospective noticing as a sequential organization for look-up sequences can perhaps explain how “noticing” can draw attention to a trouble source and initiate a look-up.

Projectability and Collaboration

The target word of the look-up is either projectable or unprojectable. If it is projectable, then there is some projectable before-look-up information as to what is being looked up, and is thus accessible for collaboration. For example, when there is gesture, a Japanese term, or a cut-off clause that provides grammatical information as to what is going to be looked up (e.g., Excerpt 2.1, line 13), the other participant (the recipient) can use this information to anticipate what the current speaker is going to look up and elect to take a guess at it (line 17).
Excerpt 2.1, lines 11-23

11  S7:  u:n:: hh .hh
12    (1.5)
13  tru::mpet (0.6) i::s
14    (1.7)
15  u:n::
16    (0.6)
17  S8:  °hard°((anticipated completion))
18    (1.6)
19  S7:  u:n:: b\u00a8u:t
20    (0.7)
21  I:: (0.6) I played (1.1) i:t (.) fo:r
22    (1.5)
23  two yea::s

In line 17, based on prior grammatical clues in line 13 (subject is + adjective), S8 is able to anticipate (supply the adjective “hard”) what S7 is trying to say.

However, there are a small number of cases in which a recipient of a talk goes to the e-dictionary to look up a word to use at a later turn. During the speaker’s turn, the recipient looks up something, and this look-up has no immediate sequential relation with the talk at that moment. At that moment, these recipient look-ups are unprojectable as there is no vocal or nonvocal information displayed or shared. In other words, there are no before-look-up actions that contain projectable information because the look-up action occurs during the course of being a recipient of talk, and does not allow for anticipatory completion. Without a sequential analysis, these look-ups give the impression that the recipient is just “playing” or “fidgeting” with the e-dictionary without purpose (like fidgeting with a pen), while the speaker is taking a turn. These unprojectable look-ups will be covered briefly in order to contrast them with the “normality” of projectable look-ups. Many of them require the analysis of long transcripts and contain only circumstantial evidence as to what and sequentially where a word was looked up, and thus will be the focus of later research. In Chapter 6, I will
describe a simple example (only 53 lines) of a later-turn look-up in which strong
evidence for having looked up a word is displayed; in a later turn, the previous recipient
initiates a new topic by picking up the e-dictionary to show what she looked up as she
says it. Otherwise, the main focus of this study is on the projectable look-ups, in which
collaborative completion is possible.

The Trouble Source and Repair Initiation Positions

Often referred to as “word search” and “forward repair” in the repair literature, the
look-up sequences addressed in this study concern novice learners’ multimodal
interaction with the e-dictionary that occurs when looking up English and Japanese
equivalents that they are not able to recall using the vocal and nonvocal resources that
they have at that moment. The canonical repair organization begins with a trouble source.
In terms of e-dictionary use, there is some trouble with or noticing of a word or words
that the participants have used or want to use. Some examples of trouble sources are: a
proposed English word candidate that is looked up and changed (Excerpts 4.6), a word
or phrase that cannot be readily recalled (Excerpt 3.8), and a Japanese word proposal
that requires a translation (Excerpt 5.1). In the above examples, the look-up initiating
action can be a combination of vocal and embodied actions, such as iconic gestures,
gazes, laughter, grammatical cut-off, a Japanese term proposal, stretched voices (e.g.,
ah::), and surprise. The trouble source is not an error per se, but the inability to
efficiently recall a word within a turn, and/or the need to clarify meaning due to a lack of
vocabulary knowledge. Thus, this look-up organization addresses the interactional
practices of projectable look-up sequences that learners orient to when looking up words
that they want to use in the immediate turn, and not in a later turn. Later-turn unprojectable look-ups are addressed in Chapter 6.

For example, in Excerpt 4.5 below, the trouble source “black” is the SPP of a question, and the first indication of trouble with it occurs next with the overlap of the speaker’s self-laughter with the recipient’s surprise-like reaction of HE↑ːː in line 16.

**Excerpt 4.5 (expanded from line 11)**

```
11  S6:  wh↑at  col↓or
12       (0.8)
13  S5:  bla:ck[hh]
14  S6:  [un]
15  S5:  haha[haha
16  S6:  [HE]ːː
17       (0.5)
18  S5:  *bla:ku:::*  un::::::::::::::::::::
          ((creaky))   ((tilts gaze))
19  S5:  nea:::::::::  tha::::::
          ((TF shifts to position above DICT))
20       (1.0)   ((S5 looking above DICT))
21  S5:  ah::::::::::::::::::
22       (0.4)
23  S5:  ah [nan yaro
          ah what be
          ah what would it be?
          [((S5 shifts gaze & body toward DICT))
24  S5:  .hs::::::  ((body moves closer to DICT with gaze))
```

In sequential order from line 15 are self-laughter, recipient surprise-like overlap with rising intonation, a half-second silence, a creaky voiced stretching of the noticed source “black,” followed by a very long two-second stretching of *un* in line 18. The long stretched *un*, vocalized in a higher pitched “searching” voice, coincides with a tilted gaze (sometimes referred to as a kind of thinking face), also bringing attention to “black.” Thus, following the surprise-like overlap and silence in lines 16 and 17, S5 initiates forward repair in line 18 with a creaky voice and repeated stretching of the noticed source. Next, the two-second stretched *un* is unusually long; it coincides with an
exaggerated tilted gaze that lasts just as long; however, it is a good example of the timely coordination of gazes and stretches in look-up initiations.

What this excerpt exemplifies is that forward repair initiation can begin just after a turn beginning (i.e., just-post-initiation), a practice documented in native speech (Schegloff, 1979) and Japanese learners of English (Carroll, 2005a) (See Chapter 2). Line 18 shows how the stretching of the trouble source combined with the thinking voice *un* and the tilted gaze are used to indicate a repairable at a turn beginning. The participants simultaneously accomplish both vocal repair initiations and gaze shifts in repair initiation. Furthermore, as before-look-up actions, gaze and body shifts in the direction of the e-dictionary are physically necessary for a word look-up to take place.

Thus, in novice-novice talk, forward repair-initiations can occur in turn beginning position as well; however, Carroll (2005a) also found that novice sound stretches and gaze aversions, indicating forward repair, often preceded turn beginnings. Schegloff (1996) argued that pre-TCU turn initiations, such as gaze shifts and gesture onsets, could initiate a turn before a TCU beginning. In contrast to native speaker talk, novice speakers’ first indication of forward repair could come in the form of sound stretches, rather than *uh* or *un* tokens (Carroll, 2005a, p. 253). Cut-offs, associated with backwards repair in native speech at just-post-initiation, were implicated in novice-novice progressive repair practices, creating a “stuttered effect” (Carroll, 2005a, p. 254). Thus, positions just before and just after turn beginnings contain a number of reoccurring features that need to be sequentially investigated in order to understand before-look-up practices. Beginning in the next chapter, forward repair initiation before the look-up will be examined closely, as there are reoccurring instances of before-look-up word stretches
and gaze shifts that are characteristic of turn beginning practices.

Repair initiation can also occur toward the end of a turn construction in TCU final position (i.e., just-pre-completion) (Lerner, 1996) as in Excerpt 3.8 (reprinted) below (See Chapter 2). The grammatical projections begin in line 5 with a grammatical cut-off and substitution of “I” with a stretched “my” in line 7.

**Excerpt 3.8 (lines 1-15)**

```plaintext
01  S7:  °very difficult.°
02     (1.1)
03  S7:  so
04  S7:  (0.7) ((raises finger tips))
05  S7:  recently I↓ ((touches finger tips together))
06  S7:  (2.1) ((rubs fingertips; gaze shifts to DICT))
07  S7:  my::: ((rubs fingers faster; head moves to DICT))
08  S7:  (1.1) ((hand & body move to DICT; inputs in DICT))
09  S8:  °finger?° ((as S7 inputs))
10     (0.3)
11  S7:  un finge::rs zu (0.8) ski:n?
12     (0.4)
13  S8:  a↑:h (0.7) hard.
14     (0.8)
15  S7:  u:n
```

This vocal repair sequence coincides with the embodied actions of touching and rubbing the fingertips as well as the gaze and body shift toward the e-dictionary, actions that demonstrate the complexity of initiating a look-up of a word. Even as S7 looks up the word in line 8, in final position just before a candidate is proposed, the recipient tries to anticipate the word and proposes the candidate “finger” in line 9. Thus, the projectable before-look-up grammatical vocalizations and embodied actions orient toward collaboration and the sharing of word knowledge.

These collaborative practices of the before-look-up sequence, which are important in sharing word knowledge and proposing candidate solutions, will be further explored in the next chapter.
Architecture of the Look-up Sequence

I propose that Excerpts 4.4 and 4.5, further expanded below as Excerpt 4.6, exhibit basic characteristics common to other look-ups. The first instance is chosen without iconic gesturing in order to focus on the interactional architecture of the e-dictionary, particularly, the vocal modality, gaze, and body shift behaviors. The gaze and body shifts are important to understand, as they commonly display forward repair-initiation before the look-up begins. More complex interactions with iconic gestures will be described in the next chapter, but for the purpose of laying out a core architecture, the analysis of the interaction is simply on the vocal exchange and on the roles of gaze and body shift to the look-up sequence. First, I will describe the actions in general, then present the excerpt, and finally provide a detailed line-by-line analysis.

Excerpt 4.6 (lines 11-43)
11 S6: wh↑at col↓or
12 (0.8)
13 S5: bla:ck[hh]
14 S6: [un]
15 S5: haha[haha
16 S6: [HE]:::
17 (0.5)
18 S5: *bla:ku:::* un:.................. ((creaky)) ((tilts gaze))
19 S5: nea:................ thा:::
20 (1.0) ((S5 looking above DICT))
21 S5: ah:....................
22 (0.4)
23 S5: ah [nan yaro
ah what be
ah what would it be?
24 S5: .hs:........ ((in-breath; body & gaze move closer to DICT))
25 S5: (0.5) ((begins to move gaze to DICT))
26 S5: (*kon")((koniro=dark blue; hand & gaze move to DICT))
To describe the actions in Excerpt 4.6, in response to a question, S5 proposes an English word “black” in line 13, displays trouble with it in line 15 with laughter, proposes a Japanese word with a related meaning in line 26, looks up the English translation equivalent from line 27, and proposes it to the recipient in line 30. The recipient repeats the proposal in overlap in line 31, and acknowledges the proposal and repetitive hun tokens (nasalized un) in line 33. S5 makes a last clarifying proposal with the modifier “like” in line 34 that is re-acknowledged with the recipient’s stretched un ah in line 36. The sequence ends with S5’s overlapping un token, nod, and sniff in line 37, and after a silence, S5 moves on to a new topic, the flower design of her yukata.

In order to provide a “fine sketch” of this sequence, which is important in understanding reoccurring actions integral to the look-up, I will first analyze this excerpt in detail and more precisely by line number, and then provide an outline of the action sequence. In line 11, S6 asks S5 what color yukata she is going to wear to the summer festival that evening. After a 0.8 second silence, S5 replies using surprising, dramatic
intonation with “black,” quickly overlapped by the acknowledgement token un, which at this moment indicates receipt as a preferred response. In lines 15 and 16, S5’s laughter is overlapped with S6’s display of disbelief with a loud “HE↑::” (/he/, no diphthong) marking the prior color “black” as “surprising news.” After a 0.5 second silence, S5’s attention returns to “black” after it was noticed strongly by the recipient; S5 stretches on a repetition of “black” in line 18, initiating forward repair on it. Thus, other than the strong overlapping surprise in line 16, there is no obvious trouble (grammatical or audible) with the word “black” when S5 begins to stretch it.

However, looking at the whole look-up sequence, S5’s word searching begins from line 18 and results in several attempts to come up with a color term more precise than “black.” Tilting her gaze with a doubtful expression, S5 keeps the turn with a very long two-second stretched un. Then, in line 19, S5 stretches “near” and “the” and shifts her gaze above the e-dictionary, looking beyond it but not at it for one second, in line 20. In line 21, gazing out above the e-dictionary, S5 stretches a thinking aloud “ah,” and after a 0.4 second pause, shifts her gaze and body toward the e-dictionary. In line 13, during ah nan yaro (“Ah, what would it be?”), S5 makes the first deliberate shift of gaze, also bringing her head close enough to see the small screen on the e-dictionary. In the same movement, while sucking air through her teeth, S5 moves her gaze a little past the e-dictionary. Stretched un::, ah nan yaro, and teeth-sucking are typical Japanese word search expressions. In line 16, S5 thinks aloud with the Japanese proposal kon and moves her right hand and gaze onto the e-dictionary to commence the look-up. Kon is the cut-off of the Japanese word koniro, which means dark blue or navy blue. What is notable about these incremental movements to the e-dictionary is that each vocalization
and silence is timed in unison with a body and gaze shift, movements that I will analyze in greater detail using frame grabs in the next chapter.

S5 begins to input into the e-dictionary during the 2.4 second silence, but the recipient does not self-select to offer collaborative proposals during the look-up, although in line 28, S6 attempts to interject in some way but quickly gives up and waits. After a 0.7 second silence, in line 30, S5 proposes “navy blue” which is overlapped with “navy” by the recipient in line 31, indicating the recipient’s familiarity with the word. “Navy,” pronounced /neibi:/, is a loan word in Japanese. After a 0.6 second silence, the recipient S6 displays strong acknowledgment of the color “navy blue” by three repeated hun tokens timed with nods in line 33. In line 34, overlapping the last hun and nod, S5 further clarifies the color as being “like” navy blue. This “like” is similar in meaning to line 19’s “near the,” which was an earlier try at word search. “Like navy blue” is the last color candidate and an attempt at a further clarification of meaning; thus, the candidate proposal expansion of line 34 (with nod and body shift) makes due additional recipient acknowledgment in line 36, the stretched un ah. S5’s overlapped self-acknowledgment un followed by a nod and sniff in line 37 closes the look-up sequence in a possible three-turn expansion sequence (analyzed in Chapter 7). In order to make these actions more understandable, I will now outline them in sequential order.

An Outline of the Look-up Actions

The following outline summarizes the actions in Excerpt 4.6 that are reoccurring features in other instances. This allows for the analysis of sequentially significant actions, both vocal and nonvocal. The numbers below do not correspond with the transcript but
with the list below. Before-look-up actions consist of sequence initiating actions, in this case an adjacency pair (1, 2), and look-up initiating actions (3), expansions of composite self-repair tries (forward repair initiations) and gaze and body shifts (4-8). The look-up consists of multiple expansions of proposals (9, 12, and 14), multiple post-expansion acknowledgements of understanding (13, 15), the last post-expansion having a third-position closing (16). Multiple candidate repair proposals and acknowledgements can occur during the look-up when hand and gaze are on the e-dictionary (11, 12), or after body and gaze has shifted away from the e-dictionary (13-15). This list is not intended to be all-inclusive, as that would be impossible considering the complexity of the interaction. Rather, the vocal and nonvocal actions that occur here also occur in other exemplars, so this list provides an overview of commonly reoccurring before-look-up and look-up actions. Chapter 5 begins with before-look-up actions (i.e., items 1 to 9).

1. a participant initiates a question, “what color,” an adjacency first pair-part, line 11.
2. replies with a second pair-part answer, “black,” line 13.
3. the recipient uses surprise intonation and overlaps laughter with “HE↑::”, line 16.
4. initiates forward repair by stretching on a repetition of the trouble source “black,” line 18.
5. simultaneously tilts gaze, stretches un for two seconds, line 18.
6. stretches “near” and “the” and shifts gaze above e-dictionary, lines 19-20.
7. stretches ah with gaze above e-dictionary, line 21.
8. shifts her gaze and body to above the e-dictionary while thinking aloud, line 23.
10. shifts hand to e-dictionary, line 26. (Chapter 6)
11. inputs words in e-dictionary during a 2.4 second silence, line 27.

12. proposes “navy blue,” line 30.

13. the recipient acknowledges with “navy” overlap and repeats hun tokens, lines 31-33. (Chapter 7)

14. clarifies the color as “like” navy blue, line 34.

15. the recipient acknowledges with stretched, high-pitched un ah, line 36.

16. closes the sequence with un + nod + sniff, line 37.

Noticeably, there are two stretched ah exemplars in this sequence, but they accomplish different actions. The ah of line 11, coinciding with a gaze, displays a forward search mode. The higher-pitched ah of line 26 is more similar to the English “Oh;” it displays a change-of-state (Heritage, 1984) and can also propose a sequence end.

To allow for a moment-by-moment analysis based on sequentiality, I propose to divide the sequence into before-look-up actions and look-up actions. Overall, the flow of actions is a sequence oriented toward the replacement of “black” with a more precise word. After retrospective attention is drawn to “black,” the sequence’s overall orientation is forward repair, which involves the look-up of a more precise color term. Thus, “black” is not an error but the first recallable color candidate that S5 utters, and after retrospective noticing, she elects to replace it by looking up a more precise word in the e-dictionary.

One problem to consider is the sequential role of self-repair attempts after the initial noticing. In the case of Excerpt 4.6, after the noticing of “black” in line 16, S5 attempts to search for a word several times at lines 18, 19, 21 and 23. Each of the tries is paired with embodied actions, the first with a head tilt, the next with a gaze shift to a
position above the e-dictionary, the third by holding that prior gaze position, and the fourth with a complete shift of body and gaze to the e-dictionary. Thus, this suggests that self-repair “tries” (attempts) operate in conjunction with nonvocal actions as some sort of insertion expansions between the noticed trouble source and the e-dictionary look-up beginning. It is possible that, in some instances, embodied actions can replace what talk can do, operating in various sequential positions of talk; however, in this exemplar, vocal and nonvocal hybrid actions work together in moving the talk forward.

In the case of Excerpt 4.6, multiple self-repair tries are paired with incremental embodied shifts to the e-dictionary, physically making a look-up possible. In line 19, the stretched “near the” combined with a gaze poised above the e-dictionary projects that a replacement for “black” is forthcoming (The uncompleted TCU of “near the” projects a replacement for “black.”), and her gaze’s proximity to the e-dictionary prefaces the later body shift to a look-up. The embodied actions (e.g., gaze shifts and other gestures) can indicate a word search and possible move to the e-dictionary. Thus, turn construction in word look-up expansions can be composed of hybrid actions of vocal acknowledgments and gaze shifts and nods that vary in frequency and length. Although hybrid actions are not clearly explainable as a canonical adjacency pair structure, these hybrid vocal and nonvocal expansions offer possibilities for future research and will be looked at in Chapter 7.

Summary of Chapter 4

Based primarily upon the microanalysis of Excerpt 4.6, this chapter was focused on describing an organization of look-up sequential practices. One purpose was to
demonstrate how look-up sequences operate within the repair organization in order to make later analyses of exemplars understandable to the reader. A look-up with the e-dictionary is a continuous stream of micro-actions that need to be parsed out on a moment-by-moment basis; however, sequential analysis allows the analyst to make complex actions understandable to himself and to the reader. In the analysis chapters that follow, I will provide evidence for these proposed sequential practices within the repair organization.

One candidate sequential pattern for look-up sequences is the retro-sequence in which noticing can get the parties to pay attention to a potential trouble source. This seems to differ from canonical other-initiation in second-position. Retro-sequences can also be delayed as they get the participants to retrospect upon a prior utterance. In terms of an emerging look-up sequence, there is nothing in the potential trouble source that engenders a next turn or SPP, or even a look-up. Instead, a look-up seems to occur if one of the parties chooses to do so, and for reasons that are displayed by the participants themselves in the interaction.

Other types of candidate sequences are expansions. After the initiation of repair, multiple expansions are possible as inserts, and during the look-up, various insert- and post-expansions are possible. Canonical expansions have a clear adjacency pair, such as proposal-acknowledgement, or a three-turn pattern (proposal-acknowledgement-closing) (Schegloff, 2007). However, multiple attempts at self-repair are problematic as expansions because they are sometimes paired with many nonvocal recipient behaviors, such as shifting into direct gaze and nodding, that could be interpreted as embodied acknowledgements or continuers. With vocal responses such as un, the recipients can
show that they understand that the speaker is in a turn of talk not yet complete; however, these vocal responses occur in many positions and varieties, and often accompany nonvocal actions, such as nods and direct gaze (Goodwin 1986; Schegloff, 1982), which make their interpretation more complex. Carroll (2005a, p. 366) called some examples of the recipient’s silent direct gaze (e.g., Ex. 4.6, lines 17-27) as “being still” and suggested that they could be characteristic of novice L2 talk. For the most part, multiple attempts at self-repair will be analyzed by their position in the sequence and their contribution to the progressivity of the talk. For example, self-repair attempts responded to with direct gaze and nods will be examined, particularly because gaze and body shifts to the e-dictionary usually occur prior to the look-up. As a starting point, I will consider such sequences as “hybrid expansions” due to their complex structure.

In the next chapter, I will focus on the before-look-up actions, such as sequence initiating actions and repair initiations, that occur prior to the look-up. The nonvocal behavior is not the major focus of this study, but if an iconic gesture or nodding is doing an action, such as telling or acknowledging, and that action has a position in the sequence under study, then it will be examined carefully looked at. By focusing on projectable actions, such as iconic gestures, grammatical cut-offs, stretches of the trouble source, and gaze behaviors, I will show how these actions encourage collaboration and contribute to the resolution of the look-up sequence.
CHAPTER 5
BEFORE-LOOK-UP ACTIONS

Introduction

In Chapter 5, I will focus on the before-look-up actions, such as sequence initiating actions and repair initiations, that occur prior to the physical look-up. In particular, vocal and nonvocal hybrid turns that include composite projectable actions of gestures, grammatical cut-offs, stretched repeats of the trouble source, and gaze behaviors will be analyzed to understand their collaborative contributions to the resolution of the look-up sequence.

As I explained in the previous chapter, a look-up refers to an e-dictionary look-up of a word that occurs during a current speaker’s turn. In the repair organization, forward repair initiation tends to begin just before (Schegloff, 1996) and after a turn beginning (Schegloff, 1979), and toward the end of a turn construction in final position (Lerner, 1996). In this chapter, I will show that in novice-novice talk, forward repair initiations can occur in these positions as well. In particular, as indications of forward repair, novice sound stretches and gaze aversions often precede the beginning of a turn (Carroll, 2005a). Forward repair initiation in the form of both vocal and embodied actions will be examined in the case of the look-up sequence. Based upon these previous findings and my own exemplars, I will analyze novice-novice e-dictionary look-up turn beginnings and suggest candidate patterns that novice learners use.
I proposed Excerpt 4.6 (“black”) in Chapter 4 as typical and exhibiting basic characteristics common to other look-up sequences. Because this example is limited mostly to the vocal modality, e-dictionary look-up, gazes, and body shifts, I will visit it again in examining before-look-up actions. The gaze and body shifts are important to understand as they display before-turn positioning before the look-up begins. In the following excerpts, I will add complexity to the architecture and show that before-look-up actions do much more than just transition to the e-dictionary; they also project information for the recipient to use in collaborative actions. I will revisit Excerpt 3.8 (“finger”) and provide additional excerpts that show initiation practices using grammatical cut-offs, Japanese terms, and embodied actions.

Initiating a Look-up with Stretches and Gazes

In Excerpt 4.6, the body and gaze shift to the e-dictionary occurs later in lines 23 to 26; therefore, it is necessary to analyze carefully the before-look-up actions as they unfold just moments before. The question here is what turn-related practices does the speaker use just before going to the e-dictionary? S5 first displays trouble with “black” with laughter in line 15 and then a 0.5 second silence in line 17. Figure 2 below shows S5’s tilted gaze at the end of the long stretched un, the exact location designated by an up arrow⇧.

17 (0.5)
18 S5: *bla:ku:::::*((tilts gaze))un:::::::::::::::::::::::

⇧
Stretching “black” again in line 18 with a tilted gaze, S5 stretches *un* for almost two seconds maintaining the gaze. One colon “;” equals one-tenth of a second stretching, so these stretches and gazes are noticeably long.

In line 19, coinciding with long stretches of “near the,” S5 shifts her gaze to a position looking over but not at the e-dictionary display. Based on position in the before-look-up sequence, I infer the meaning of “near the” to mean, “something like” or “similar to,” in reference to the color black. Figure 3 shows the gaze positioned over the e-dictionary just as she finishes the stretching of “the.”
Figure 3. Gaze positioned over the e-dictionary just as S5 finishes the stretching of “the.”

S5 maintains this gaze for one-second in line 21, looking above the e-dictionary, demonstrating before-look-up practices of long stretches and long gazes.

During the long stretched “ah” of line 21, S5 freezes the gaze and looks over the e-dictionary. Figure 4 shows S5 as she shifts her gaze and body toward the e-dictionary before the look-up begins.
In line 23, the periods before the up-arrow ( . . ⌚ ) show how this step of the gaze shift toward the e-dictionary coincides precisely with the completion of *nan yaro* (What would it be?). At this moment, the gaze is still not clearly directed at the e-dictionary display.

S5’s body and gaze direction move forward closer to the e-dictionary as she sucks air through her teeth in line 24. For half a second, in line 25, as S5 holds this gaze in a fixed position, she begins the final shift of hands and gaze to the e-dictionary. Gaze shift to the e-dictionary display becomes apparent with the shift of the hand and fingers as S5 utters the Japanese proposal, “*kon*” in line 26, Figure 5.
24  S5: .hs:::::: ((body & gaze move closer to DICT))
25  S5: (0.5) ((begins to move gaze to DICT))
26  S5: (*kon*) ((hand & gaze move to DICT))
       dark or navy blue ((cut off of koniro))

Figure 5. Gaze shift to the e-dictionary display becomes apparent with the shift of the hand and fingers as S5 utters the Japanese proposal, “kon.”

Two questions that arise here about these long stretches and gazes are what do their coincidental timing demonstrate? A careful look at the gaze shifts show that the timing of the stretches coincide with the movement of the gazes (Goodwin & Goodwin, 1986) and that the gazes are integral parts of the look-up. In line 18, the two-second stretched un accompanies the tilted gaze or doubting gesture from its onset. In line 19, the stretched “near the” coincides with the onset and positioning of the gaze above the dictionary, which is maintained during the following long one-second silence. This gaze direction continues during the long stretched “ah” of line 21 for over two more seconds.
Finally, as S5 mutters *nan yaro* in Japanese, the gaze and body shift toward the e-dictionary, and she hesitates in a fixed position for nearly half a second, gazing near the display but not directly at it.

Thus, in a series of before-look-up actions, the long stretches in this sequence indicate that she is having trouble (i.e., second thoughts) with “black,” and she positions the direction of her gaze above the e-dictionary in a fixed position. This sequence of actions is explainable by the fact that in order to look up a word with the e-dictionary, one must move one’s gaze and body toward it in order to position the fingers and gaze on the keyboard. Before the actual hands-on look-up occurs, the vocal stretching of the trouble source “black,” the long stretches of *un*, “near the,” and “ah” enable S5 to manage the timing of shifting the gaze to a position above and near the e-dictionary during a multi-turn sequence. The fixed position in line 25, a position convenient for the final gaze and body shift, is maintained for half a second. Finally, in line 26, during the proposal of the Japanese *kon*, S5 shifts fingers and gaze to the display of the e-dictionary to look up its English equivalent.

In sum, S5 applies long stretching upon all the before-look-up vocalizations, and each long stretching is timed with an equally long gaze that is moved progressively closer to the dictionary. Thus, during a multiple-turn before-look-up sequence, to maintain the recipient’s gaze and discourage speaker change, these long stretches and gazes shifts are used to move the body and gaze from the early position (e.g., tilted gaze), to a fixed look-up position (gaze near the display), and to a hands-on position.

This example shows how the necessity of positioning both hand and gaze upon the e-dictionary display influences word stretching and gaze shifting. This analysis
corroborates what Carroll (2005a, p. 243) found in his collection of novice conversational data, in which the entry of forward repair is marked by varying durations of sound stretches from second-long stretches to very brief “hitches.” Furthermore, Carroll (2005a) found that these forward repair initiators are closely timed with embodied movements such as gaze movement. Thus, we can conclude from the evidence here that, in the case of novice e-dictionary look-up initiations, the coordinated timing of stretches and gaze movements can be integral interactional practices in look-ups.

Initiating a Look-up with a Cut-off and Embodied Actions

As was described in the previous section, gaze directions coincide with vocal stretches in shifts to the e-dictionary, but not only stretches are used. The early evidence that a cut-off can initiate a repair sequence was based on audio transcripts (SSJ, 1977), but with the availability of video recorded interaction, it is empirically possible to consider how vocal and embodied actions work together to initiate look-ups. The question for this section is how a cut-off is used in before-look sequences to help initiate a gaze shift to the e-dictionary.

Revisiting Excerpt 3.8, the before-look-up sequence is initiated by a display of trouble, a cut-off of a TCU in line 5.

Excerpt 3.8

01 S7: "very difficult."
02     (1.1) ((gazes))
03 S7: so
04 S7: (0.7) ((raises finger tips))
05 S7: recently I↓- ( (touches finger tips together))
06 S7: (2.1) ((rubs fingertips; gaze shifts to DICT))
07 S7: my::: ((rubs fingers faster; head moves to DICT))
08 S7: (1.1) ((hand & body move to DICT; inputs in DICT))
09 S8: "finger?" ((as S7 inputs))
10     (0.3)
Stopped at “I” and restarted in line 7, “I” is grammatically substituted with the first-person possessive, “my.” The cut-off of “I” is not a phonological cut-off in the sense of an interrupted sound. Instead, it is a lowered pitch of the diphthong; thus, the hyphen indicates the cut-off of the TCU after the lowered pitch.

In Figure 6, during the 0.7 second silence of line 4, S7 (on the left) brings up her hands and begins to touch the fingertips, drawing the recipient’s gaze. During this 0.7 second silence, S7 moves both her hands into position and gazes at them. This is a preparatory move leading up to the embodied action of touching the fingertips that starts after the silence.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure6.png}
\caption{S7 brings up her hands and begins to touch the fingertips, drawing the recipient’s gaze.}
\end{figure}
Then, while gazing at her own fingers and holding the recipient’s gaze, S7 rubs and touches her fingers together at the beginning of her TCU of “recently I↓-”. In Figure 7, just at the very tail end of the cut off of “recently I↓-” of line 5, S7’s gaze is toward her fingertips. The recipient’s gaze is still engaged on S7 before beginning the long 2.1 second silence of line 6.

05 S7: recently I↓-

![Image](image.jpg)

*Figure 7.* At the end of “recently I↓-,” S7’s gaze is toward her fingertips.

Immediately after the cutting off of “I↓-”, S7 shifts her gaze to the e-dictionary in line 6 and holds it for the duration of the long 2.1 second silence in a thinking pose. As was shown in earlier examples, gaze shift to the e-dictionary is a required action in the e-dictionary before-look-up sequence. The gaze shift can occur in stages as in Excerpt 4.6 or in one quick action. In line 6 of Excerpt 3.8, Figure 8, S7’s gaze shift to the e-dictionary during the 2.1 second silence is a necessary action before e-dictionary use can
proceed. The reason that it is necessary is that eye gaze is needed for correct hand placement upon the e-dictionary keys. Thus, there is a clear physical requirement of gaze shift to the e-dictionary before fingers can be placed correctly.

06 S7: (---------------------)

Figure 8. S7 shifts gaze to the e-dictionary during the 2.1 second silence.

In Figure 9, line 7, during the stretch of my:::, S7 taps her fingertips with her right hand’s index finger three times and tilts her head just slightly toward the e-dictionary. The stretched “my” is a restart of the previous \( l \downarrow \), a backwards repair as it replaces a previous element. However, the attached stretching (:::), continued gaze, and finger tapping indicate S7 is in forward search mode. S7 utilizes the stretching time to move her head a bit closer to the e-dictionary. This indicates a possible look-up, and at the same time, allows her to keep her turn.
07 S7: my:::

Figure 9. S7 taps her fingers during the stretch of “my:::.”

The hand and body movement to the e-dictionary in line 8 is smoothly timed at the very end of the stretched “my:::” so that there is no nonvocal gap between the stretch and the hand/body shift to the e-dictionary in line 8. This next part of the look-up sequence will be micro-analyzed in Chapter 6.

08 S7: (1.1) ((hand & body move to DICT; inputs in DICT))

To summarize the actions made so far, in the sequence of before-look-up micro-actions from lines 1 to 7, S7 projects the look-up word and draws the gaze of the recipient with stretches, restarts, and gestures, all of which contribute to the recipient’s later anticipatory tries (analyzed in more detail in Chapter 6). S7 initiates backwards repair in the TCU beginning by cutting off “I↓-” with lowered pitch, and then rubs her fingertips for 2.1 seconds and begins to shift gaze. She restarts with a stretched “my:::”,

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placing her face closer to the e-dictionary. Thus, current speaker constructs a turn beginning and initiates forward repair with stretches before the beginning of an e-dictionary look-up. In these few seconds, the speaker also receives and holds the gaze of the recipient, orientating the talk towards later collaborative actions, which are closely examined in the next chapter. In sum, this analysis demonstrates that before-look-up actions of gaze shifts, stretches, and restarts can comprise interactional practices for hybrid vocal and nonvocal shifts to the e-dictionary. These hybrid grammatical and embodied projective actions also summon the recipient’s attention by keeping the recipient’s gaze focused on speaker’s projections. This is important for possible collaborative actions.

Example of a Look-up Initiated by an Off-gaze, Cut-off, and Gesturing

Excerpt 5.1 is an example of a before-look-up sequence initiated by an off-gaze, grammatical cut-off, and embodied actions. Excerpt 5.1 is from a conversation about one of the live animal games of summer carnivals in Japan. In this game, the participants scoop up baby live turtles (kame in Japanese) with a small spoon, but the spoon part is lined with thin paper which wilts away within a minute, so the participant has only seconds to scoop up a turtle or two before the game is over. This sequence first begins with S5 in an off-gaze shown in Figure 10 below, just before the beginning of the vocal part of the TCU in line 1. This is an example of how a possible look-up can be first initiated by a gaze shift, before the beginning of a TCU.
Before a shift to the e-dictionary occurs in line 4, the grammatical projection of the verb infinitive “I try to” is completed with an iconic scooping gesture in line 2. This representational gesture projects the meaning of the verb “scoop,” and is imitated by the recipient in line 3.

Excerpt 5.1: S5S6T3
01 S6: I: try to: ((gaze off to the left))
02 S6: (2.6)((scooping gesture twice))
03 S5: (0.5)((imitates scooping gesture))
04 S6: (0.6)({retains gesture & shifts gaze to DICT})
05 S6: "kame" ((begins input of DICT))
06 S6: ((gazes and inputs DICT; left hand held up))
07 S5: kame?
08 S6: (2.5) ((gazes and inputs DICT))
09 S5: tu-turtle? ((provides a candidate translation))
10 S6: $tu:rtle$hahaha ((gaze moves to S5))
11 S5: turtle? ((S6 gazes moves towards DICT))
12 S6: (.) ((S6 gaze on DICT))
13 S6: .HHh () ["turtle" ((moves left index finger to DICT)]
14 S5: [turtle:zu. ((gaze shifts to own DICT)]
In line 1, S6 interrupts her TCU, and in lines 2 and 3, forward progress in turn construction is carried out with a fishing/scooping gesture. In line 5, a Japanese proposal of *kame* and gesturing provides the recipient ways to anticipate the English word needed as the recipient first proposes “turtle” in line 9.

In Figure 11, line 4, during a silence, as S6 retains the scooping gesture with her left hand in the air, she shifts her gaze and right hand to the e-dictionary to begin a look-up. In this case, the shift to the e-dictionary is comparatively quick and smooth. Furthermore, this look-up beginning also coincides with a Japanese proposal of *kame* in line 5, demonstrating the multimodal approach of the learners in look-up beginnings. I will revisit this exemplar later in this chapter when I examine expansion sequences.

04 S6: (-----)((retains gesture & shifts gaze and hand))

*Figure 11.* Retaining the scooping gesture with her left hand in the air, S6 shifts her gaze and right hand to the e-dictionary to begin a look-up.
In Excerpts 3.5 and 5.1, grammatical cut-offs occur toward the beginning of a before-look-up sequence and also encourage later-turn collaboration in the look-up. For example, embodied self-completion (scooping) after the cut-off in Excerpt 5.1, line 1, offers opportunities for later collaborative completion. In another example, in Excerpt 3.8, lines 7 to 9 (below), the recipient anticipates S7’s look-up with grammatical and embodied “fingering” clues and proposes a candidate next word, “finger.”

Excerpt 3.8, lines 7 to 9
07 S7: my:: ((rubs fingers faster; head moves to DICT))
08 S7: (1.1) ((hand & body move to DICT; inputs in DICT))
09 S8: °finger?° ((as S7 inputs))

Before-look sequences, containing actions that project the word to look-up, help to summon collaboration in the look-up. These recipient anticipatory tries of look-ups, to be analyzed in more detail in the next chapter, also demonstrate that the look-up is not confined to the e-dictionary but that the learners are willing and able to collaboratively utilize their own lexical knowledge in look-up completions.

Initiating a Look-up with a Japanese Term and Embodied Action

In terms of sequence initiating actions, I want to describe another reoccurring practice: initiating a look-up sequence with a Japanese term and embodied action. In Excerpt 5.2, line 1, the sequence is initiated by the term, kingyouskui, which is literally translated as scooping up (skui) goldfish (kingyou), a common live animal game of Japanese summer festivals. Simultaneously, S6 introduces the term with the scooping gesture, and then rapidly repeats the scooping gesture several times in a circular motion to elicit a response (line 2). The recipient, S5, elects to propose a translation equivalent,
“golden fish” in line 3. Thus, the proposed English translation equivalent (“golden fish”) of the Japanese term and gesture that initiated the sequence becomes the trouble source to be looked up.

Excerpt 5.2

01 S6: kingyosukui ((scooping up goldfish gesture))
02 S6: (0.6) ((right hand rapidly repeats scooping))
03 S5: go:lden fi:sh: ((S5 scoops slowly with right hand))
04 S6: hhh hehe ((S6 scoops once))
05 S5: (uː↑ːn) ((S5 tilts head in doubt and scoops once))
06 S6: hhh hh ((S5 gaze/body shifts to DICT))
07 S5: (0.9) ((S6 head rises in laughter; S5 inputs DICT))
08 S6: .hh ((looking up))
09 S6: (1.0) ((shifts body/gaze toward S5))
10 S5: gold(e) fish? ((still inputting))
11 S5: (1.3) ((looking at DICT))
12 S5: goldfish [gold]fish. ((several nods))
13 S6: [(i−)]
14 S6: un ((hand falls to lap))
15 S5: [goldfish + big nod ((laughing voice))
16 S6: [small nods + direct gaze
17 S5: .hhah ((inbreath, begins to change topic))

S5’s (sitting on the right) gaze shifts from S6 to a solitary position in Figure 12 between the e-dictionary and the recipient as she says, “go:lden fi:sh:,” stretching out the words.

03 S5: go:lden fi:sh:((S5 scoops slowly with right hand))
Following S6’s laughter and scooping gesture in line 4, S5 expresses doubt in her word choice in line 5, using a stretched *un* with rising intonation and a tilted gaze. Similar to the before-look-up practices of Excerpt 4.6 is the tilted gaze, shown in Figure 13. In this instance, before the body shift to the e-dictionary, S5’s gaze coincides with the repeated scooping gesture that is used repeatedly by both participants. What this shows is how two different embodied messages can be simultaneously conveyed by S5: the tilted face projecting doubt and a possible search or look-up of words, and the collaborative scooping gesture showing mutual understanding of the goldfish scooping game.

05  S5: (u↑:m) ((both gesture scooping; S5 tilts head))  

*Figure 12. S5 shifts gaze from S6 to a solitary position as she says *goːlden fiːʃ:*.  

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What needs to be examined is the sequential environment in which these hybrid actions operate and contribute to the look-up sequence.

**Embodied Expansion Sequences**

The analysis of before-look-up actions has so far been confined to a moment-by-moment look at how these vocal/nonvocal hybrid actions achieve noticing of the trouble source and move the gaze and body toward the e-dictionary in preparation for a look-up. Returning to this question that I briefly discussed in Chapter 4, I will consider whether hybrid or embodied actions can constitute parts of expansion sequences within a look-up sequence.

Returning to Excerpt 5.1, I first want to demonstrate how S6 completes her TCU begun at line 1 before I go on to a sequential analysis. The trouble displayed by current speaker is a lack of productive English vocabulary to complete her TCU. Here is an
example of a TCU construction that begins vocally and is finished with gestures (e.g., Olsher, 2004). The repeated scooping gestures complete the projected infinitive verb (to scoop). The timing of these completions demonstrates how the participants use nonvocal actions to avoid gaps (or fill vocal gaps) during a long 3.1 second silence.

Excerpt 5.1: (reprinted)

01 S6: I: try to:
02 S6: (2.6) ((scooping gesture two times))
03 Eins S5: (0.5) ((imitates; retains scooping gesture))
04 Eins S6: (0.6) ((freezes gesture & shifts gaze to DICT))
05 S6: “kame” ((begins input of DICT))
06 S6: ((gazes and inputs DICT; left hand held up))
07 S5: kame?

After the displays of trouble (e.g., gazes, stretches) culminate with the truncated TUC of line 1, S5 self-completes with two scooping actions with her left hand. In progressing forward repair, these iconic actions project the meaning of the word and provide an opportunity for collaboration in the search. In line 3, the recipient brings up her right hand to repeat the scooping action, ending the long 3.1 second silence with an adjacently placed gesture. If the hybrid TCU is a FPP base, the recipient’s mirroring of the iconic gesture is, in terms of preference, a preferred response, as it indicates no disagreement, and operates as an embodied receipt or continuer. The embodied action at line 3 does not displace the base FPP but mirrors the base, placing imitating gestures in the next turn position, which achieves nonvocal alignment with the base FPP. It operates as a continuer sequentially; in the next turn position, S6 retains the left hand in the air (S5 also retains the gesture) and shifts her gaze and right hand to the e-dictionary to begin a look-up. Mirrored gestures (See Figure 11) are inserted just before the look-up suggesting that embodied inserts (Eins) are a possible expansion type before the look-up.
In terms of the repair organization, the hybrid TCU of lines 1-2 shows self-initiation of repair and self-embodied completion. Embodied completion in look-up initiation can take any vocal, nonvocal, or hybrid response. In this case, the recipient’s response is an imitated gesture and silent gaze. S5’s action at line 3 is not other-initiation in the canonical sense of noticing a trouble source. It “receives” or receives the trouble source, already initiated by S6, thus, deselecting herself (S5) as speaker in the next turn. In line 4, S6 elects to go to her e-dictionary as S5 maintains her gaze on S6. Thus, I propose that the base FPP is a self-completion try with embodied actions. Operating as a “continuer,” the recipient’s imitated gesture and silent direct gaze (See Figure 11) adjacently follow. This suggests that, just before the look-up, embodied inserts, in this case, mirrored gestures, are inserted. Thus, we have evidence of adjacent embodied sequences inserted after the initiation of a look-up and before the shift to the e-dictionary. By examining the recipient’s embodied responses to a FPP, it is possible to discover more embodied inserts before the look-up.

In Excerpt 5.2, S6’s rapid scooping elicits a translation try from S5 in line 3. This try coincides with a slow scooping motion and shifting of gaze toward the e-dictionary (See Figure 12), already indicating a possible search. More indications of trouble with “golden fish” occur with S6’s laugh in line 4 and S5’s adjacent doubting expression of the stretched and rising un and tilted gaze (See Figure 13).

Excerpt 5.2
01 S6: kingyosukui ((scooping up goldfish gesture))
02 S6: (0.6) ((right hand rapidly repeats))
03 S5: golden fish: ((S5 scoops slowly with right hand))
04 Eins S6: hhh hehe ((S6 scoops once))
05 Eins S5: (u:↑:n) ((S5 tilts head in doubt and scoops once))
06 S6: hhh hh ((S5 gaze/body shifts to DICT))
What are common to both turns are the adjacent scooping gestures that underlie the interaction, and the repeated gesturing in first-position summons the recipient’s imitation. This shows that, in this case of hybrid vocal/embodied actions, the participants can insert adjacently positioned embodied actions in the talk before a look-up occurs. Furthermore, these embodied inserts can possibly occur alongside other vocal and nonvocal actions in various configurations.

In terms of the overall look-up organization, during the before-look-up actions, noticing of trouble displays a deficit in the learner’s vocabulary knowledge. A lack of knowledge can be projected publically in before-look-up actions, encouraging collaboration in the look-up, and thus preventing an abandonment of the look-up. Evidence of a knowledge deficit is displayed by S5’s doubt in her own proposal of “golden fish,” which is expressed with continued scooping, the stretched un with rising intonation, and tilted head in line 5, and the gaze and body shift to the e-dictionary in line 6. This is clear evidence that S5 has noticed something wrong with her proposal. In this instance, the look-up is self-initiated after self-noticing (retroflection) of a trouble is displayed.

Summary of Chapter 5

In terms of before-look-up actions (Initiating Action > Trouble source > Displays of Trouble), the above excerpts demonstrate several ways that a look-up sequence is initiated and trouble displayed before the body and gaze shift to the e-dictionary, indicating a knowledge deficit. In Excerpt 4.6, the sequence begins with a question and
answer pair, followed by the recipient’s surprise. The answer “black” becomes the trouble source to be looked up, the trouble indicated by long stretches and a tilted gaze. Indications of a possible look-up are achieved by gaze shifts in the vicinity of the e-dictionary and the coinciding stretches that occur. The last Excerpt 5.2 showed that just before an expression of doubt is made, the gaze direction could shift to a solitary position (See Figure 11).

In the before-look-up actions of Excerpts 3.5 to 5.2, grammatical and nonvocal clues project meaning and offer collaborative opportunities. In Excerpt 3.8, a grammatical cut-off “I↓-” and stretched restart “my:::” combined with iconic gesturing (touching fingers) and gaze shifts form a before-look-up sequence that later results in an anticipated completion of the look-up. In Excerpt 5.1, the cut-off of the verb part of “I try to” is completed with repeated scooping gestures giving clues for later anticipated completion tries. In Excerpts 5.1 and 5.2, the uses of Japanese terms (kame, kingyouskui) along with scooping actions summon collaboration and understanding of the candidate terms to look up.

Furthermore, multiple before-look-up practices can occur simultaneously. As was shown in Excerpt 5.2, Figure 12, two nonvocal messages can be conveyed simultaneously: a tilted gaze expressing doubt of a particular lexical item, and the collaborative scooping gestures demonstrating mutual understanding of the underlying topic. What is interesting here is how intersubjectivity is collaboratively maintained by iconic gestures of the look-up word or topic at the moment a possible look-up is projected by a tilted gaze, expressing doubt. In other words, the mirrored scooping gestures maintain the shared understanding of the topic, and the tilted gaze projects a
possible word search or look-up. This demonstrates how a participant can combine two
different body movements at the same time to accomplish different functions.

Finally, I examined embodied inserts and found that they can occur adjacently in
pairs and be inserted in before-look-up sequences. Embodied inserts can occur in
conjunction with other vocal or nonvocal actions. For example in Excerpt 5.2, while
embodied inserts maintain intersubjectivity in topic or word to be looked up, vocal and
nonvocal expressions of doubt and gaze shift can occur in the same turn. This
demonstrates the complexity of these hybrid actions, and how novice learners use their
multimodal competencies to both share understandings and progress the talk.

In sum, the participants can initiate a look-up with gaze shifts, and while
constructing a turn beginning, use stretches, grammatical cut-offs, and embodied
actions to make forward progress before the beginning of an e-dictionary look-up. In
these few seconds, the speaker also receives and holds the gaze of the recipient,
orientating the talk towards later collaborative completion tries. Just before the look-up,
stretches coincide with gaze shifts that can move in stages (e.g., tilted away, fixed
above) progressively toward the look-up position of gaze on the e-dictionary display, a
position that is required for proper placement of the fingers. To maintain
intersubjectivity in the search, embodied actions in the form of adjacent iconic gestures
can be inserted. This demonstrates that the before-look-up actions not only provide
interactional resources for a body and gaze shift to the e-dictionary during talk, but by
displaying a knowledge deficit, can also summon the recipient’s anticipation of look-up
completion by grammatical and embodied projections of the look-up word. How the
word is looked up collaboratively is to be examined more closely in the next chapter.
CHAPTER 6
THE LOOK-UP

Introduction

The looking up of a word using the e-dictionary requires the insertion of a keyboard search action into the overall sequence of talk. The word look-up has no iconic meaning other than the display of the decision to insert an e-dictionary search into the talk. Simply, it is a display of a conscious decision to elect to use the e-dictionary for a search of word meaning. In short, I want to argue that the look-up is the physical "act" of "handling" the e-dictionary in search of meaning. Sequentially, the look-up is the central element of the organization and provides a focal point for sequential analysis. As I emphasized in Chapter 4, the main analytical precepts are that actions are sequential and there are patterns of actions before and patterns of actions during the look-up of a word with the e-dictionary.

In terms of action, there is only the bodily action of manipulating the input keys of the e-dictionary, and this action requires that the individual’s gaze be on it during the look-up before a candidate proposal. Gaze going toward (before look-up) and gaze going away (during and after look-up) are micro-actions that can be discerned sequentially. A participant could be in look-up position, propose a word, and then move her gaze away, or she can move gaze away and then propose a word. No matter what the variability in gaze shifts, before, during, or after the look-up, in order to look up a word on the e-dictionary, one's gaze and hand must first be on it. Because of this physical requirement,
I am suggesting that the coinciding gaze and fingers on the e-dictionary constitute a turn-in-progress look-up, a central argument of this chapter.

In the first section of this chapter, I will address the turn-in-progress (TIP) look-ups by the speaker; these look-ups are numerous and basic to e-dictionary interaction. In the later sections, I will address the collaborative practices of e-dictionary use. First, I will look at anticipatory look-ups and proposals in which the recipient anticipates what the current speaker is looking up and proposes a candidate. Then, I will address collaborative or joint look-ups in which both participants go to their e-dictionaries to look up the same word. All of these look-up sequences follow the proposed organization described in Chapter 4.

Contrasting these look-ups with patterns outside the organization, at the end of this chapter, I will show an abandoned look-up sequence in which speakers give up the search and ask the other participant how to translate a word. Finally, I will provide a strong example of an unprojectable look-up sequence in which the recipient looks up something, but there are no clues as to what, and then at an opportune transition-relevance place, introduces a topic using the word that she looked up, even showing the word on the e-dictionary screen. By contrasting projectable with unprojectable look-up sequences, I hope to highlight core sequential practices and actions.

**Turn-in-progress Look-ups by the Current Speaker**

I would like to determine the key structural elements or requirements of a TIP look-up and attempt to establish this as a pattern by which to identify and collect other instances in the data. Centering upon the current speaker in a turn-in-progress, the
current speaker would go to the e-dictionary to find a word in the same turn. The
candidate TIP look-up would consist of the following turn parts.

1. A participant must formally begin a turn-at-talk and produce a turn-beginning. This
condition may also require the initiation of forward repair, which would occur before a
move to the dictionary. These actions are outlined in Chapter 5.

2. A participant goes to her e-dictionary to find a word.

A candidate TIP look-up sequence begins with first initiation of self-repair before
e-dictionary use onset and establishes the current speaker’s turn as a turn-in-progress.
The projected word or words needed to complete the TIP look-up is looked up with the
e-dictionary, and used by the participants to complete the turn.

Before I introduce new excerpts, I would like to revisit Excerpt 4.6 to point out
these characteristics. I want to illustrate how the current speaker, after initiating forward
repair in some way, goes to the e-dictionary to find a word. In Excerpt 4.6 below (lines
21-33), after initiation of repair with stretches, a Japanese thinking expression (nan yaro)
in line 23 coincides with gaze and body shift to the e-dictionary.

From Excerpt 4.6

21 S5: ah:.................. ((sitting back; looking above DICT))
22 (0.4)
23 S5: ah nan yaro ((what would it be?))
24 . . . . . .((shifts gaze & body toward DICT))
25 S5: .hs:...... ((body moves closer to DICT with gaze))
26 S5: (0.5) ((begins to move gaze to DICT))
27 S5: (*kon°)((hand & gaze move to DICT))
28 S5: (2.4) ((fingers input into DICT))
29 S6: (*ah uh?°)((attempts to say something but gives up))
30 (0.7)
31 S5: nav[y bl]ue:.
32 S6: [navy]
33 (0.6) ((S5 shifts gaze back to S6))
34 S6: hun hun [hun ((timed with nods))

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After teeth-sucking and more movement to the e-dictionary, and a silence in line 25, S5 gets her hand on the e-dictionary precisely when she proposes the Japanese candidate *kon* in line 26. S5 presses keys for the next 2.4 seconds and then begins to move her hand just a few centimeters away before she makes her candidate proposal of “navy blue.” In this sequence, the physical look-up ends as the hand is pulled away; the proposal occurs as the hand is pulled toward the chest. Thus, in this sequence, the look-up action sequence consists of a Japanese candidate proposal coinciding with hand movement to the e-dictionary, a solitary look-up with the e-dictionary for over two seconds, the hand pulling away, a vocal candidate proposal (with the recipient’s overlap) coinciding with a hand moving toward the chest. This is followed by a gaze shift to the other participant in line 32.

I have argued that the word look-up with the e-dictionary, often occurring as a solitary action of e-dictionary keying as in this excerpt, is a central point from which to view the sequence of actions. The before- and after-look-up hand and gaze movements are sequentially distinguishable. Before look-up movements outlined in Chapter 5 lead up to the placement of the hand and gaze on the e-dictionary. As interactants progress towards more mutual understanding, the pulling away movements of the hand coincide with vocal proposals of candidates and indicate progression toward completion of the look-up sequence. However, e-dictionary look-ups are not just solitary searches; many of the sequential actions are collaborative and embodied actions and need to be considered as joint actions of the participants utilizing both vocal and nonvocal resources to complete the look-up sequence.
Anticipatory Proposal by the Recipient During Look-up

This analysis of an anticipatory proposal is taken from Excerpt 3.8, lines 3-9, which I reprint below. As was explained in Chapter 5, S7’s before-look-up actions up to line 7 involve the use of fingertip rubbing and the grammatical slotting of “my ___” to project meaning. The embodied actions also draw the gaze of the recipient during the turn (See Figure 6 in Chapter 5).

From Excerpt 3.8
03 S7: so
04 S7: (0.7) ((raises finger tips))
05 S7: recently I ↓ - ((touches finger tips together))
06 S7: (2.1) ((rubs fingertips; gaze shifts to DICT))
07 S7: my::: ((rubs fingers faster; head moves to DICT))
08 S7: (1.1) ((hand & body move to DICT; inputs in DICT))
09 S8: "finger?" ((as S7 inputs))

In Figure 14 below, line 8, during the 1.1 second period of silence following the stretching of “my:::,” S7 moves her body closer to the e-dictionary, followed by her right hand that begins to work the e-dictionary keys. Thus, at this point, while retaining the recipient’s gaze towards speaker’s moving hands, the current speaker goes to the e-dictionary to look up a word that will possibly complete the TCU begun in the previous line. Actually, the evidence that she is searching for a word will be displayed during the acknowledgement sequence (discussed more in the next chapter). The working of the e-dictionary keys after the stretching of “my:::” by the speaker embody engages both participants in a TIP look-up.
Figure 14. S7 moves her body closer to the e-dictionary, followed by her right hand that begins to work the e-dictionary keys.

To sum up this part, after the restart of the stretched “my::” of line 7, S7’s body and hand move to the e-dictionary during the 1.1 second silence of line 8, first with a body tilt towards it before her right hand moves to it. Both the finger gesturing and stretched “my::” project the next TCU part of “finger,” which the recipient tries to co-complete in line 9. However, determining what word she looked up is problematic and I will discuss these practices in Chapter 7 when I take up the acknowledgment practices used in building mutual understanding of the looked up meaning.
A Look-up of a Candidate Translation Equivalent During Laughter

Excerpt 5.2 offers an example of a TIP look-up of a candidate translation equivalent proposal of a Japanese term and gesture. As was detailed in Chapter 5, before the look-up, S5 imitates the gesture as she proposes “golden fish.” S6 then laughs as she performs another repeat of the gesture in line 4. In line 5, S5 displays doubt vocally with rising intonation and nonvocally with a head tilt. This excerpt gives us an opportunity to observe what the recipient (S6) of the look-up is doing.

Excerpt 5.2

01 S6: kingyosukui ((scooping up goldfish gesture))
02 S6: (0.6) ((right hand repeats scooping several times))
03 S5: golden fish: ((S5 scoops slowly with right hand))
04 S6: hhh hehe ((S6 scoops once))
05 S5: (u:↑:n) ((S5 tilts head in doubt and scoops once))
06 S6: hhh hh ((giggling)) ((S6 gaze/body shifts to DICT))
07 S5: (0.9) ((S6 head rises in quiet laughter; S5 inputs DICT))
08 S6: .HHh ((looking up in the air))
09 S6: (1.0) ((shifts body/gaze toward S5))
10 S5: gold(e) fish? ((still inputting))
11 S5: (1.3) ((looking at DICT))
12 S5: goldfish [gold]fish. ((several nods))
13 S6: [[i-]]
14 S6: un ((hand falls to lap))
15 S5: [gold;fish + big nod ((laughing voice))
16 S6: [small nods + direct gaze
17 S5: .hhah ((inbreath, begins to change topic))

In line 6, S5 shifts her gaze and body toward the e-dictionary as S6 giggles. The physical look-up of the hand and gaze moving to the e-dictionary and inputting coincides with S6’s head rising up in laughter in line 7. That the look-up occurs during giggling and laughter seems to be important for several reasons involving the relationship between the look-up turn-taking and gaze shifting.

The laughter in line 6 is one way to select speaker; in this case, by not offering a
candidate translation of her own, S6’s laughter allows S5 to smoothly shift her gaze to
the e-dictionary (shown in Figure 15 below) and begin the look-up.

06  S6: hhh hh ((giggling))((S5 gaze/body shifts to DICT))

Figure 15. S6’s laughter allows S5 to smoothly shift her gaze to the e-dictionary.

During the look-up, the laughter continues in line 7, first quietly as S6 raises her head;
she then lets out a short squeal in line 8, as shown in Figure 16.

07       (0.9)((S6 head rises in quiet laughter;
        S5 inputs DICT))
08  S6  .HHh ((looking up in the air and squeals))
Figure 16. S6 raises her head before she lets out a short squeal.

In this excerpt, proposals are made by S5 during her look-up. Before the first look-up proposal, S6 finishes her laugh, and in the next second, shifts her body and gaze toward S5. Then, S5 corrects “gold fish” (instead of golden fish) in a soft voice with self-questioning intonation.

09 S6: (1.0) ((shifts body/gaze toward S5))
10 S5: °gold(e) fish?° ((still inputting))

In line 11, S5 is still busy looking up the word. At the beginning of the silence, she tilts her head a little in Figure 17, casting some doubt upon the proposal of line 10. Notice that S6 returned her gaze back to S5 just prior to this proposal (from line 9).

11 S5: (1.3) ((looking at DICT; tilts head a little))
Figure 17. S5 tilts her head a little, casting some doubt upon the proposal.

S5 embodyly ends the look-up in line 12 by moving away from the dictionary, retracting her hand, and nodding several times. Vocally, she repeats a revision of line 10. The syllable accent is corrected by stressing the first syllable of “goldfish,” and the repeat is overlapped with S6’s acknowledgement token (not audibly clear) in line 13.

12 S5: goldfish [goldfish: . ((during several nods, pulls back)]
13 S6: [(i-)

Figure 18 below shows the end of the look-up, in which the participant finishes her body shift away from the e-dictionary. In completing this look-up, there is a complex set of vocal and nonvocal actions that occur in parallel and that summon the gaze and acknowledgment of the recipient (acknowledgements will be examined closely in the next chapter). In terms of repair, the self-correction of morphological (omission of –en from golden) and phonological (stress on gold in goldfish) aspects with the e-dictionary allows S5 to display “correctness;” these self-corrections exhibit S5’s ability to use the
e-dictionary to self-repair her word choice and syllable stress.

12  S5: goldfish [goldfish: . ((during several nods, pulls back))
13  S6: [(i-)

Figure 18. S5 finishes her body shift away from the e-dictionary.

I would consider this as sequential evidence of “doing learning.” Using the look-up information, S5 indicates that she understood the morphological and phonological distinctions as she ends her turn by pulling away from the e-dictionary and nodding. In line 13, S6 gazes, smiles and overlaps with a cut-off vocalization. Then, to further acknowledge the completion of S5’s self-correction, S6 responds with un in line 14 as her hand falls to her lap. The following lines further demonstrate the “depth” of their understanding (of goldfish as a compound word with first syllable stress) as S5’s repetition in line 15 is accompanied by a big nod and laughter. This is overlapped with the recipient’s direct gaze and small nods. These acknowledgement sequences are
examined in detail in Chapter 7.

14 S6: un ((hand falls to lap))
15 S5: [gold↑fish + big nod ((laughing voice))]
16 S6: [small nods + direct gaze]
17 S5: .hhah ((inbreath, begins to change topic))

The look-ups examined so far focused on one participant going to her e-dictionary alone although collaboration in the form of anticipatory proposals occur. Within the proposed look-up organization, it is possible for both parties to look up a word collaboratively and jointly make a proposal translation, a possibility that I will examine next.

Co-Look-up

A cooperative look-up or co-look-up occurs when both participants go to their dictionaries to look up the same word and make a proposal. Co-look-ups demonstrate the extent of cooperation possible within the proposed sequential organization. The next exemplar, Excerpt 6.1, is from a pair of students that begin to talk about a popular TV trivia game show translated as “Fountain of Trivia.”

Excerpt 6.1
01 S9: um: (.). hh (0.8) yesterda:□y,
02 S10: "umum"
03 (1.0)
04 S9: you
05 S9: (0.6)
06 S9: ah:
07 (0.3)
08 S9: you say that-
09 (1.1)
10 S9: yesterday (.). ah-(0.3) ah last night
11 (yeah)
12 S9: I did- I watched (0.9) TV
13 (0.5)
14 S10: tree:bia ((trivia))
15 (0.4)
16 S9: trivia ((pronounced correctly))
17 S10: um
18 S9: eto
19  
20 ?: ((outside clanking sound))
21  
22 S9: po:ndo? ((pronounced with long stretched ou))
23  (0.5)
24 S10: po:ndo ja nakute ((gaze shifts to above DICT))
25 pond not
26 not a pond
27  
28 S9: izumi? ((= fountain; S10 holds TF above DICT))
29  (0.4) ((both go their DICTs))

Figure 19. S9 (left) places her fingers on the keys first because S10 must fold open her dictionary.

Before the joint look-up begins in line 27, S9 makes a proposal (pond) in line 22 that S10 rejects in line 24. In line 26, S9 vocalizes the word that she is searching for, the English translation of izumi (fountain). In this instance, the recipient S10 first shifts gaze into a gaze above her e-dictionary and moves her hand to her e-dictionary just a split second before S9 also goes to her own e-dictionary. Actually, in Figure 19 below, S9 (on the left) places her fingers on the keys first because S10 must fold open her dictionary.
In a rush to look up the word *izumi*, they come up with the same proposal “fountain” in lines 34 and 35, and S9 uses that word to finish the translation of the game show’s title.

Excerpt 6.1 continued

28  S9:  hehe
29   (1.0)
30  S10:  (da:ke) (*(nan dake = how do you say?)*)
31   (0.6)
32  S9:  i:::zu::m↑i  *((sounds out keying))*
33   (1.4)  *((race to look up the word))*
34  S9:  [fo::ntain  *((pronounced with long o:))*
35  S10:  [fo::ntain
36   (0.6)
37  S9:  fo:ntain of (.) trivia?
38   (0.3)
39  S10:  un.  *((nods))*
40   (0.7)

This exemplar demonstrates the collaborative practices of the cooperative look-up in which both participants go to their dictionary at the same time to look up a Japanese word to propose (at nearly the same time) a translation. Although co-look-ups are not always timed in such a nearly simultaneous way, this exemplar exhibits the degree of collaboration possible within the proposed sequential organization. Lines 34-35 could be an example of a simultaneous co-production proposed by Lerner (2002) in which co-production is used to accomplish agreement with the current speaker, and contribute to turn completion.

Abandoned Look-up

Although fewer in number, abandoned instances can be contrasted with the proposed TIP organization. During the look-up, one participant abandons an e-dictionary look-up, and instead of making a candidate proposal, asks for a translation equivalent. Word knowledge is shared vocally in a question and answer pair at its conclusion. In Excerpt 6.2 below, S6 begins a look-up the word (*bunkasai*) or “school festival,” but
gives up and asks the recipient for her translation after a very long look-up. The reason
why she gave up is not readily apparent. The frequency question in line 1 refers to an
earlier remark by S6 about wearing Japanese cotton kimono (yukata) during flower
arrangement club activities. This sequence infers that she usually only dresses up during
the school festival in September. After this look up sequence, she goes on at length to
clarify that she does not wear the yukata every lesson or activity; she usually wears her
school uniform.

Excerpt 6.2
01 S5: e[very] lesson?
02 S6: [(uh)] ((twists hand around))
03   (0.5) ((slaps left hand down onto right on lap))
04 S6: yeah
05 un::::::(shifts gaze to left))
06 .hh hh ((slaps hand again and giggles))
07 (0.7) ((holds gaze until line 14))
08 um::
09 (0.8)
10 S6: "ettone" ((a thinking expression similar to un:::))
11 (2.9)
12 S6: September?
13 S5: un.
14 (2.8) ((shifts gaze back to S5))
15 S6: um::
16 (1.4) ((S6 rotates right hand in searching gesture))
17 S6: "I can" ((shifts gaze and hand to DICT))
18 (0.3)((tap tap tap of DICT))
19 S6: hhh
20 S5: hhh
21 S6: (tap tap tap of DICT))
22 (1.7)
23 S6: justa moment *please*
24 S6: (4.7) ((taps into dictionary; S5 shifts to her DICT))
25 (1.0) ((S6 stares at DICT screen))
26 S6: hhe:: ((moves forwards and expresses surprise))
27 S6: (last tap of DICT))
28 un::: ((both hands rotating in search gesture))
29 (2.0) ((continues searching gesture))
30 how-
31 how do you say bunkasai in *English* ((shift gaze to S5))
32 S5: .hhh ((inbreath))
33 S5: culture festival? [hahahaha]
34 S6: [hahahaha]
On my electronic dictionary, using the Japanese-English Genius 2 edition, commonly used by the students in this study, bunkasai appears as “school festival;” however, the recipient responded with a literal translation (bunka = culture, sai = festival) in line 33 of “culture festival.” This literal translation does not appear on any of the Japanese-English or English-Japanese dictionaries, including Reader’s Plus, Second Edition, an advanced English-Japanese dictionary of greater size (which most students did not have because of its greater cost at that time). The surprise expression in line 26 suggests that S6 did not readily accept her dictionary’s translation of the word (“school festival”), so she decided to ask her partner instead. S5’s response in rising intonation in line 33 (prefaced by a noticeable inbreath) is followed by overlapped laughter indicating it is possibly a “guess” proposal.

In terms of sequential actions, this exemplar shares many commonalities with the other exemplars presented. Before-look-up actions comprise various speaker search expressions (e.g., stretched un and ettone), gestures (e.g., rotating hands), off-gaze gazes, and the recipient’s minimal responses (e.g., un and silent gaze). The biggest difference, of course, is the abandoned look-up from line 26, which is probably caused by the student’s “disbelief” or rejection of the e-dictionary’s translation. Until the rejection of the e-dictionary’s translation, the abandoned look-up sequence still has many of the same characteristics outlined in Chapter 4. Now, I wish to turn to a look-up sequence that falls outside the proposed organization in order to focus on core look-up commonalities and characteristics that distinguish look-up sequences.
Later-turn Look-up

The abandoned look-up allows us to contrast the canonical TIP look-up with an instance in which the e-dictionary’s translation was rejected. The abandoned look-up, however, has many of the same characteristics as typical look-ups during the before-look-up phase. I would like to provide another alternative to typical TIP look-ups that imply an entirely different set of circumstances and sequences, in particular, the role of the recipient’s use of the e-dictionary in the look up of a word to apply later in the talk at an appropriate transition-relevance place. These are what I call unprojectable look-ups (see Chapter 4), and although they are not the focus of this study, they deserve to be briefly examined in order to provide a clear contrast to typical projectable TIP look-ups and generate research questions for future study of e-dictionary look-ups. Unprojectable look-ups tend to be long and complex, so I will show a “simple” one of 53 lines, the longest exemplar provided in this study.

Excerpt 6.3 begins with a Japanese cut-off *kin-* of the word *kingyouskui* (scooping for goldfish) and its candidate translation in line 3, immediately repeated by the recipient with imitated scooping gestures. Here are a number of mirrored inserts, in which a proposal is followed by a repetition, operating as a continuer (to be discussed further in the next chapter).

**Excerpt 6.3 Later-turn look-up**

<table>
<thead>
<tr>
<th>Line</th>
<th>Japanese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>S6: <em>kin-</em></td>
<td>((cut-off of <em>kingyou</em>=goldfish; cocks left hand))</td>
</tr>
<tr>
<td>02</td>
<td>(0.4)</td>
<td>((S6 scoops ups; S5 quickly mirrors gesture))</td>
</tr>
<tr>
<td>03</td>
<td>S6: <em>goldo fi:↓shh</em></td>
<td>((scoops once slowly))</td>
</tr>
<tr>
<td>04</td>
<td>S5: <em>=go:lfi:sh</em></td>
<td>((S5 raises hands; S6 scoops twice))</td>
</tr>
<tr>
<td>05</td>
<td>(0.3)</td>
<td>((both repeat small scoops))</td>
</tr>
<tr>
<td>06</td>
<td>S6: <em>sukui</em></td>
<td>((both scoop again))</td>
</tr>
<tr>
<td>07</td>
<td>(.)</td>
<td>((both bring scoop up to apex))</td>
</tr>
<tr>
<td>08</td>
<td>S5: <em>s[ukui</em></td>
<td>((scoops with right, covers mouth with left hand))</td>
</tr>
</tbody>
</table>
In line 4, scooping gestures are repeated along with “goldfish;” in line 8, *sukui* (scoop) is repeated, followed by adjacent laughter in lines 9 and 10. In lines 13 to 16, a candidate three-turn expansion (assessment-agreement-sequence ending *un*) occurs. This will be discussed in the next chapter.

Just before S5’s unprojectable look-up begins in line 21, S6 takes next turn at line 18 with a stretched conjunction “so.” At the same moment as shown in Figure 20 below, S5 overlaps with a stretched *ano*, a Japanese thinking voice, and shifts her gaze to a position between S6 and her e-dictionary, the first indication of a possible look-up.

![Figure 20](image)

*Figure 20*. S5 overlaps with stretched *ano*, a thinking voice, and shifts her gaze into a gaze between S6 and her e-dictionary.
At line 22, Figure 21, S5 is already almost three seconds into her look-up when S6 takes a turn with “I,” which is restarted. She is trying to explain that goldfish scooping is boring for her. Again, we cannot infer what S5, the recipient to S6’s talk, is looking up in Figure 21; thus, it is an unprojectable look-up. An unprojectable look-up can first appear to the analyst as seemingly “disfunctional” talk; while one participant is constructing a turn, the other is looking up something on the e-dictionary. In this case, the gap in line 21 is very long which perhaps affords S5 an opportunity to start an e-dictionary search while S6 is “thinking.”

Excerpt 6.3 continued

20 S6:  n un:: ((slaps knee))
21 S5:  (2.7) ((gaze shifts to DICT; inputs DICT))
22 S6:  I- I'm bored. ((S5 inputs DICT))

Figure 21. S6 takes a turn with “I” which is restarted.
S5’s look-up continues as she also plays out her role as the recipient of S6’s talk by uttering a continuer-like receipt of *un* at line 24. She indicates trouble with a delayed mishearing cue (probably due to her lack of attention) at line 26, and, after shifting her gaze back to S6, receives a repetition from S6 in line 28. Without the video data, we would probably consider this a “normal” conversation for novice speakers, demonstrating learners’ versatility in handling an e-dictionary while doing other-initiated repair.

Excerpt 6.3 continued

<table>
<thead>
<tr>
<th>Line</th>
<th>Speaker</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>S5:</td>
<td>(1.2) ((works at DICT))</td>
</tr>
<tr>
<td>24</td>
<td>S5:</td>
<td><em>un</em>: ((receipt of S6’s talk))</td>
</tr>
<tr>
<td>25</td>
<td>S5:</td>
<td>(1.1) ((continues to work at DICT))</td>
</tr>
<tr>
<td>26</td>
<td>S5:</td>
<td>(poah?) ((delayed other-initiation))</td>
</tr>
<tr>
<td>27</td>
<td>S5:</td>
<td>(0.4) ((gaze shifts to S6))</td>
</tr>
<tr>
<td>28</td>
<td>S6:</td>
<td>bored</td>
</tr>
<tr>
<td>29</td>
<td></td>
<td>(0.6)</td>
</tr>
</tbody>
</table>

After acknowledging “bored” with a stretched *un* in line 30, S5 shifts her gaze back to the e-dictionary. S6 embodies completes her next TCU (I try to + gesture) in line 32, gesturing scooping again. A question concerning this repeated scooping action arose at my presentation/data session at Kobe University (Barrow, 2007a). Session analysts wondered why the participants did not try to look up the translation for *sukui*. I myself, using a considerable amount of time, can find an English translation for *suku* (e.g., scoop, dip) on my e-dictionary’s Japanese-English (Genius 2) dictionary. It is plausible that they might have tried to look it up and gave up, continuing to use the gesture.

Excerpt 6.3 continued

<table>
<thead>
<tr>
<th>Line</th>
<th>Speaker</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>S5:</td>
<td><em>un</em>: [n:: (next meet) ((S5 gaze shifts to DICT))</td>
</tr>
<tr>
<td>31</td>
<td>S6:</td>
<td>[un: (next)</td>
</tr>
<tr>
<td>32</td>
<td>S6:</td>
<td>I try to hhh ((gestures scooping again))</td>
</tr>
<tr>
<td>33</td>
<td>S5:</td>
<td><em>un</em>: [hahaha</td>
</tr>
<tr>
<td>34</td>
<td>S6:</td>
<td>[(haha) ((S6 gestures scooping))</td>
</tr>
<tr>
<td>35</td>
<td></td>
<td>(0.7) ((mutual quiet laughter; S5 gaze begins shift))</td>
</tr>
<tr>
<td>36</td>
<td>S5:</td>
<td>.HH: <em>u::n ne</em>: ((gaze shifts to DICT))</td>
</tr>
</tbody>
</table>
From line 33, after S5’s *un* and the overlapping laughter and repeated scooping gesture, S6’s gaze changes into a silent gaze directed at S5. In making a turn-transition from line 35, S6’s laughter turns into a loud aspiration as her gaze shifts back to the e-dictionary. The *u::n ne:* at line 36 is a unique composite of *un* and *ne. ne* is similar to a sentence final “yeah” or “right” and could be construed as a variation of *sou ne*. In this placement at the end of a sequence, it could be a change-of-activity token similar to “Okay” (Gardner, 2007a), which can mark the receipt of a previous turn and propose a change to another activity. It occurs here in hybrid form with the gaze shift to the e-dictionary, followed by S5’s left hand moving toward the e-dictionary. All these actions demonstrate how the recipient is able to “play both sides,” encouraging S6 to continue talking while S5 looks up something.

What makes this exemplar a clear example of the unpredictable look-up is that S5 picks up the e-dictionary in line 38 as she says, “do you know,” moves it to show S6 the display as she repeats “eel” in line 40, Figure 22. S6 does not give an affirmative reply, so S5 moves the e-dictionary closer to S6, and in line 42, S6 shifts her gaze to the e-dictionary and repeats “eel” in question form. This showing of the word “eel” as they both say it with their gaze on the display is very strong evidence that “eel” is the word that S5 looked up.
In line 42, Figure 23, S6 repeats “eel” with rising intonation and views the e-dictionary below the table edge through line 43 during the 0.7 second silence.

Excerpt 6.3 continued

<table>
<thead>
<tr>
<th>Line</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>(0.8) ((S5 shows DICT to S6))</td>
</tr>
<tr>
<td>42</td>
<td>S6:  eel? ((looks at S5's DICT))</td>
</tr>
<tr>
<td>43</td>
<td>(--------) ((S6 looks at S5's DICT))</td>
</tr>
</tbody>
</table>

Figure 23. S6 views the e-dictionary below the table edge when she repeats eel.
S6 acknowledges “eel” with a possible change-of-state token (e.g., displaying a “sudden” or “new” understanding of eel) in line 44, a stretched ah with raised tone and raised head. During the following one-second silence in line 45, Figure 24, S5 retracts the e-dictionary. The sequence of lines 42 to 44 might be interpreted as an insert sequence (i.e., a showing of the word’s meaning on the screen and acknowledgement of familiarity with the word) in which S6 confirms the meaning from viewing the e-dictionary.

Excerpt 6.3 continued

44  S6: a↑h::: ((raises head))
45  (----------) ((S5 retracts DICT))

Figure 24. S5 retracts the e-dictionary.

I would like to address the remaining lines of 46 to 53 in the next chapter because the rest of the exchange is not relevant for this chapter’s demonstration of an unpredictable look-up; however, lines 46 to 53 provide some interesting expansion sequences to examine in the next chapter.
The purpose here is to present an exemplar that lies outside this study’s look-up organization as a contrast. We saw how S5, while being a recipient of S6’s talk, planned the introduction of the next topic at line 38 during a look-up. The evidence for the recipient planning a later-turn-initiation during a look-up lies in the recipient of a talk looking up a word during the current speaker’s turn, the use of the topic initiator “do you know” to introduce the topic, the showing of the e-dictionary’s display, and both participants saying of the word on the display. This sequence is radically different from the typical look-up proposed in Chapter 4, and opens up a path of research concerning the use of the e-dictionary in planning later turns. The later-turn look-up, although complex to analyze, offers a way to study in situ an alternative sequence organization in which the recipient of a talk plans a later topic initiation and uses that looked up word, known only to herself, to self-select a turn at a transition relevance place. In sum, a later-turn look-up, especially in situations where the look-up word is revealed by sequential actions, can make bits of a participant’s topic-initiation planning process public to observers.
Summary of Chapter 6

The analyses presented in this chapter suggest a number of candidate vocal and nonvocal practices for look-up sequences that conform to the proposed organization. As is outlined in Chapter 5, the body and gaze shift to the e-dictionary is a multi-step series of embodied actions. First, the speaker satisfied the first condition for a TIP look-up by constructing a turn beginning and initiating forward repair before the initiation of an e-dictionary word search. In these few seconds, the speaker also summoned the gaze of the recipient, providing for later collaboration in her word search (e.g., in Excerpt 3.8, grammatical projections and embodied actions). The first indication of a move to the dictionary can be a slight hand or head movement prior to a gaze shift to the e-dictionary (e.g., Excerpts 4.6 and 5.2). More body movement follows with an initial body tilt toward the e-dictionary (Excerpts 4.6, 3.5, and 5.2), and then a whole body shift usually with one hand placing fingers upon the keys (all Excerpts).

Looking up a word on the e-dictionary requires full attention to the display of the e-dictionary. There is a physical requirement for this: one’s eyes must be within reading distance of the display and this distance will be less than the outstretched arm. This requires that the upper torso be positioned so that the distance between the eyes and the display is comfortable and with the hand upon the keys. Thus, within a sequence of turns, getting the hand to the e-dictionary during a TIP look-up requires a relatively high level of interactional competence in terms of coordinating embodied and vocal actions. This analysis is also supportive of Carroll (2000, 2005a) and Olsher’s (2004) assertions that novice disfluencies (e.g., long stretches and restarts, embodied completions) can be
interactional achievements with discernable practices (see Chapter 2).

In terms of turn-taking during a TIP look-up, one or more participants self-select to look up a word, and during this look-up, various vocal and nonvocal actions can occur to display progress toward a candidate proposal. In particular, vocal proposals in either English or Japanese can occur to share look-up candidates. Japanese proposals and repetitions announce the word to be translated and allow for collaboration in the look-up (e.g., Excerpt 4.6, line 16 *kon*; Excerpt 5.1, line 5 *kame*; Excerpt 6.1, line 32 *izumi*). English proposals are often repeated and can undergo correction during the look-up. In the case of Excerpt 4.6, the color “black” is further refined to “navy blue,” a semantic refinement. In Excerpt 5.2, word stress of the word “goldfish” undergoes standardization.

We also saw in Excerpt 6.1 that cooperative look-ups and their proposals, in this case the English look-up candidate *fountain*, can occur nearly simultaneously (lines 34-35) with both participants closely working on the translation together. As a convincing display of mutual understanding of the underlying topic and the target word to look up, this exemplar demonstrates the extent of cooperation possible when looking up words and sharing the results.

In sum, the look-up sequence, with hand and gaze shifts being placed on the e-dictionary, are sequentially distinguishable even when they occur with other actions. Further, by vocally trying the searched word during the look-up, the upcoming completion (solution) of the look-up is being projected (i.e., turn completion can be anticipated), thus summoning acknowledgements of mutual understanding, the exchange of which are needed to close the look-up sequence. These actions will be taken up in more detail in the next chapter.
To compare noncanonical organizations with the proposed look-up organization of Chapter 4, I outlined an abandoned look-up and a later-turn look-up. The abandoned look-up of Excerpt 6.2 has many commonalities with the before-look-up phase of the look-up that are discussed in Chapter 5. When an e-dictionary look-up is abandoned, going to the recipient for help vocally or embody seems to be a key practice available to find a translation. In the case of Excerpt 6.3, it is possible that the learner could not easily find an available translation for *sukui* (scoop), so she resorted to gesturing, even using the gesture as a slot filler to embody complete a TCU in line 32 (I try to + gesture). These are examples of the limits of the “electronic informer” and how the learner must utilize all the vocal and nonvocal resources available to complete a turn during a look-up.

In contrast to the abandoned look-up that still retains many of the features of the proposed sequential organization, the later-turn look-up is radically different. First of all, during the current speaker’s turn, the recipient goes to her e-dictionary to look up something that is unprojectable. In other words, there are none of the usual before-look-up initiations of repair that provide clues as to what is being looked up, and therefore, it is a look-up with no possibility of collaboration until the look-up word is introduced in some way. As it occurs during current speaker’s turn, the recipient uses receipt tokens such as *un* to “play both sides.” She can both continue her look-up and remain audibly engaged in the current speaker’s turn. In Excerpt 6.3, lines 38-42, there is strong evidence that the recipient is planning for a next turn at an appropriate transition-relevance place when the e-dictionary is shown at the same time that the looked up word that initiates a new topic is uttered.
This chapter focused on actions that contributed to the progression of the look-up, which involves the instances when one or both participants look-up a word on their e-dictionary. The results of the look-up phase in the form of candidate proposals are made, sometimes repeatedly. It is during this proposal phase of the look-up sequence that a resolution of the look-up becomes possible. In the exemplars presented, I have indicated various expansion sequences that are possible in resolving the look-up sequence. In the next chapter, I will examine the candidate proposals that occur to resolve the look-up, and the expansion sequences that acknowledge and display understanding, and close the look-up sequence.
CHAPTER 7

LOOK-UP PROPOSALS AND THEIR ACKNOWLEDGEMENTS

Introduction

The repair organization allows for a number of insert expansions and post-expansions (Schegloff, 2007), suggesting that multiple insert- and post-expansion sequences are possible during the look-up sequence. This chapter will outline the expansions that the participants use to make look-up proposals, acknowledge their receipt, display understanding and agreement, and close the look-up sequence.

During the look-up sequence, either party can make proposals for a solution of the look-up. When they are first-pair parts (FPPs) of an adjacency pair, they make a response conditionally relevant. The second-pair part (FPP) can consist of a number of turn shapes and contingencies that will be explored in this chapter. For example, a common response can be an acknowledgement token, such as the composite of an un receipt combined with a nonvocal nod. The FPP can also be a vocal agreement token such as “yeah.” Whether or not these actions accomplish mutual understanding and reestablish the intersubjectivity that was momentarily put aside for the sake of the look-up sequence, is determined by the success of the participants in accomplishing the work of sharing the look-up information and acknowledging their understanding of it.

Acknowledgement before closing in the look-up sequence is the last crucial sequential element in reestablishing intersubjectivity. However, the sequential actions that occur are not just composed of vocal elements. Representational (iconic) gestures can carry communicative functions (McCafferty, 2004), and in particular, I wish to
explore whether the mirroring or projection of elements through embodied actions can be used to construct expansions.

*Sequential Organization of Expansions*

In Chapter 4, I summarized the sequential organization of expansions. To reiterate, in the CA sequential organization below (Schegloff, 2007, p. 26), all adjacency pairs can take expansions, and expansions of insert expansions are also possible. Sequentially, the expansions are positioned before and after pair parts of adjacency pairs; inserts are positioned between the pair parts.

Pre-expansion

A First pair part (e.g., vocal or nonvocal initiating action, proposal)

Insert Expansion (e.g., other-initiation before self-repair)

B Second pair part (e.g., acknowledgement, agreement)

Post expansion (e.g., acknowledgements before closing)

In this study, I will focus on the expansion sequences that novices use in making and acknowledging proposals, and closing the look-up sequence. Furthermore, in the case of insert sequences, multiple inserts are possible if the trouble is not resolved. This would help to explain cases where multiple proposals to a look-up occur, exemplars of which I will provide.

**Novice-novice Two-turn Expansions**

Schegloff (2007) presented various turn formats that can constitute insert and post expansions and help provide a possible explanation how the participants can produce
multiple expansions during the proposal and acknowledgement phase of the look-up sequence. In parts of Excerpts 3.8 and 4.6 reprinted below, multiple candidate proposals are made until the sequence is closed. These can comprise two-turn sequences in which a proposal is followed by an acknowledgement token such as un or a repetition.

Excerpt 3.8: Candidate two-turn expansions

01 S7: "very difficult."
02 (1.1) ((thinking faces))
03 S7: so
04 S7: (0.7) ((raises finger tips))
05 S7: recently I↓- ((touches finger tips together))
06 S7: (2.1) ((rubs fingertips; gaze shifts to DICT))
07 S7: my::: ((rubs fingers faster; head moves to DICT))
08 S7: (1.1) ((hand & body move to DICT; inputs in DICT))
09 S8: "finger?" ((as S7 inputs))
10 (0.3)
11 S7: un finge::rs zu (0.8) ski:n?
12 (0.4)
13 S8: a↑:h (0.7) hard.
14 (0.8)
15 S7: u:n
16 (0.9)
17 S8: become hard?
18 (0.4)
19 S7: u:n yeah:: (0.4) s:
20 (0.4)
21 S7: u:n
22 (1.2)
23 S8: (se)
24 (1.8)
25 S7: but (1.0) un inter[esting
26 S8: [interesting?
27 S7: u:n
28 S8: it's fu[n? ((body and gaze move to DICT))
29 S7: [yes it's fun. ((with body nod))
30 (.) ((mouth opens))
31 S8: ah:------:[h: ((body nod, gaze on DICT))
32 S7: u:n ((small nod))
33 S8: (0.9) (long leaning body nod, gaze on DICT))
34 S7: un. ((final small nod))
35 S8: .hhh ((inbreath before next utterance))
36 (0.3.)
37 S8: .hhh I:: want to↑: ((initiates new topic))
As was explained in Chapter 3, “finger” in line 9 is a collaborative completion attempt by the recipient, the second-position of a three-turn repair sequence, an insert after the TCU beginning of my::: In line 11, S7 completes the repair with “skin,” (replacing the proposal of finger); however, the utterance ends with question intonation that in turn summons a collaborative response. In Excerpt 3.8, lines 13-15, S8’s anticipatory proposal of “hard” is receipted by S7’s un. This two-turn expansion could be simply explained as:

13  FPP: proposal

15  SPP: receipt token or acknowledgement token

Line 15 does not end the acknowledgment sequence, as S8, after a long pause, asks “become hard?” in line 17. In line 19, the SPP in this instance takes a composite form, involving the acknowledgement token un followed by “yeah,” indicating agreement. This two-turn sequence could be characterized as:

17  FPP: yes or no intonation question (to confirm understanding)

19  SPP: un + yeah (acknowledgement token + agreement token)

More expansions occur as assessments about learning to play the guitar in lines 25-26 (“interesting”) and 28-29 (“fun”). Actually, lines 25 to 27 could be a three-turn expansion as S8 in line 26 uses question intonation (interesting?) in second-position, making relevant a further acknowledging un in line 27. Following the two-turn expansion of question and answer (“It’s fun? Yes, it’s fun.”) in lines 28-29, the sequence closes with two more expansions. In lines 31-32, the acknowledgment sequence of a long stretched “ah” and final overlapping un is composed of hybrid actions with accompanying nods. The last expansion of lines 33-34, before S8’s inbreath and topic
initiation, is difficult to analyze as a sequence. In line 33, during a silence, S8 seems to continue the same long body nod with her gaze on the e-dictionary overlapped at the end of the stretching by S7’s last *un*. This final acknowledging *un* with a small nod closes the sequence, but this last expansion is complex as S8 gazes at the e-dictionary in preparation for a topic initiation.

According to Schegloff (2007), preferred responses, such as agreements in second pair-part position, tend to lead to closure of the sequence. Dispreferred responses (e.g., surprise expressions, clarification questions, and silence with direct gaze) tend to lead to expansion of the sequence. There are a number of turn formats in my data suggesting that these tendencies are so aligned; however, the extensive use of embodied actions by the participants makes the analysis complex.

Proposals During a Look-up

During the look-up, multiple candidate proposals can be made, often in two-turn sequences in which a proposal is followed by a repetition or an acknowledgement token such as *un*. However, if we analyze the nonvocal behavior, such as gaze shifts and nods during pauses and overlaps, we can perhaps understand how the embodied actions of the look-up design the turn for a recipient response.

*Hybrid Two-turn Expansions During a Look-up*

Some of these expansions are complex because nonvocal behavior, such as a direct gaze or nodding can be interpreted as a nonvocal summons or continuer-like “go-ahead.” A direct gaze shift as in Figures 25 and 26, in position of a FPP, can summon an
acknowledging response, in this instance, the multiple *un* and nods.

In Excerpt 4.6 (“navy blue”), lines 26 to 33 below, S5’s Japanese proposal in line 26 (See Figure 5) is followed by her move to the e-dictionary.

**Excerpt 4.6**

26  S5: (*kon*)((dark blue; hand & gaze move to DICT))
27  S5: (2.4) ((fingers input into DICT))
28  S6: (*ah uh?*)((attempts to say something but gives up))
29    (0.7)
30  S5: nav[y b]ue:.  
31  S6:     [navy]
32  S5: (-------) ((S5 shifts gaze directly over to S6))
    ⏰ ⏰
    Fig. 25, Fig. 26
33  S6: hun hun hun ((nasalized acknowledgement tokens timed with nods))

During the look-up, S6 attempts to say something but gives up in line 28. S5’s first look-up proposal in line 30 is acknowledged in a complex way. The adjacency pair is not just a proposal followed by an acknowledgement. The recipient’s multiple responses are a composite hybrid, an overlapped repetition in line 31 followed by multiple *hun* (more nasalized than the usual *un*) tokens and nods in line 33.

30  S5: look-up proposal
31  S6: repetition (overlapped)
32  S5: shifts gaze directly to S6, Figures 25 and 26
33  S6: multiple acknowledgement tokens (*hun* and nods)

In Figure 25, after the completion of “navy blue,” and at beginning of a possible next turn, S5’s gaze is still on the e-dictionary.

32  S5: (-------) ((S5 shifts gaze directly over to S6))
    ⏰ ⏰
    Fig. 25, Fig. 26
Although S5’s gaze shift in line 32, Figures 25 and 26 (S5 is on the right), is not iconic (does not project symbolic meaning), S5 deictically projects an end to her turn and possibly the look-up by positioning gaze on the recipient in Figure 26.

Figure 26: S5 shifts gaze to S7 after making a proposal.
In Figure 26, the direct gaze summons the recipient’s acknowledgement in the next turn. In other words, S5’s gaze shift, in FPP position as a nonvocal action, is designed (i.e., by selecting next speaker) to summon an acknowledging response from S6 in line 33.

Without analyzing the nonvocal behavior in line 32, it is tempting to see line 33 as the third-turn in a three-turn expansion. In look up post-expansions, the pairing of nonvocal actions with acknowledgements is sequentially possible. In the case of line 32 above, a body and gaze shift from the e-dictionary to the recipient is adjacently relevant in order to encourage further the recipient’s acknowledgements of the prior proposal. Although not clearly explainable with an adjacency pair structure based on vocal actions, these hybrid vocal and nonvocal expansions can progress the talk forward while reestablishing mutual understanding.

**Two-turn Closings**

Excerpt 5.2 (“goldfish” reprinted below) also demonstrates how these hybrid vocal/nonvocal two-turn structures progress the talk forward and end the sequence. As I explained in Chapter 5, scooping gestures (lines 1-5) can summon recipient imitation and other mirroring responses. This indicates that the participants can insert two-turn adjacently positioned embodied actions in the talk. These “embodied expansions” of vocal and nonvocal actions can occur in composite hybrid forms.

12 S5: two repetitions of “goldfish” with correct syllable stress and nods
13 S6: receipt (overlap)
14 un + hand falling to the knee
15 S5: one repetition with laughing voice and rising intonation + big nod
16 S6: small nods with direct gaze (overlapped)
Excerpt 5.2 (reprinted)

01 S6: kingyosukuui ((scooping up goldfish gesture))
02 S6: (0.6) ((right hand rapidly repeats scooping))
03 S5: golden fi:sh: ((S5 scoops slowly with right hand))
04 S6: hhh hehe ((S6 scoops once))
05 S5: (u:↑:n) ((S5 tilts head in doubt and scoops once))
06 S6: hhh hh ((S5 gaze/body shifts to DICT))
07 S5: (0.9) ((S6 head rises in laughter; S5 inputs DICT))
08 S6: .hh ((looking up))
09 S6: (1.0) ((shifts body/gaze toward S5))
10 S5: gold(e) fish? ((still inputting))
11 S5: (1.3) ((looking at DICT))
12 S5: goldfish [gold]fish. ((several nods))
13 S6: [(i-)]
14 S6: un ((hand falls to lap))
15 S5: [gold;fish ((+ big nod, laughing voice))
16 S6: [((small nods + direct gaze))
17 S5: .hhah ((inbreath, begins to change topic))

In the case of proposals, while looking up the translation equivalent of kingyo (goldfish), after correcting herself in line 9 (golden fish changed to goldfish), S5 says the word in line 10. The end of the look-up is displayed first by the repetitions of “goldfish” and nods in line 12 with standard stress put on the first syllable, an apparent self-correction with the use of the e-dictionary. This is followed by the recipient’s composite acknowledgment (a positive receipt that is barely audible) plus un and a hand falling to the knee, making a soft slap. In line 15, as S5 repeats again with a laughing voice and rising intonation, the recipient gives a few small nods while holding a direct gaze, ending the sequence. The interaction is sequenced as follows.

The ending of Excerpt 5.2 does not fit neatly into a vocal two-turn closing format, but in terms of turn-taking, lines 12 and 13-14 could be seen as a two-turn expansion. Line 12 is the FPP (a self-completed correction of word stress with nods) followed by a composite SPP in lines 13 and 14 (vocal receipt, then un with a hand falling to the
knee) that acknowledges the FPP. The next utterance in line 15 is very complex because of overlapping nods. Without the video data, it would be tempting to interpret this as part of a three-turn structure; however, I interpret it having a two-part structure and transcribe it to reflect the turn-taking behavior using nods and gaze.

15  S5: [gold↑fish (+ big nod, laughing voice)]
16  S6: [((small nods + direct gaze)]
      ↑    ↑
Fig. 27, Fig. 28
17  S5: .hhah ((inbreath, begins to change topic))
18  (0.7)
19  S5: oh uh:: what do you think of ah: crab?

In line 15, “goldfish” is a repetition with a laughing voice, rising intonation, and a big head nod that is overlapped by the recipient’s small nods and gaze. Figure 27 below shows the upward starting position of the big nod at “gold,” and Figure 28 shows the nod descended at “fish.” In the space of S5’s repetition, S6 as the recipient, gives several slight nods with mutual direct gaze, displaying acknowledgement. Although these hybrid actions are complex, I interpret the overlapping of S6’s nodding as a candidate SPP of a two-turn closing; further evidence is that S5 begins to change the topic in next turn with her inbreath followed by a topic initiation.

15  S5: [gold↑fish (+ big nod, laughing voice)]
16  S6: [((small nods + direct gaze)]
      ↑    ↑
Fig. 27, Fig. 28
Schegloff (1997) might interpret the use of continuer-like responses as quasi-turns; however, these overlapped hybrid actions indicate that during the repetition of proposals, the participants can blend utterances with nonvocal actions such as nods and direct gaze to create expansions in two-turn positions that display mutual understanding and close the look-up sequence.
As mentioned before, the self-correction of morphological (the omission of –en from golden) and phonological (stress on gold in goldfish) aspects with the e-dictionary allows S5 to display “correctness,” exhibiting S5’s ability to use the e-dictionary to self-repair her grammaticality.

*Three-turn Closing*

Closure can also be displayed in a three-turn post-expansion in which the third-turn closes the sequence. Taken from Excerpt 4.6, the following instance begins with a new proposal in line 34 that reformulates prior understandings of the color term.

34 first-turn new proposal  
36 second-turn acknowledgement with un ah:::::::  
37 third-turn closing overlapping un with a long nod, then a sniff

Excerpt 4.6 (lines 33-37)  
33 S6: hun hun [hun ((timed with nods))  
34 S5: [like navy blue.  
35 (0.3)  
36 S6: un ah::::::[:]  
37 S5: [un] ((long nod, then a sniff))

After a pause, the recipient displays acknowledgment with a long stretched un ah, the end of which is overlapped in third-position by the first speaker’s un token. The long stretched un ah is a more emphatic acknowledgment of understanding than the more frequent un (especially single, unstretched, and unemphatic); and, with no more proposals to make, S5 closes the look-up sequence with un, a long nod and a sniff.
Embodied Expansions

As we have seen in previous novice-novice excerpts, embodied and hybrid actions can occur where we might expect vocal actions to occur. In Excerpts 6.3 (actions of lines 40-53 are outlined below), the proposal and acknowledgement pairs are made with various types of nonvocal actions. First, as she repeats *eel* twice, S5 moves the e-dictionary over to the recipient to get an understanding of *eel* without saying the Japanese equivalent.

Excerpt 6.3 Action sequence
40 S5: repeats *eel* twice and moves DICT towards the front of S6
41 S5: moves DICT to S6 to show the screen
42 S6: looks down at S5's DICT and repeats eel
43 S6: looks at S5's DICT during a short silence
44 S6: raises head and says a↑h:::
45 S5: retracts the DICT during a short silence
46 S6: aspirates and begins to shake head negatively
47 S6: [continues to shake head negatively during silence
48 S5: [gestures string fishing and begins to set down DICT
49 S6: expresses acknowledgment with ah-
50 S6: begins to lift arms as S5 sets down DICT (overlaps)
51 S6: gestures pulling up an eel with both hands
52 S5: [EH::: (mirrors gesture))
53 S6: [ha hahaha ((overlaps with S5’s actions))

If we interpret this as a hybrid action (saying the word and showing the e-dictionary), then the recipient’s composite response in lines 42-44, repeating *eel*, a short silence, and a raised head with “a ↑ h:::,” could be interpreted as a normal second-position acknowledgement.

What makes this exchange interesting is that after S5 retracts the e-dictionary in line 45, S6 shakes her head from side-to-side repeatedly in lines 46 and 47 displaying a lack of knowledge. The sequential actions provide evidence that S6 probably understood the Japanese meaning of eel in line 44 but is not familiar with the catching method used in an
“eel game” in summer festivals. In line 42, she indicated recognition of eel by repeating it while looking at the e-dictionary display, followed by an acknowledging “a↑h::” and a raised head. If she is indicating that she is unfamiliar with the game of “eel fishing,” then the insert of head shaking in line 46 can be a summons for more elaboration, and in this instance, the elaboration is embodied. In line 48, during S6’s head shaking, S5 begins a fishing gesture with the thumb and index finger holding up an imaginary string, and begins to set down the e-dictionary (see Figure 29).

Figure 29. S5 gestures fishing with a string.

Followed by an expression of acknowledgement (ah-) in line 49, in lines 50 and 51, S6 then goes into a gesture with both hands lifting up something like an eel (See Figure 30). In line 52, this is followed by S5’s expression of surprise and mirroring of the gesture (See Figure 31), overlapped with S6’s laughter and closing of the sequence.
Figure 30. S6 says ah- and gestures pulling out an eel with both hands.

Figure 31. S5 expresses surprise and mirrors S6’s gesture.

By transcribing again (see below) with composite parts put together in one turn, in terms of expansions after the first pair (F & S), I propose a series of two candidate hybrid expansion sequences.

40-41 S5: F: repeats the word eel and shows the DICT
42-44 S6: S: displays acknowledgement by looking at the DICT, raising the head and saying “ah:::”
46-47 S6: Fe: shakes the head negatively
48 S5: Se: gestures fishing with a string (Figure 29)
49-51 S6: Fe: says ah- and gestures pulling out an eel
with both hands (Figure 30)

52 S5: Se: [expresses surprise EH:: and mirrors gesture (Figure 31]

53 S6: Cl: [laughter overlaps

The first pair (F & S) shares the meaning of *eel* (showing the e-dictionary) with an acknowledgement of understanding. The next two-turn expansion (Fe & Se) is a nonvocal head shaking (meaning “I don’t know (about it)”) followed with a fishing gesture, showing how eel fishing is done (Figure 30).

This is followed by a possible three-turn closing, in which the first two turns are mirroring gestures, both of which start with vocal reactions (See Figures 30 and 31). The last closing turn (Cl) is filled with laughter, overlapping the mirroring gesture, suggesting that the closing sequence could possibly be interpreted as a hybrid three-turn closing (ah- + gesture > EH:: + gesture > overlapping laughter). In fact, this last expansion seems to be a humorous exaggeration of the eel fishing game.

Another consideration is whether the expansion sequence beginning with negative headshaking is a form of other-initiation of repair in this sequence. As it summons further elaboration in the form of a fishing gesture, I would argue that it does not initiate repair on “eel” but communicates unfamiliarity with the fishing game, inviting further elaboration (i.e., indirect summons for information), in this instance, with the use of iconic gestures.

In sum, in the instances of mirroring actions, mirroring is basically the imitation of the prior action by the recipient although the imitation may differ in intonation (e.g. surprise, stress), duration (e.g. faster), frequency (e.g., number of repetitions), and intensity (e.g., full or partial imitation). During an e-dictionary look up, the participants can imitate prior gestures in their turn space, positioning a gesture or composite gesture and utterance as a SPP that can become a FPP for a next SPP. During look-ups, the mirroring of iconic gestures
seems to be one way for novice interactants to progress the talk without abandoning the look-up or resorting to their L1. I will discuss this exemplar more in the next chapter.

The acknowledgement and closing sequence of Excerpt 6.3 displays a possible gain in knowledge. For example, the hybrid three-turn closing sequence (ah- + gesture > EH:: + gesture > overlapping laughter) consists of a hybrid expansion of mirroring gestures (e.g., pulling up an “eel” with both hands) and vocal reactions, with the last closing turn filled with overlapping laughter (Figures 30 and 31). In this instance, S6 displays recognition of the meaning in several ways: repetition, gesturing of catching an eel with two hands (although humorous and mistaken), and laughter. All these resources together provide evidence that a new awareness or a gain in knowledge (of eel fishing knowhow) is in progress.

As for further evidence of the use of “eel” in the conversation, although S6 does not try to produce the word “eel” again in this conversation, S5 uses it again at the sequential end of the eel topic in Excerpt 7.1, line 6, when elaborating with a string gesture how to bait (“eel like”) and catch the animal.

Excerpt 7.1-End of the eel fishing sequence
01 S5: (0.3) ((gestures fishing with thread))
02 S5: (an ei) yes ((dips bait down and pulls up))
03 S5: (1.0) ((holds line up with right hand; gestures eel grabbing bait with left))
04 S5: ah: food ((gestures grabbing bait with bottom hand))
05 (0.7) ((direct gazing; S5 holds gesture))
06 S5: (ee:l) like. ((falling intonation; direct gaze; holds gesture))
07 S5: (0.6) ((repeats baiting gesture with bottom hand moving))
08 S6: un:
09 S5: (0.8) ((gestures eel grabbing bait))
10 S5: and: ((moves line around to catch))
11 S5: (2.2)((gestures pulling up an eel))
12 S6: He::: ((sits back))
13 S5: did you know?

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S6, after being taught the word, is able to participate in the discussion of eel fishing without the need for another look-up, and displays receptive knowledge of the eel fishing topic with direct participatory gaze, a response token in line 8, and a hybrid strong vocal acknowledgment (He:::) and body movement (sitting back) in line 12. The closing consists of two sequences, a question/answer (head shaking “no”) pair confirming S5’s lack of eel fishing knowledge, followed by overlapped un tokens. Interestingly, the main “teaching point” of this sequence concerns not the word “eel,” but how to bait a string to catch a small eel (not a large one that takes two hands, which is the humorous but mistaken catching method). Teaching of the word eel begins the sequence, and once S6 reveals her lack of eel fishing knowledge, the fishing lesson using embodied actions begins.

*Embodied and Vocal Expansions Working Together*

Excerpts 5.1 and 7.2 (a continuation of 5.1) are good examples of how embodied actions work together with vocal look-up expansions. In the example below, Excerpt 5.1 begins with a TCU that is completed with an embodied action, the scooping gesture that is mirrored in line 3. The proposal in Japanese of *kame* (turtle) in line 5 is repeated with rising intonation in line 7 by the recipient, collaboratively proposing “turtle” in line 9. Again, S6 repeats the candidate translation of turtle in a laughing voice in line 10, while shifting her
gaze to the recipient who repeats in rising intonation. As S6’s “laughing” gaze (i.e., facial laughter) moves back to the e-dictionary, S5 repeats “turtle” again in line 11 with rising intonation. This part of the sequence ends with S6’s screech of laughter in line 13 and their overlap of “turtle.”

Excerpt 5.1 (reprinted)

01 S6: I: try to: ((gaze off to the left))
02 S6: (2.6) ((mouths (kame), scooping gesture twice with left hand))
03 S5: (0.5) ((imitates scooping gesture with right hand))
04 S6: (0.6) ((scoops with left & shifts gaze & right hand to DICT))
05 S6: "kame" ((begins input of DICT, left hand held up))
06 S6: ((gazes at and inputs DICT; left hand held up))
07 S5: kame
08 S6: (2.5) ((gazes and inputs DICT))
09 S5: tu- turtle. ((S6 inputs while holding up hand))
10 S6: tu:turtle hahaha ((laughing voice, gaze moves to S5))
11 S5: turtle? ((S6 laughing gaze moves towards DICT))
12 S6: (.) ((S6 gazes on DICT))
13 S6: .HHh (.) ["turtle" ((moves left index finger to DICT)]
14 S5: [turtle::su. ((gaze shifts to own DICT)]

The next part of the talk, Excerpt 7.2, continues with more elaboration of the color as well as iconic gestures of the turtles’ size and movement. Although the overlapping utterances during the co-look-up from line 15 are not clearly audible, the co-look-up is interrupted by S5’s negative headshaking in line 18 as she gazes at her e-dictionary.

Excerpt 7.2, lines 15-20, continuation from Excerpt 5.1

15 S6: [(tor ku tai)? ((both looking at their DICT))
16 S5: [("tur::")
17 (0.8) ((both input DICTs and gaze at DICTs))
18 S5: u:jn: u:jn: ((shakes head negatively; gazes at DICT))
19 S5: .hss (sits up))
20 S5: (0.8) ((inputs DICT; gazes at DICT))

From lines 21 to 23, a two-turn vocal adjacency pair is composed of a yes/no question and answer. S6’s query of knowledge in line 21 (Do you know?) is answered by S5’s affirmative answer in line 23 of multiple yeses.
This question probably concerns the turtle type because later turns describe the size and color. This query could be considered a “pre-telling” action because of the following vocal and nonvocal “telling” actions about the turtles that occur in following turns. In line 26, S5 displays her knowledge of the turtle type in question by describing it using both descriptive words (e.g., small) and iconic gestures with the fingers (e.g., small circle gestures).

What is interesting about this excerpt is the use of the gestures together with vocal actions. In Excerpt 7.2, from line 26, S5’s thumb and finger form circle gestures of small turtles. As she retains this gesture in lines 28 to 29, S5 repeats “small” again, and gets S6’s acknowledgement with un and direct gaze in line 29 (See Figure 32).

Excerpt 7.2, lines 26-29.

26  S5:  unununun an like ah small ((gestures both thumbs and index fingers together in small circles))
27  S5:  (2.5) ((retains small circle gesture))
28  S5:  small? ((retains small circle gesture))
29  S6:  un: ((S5 retains small circle gesture))
A similar hybrid action sequence of gestures and a vocal adjacency pair occurs from lines 30 to 32.

Excerpt 7.2, lines 30-37

30 (0.3) ((S5 retains small circle gesture))
31 S5: and green ((retains small circle gesture))
32 S6: yes ((S5 spreads out fingers))
33 S5: (0.9) ((fingers walk to left))
34 S5: turtles? [((right hand walks to right))
35 S6: [((mimics gesture with left hand))
36 (0.2) ((S5 gestures fingers of both hands; S6 mirrors with left hand))
37 S6: un:: ((S6 mirrors gesture with left hand))

S5 adds more information about the color “green” in line 31, and as S6 acknowledges with “yes,” she spreads her fingers in a new gesture. From line 33, S5’s wiggles and walks the fingers to the left to gesture how the small green turtles move about. Then, as she repeats “turtles?” in line 34, her right hand walks to the right. Overlapping this gesture, S6 partially mirrors this action with her left hand from line 35 until line 38, and acknowledges “turtles?” with a stretched un in line 37 (See Figure 33).

37 S6: un:: ((S6 mirrors gesture with left hand))

Figure 32. S5 gestures small turtles.
Figure 33. With left hand, S6 mirrors gesture of small green turtles in motion.

After S6 withdraws her hand, S5 acknowledges with *un*, raises her gaze, retaining the gesture. In line 40, S5 retracts her hands, and in line 41, in a strong composite acknowledgement, ends the look-up sequence with multiple *un* tokens, a nod, and gaze shift to S6.

Excerpt 7.2, lines 38-41

<table>
<thead>
<tr>
<th>Line</th>
<th>Transcript</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>(0.8) ((S6 withdraws hand))</td>
</tr>
<tr>
<td>39</td>
<td>S5: un: ((gaze rises; gestures again alone))</td>
</tr>
<tr>
<td>40</td>
<td>(1.6) ((holds a gaze; hands recede))</td>
</tr>
<tr>
<td>41</td>
<td>S5: un un un: ((nods; gazes at S6))</td>
</tr>
</tbody>
</table>

In sum, Excerpt 7.2 shows how novices can perform vocal expansions of proposals and acknowledgments together with embodied actions. The gestures are needed to share complex information about the turtles’ characteristics, in particular, their size and how they move about. While the gestures can be retained over multiple turns, vocal adjacency pairs can be inserted to vocalize the gesture such as “small” or give additional “abstract” information such as the color, “green.” In co-constructing the characteristics of the turtles over a multi-turn talk, this exemplar demonstrates how novice L2 learners can competently blend together vocal and nonvocal resources to complete the look-up sequence.
Expansions as Evidence of Using the Searched for Word

It is often problematic to show proof that a looked-up word from the e-dictionary is actually used by these participants to complete the look-up sequence. To provide evidence for this, I will need to show how the participants make the completion sequentially related to the look-up phase during the acknowledgment phase. In Excerpt 3.8, line 9, while S7 inputs into the e-dictionary three finger strokes, the recipient makes a co-completion try, "finger?,” based upon the projectable vocal and nonvocal information provided so far, the fingertip gestures and the stretched “my::.” In Figure 34, during the anticipatory try, the recipient’s gaze is toward the e-dictionary as the speaker looks up a word or words.

Excerpt 3.8
09  S8:  “finger?°

\[\text{\textbullet} \]

Figure 34. The recipient’s gaze is toward the e-dictionary.

In line 10, the 0.3 second silence is a continuation of the previous actions, with S7 on the left continuing to input while S8 continues to gaze at the e-dictionary. S7, in line
11, moves to complete her look-up. Speaker actions of line 11 are a coordinated achievement of e-dictionary fingering and vocal completion of the turn as she first acknowledges the recipient’s contribution with “un” coinciding with a perfectly timed finger stroke. The next four finger strokes match very closely with the intonation pattern of fin · ge:: · zu, with the stress on fin and zu. The katakana vowel marking of zu is a turn-completion delaying technique (during turn-construction) available to Japanese learners for retaining the turn during a word search (Carroll, 2005a, 2005b). Next, after the 0.8 silence, the strongly stressed “skin?” is produced with a dramatic keystroke and rising intonation. At the end of this completion phase of “skin?” the speaker’s face changes to a broader smile as shown in Figure 35, and remains this way as she makes a final stroke through the following 0.4 silence in Line 12 and begins to draw her hand away.

Excerpt 3.8 (continued)

| 10 | (0.3) |
| 11 | S7:   un fin ge::rs zu (0.8) skin? |

*Figure 35. Speaker’s face changes to a smile and remains this way though next turn.*
In sum, the question is whether “skin?” is the actual word that S7 is looking up. The best evidence for this is the cadenced finger stroking that coincides with the stretching and vowel marking of “fin ge::rs zu”, followed by the climatic silence and strongly stressed “skin?” Another point is that “skin” is pronounced with rising intonation, which is a technique used to select the other participant as next speaker, thus, ending her turn.

Where does this look-up end? The next turn in line 13 below is another anticipatory try by the recipient as she anticipates “hard” as S7’s projected meaning based upon nonvocal sources and association with skin. This draws S7’s gaze away from the e-dictionary to S8, and S7 acknowledges the candidate meaning vocally in line 15. In line 16, S7 goes back to her e-dictionary momentarily but does not seem to input any new information. S8 confirms the meaning again in line 17, again acknowledged in line 19 by S7. As S7 acknowledges the co-completion, she returns her gaze back to S8 in lines 18-19. Based upon this evidence, although it is not clear exactly what she looked up, I can conclude from the following post-expansions that the look-up resulted in a display of understanding that the fingertips harden when playing the guitar.

Excerpt 3.8 (continued)

12 (0.4)
13 S8: aɪ:h (0.7) hard.
14 (0.8)
15 S7: u:n
16 (0.9)
17 S8: become hard?
18 (0.4)
19 S7: u:n yeh:: (0.4) s:

In conclusion, proving that the speaker actually used the word that she was looking up is problematic as there is no video camera on the screen; however, by tracing the
sequence of actions leading up to the completion of “skin,” I can argue that she completed the look-up with “skin.” The best evidence for this is the cadenced finger stroking that coincides with the stretching and vowel marking of “fin ge::rs zu,” followed by the climatic silence and strongly stressed “skin?” Also, there is evidence that S7 ended her turn at this moment as “skin” is pronounced with a rising intonation, as a confirmatory question. This is also a technique that is used to select another as next speaker, thus, ending her current turn.

Summary of Chapter 7

In this chapter I have outlined the expansions that the participants use to make look-up proposals, acknowledge their receipt, display understanding and agreement, and close the look-up sequence. Excerpt 3.8 shows how expansions can occur in various positions and actions. For example, two-turn expansions can occur as proposal/receipt pairs, intonation question/acknowledgement pairs, and assessment/agreement pairs. The SPP can occur in hybrid composite forms such as receipt and agreement tokens (e.g., un + yeah), and stretched acknowledgement tokens (e.g., ah:::) combined with nonvocal actions such as nods. Nods also vary in frequency and length.

Furthermore, I explored how the mirroring of actions, often with the use of embodied actions, is used to construct two-turn and sometimes three-turn expansions. The extensive use of embodied actions by the participants makes the analysis complex; however, if we analyze the nonvocal behavior, such as gaze shifts, nods and gestures during pauses and overlaps, we can gain a better understanding as to how embodied actions are used to design the next turn for a recipient response.
One characteristic of this novice-novice behavior is the hybrid pairing of embodied actions with vocal acknowledgements that are used to establish mutual understanding. During the look-up, nonvocal actions can operate in a turn position and establish conditional relevance, thus, engendering a vocal acknowledgement and moving the talk toward completion. For example, in the case of Excerpt 4.6, Figure 26, line 32, a proposal expansion (“navy blue”) and the recipient’s repetition (“navy”) is followed in the next turn with a body and gaze shift from the e-dictionary to the recipient, summoning a further acknowledgement and agreement of the proposal (\textit{hun hun hun}), and progressing the talk to a possible closing.

Hybrid actions in two-turn expansions progress the talk forward and close the look-up sequence. In Excerpt 5.2 (“goldfish”), lines 12 to 13, two self-corrected repetitions of “goldfish,” make due a hybrid receipt/acknowledgement. In the next expansions of lines 15 and 16, I interpret the overlapping of S5’s repetition and nod with S6’s small nods and gaze as a candidate two-turn closing (Figure 27 and 28). Although complex to analyze, these overlapped hybrid actions indicate that, during the repetition of proposals, the participants can blend utterances with embodied actions, such as nods and direct gaze, to create expansions in two-turn positions that display mutual understandings and close the look-up sequence. Also, hybrid third-turn closings (Excerpt 4.6, lines 34 to 37), closing a proposal (“like navy blue”) followed by a second-position acknowledgement (e.g., \textit{unah: : : : : :}), can be made of composite hybrid actions composed of an acknowledgment token (\textit{un}), a nod, and a sniff.

In terms of embodied expansions, I demonstrated that multiple sequences of hybrid expansion sequences are possible. For example, in Excerpt 6.3, a series of two expansions
follow the voicing of “eel” and a display of its meaning with the e-dictionary. The first expansion is an embodied summons for elaboration with head shaking, engendering in next position a fishing gesture, showing how the eel fishing is done. Last, a candidate hybrid three-turn closing sequence (ah- + gesture > EH:: + gesture > overlapping laughter) consists of a hybrid expansion of mirroring gestures (e.g., pulling up an “eel” with both hands) and vocal reactions, with the last closing turn filled with overlapping laughter (See Figures 30 and 31).

Excerpts 5.1 and 7.2 show how, in co-constructing the characteristics of the turtles over a multi-turn talk, novice L2 learners can competently blend together vocal and nonvocal resources in expansions to complete the look-up sequence. In Excerpt 5.1, the participants mirror scooping actions to complete TCUs. The mirroring of iconic gestures seems to be an effective way for novice interactants to maintain intersubjectivity, express acknowledgement, and progress the talk without abandoning the look-up and resorting to their L1. In Excerpt 7.2, novices can perform vocal expansions of proposals and acknowledgments together with embodied actions. For example, in Figure 33, line 37, in a candidate hybrid SPP, S6 partially mirrors a gesture as she acknowledges with un. While gestures are being retained over multiple turns, vocal adjacency pairs can be inserted to vocalize the gesture (e.g., “small,” line 28) or give additional abstract information (e.g., “green,” line 31).

Finally, I attempted to demonstrate how expansions provide evidence of what word was looked up and where the sequence ends. By tracing the sequence of actions leading up to the completion of Excerpt 3.8, I can at least provide circumstantial evidence that she completed the look-up with “skin.” The best evidence for this is the cadenced finger
stroking that coincides with the stretching and vowel marking of “fin ge::rs zu,”
followed by the climatic silence and strongly stressed “skin?” Also, there is evidence
that S7 ended her turn at this moment as “skin” is pronounced with rising intonation, as
a confirmatory question. This is also a technique used to select another as next speaker,
thus ending her current turn.

This concludes the last of the analyses chapters. Now, I will turn to the overall
conclusions in Chapter 8, and then address the implications for novice foreign language
learners and teachers.
CHAPTER 8
CONCLUSIONS AND IMPLICATIONS FOR EDUCATION

Summary and Conclusions

Summary

Understanding the sequential organization of e-dictionary use was the major aim of this study. In interactional terms, the challenge for the learners is how to both retrieve the e-dictionary’s word information and maintain normative turn-taking in conversation. This study has brought a better understanding of the underlying social structure of such interaction. In terms of understanding how a look-up sequence occurs among novice EFL learners, this study has revealed that projectable e-dictionary look-ups have a sequential organization that can be discerned from the actions of the participants. In using the e-dictionary for communication, learners interact using multimodal (vocal and nonvocal) resources, often in hybrid forms to begin a look-up, share word knowledge from the e-dictionary, and close the look-up sequence. The look-up organization of Table 4 (Chapter 4) proposes a sequential organization for the understanding of look-up procedures. The various local contingencies that participants orient to are summarized later.

In the case of look-up sequences, sequences can also be formed from a retro-sequence (Schegloff, 2007), not an adjacency pair sequence. “Noticing” can get the parties to pay attention to a potential trouble source. For example, in Excerpt 4.6 (“navy blue”), a surprise expression in a delayed position gets the participants to retrospect upon a prior utterance. There is nothing in the potential trouble source that engenders a
look-up. A look-up will occur if one of the parties chooses to go to their e-dictionary, and for reasons that are displayed by the participants themselves in the interaction.

During before-look-up actions, multiple expansions (Schegloff, 2007) are possible as inserts; and during the look-up, various insert- and post-expansions are possible. In expansion sequences, novice learners use embodied actions in several positions. Embodied inserts can occur before the look-up begins to project the meaning of the look-up word and summon collaboration. During the look-up, (two- or three-turn) multiple hybrid expansions can occur during the completion of the look-up and in the closing of the look-up sequence. These insights should encourage further research into how hybrid expansions are used to construct turns and build mutual understanding during word learning activities.

In this study, two exemplars that differ from the proposed canonical organization, the abandoned look-up and the later-turn look-up sequences were also examined. The abandoned look-up has the potential to demonstrate the difficulties learners have in retrieving adequate information for productive purposes. Fairly frequent in the corpus, the abandoned look-up has many commonalities with the canonical organization’s before-look-up phase. The later-turn look-up sequence is a very complex sequence in which the recipient of a talk, while maintaining their recipient role, looks up something during a conversation without projecting what it is (i.e., an unprojectable look-up). Then, at a later turn-relevance place, the recipient of the prior talk uses what was looked up to initiate a new topic. This type of sequence has the potential to reveal how learners (as the recipient in a talk) plan later turns or topic initiations with their e-dictionaries.

In terms of implications for language learning, the collaborative learning of words
in look-up sequences demonstrates possible instances of learning-as-interaction (e.g., Brouwer & Wagner, 2004; Firth & Wagner, 2007), making public the participants’ socially situated cognition. Collaborating in the look-up with multimodal resources, the participants’ share their vocabulary knowledge in the creation of look-up proposal candidates. Before-look-up actions can display a lack of knowledge that invites collaboration. Often near the closing of the sequence, they use hybrid acknowledgement expansions that display a mutual understanding of the looked up word. The learners reestablish intersubjectivity based upon a display of mutual acknowledgement of the co-constructed meanings. During this acknowledgement phase, as participants mutually acknowledge recognition of the look-up word’s meaning (e.g., a translation, representational gesture, or co-production), they also can reveal and share other aspects of linguistic knowledge, such as grammatical and semantic usages. Within the look-up organization, beginning with displays of knowledge deficits, displays of possible gains in knowledge can sequentially emerge. Thus, the look-up organization is an interactional organization for the potential learning of words.

Suggestions for future research are outlined in detail concerning the construction of larger video corpora of e-dictionary interactions of situated learning activities, detailed studies of potential learning sequences, and longitudinal case studies. In terms of longitudinal case studies, using CA to investigate the developmental changes of individual learners over a long period of time can lead to advances in our understanding of interactional competencies. For example, in focusing on developmental changes in look-up practices, as learners become more proficient in the L2, how does their e-dictionary interaction change? In documenting the learning of words, methodological
advances in describing the interactional practices used in a shift from a cognitive state of not-(complete) knowing to one of a shared knowing will lead to greater insights into the learning process.

Concerning classroom use, suggestions are extensively made based on the analyses. Teachers are encouraged to observe and reflect upon their students’ e-dictionary use and develop task goals and classroom use policies that can take advantage of the e-dictionaries vast word storage and learning potential. For e-dictionary designers, they are implored to push ahead in developing new technologies that can decrease the abandonment of look-ups, a major complaint of users. In sum, developing technologies and user interfaces for productive purposes should result in new e-dictionaries that are easier to use and that promote more efficient vocabulary learning.

The Look-up Organization

I propose that there is a canonical look-up organization (See Table 4) within which participants accomplish word look-ups with the e-dictionary. Look-up sequences can also be formed from a retro-sequence, not an adjacency pair sequence. For example, “noticing” can get the parties to pay attention to a potential trouble source. In Excerpt 4.6, a “newsmarker” or surprise expression in a delayed position gets the participants to retrospect upon a prior utterance. There is nothing in the potential trouble source that engenders a look-up. A look-up will occur if one of the parties chooses to go to their e-dictionary for reasons that are displayed by the participants themselves in the interaction.

Other types of frequently occurring sequences are expansions (Schegloff, 2007). During before-look-up actions, multiple expansions are possible as inserts; and during
the look-up, various insert- and post-expansions are possible. Although canonical expansions have a clear adjacency pair, such as proposal-acknowledgement, or a three-turn pattern (proposal-acknowledgement-closing), multiple expansions are possible, and they are sometimes paired with nonvocal recipient behaviors, such as nodding or direct gaze, that operate as acknowledgements. For example, vocal receipt tokens such as un show that the recipients understand that speaker is in a turn of talk not yet complete; and, these vocal continuer-like tokens often accompany nonvocal actions, such as nods and direct gaze.

**Before-look-up Actions**

Before-look-up actions such as sequence initiating actions and repair initiations occur prior to the look-up. Projectable actions, such as gestures, grammatical cut-offs, stretches of the trouble source, and gaze behaviors, encourage collaboration and contribute to the completion of the look-up sequence. As a sequential organization, a look-up sequence is initiated or trouble is displayed before the body and gaze shift to the e-dictionary (Initiating Action > Trouble source > Displays of Trouble). Indications of a possible look-up are achieved by gaze shifts in the vicinity of the e-dictionary and the coinciding stretches that occur. For example, Excerpt 5.2 shows that just before an expression of doubt is made, the gaze direction can shift to a solitary position (See Figure 11).

Grammatical and nonvocal clues project meaning and offer collaborative opportunities (Excerpts 3.5 to 5.2). For example, a grammatical cut-off “↓-” and stretched restart “my:::” combined with gesturing (touching fingers) and gaze shifts to
form a before-look-up sequence that later results in an anticipated completion of the look-up (Excerpt 3.8). Embodied actions can complete the cut-off of the verb part with repeated gestures giving clues for later anticipated repair tries (Excerpt 5.1, “I try to” + scooping gestures). Also, the use of Japanese terms along with embodied actions summons collaboration and understanding of the candidate terms to look up (e.g., Excerpts 5.1 and 5.2, *kame, kingyouskui*).

I also demonstrated how intersubjectivity is collaboratively maintained in terms of the look-up word or topic using embodied inserts, at the moment a possible look-up is projected by a doubt gesture. In this instance, two nonvocal messages are conveyed simultaneously, for example, a tilted gaze expressing doubt of a particular lexical item, and the collaborative gestures demonstrating mutual understanding of the underlying topic (Excerpt 5.2, Figure 12, scooping gestures). Embodied inserts can occur adjacently in pairs and can be inserted in before-look-up sequences. Occurring in conjunction with other vocal or nonvocal actions, such as expressions of doubt and gaze shifts in the same turn, embodied inserts maintain intersubjectivity in the topic or the word to be looked up (Excerpt 5.2). This demonstrates the complexity of these hybrid actions and the sophisticated multimodal competency of novice speakers of English.

In sum, in these few seconds before the beginning of an e-dictionary look-up, the participants can initiate a look-up with gaze shifts, and while constructing a turn beginning, use stretches, grammatical cut-offs, and embodied actions to make forward progress, summon the gaze of the recipient, and orientate the talk towards later collaborative completion tries. Just before the look-up, stretches coincide with gaze
shifts that can move in stages (e.g., tilted away, fixed above) progressively toward the look-up position of gaze on the e-dictionary display, which is required for the placement of the fingers. To maintain intersubjectivity in the search, embodied actions in the form of adjacent iconic gestures can be inserted. This demonstrates that vocal and nonvocal before-look-up projections of the look-up word not only provide interactional resources for a body and gaze shift to the e-dictionary, but also can summon the recipient’s anticipation of and collaboration in the look-up completion.

*The Turn-in-progress Look-up*

The analysis presented in this chapter suggests a number of candidate vocal and nonvocal practices for look-up sequences that conform to the proposed look-up organization. Within a sequence of turns, getting the gaze and hand to the e-dictionary during a look-up requires a relatively high level of interactional competence in terms of coordinating embodied and vocal actions. The first indication of a move to the dictionary can be a slight hand or head movement (e.g., gaze) prior to a gaze shift to the e-dictionary (e.g., Excerpts 4.6 and 5.2). More body movement follows with an initial body tilt toward the e-dictionary (Excerpts 4.6, 3.5, and 5.2) and then a whole body shift usually with one hand placing the fingers upon the keys (all Excerpts). The upper torso of the body is positioned with the hand upon the keys so that the distance between the eyes and the display is comfortable.

In terms of turn-taking during a look-up, one or both (at the same time) participants self-select to look up a word, and during this look-up, various vocal and nonvocal actions can occur to display progress toward a candidate proposal. In particular, vocal
proposals in either English or Japanese can occur to share look-up candidates and obtain collaboration. Japanese proposals and repetitions announce the word to be translated and allow for collaboration in the look-up (e.g., Excerpt 4.6, line 16 kon; Excerpt 5.1, line 5 kame; Excerpt 6.1, line 32 izumi). English proposals are often repeated and can undergo correction during the look-up. In the case of Excerpt 4.6, the color “black” is further refined to “navy blue,” a semantic refinement. In Excerpt 5.2, word stress of the word “goldfish” undergoes standardization. We also saw that cooperative look-ups and their proposals (Excerpt 6.1) can occur (nearly) simultaneously with both participants closely working on the translation together, demonstrating the extent of cooperation possible when looking up words and sharing the results. In sum, during the look-up, the results of the look-up phase in the form of candidate proposals are made, sometimes repeatedly, making a resolution of the look-up a possibility.

The Abandoned Look-up and Later-turn Look-up

To compare with the excerpts that fitted with the turn-in-progress (TIP) organization, I presented an abandoned look-up and a later-turn look-up. The abandoned look-up (Excerpt 6.2) has many commonalities with the before-look-up phase of the TIP look-up. When an e-dictionary look-up fails, going to the recipient for help (vocally or embody) seems to be a key practice available for look-up resolution. This is a good example of the limits of the “electronic informer” and how the learner must utilize all the vocal and nonvocal resources available to complete a turn.

In the later-turn look-up (Excerpt 6.3), during the current speaker’s turn, the recipient goes to her e-dictionary to look-up something that is unprojectable, with none
of the TIP before-look-up initiations of repair, and with no collaboration possible. As it occurs during the current speaker’s turn, the recipient can “play both sides,” in other words, continue her look-up and remain audibly engaged in the current speaker’s turn using continuer-like tokens. From lines 38 to 43, Figures 22 and 23, S5 shows the e-dictionary display, and at the same time, utters the word that initiates a new topic (“eel”). After looking at the display, S6 then repeats the word. This is strong evidence that S5 looked up “eel” during S6’s turn, and that she was planning to initiate a new topic at an appropriate transition-relevance place.

**Expansion Sequences and Embodied Expansions**

The last analysis chapter outlines the expansion sequences that the participants use to make look-up proposals, acknowledge their receipt of them, display understanding and agreement, and close the look-up sequence. By tracing the sequence of actions leading up to the look-up completion, expansions can provide circumstantial evidence of what word was looked up by the participants. The extensive use of embodied actions by the participants makes the analysis complex; however, if we analyze the nonvocal behavior, such as gaze shifts, nods and gestures during pauses and overlaps, we can gain a better understanding as to how embodied actions are used along with vocal resources to design the next turn for a recipient response.

Expansions can occur in and with various positions and actions. For example, in Excerpt 3.8, two-turn expansions can occur as proposal/receipt pairs, intonation question/acknowledgement pairs, and assessment/agreement pairs. The SPP can occur in hybrid composite forms, such as receipt and agreement tokens (e.g., *un* + yeah) and
stretched acknowledgement tokens (e.g., ah:::) combined with nonvocal actions such as nods. Nods also vary in frequency and length. Furthermore, the mirroring of actions, often in hybrid vocal and nonvocal forms, is used to construct two-turn and sometimes three-turn expansions.

One characteristic of this novice-novice behavior is the hybrid pairing of embodied actions with vocal acknowledgements to establish mutual understanding. For example, body and gaze shifts from the e-dictionary to the other participant can summon an additional acknowledgement and agreement of the prior proposal, and indicate the possible end of a look up. During the look-up, nonvocal actions can operate in a turn position and establish conditional relevance, thus, making due a vocal acknowledgement. For example, in the case of Excerpt 4.6, Figures 25 and 26, lines 30 to 33, a body and gaze shift from the e-dictionary to the recipient is followed in next turn with a proposal expansion (“navy blue”) and the recipient repetition (“navy”). These actions summon a stronger acknowledgement and agreement of the proposal (nasalized hun hun hun), progressing the talk to a possible closing. S5 closes the look up sequence in line 37 with a hybrid turn construction: a slightly stretched un that overlaps the recipient’s acknowledgement and that is emphasized with one long nod, followed by a distinct sniff. This is a fairly convincing example of where a gaze shift can occur in a turn space of a FPP, summon a response, and make relevant the recipient’s acknowledgement in next-position. Although not clearly explainable within a canonical adjacency pair structure, these hybrid vocal and nonvocal expansions offer possibilities for future research.

Hybrid actions in two-turn expansions progress the talk forward and close the look-up sequence in a third-turn as well. In Excerpt 5.2 (“goldfish”), lines 12 to 13, two
self-corrected repetitions of “goldfish” make due a hybrid receipt/acknowledgement. In the next expansions of lines 15 and 16, I interpret the overlapping of S5’s repetition and nod with S6’s small nods and gaze as a candidate two-turn closing (Figures 27 and 28). Although complex to analyze, these overlapped hybrid actions indicate that, during the repetition of proposals, the participants can blend utterances with embodied actions, such as nods and direct gaze, to create expansions in two-turn positions that display mutual understandings and close the look-up sequence. Also, in Excerpt 4.6, lines 34 to 37, following a proposal (“like navy blue”) and a second-position acknowledgement (e.g., un ah::::::), a hybrid third-turn composed of hybrid actions, in this case, an acknowledgment token (un), a nod, and a sniff, closes the sequence.

Multiple sequences of hybrid expansion sequences are possible ways to elaborate upon the meaning of words. For example, in Excerpt 6.3, a series of two expansions follow the voicing of “eel” and the display of its meaning with the e-dictionary. The first expansion is an embodied summons for elaboration with head shaking, making due in next position a fishing gesture, showing how eel fishing is done. In the next three-turn expansion (ah- + gesture > EH:: + gesture > overlapping laughter), a hybrid expansion of mirroring gestures (e.g., pulling up an “eel”) and vocal reactions is closed by a third-turn of overlapping laughter (See Figures 30 and 31).

In co-constructing the characteristics of an animate object (turtles) over a multi-turn talk, novice L2 learners can competently blend together vocal and nonvocal resources in expansions in order to progress the look-up sequence. In Excerpt 5.1, the participants begin the sequence by using scooping actions to complete TCUs. The continued mirroring of iconic gestures seems to be an effective way for novice interactants to express
acknowledgement in adjacent positions when lacking vocabulary, maintain intersubjectivity, and progress the talk without abandoning the look-up. In Excerpt 7.2, novices can insert vocal proposals and acknowledgments during a multi-turn embodied action. For example, while gestures are being retained over multiple turns, vocal adjacency pairs can be inserted to vocalize the gesture (e.g., small > un, line 28-29) or give additional abstract information (e.g., green > yes, line 31-32). Also, in Figure 33, lines 36-37, as S6 nonvocally acknowledges by partially mirroring a gesture with one hand, she vocally acknowledges with un.

Finally, I attempted to demonstrate how expansions provide evidence of what word was looked up and where the sequence ends. By tracing the sequence of actions leading up to the completion of Excerpt 3.8, I can at least provide circumstantial evidence that she completed the look-up with “skin.” The best evidence for this is the cadenced finger stroking that coincides with the stretching and vowel marking of “fin ge::rs zu,” followed by the climatic silence and strongly stressed “skin?” Also, there is evidence that S7 ended her turn at this moment as “skin” is pronounced with rising intonation, as a confirmatory question. This is also a technique used to select another as next speaker, thus ending her current turn.

This concludes the summary and conclusions of the analysis chapters. Now, I will address the implications for foreign language researchers, teachers, learners, and e-dictionary designers.
Implications for Education

Introduction

As learners’ use of the e-dictionary for communication during a conversation task was examined in this study, several observations can be made from the analysis chapters that can benefit researchers, teachers, and students concerning e-dictionary use. First, I will address how look-ups can inform us about language learning. E-dictionary look-ups are an excellent place in interaction to observe learning as a social process. Within the e-dictionary look-up organization, participants orient to particular sequential learning practices, utilizing the full range of multimodal resources to complete the look-up.
Attempts to understand this organization can challenge researchers to delve deeper into the micro-practices of language learning. For classroom use, this understanding can help teachers make reasoned and informed decisions concerning e-dictionary use. In particular, I want to enable teachers to better develop more sophisticated task goals and procedures that can help them both discern and balance time constraints and preciseness of word choice. In terms of e-dictionary design, the use of ethnomethodology can help lexicographers and technologists evaluate the learning behaviors of users.

Implications for Research in Language Learning

An Interactional Look-up Organization for E-dictionaries

As I explained in Chapter 2, CA for SLA (often invoking sociocultural theory) and ethnomethodological CA researchers have reported on opportunities for learning that arise during interaction. However, as Firth and Wagner (2007) and He (2007), and others
(see *Modern Language Journal, 91*(s1), Lafford, 2007a) argued, using CA to document changes in learning in the social context was challenging. Mori (2007) argued that showing learning as change with longitudinal studies (e.g., Brouwer & Wagner, 2004) was more challenging than studies of learning as a socially situated activity (e.g., Kasper, 2004; Markee, 2000, 2004; Mori & Hayashi, 2006). In critiquing Brouwer and Wagner (2004), Mori suggested that researchers use CA to identify the full set of resources (both linguistic and nonlinguistic and L1- and L-2 specific) that are available for an activity. Even more challenging, in demonstrating improved competencies over time, it was necessary to distinguish what L1 resources facilitated the development of particular L2 competencies.

As an ethnomethodological CA exploration, the main contribution of this study to understanding learning in interaction is the documentation of the look-up sequence. Although not employing a longitudinal perspective, by focusing on the use of the e-dictionary by novice Japanese learners of English, this study demonstrates the collaborative contingencies of look-up and acknowledging actions that promote co-production, co-rehearsal and co-acknowledgement of shared words and meanings. These actions could be considered “learning-as-interaction” and “doing learning” that offer opportunities for learning words in interaction (Brouwer, 2003; Brouwer & Wagner, 2004; Firth & Wagner, 2007). As a learning activity, the look-up sequence can be considered an interactional learning organization in which the learning of words is facilitated by the interactional mechanisms described in the analysis chapters.

For example, a candidate teaching sequence occurs in the later-turn look-up, Excerpt 6.3, lines 38-53 (initiated with “Do you know eel eel?”). When a participant
initiates with a possible look-up word and fails to get the recipient’s acknowledgement of it, a potential learning sequence can occur, utilizing multimodal resources, including the showing of the e-dictionary display. In other words, to gain the recipient’s mutual understanding and acknowledgements of the word in question, a potential learning sequence with the e-dictionary can begin. S5’s hybrid expression of surprise (EH:::) and mirroring gesture of line 52, overlapped with S6’s laughter, also documents the participants’ mutual understanding concerning the sequential relevance of these actions. These actions demonstrate not only the shared cognitive aspects of their word and cultural knowledge (eel fishing) but also show how the learners can reestablish intersubjectivity in regards to the looked up word’s sequential relevance. Thus, in Excerpt 6.3, after the look-up ends, using all resources available to them, the participants then need to complete interactional work to relate the looked up word to the sequential and topical context of the conversation.

In sum, the basic organization of an e-dictionary look-up involves initiating a look-up with before-look-up actions, looking up a word, sharing a candidate proposal, and mutually acknowledging an indication of understanding or agreement of the candidate word. When a participant indicates unfamiliarity with a word, the collaborative learning of vocabulary can take place, and the acknowledgement sequences indicate a mutual understanding based on what word knowledge was shared. After an indication of unfamiliarity with the word, or after a participant notices something retroflectively, then a co-learning sequence can occur; this sequence includes the sharing of the participants’ knowledge in the creation of further proposal candidates.

By collaboratively indicating understanding acceptable at that moment to all
parties, the participants can attain a “mutual familiarity” or mutual recognition of the shared knowledge. The participants indicate a shared cognitive state with acknowledgements of the look-up proposals, which end in a closing and transition to a new sequence. In word look-ups, the participants reveal word associations and share some aspects of their word and cultural knowledge using synonyms, iconic gestures, L1 equivalents, and grammatical collocations. All of these observed together can demonstrate aspects of their collective productive and actional knowledge of the look-up word. Based on what aspects of word knowledge are shared during the look-up, the participants use mutual acknowledgements to indicate a shared recognition of what learning has transpired toward the closing of the look-up sequence. In sum, the mutual acknowledgements are action sequences that display mutual recognition of what prior word knowledge is being shared during the interaction.

Is Learning Taking Place?

Although these interactions reveal many of the vocal and nonvocal resources available to them, a question to ask here is whether these are instances where learning can take place. The participants share their word and cultural knowledge publically in multimodal ways, providing additional evidence of understanding what was looked up. After exposure to an e-dictionary solution in the organization, the main evidence of look-up word recognition is the acknowledgement that indicates mutual understanding of the look-up word. Further evidence of later use of the looked up word in the conversation, as in Excerpt 7.1, provides additional evidence that learning is taking place.

In regards to the use of embodied actions, the role of gesture (including gaze and
other body movements) as a resource (e.g., McCafferty, 2004, 2008; Mori & Hayashi, 2006; Olsher, 2004) helps to demonstrate the full set of resources available to the participants (Mori, 2007) in completing a look-up. One obvious public sharing of the recognition of word and actional meaning is the use of iconic gestures, in which novice participants, in hybrid form with vocal resources, can gesture the meaning of the word and action. Thus, through gestural representation, novices can demonstrate in the same turn, and in adjacent turns by mirroring, the meaning of a word or process (e.g., fishing for eel).

Even after demonstrating the full range of resources available for learning in interaction, showing “new” learning or change in an epistemic state is problematic as a researcher would first have to provide evidence for a deficiency in knowledge before showing that a gain occurs; this study has challenges in providing that evidence. Even if a participant acknowledges a change in epistemic stance using a change-of-state “Ah,” it would still be circumstantial evidence, not a “smoking gun.” More evidence of a change in a participant’s epistemic state can be provided in the before-look-up and acknowledgement/closing sequences that often contain resource-rich hybrid turn constructions.

Evidence of the participants’ epistemic stance can be revealed in the before-look-up sequence where participants can project a lack of knowledge with hybrid actions that project the look-up word. For example, in Excerpt 5.2, the search for an English equivalent for kingyosukui is projected by the L1 term and the repeated scooping gesture. Further evidence of a knowledge deficit is displayed by S5’s doubt in her own proposal of “golden fish,” expressed with continued scooping, the stretched un with rising
intonation and tilted head, and the gaze and body shift to the e-dictionary. This is clear evidence that S5 has noticed something wrong with her proposal. In this instance, the look-up is self-initiated after self-noticing (retroflection) of a trouble is displayed.

Sequential evidence of a change in epistemic stance, or a possible gain in knowledge, can occur in the acknowledgement and closing sequence. For example, in Excerpt 6.3, the recipient S6 repeats the word “eel” in question intonation as she is looking at the e-dictionary screen shown to her, and then expresses acknowledgement with “a↑h:::” and raised head. In this sequence, S6 displays recognition of the e-dictionary’s information about “eel” in several ways: repetition, acknowledgement token, and head movement. All of these resources combined provide stronger evidence that S6 has accomplished a possible gain in knowledge (of the English word “eel”). However, at this point, it is probably unwise to make any strong claims that she learned “eel.” First, the display of not knowing “eel” changes to a display of recognition (repetition, “a↑h:::” and raised head). Then, in representational form, the use of mirrored gestures displays an additional subtle change in cognitive state. After S6 recognizes the meaning of “eel” with the e-dictionary and indicates a lack of knowledge of “eel fishing,” S5 initiates the eel fishing lesson. This puts the learning of “eel” into the context of their prior conversation about the different types of live animal “fishing” games that they have experienced in Japan.

In sum, evidence of learning-in-interaction is seen emerging in the look-up sequential organization. A lack of knowledge can be projected publically in before-look-up actions, encouraging collaboration in the look-up, and preventing abandonment of the look-up. Proposals and acknowledgement sequences can provide multimodal evidence
that a possible gain in knowledge is progressing. For example, repetition in question intonation, acknowledgement tokens, and head movements can indicate recognition. After mutual acknowledgement, later collaborative displays of the looked up word, often with embodied actions, place the look-up word in context of the conversation, and add to the evidence of learning-in-interaction having taken place.

_Classroom Considerations of E-dictionary Use_

_Collaboration and Sharing of Word Knowledge_

A projectable look-up during conversation is not a solitary word search, as look-up proposals are mutually shared. To share word knowledge requires a sequence of actions that was outlined in the analysis chapters. Proposals can be made as possible multiple sequence expansions that include acknowledgements and agreements, which can also close the look-up sequence. Because a projectable move to the e-dictionary during conversation is collaborative, the participants are sharing word knowledge by communicating the results of the e-dictionary look-up and proposing and acknowledging through a multimodal application of vocal and nonvocal resources. Surely, a look-up is a time-consuming repair sequence in the conversation, but perhaps the main benefit is the recipient’s attention and collaboration on the look-up word and timely anticipated tries at proposals. In contrast, the look-up in individual tasks, such as reading comprehension, is a solitary look-up totally dependent on the individual’s look-up skills and vocabulary knowledge.

To illustrate, in Excerpt 4.6, “like navy blue” is the result of several attempts to arrive at a color term more precise than the initially proposed “black.” We cannot ignore
the collaborative influence of the recipient who first expresses surprise at “black” and then helps to close the look-up sequence with acknowledgements and indications of understanding (e.g., un un un, ah:⋅⋅⋅⋅). Although the recipient is not co-looking up the word herself in this instance, she is cooperating in the look-up by sharing (receiving) the look-up proposals with speaker and signaling that she understands what is being proposed. These acknowledgments indicate increased mutual understanding in the look-up result, allowing for closure and the beginning of a new sequence initiation. A major implication of this (projectable) sequential organization for learners is that an e-dictionary look-up in conversation is not a solitary look-up; rather, it involves other participants in the word search. This point goes unnoticed by busy teachers when they observe students gazing at their dictionaries in a conversation class (and perhaps saying to themselves, “What a waste of time!”).

There are numerous examples of vocal and nonvocal sharing of word knowledge in the exemplars provided in this study. For example, in the instances when an LI term and a gesture summon a look-up (See Excerpt 5.2, “goldfish”), the participants work together to solve the look-up, often mirroring each other’s gestures. L1 terms and gestures project the look-up meaning and maintain intersubjectivity, demonstrating that the shared embodied actions are integral to the look-up sequence. This implies that sharing meanings through embodied actions in tasks is something to encourage, or at least to tolerate.

One (forever) controversial issue is the use of the L1 in sharing word knowledge. My limited data shows that students motivated to speak in English will use the L1 sparingly. Often used with gestures, as in Excerpt 5.2 (“goldfish scooping,” kingyoskui),
L1 words project an English word to be searched for collaboratively. Of course, any experienced EFL teacher has stories of unmotivated students chatting away in their L1, but the important point here is how the L1 is used sequentially. As I will discuss later, L1 word use can occur during the abandonment of a look-up (See Excerpt 6.2, “culture festival”) or in other instances when the speaker requests or summons a direct translation from the L1.

**Gesturing and Sharing of Word Knowledge**

Excerpt 4.6, lines 16-21, seems to provides evidence for impeded communication. As S5 goes to her dictionary for 2.4 seconds, S6 attempts to say something in line 18 but holds back until S5 makes her proposal in line 20. This could be an example of how a look-up with limited projectable information can impede conversation. S5 gives limited cues, only a cut-off of *kon*, and concentrates on looking up a translation. This is in contrast to look-ups such as Excerpt 3.8, in which the recipient, aided by current speaker’s embodied actions in lines 4 to 7, is able to anticipate what current speaker is projecting, making collaborative proposals in line 9 and 13.

The point that I want to make here is that if the recipient (e.g., S8) elects to take a turn during the look-up and make a proposal, the result can be more sharing of word knowledge. In many look-ups, as in Excerpts 3.8 and 4.6, the speaker indicates having trouble finding the right word. However, in Excerpt 3.8, before and during the gaze shift to the e-dictionary, she uses iconic gestures that project more information and encourage collaboration. In Excerpt 4.6, there is no gesturing during the look-up, probably due to the difficulty of expressing a precise color term. This is a situation that offers less
projectibility and fewer opportunities for collaboration, perhaps orienting to L1 use.

Gesturing does not just simply replace L2 talk; projection in the form of gesturing can add to the opportunities for the sharing of word knowledge.

The Unprojectable Next-Turn Look-up Conundrum

In Chapter 6, I analyzed Excerpt 6.3 (“Do you know eel?”) in which the recipient “played both sides” by paying attention to the speaker with continuers while looking up a word to initiate a later turn. In this instance, the recipient of a talk conducts an unprojectable look-up; it is unprojectable because there are no vocal or nonvocal clues as to what is being looked up. In other words, the recipient seems to be doing a look-up during another’s turn at talk. Most classroom teachers would be perplexed by this kind of behavior (just as I was when analyzing it) and probably forbid e-dictionary use.

However, there is more to this long sequence than just two participants doing apparently unrelated word search actions. I will argue that the recipient is planning a later-turn topic initiation. In Excerpt 6.3, the recipient’s apparent inattention actually results in an unprojectable initiation of (a live animal game) topic “eel,” which is illustrated with the displaying of the e-dictionary screen in interaction (See Figure 22). Here, there is a knowledge query of an English word (“eel”) that initiates a new sequence. The new sequence begins by establishing the understanding of the new word “eel,” which is confirmed by showing the e-dictionary’s screen to the recipient, who responds with a change-of-state token (e.g., displaying a “sudden” or “new” understanding of eel) in line 44, a stretched *ah* with raised tone and raised head. This is an example of how the recipient of a talk can plan a later turn by looking up the word to
use in a later topic initiation. Although this behavior appears to be “dysfunctional” in terms of collaboration from the outset, the later-turn look-up demonstrates how the recipient can maintain recipientship while looking up a new word to initiate an upcoming turn; and after self-selecting at the next opportune topic transition place, she teaches a word with the e-dictionary’s screen. In sum, this is an example of how an unprojectable later-turn look-up can become a collaborative word teaching opportunity.

*The Abandonment of the Look-up*

There is one type of look-up that occurs from time to time, the abandoned look-up, in which in the case of obvious instances, a learner gives up the look-up and asks the other for a translation proposal. This behavior indicates that learners can judge for themselves at some point in the talk that the look-up has failed, and that they must rely upon the vocal sharing of word knowledge.

In Excerpt 6.2, the surprise expression in line 26 suggests that S6 did not readily accept her dictionary’s translation of the word (“school festival” in the Genius 2 bilingual dictionary version used by this group of students) and decided to ask her partner instead. S5’s response in line 33 of “culture festival” with rising intonation (prefaced by a noticeable in-breath) is followed by overlapped laughter indicating it is a directly translated “guess.”

Although only one obvious case is analyzed in this study, there are numerous examples in the corpus of possible abandoned look-ups. As was summarized in the literature review, even with the use of paper dictionaries, there are a relatively high percentage of abandoned look-ups for reasons such as dissatisfaction with the look-up
results or an inability to find a translation equivalent. There are several instances in this study’s excerpts in which the appropriate word could not be found so easily. For example, in Excerpt 7.2, the term *sukui* meaning “scoop up” was rarely referred to at all during the long talk (as well as in other sequences dealing with live animal games) and the participants had to resort to using the L1 and “scooping” gestures to embody complete turns. Although there is no clear evidence that they tried to look it up, a look-up of *kingyousukui* in Genius 2 shows the English equivalent of “dipping for goldfish” which they did not try to use. *Suku* or the base verb form in the e-dictionary (in a more time consuming look-up) reveals that there are three homophonic Chinese characters to select from, and each having at least several English senses. The first one has the English equivalent “scoop,” “dip,” and “skim” as equivalents. Thus, even if there is some usable information in their e-dictionaries, there are instances in which the participants reject or fail to find the e-dictionary’s candidates in a limited time. Thus, the case of *sukui* could be an example in which the so-called convenient bilingual dictionary is sometimes not convenient (especially for conversation), a complaint documented in the literature review (e.g., Atkins & Varantola, 1997; Harvey & Yuill, 1997; Koyama & Takeuchi, 2003).

This is also a call to action for bilingual e-dictionary designers to improve look-up capabilities for productive purposes, and for teachers to encourage students to buy e-dictionaries with such capabilities. For example, Laufer and Levitzky-Aviad (2006) suggest developing an L1-L2-L2 e-dictionary for production that has four elements: L1-L2 translations, L2 information (e.g., definitions, examples) about each translation option, thesaurus-like information (i.e. semantically related words to each translation
option), and additional L1 meanings of the L2 translations. Thus, in order to decrease the number of abandoned look-ups with e-dictionaries, it would be advisable for teachers that wish to encourage the use of e-dictionaries in their classroom to investigate what kinds of dictionaries are installed in their students’ e-dictionaries and develop use policies for the classroom. Until speech recognition technology is incorporated into bilingual e-dictionaries, I do not foresee any major changes in the way students will interact with their e-dictionaries.

*Time Restraints Versus Preciseness*

Colleagues of mine have banned or severely restricted the use of e-dictionaries in the Oral English classroom based on the general observation that such use interferes in conversation tasks. If the conversation task goals include “oral fluency” in which the task should be completed within a very limited time frame and the task is restricted to vocal sharing of recallable words, then a teacher might consider suppressing e-dictionary use. This assumes that these students are in fact sharing their vocabulary knowledge. In terms of vocabulary production, the problem with these restrictive policies is that learners are dependent on the recallable vocabulary that they can share at that moment. If a speaker cannot recall a word, he or she can ask another for help (e.g., request a translation if they share an L1). As we have seen in the data, novice Japanese learners use L1 equivalences and nonvocal resources, in particular iconic gestures, extensively. I have never heard of a teacher restricting gestures in the classroom, and the notion seems extreme in light of the evidence provided. Keep in mind that the intensive program participants who participated in this study were required to only use English in and
outside the classroom when conversing, and perhaps this policy is reflected in their wide use of nonlinguistic modes of communication (rather than resorting to the L1). Thus, the “look-up policies” that a teacher tries to enforce in the classroom may have an influence on the vocal and nonvocal resources that learners utilize.

If the task goal includes preciseness of word choice with the option of word look-up, then there is the possible result of a more precise rendition of word choice being tried than originally proposed. The look-up option seems particularly promising for its potential to introduce new vocabulary (or vocally practice less familiar words) to all participants during collaborative production activities (e.g., a conversation task or joint writing task). However, having the look-up option available for all classroom activities may be problematic for some teachers that have a tight schedule and a demanding syllabus to complete, particularly in teacher-focused or non-computer assisted language learning (non-CALL) settings.

Perhaps there are provisions that teachers can make to take advantage of the e-dictionary’s powers and still achieve “fluency” goals in time-restricted activities. That might require some guidelines and training procedures in e-dictionary use. Classroom teachers concerned with the impact of e-dictionaries might want to develop policies to manage the use of e-dictionaries in the classroom. I will try to point out some fairly obvious ones based upon the data presented in the analysis chapters.

“Fluency-first” policies can range from zero-tolerance to optional and flexible policies. Based on the data that I have analyzed, I would first advise basing the policy upon the task’s vocabulary use goals. Based on Table 5 below, I have divided tasks according to the expectations that the teacher has concerning the goal of productive
activities. For example, if the teacher expects students to practice speaking or writing “as fast as possible” or in “a limited amount of time” without any look-ups, then that policy

Table 5. *E-dictionary Use Policy Dichotomy*

<table>
<thead>
<tr>
<th>E-dictionaries forbidden</th>
<th>E-dictionaries allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly-restricted tasks</td>
<td>Less-restricted tasks</td>
</tr>
<tr>
<td>Timed-practice or evaluation</td>
<td>Freer talk with look-ups allowed</td>
</tr>
<tr>
<td>Recallable words only</td>
<td>All word look-ups allowed</td>
</tr>
</tbody>
</table>

is reflected on the left. This assumes that students will use their productive vocabularies, which are based on mostly high-frequency words and which would be much smaller than their receptive vocabularies (e.g., Nation, 2001). For example, in one look-up not published in this study, the speaker had used the high-frequency word “bad” to assess a live animal game (scooping for live baby chickens). However, in a later sequence, she looked up the lower-frequency word “cruel” to more precisely express her feelings about the game. Thus, if a teacher wishes to encourage more precise word usage, then a look-up option should be considered.

Naturally, flexible conditions for allowing the use of e-dictionaries can be considered. I have not experimented with any conditions or restrictions on e-dictionary use, but I can suggest the following for collaborative production tasks. Guidelines for the optional or free choice would be centered on sharing vocabulary knowledge, minimizing time in class on look-ups, and using the foreign language as much as possible. One major issue for EFL classes, in which the students share an L1, is forbidding L1 use in
the classroom. Some guidelines based upon a restricted L1 use policy would be:

1. Ask others first if they know the English word using an English synonym (i.e., similar to …) or antonym (i.e., opposite of …) and gesture.

2. If no one can answer, and you know an English synonym or antonym, look it up in the English-English dictionary.

3. Assuming that you are in a group of students sharing an L1, and if still no one can answer, then give them the L1 word and ask for a translation (How do you say …?).

4. If you cannot find an adequate word, then try a mixture of synonyms and gestures to get the meaning across and continue the conversation.

5. If none of the above works, then go to your L1>L2 bilingual dictionary and look it up.

The novice participants in this study, who were instructed to use English in the task, shared an L1 and often went directly to their L1-L2 bilingual dictionaries first, and when encountering trouble, resorted to gestures and their L1. Once they found a word, they shared it, often repeating it aloud. In terms of preferred vocabulary learning practices of Japanese students, Schmitt’s (1997) study pointed to the preferences of using a bilingual dictionary, repetition, and saying a new word aloud (in that order). The data in this study confirm these preferences. However, the participants also began look-up sequences with gestures or the L1, and conducted later-turn look-ups, suggesting that conversation is not easy to regulate.

In sum, limiting L1 use in the EFL classroom is always a thorny issue so the teacher should carefully consider policies that are compatible with teaching goals, proficiency level, and the students’ confidence in using the L2. What can be realistically expected of students should be based on careful observations. For mixed-L1 advanced
groups, students might be expected to better follow an English-only policy although motivated novice learners, depending on their retrievable word knowledge, can at times achieve “near” English-only performances in word look-ups; therefore, novice learners, if so motivated and encouraged, could possibly adhere “flexibly” to an English-only policy depending on task goals.

Limitations

Concerning the issue of generalizability, only conversations of Japanese novice L2 learners recorded from the researcher’s office were analyzed in this study. Other researchers reading this study might wonder whether the results could be generalized to other learners. I want to address these concerns by considering the broader question of social organization of e-dictionary learning activities, and the location of the recordings.

The main question concerns whether or not the look-up organization proposed in this study (Table 4) is generalizable to other foreign language learners. One issue involves the normality of L2 learner talk, and another concerns the institutional nature of the task. In terms of the look-up organization, although the participants in this study were all novices, the literature (e.g., Carroll, 2000, 2004, 2005a; Gardner & Wagner, 2004) is convincing concerning the “normality” of L2 talk. Past research has shown that L2 learners are capable of maintaining intersubjectivity using interactional practices; thus, this has been documented over the past thirty-five years by numerous CA researchers. This fact alone gives strong credence to the results of this study of the novice learners demonstrating “normality” in their talk. In each excerpt examined, the participants demonstrated that they can collaboratively utilize all their resources in the
completion of the look-up. Every look-up is unique in some way, and the participants, at each moment, attend to the local contingencies of the look-up. For example, participants can use various before-look-up contingencies each time, initiating a look-up with various vocal and nonvocal techniques in many hybrid ways. These before-look-up practices utilize multimodal practices (e.g., gaze shifts and vocal stretches) that have been carefully and extensively documented by CA researchers for both L1 and L2 speakers.

There are also L1-specific behaviours that may differ from other L1 users. For example, the use of the *un* token, used in various positions, such as a continuer or acknowledgement token, can be considered specific to Japanese speakers. No doubt, other L1 users might use a different set of response tokens in similar and differing ways. Cross-linguistic research was not consider in depth, so no claims can be made concerning this issue. I would argue, however, that the proposal-acknowledgement adjacency pair is a central “engine” of human understanding and learning and will be found in other learners’ look-up interactions. In fact, it is where cognition is displayed to participants, such as a change of state (Heritage, 1984) in one’s current awareness or knowledge. It is this underlying social organization that drives the look-up, not what L1 type of L1 response or acknowledgement token is used.

Do other learners look up words in the same way? This study was focused on explicating the social organization of the look-up. Although local contingencies of each look-up may differ in some way, the public demonstration of cognition in interaction is strong evidence that the look-up organization, as a conceptual organization of look-up behavior, can be generalized to other users of the e-dictionary. The focal point of this
organization is getting to the e-dictionary to look up a word, and this requires a necessary shift of the body for all learners.

Another issue concerns the task used, the location of the filming, and the number of interactants. The seating arrangements were fixed so that both participants’ bodies could be seen on the video. Again, no instructions were given regarding e-dictionary use, but the participants usually placed their e-dictionaries in a convenient place on the table. Some concerns would involve how this fixed seating arrangement affected their gaze behavior. Based on the observations of collaborative look-ups, if the participants hold the e-dictionary in their laps, or if they sit facing in other directions, this affects the direction of the gaze and the time needed to move the e-dictionary into a workable position. Although this will affect the local contingencies of the before-look-up actions, the look-up organization allows for variability in local contingencies. Multiparty interaction might include more complex collaborative practices (e.g., more variations in gaze behavior and proposal/acknowledgement sequences) that learners use in the learning of words. Differences in the number of participants, seating arrangement, and the location of the e-dictionary should not alter the basic organization of the occurrence of before-look-up actions with hybrid resources, the juxtapositioning of the body and the e-dictionary to a workable position by at least one participant, and the hybrid proposal and acknowledgement sequences that establish intersubjectivity.

Whether the conclusions of e-dictionary use offered in this study pertain to all classroom interactions or not remains to be seen, but the evidence provided strongly support the existence of an underlying social organization in the learning of words with an e-dictionary.
Future Directions

This study has demonstrated that an ethnomethodological CA approach can make contributions to the field of Applied Linguistics, particularly in the description of novice L2 learner e-dictionary practices. For those interested in pursuing related lines of research, I would like to make the following suggestions.

First of all, researchers should continue to construct larger video corpora of e-dictionary interactions (and other retrieval devices such as cell phone dictionaries) and make them available to other researchers. These e-dictionary interactions are rich in hybrid actions and provide excellent opportunities for collaborative learning. Within this larger corpora of interactions, document and group the various practices of word look-ups and other learning activities. The following possible overlapping collections of interactions could be fruitful:

– classroom interactions (dyads and multiparty, specific task-based, oral English classes, composition classes with peer revision groups)

– computer-assisted instruction (use of online references in interaction)

Using CA to investigate the developmental changes of individual learners over a long period of time can lead to advances in our understanding of interactional competencies. Kasper (2006, p. 86) suggested a list of competencies that are possible CA objects of inquiry that I have paraphrased below. Students should be able to:

– interact socially in the right way, depending on the situation

– take a turn appropriately without trouble

– use all vocal, nonvocal and interactional resources to construct actions and responses
in the display of understanding
– repair trouble in the talk, such as self-repair of speaking, and other-repair of hearing and understanding
– co-construct situated identities such as a shift to expert or novice
– recognize and properly open and close sequences, silences, and events during interaction

All of the above interactional competencies are related to e-dictionary use; however, the ones that seem particularly pertinent to providing evidence for word learning are the third and fourth ones. During a look-up sequence, one of the major ways to demonstrate that learning is in progress is to show a change in epistemic stance by drawing on various resources. However, as He (2004) suggested, studying socially situated learning also involves looking at the broader institutional contexts within which the participants interact. Perhaps a first step involves describing the interactional organization of the look-up sequence as I have, but how the participants can solve complex problems of understanding involves a wider number of collaborators and related learning communities. For example, in peer review groups, a learner could at some time in the future become a teacher (switch to expert role) of the item that they once were a learner of.

Zimmerman (1999) proposed encouraging more CA research that distinguishes between horizontal comparative (i.e., cross-cultural, cross-linguistic) and vertical research (i.e., developmental). In particular, he stressed the need for studies of talk-in-interaction across cultures and languages. For example, which features of e-dictionary look-up organization are robust across cultures, languages, and various institutional
settings? Rather than culture operating as some outside force, how do participants orient to cultural practices during interaction? What L1 linguistic features provide resources and constraints on the look-up practices? In terms of vertical research, how do learners interact with e-dictionaries across stages of development?

In focusing on developmental changes in look-up practices, as learners become more proficient in the L2, how does their e-dictionary interaction change? Do learners shift from bilingual to monolingual dictionary use, and how is this reflected in their interaction? Do they use the e-dictionary for planning later-turns more often? At higher levels of proficiency, do learners use more advanced functions of the e-dictionary, such as archiving and reviewing, in their learning practices? Are any recent developments in production dictionaries influencing learner interaction? When confronted with abandoned look-ups at differing developmental stages, do learners use different practices?

Gardner (in progress) suggests that researchers carefully document sequences of potential learning sites that contain sub-sequences of pedagogical actions. Sites where repeated noticing takes place can reveal the learners’ understanding of forms and meaning. For example, in the classroom, a teacher (or student in an expert role) can frame a sentence that the other learners can complete, and the students can demonstrate knowledge of correct forms (e.g., repetition). These actions also provide opportunities for recasts (produced by teacher or students) that can be picked up by other learners and practiced. Repetition and the later use of new words by the learners demonstrate noticing of the item. Code-switching and gestures, resources used extensively in look-up sequences, demonstrate shared cognition and clear evidence of understanding. Another
A potential site for learning is broken-starts where learners use all the resources available to them to maintain their turn and lay the groundwork for a more fluent rendition later. All of these sites for learning, if carefully described, have the potential to reveal the shared cognitive behaviors of learning in interaction.

Once a site of potential learning is located, a major challenge is to demonstrate that learning has taken place. Kasper (2008) identifies three areas in which CA can reveal the interactional processes with which participants share their understandings: interactional practices, markers of cognitive stance, and cognitive moments. In terms of interactional practices, the underlying learning procedures of learners can be revealed by investigating how participants make themselves understood during look-ups using turn-taking and repair. A further challenge is to document these procedures in more detail, in particular, the hybrid expansion sequences in which acknowledgments are made. It is here where the prior knowledge shared in the interaction seems to reach a cognitive state of shared recognition. A second area is related to expansion sequences that display a cognitive state, or markers of cognitive stance. This study documented several, such as the use of *ununun* in responses, but understanding how these epistemic stance markers work in learning sequences and then explaining them in theory is a challenge. The third area is how cognitive moments, such as a display of recall, are socially organized and generated by the interaction. In e-dictionary look-ups, without a very detailed analysis of all vocal and nonvocal resources, it is impossible to describe the participants’ cognitive state. In documenting the learning of words, advances in describing the interactional practices used in a shift from a cognitive state of not-(complete) knowing to one of a shared knowing will lead to greater insights into the learning process.
For classroom teachers, the development of e-dictionary classroom-use policies has the potential to make e-dictionary use fit teaching and learning (curricular) goals. This action research could be combined with research in vocabulary learning practices. For example, discursive comparisons of task types could reveal some connections between task type and CA objects of inquiry (Kasper, 2006). One promising area is the use of the archiving and review functions that are part of newer e-dictionary models with which learners can review the words that they have looked up in class activities (Loucky, 2005).

For e-dictionary designers, there is a need to develop better e-dictionaries for productive purposes. As Laufer and Levitzky-Aviad (2006) suggest, e-dictionary designers should consider developing an L1-L2-L2 e-dictionary for production with four elements: L1-L2 translations, L2 information about each translation option, thesaurus-like information, and additional L1 meanings of the L2 translations. The relatively high percentage of abandoned look-ups for oral productive purposes demonstrates the frustrations that learners have using the e-dictionary for communication. Technologists involved in e-dictionary design might consider working with a CA researcher in documenting learners’ look-up behavior in various institutional settings.

Finally, learners and teachers should consider taking time to consider what types of dictionaries they need when purchasing an e-dictionary. I would suggest that teachers and students discuss the merits and demerits of the models available, enabling teachers to monitor e-dictionary use and better inform their students on e-dictionary use for learning.
REFERENCES CITED


Gardner, R. (in progress). What does conversation analysis have to say about second language and second language acquisition. R. Gardner & T. Greer (Eds.), Observing talk: Conversation analytic studies of second language interaction.


APPENDIX A
THE PARTICIPANTS

At T3, because of attrition (S2 and S4 dropped out), S3 paired with S6, and S1 paired with S13. For this study, turn-in-progress, projectable look-ups (not abandoned and unprojectable) are focused on with the number of cases addressed in this study in parenthesis. From pair 3, one abandoned look-up and one later-turn look-up are used to contrast with projectable look ups (in Chapter 6).

<table>
<thead>
<tr>
<th>The Participant-</th>
<th>Gender</th>
<th>Recording Place</th>
<th>Look-Ups (projectable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original T1 pairs</td>
<td></td>
<td>T3 Status</td>
<td></td>
</tr>
<tr>
<td>Pair 1-S1</td>
<td>male</td>
<td>Office with S13</td>
<td>4 (3)</td>
</tr>
<tr>
<td>Pair 1-S2</td>
<td>male</td>
<td>dropped out</td>
<td></td>
</tr>
<tr>
<td>Pair 2-S3</td>
<td>male</td>
<td>Classroom with S6</td>
<td>9 (7)</td>
</tr>
<tr>
<td>Pair 2-S4</td>
<td>male</td>
<td>dropped out</td>
<td></td>
</tr>
<tr>
<td>Pair 3-S5</td>
<td>female</td>
<td>Office with S6</td>
<td>13 (6)</td>
</tr>
<tr>
<td>Pair 3-S6</td>
<td>female</td>
<td>Office with S5</td>
<td></td>
</tr>
<tr>
<td>Pair 4-S7</td>
<td>female</td>
<td>Office with S8</td>
<td>10 (6)</td>
</tr>
<tr>
<td>Pair 4-S8</td>
<td>female</td>
<td>Office with S7</td>
<td></td>
</tr>
<tr>
<td>Pair 5-S9</td>
<td>female</td>
<td>Office with S10</td>
<td>7 (7)</td>
</tr>
<tr>
<td>Pair 5-S10</td>
<td>female</td>
<td>Office with S9</td>
<td></td>
</tr>
<tr>
<td>Pair 6-S11</td>
<td>female</td>
<td>Home with S12</td>
<td>14 (7)</td>
</tr>
<tr>
<td>Pair 6-S12</td>
<td>female</td>
<td>Home with S11</td>
<td></td>
</tr>
<tr>
<td>S13</td>
<td>female</td>
<td>Office with S1</td>
<td>See above</td>
</tr>
</tbody>
</table>
Below is the consent form I used and carefully explained in Japanese. All participants chose the stricter level of accessibility. Therefore, any researchers wishing to use the data gathered in this study must sign a non-disclosure form. No copying of the video data is allowed.

Project Title: Development of Conversational Practices Among EFL Learners
Conducted By: Jack Barrow

I have read the explanations below and I agree to participate in the research study conducted by Jack Barrow. I feel that the filming and analysis of these conversational interactions involve no procedures or requirements which may be found morally or ethically objectionable. If, however, at any time I wish to terminate my participation in this study I have the rights to do so without penalty, even after the data have been collected. I also have the right to review the audio and video data and can request that specific segments be omitted, if they contain material that might embarrass me.

If I have any question about this study, I realize that I am encouraged to ask them now or at anytime during the study by contacting Jack Barrow at Osaka International University (Tel.: 0669020791 or barr001@oiu.ac.jp).

Purpose of the Study: To learn more about how students learning English develop in their ability to repair themselves and others during conversation among their peers.

I agree to allow the following level of research access to these data from the conversational interaction in which I have participated.

Level 3: The transcript data will be accessible over the Internet, but real names will be replaced by pseudonyms, and the audio and video will be protected by a password to restrict access to a specified group of researchers.

Level 5: The data will only be available to academic researchers who have signed a non-disclosure form. This form prohibits the publication of any reference that identifies individuals. No copying of the data is allowed.

I understand that in signing this consent form, I give Jack Barrow, and his associates, permission to present this work in written and oral form, without further permission from me.

Signed, Dated
APPENDIX C
TRANSCRIPTION CONVENTIONS

The following transcription system is adopted from the Open Language Archives Community, (2007), CA Form Summary of Talkbank, (http://talkbank.org/ca/). The CA Form Summary is based upon Appendix 1 to Atkinson and Heritage (1984), based on Jefferson (most recently 2004). CAfont, downloadable from Talkbank, was used in the original transcriptions. The font used in the printing of this dissertation is nonproportional Courier New, which can achieve alignment of overlapping talk.

<table>
<thead>
<tr>
<th>Function</th>
<th>Transcription</th>
<th>Description with fragment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacked brackets</td>
<td>[text] [text]</td>
<td>Left bracket marks the beginning of temporal overlap among utterances produced by two or more speakers. Right bracket marks the end. These must always be paired and stacked one over the other. S8: very [difficult S7: [very difficult S8: [haha ↑ S7: [haha</td>
</tr>
<tr>
<td>Single =</td>
<td>text=text</td>
<td>A single equal sign indicates no break in an ongoing piece of talk where one might otherwise expect it such as after a completed sentence. S7: I (1.0) un I went to, (0.9) electo:[n zu school=so ↑ S8: [ah</td>
</tr>
<tr>
<td>Paired =</td>
<td>text==text</td>
<td>Indicates the 'latching' that occurs when one utterance follows another without an intervening pause. The mark is attached to the end of the first utterance and the beginning of the second. 609 S8: u:n= 610 S7: =so</td>
</tr>
<tr>
<td>Symbol</td>
<td>Description</td>
<td>Examples</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Timed pause  | Measured in seconds, this symbol represents intervals of silence occurring within (i.e., pauses) and between (i.e., gaps) speakers' utterances. These can be placed on their own separate line. | S8: tru\[^0.6\] mpet  
S7: u:n\[^0.8\]  
S8: or:: guitar? |
| Micropause   | A timed pause of less than 0.2 seconds that can also be placed on its own separate line. | S8: or:: guitar?  
  
S7: u:n\[^0.8\]  |
| Comma        | Indicates a continuing intonation with slight upward or downward contour that may or may not occur at the end of a turn-constructional unit (TCU) as in the enunciation of an item in a not yet completed list. | S7: I \[^1.0\] un I went to,  
  
  
  electo:[n zu school=s\[^0.9\] o:  
S8: [ah |
| Period       | Indicates a falling pitch or intonational contour at the conclusion of a TCU. | S8: tru\[^0.6\] mpet  
S7: u:n\[^0.8\]  
S8: or:: guitar?  
  
  
  S7: u:n\[^0.6\]  
S8: wh\[^1.2\] i:ch is difficult. |
| Question mark| Rising vocal pitch or intonational contour at the conclusion of a TCU. | S8: tru\[^0.6\] mpet  
S7: u:n\[^0.8\]  
S8: or:: guitar?  
  
  
  S8: or:: guitar?
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
</table>
| Exclamation point `!` | Marks the conclusion of a TCU delivered with emphatic and animated tone. | S8: play the guitar?  
S7: un-  
S8: =a little  
S7: an:::d trump↑e:::t  
S8: WOW! |
| Hyphen `-` | An abrupt halt at the conclusion of a TCU. This mark can also occur within a TCU where it often indicates a retracing. | S8: (out of) history  
ah::: ((clears throat))  
(0.8)  
re-  
(1.0)  
renaissance  
S7: un-un- |
| Colon(s) `:` | One or more colons indicate sustained enunciation of a vowel or consonant. The more the colons, the longer the stretch. When measured carefully, each colon represents one-tenth of a second stretch. | S8: or:: guitar?  
(.)  
S7: u↑:n↓: |
| Inward angles `>` | Speech delivered faster than surrounding material. | S8: >do you wanna go< to: Czech?  
S7: hmm: ye:s |
| Outward angles `<` | Speech delivered slower than the surrounding material. Slow speech usually appears in this study as stretchings followed by pauses, so these are not used. | |
| Degree signs `°` | Speech produced more softly than surrounding talk. | S7: tru↑:mpet (0.6) i↓:s (1.7) u:n↓:  
(0.6)  
S8: °hard° |
| Capitalization `TEXT` | Speech delivered more loudly than surrounding talk. | S8: WOW! |
| Underscored text `text` | Underscoring indicates stress on a word, syllable, or sound. | S8: wh↑i:ch (1.2) is difficult. |
| Arrows `↓↑` | Mark a rise or fall in intonation. | S7: u↑:n↓:  
(0.6)  
S8: wh↑i:ch (1.2) is difficult. |
Audible expulsion of breath (linguistic aspiration) as in laughter, sighing, etc. When aspiration occurs within a word, it is set off with parentheses.

S7: hhh .hhh

dot plus hhh .hhh

Audible inhalation is marked with a preceding dot.

S7: .hhh ha u::n

words in parens (text)

Text enclosed in parentheses represents transcribed talk for which doubt exists.

S8: (out of) history
   (1.0)
   ah:: ((clears throat))
   (0.8)
   re-
   (1.0)
   renaissance

empty parens ( )

Empty parentheses represent untranscribed talk or an unknown speaker. The talk may be untranscribed because the transcriber cannot understand what was said.

S8: hhh just [ ( )
S7: [um

double parentheses ((comment))

Comments and annotations of any type, including descriptions and asides, with the text in italics.

S8: ah:: ((clears throat))

italics chigau

Non-English words. In this study, italics are not applied to the wide variety of the acknowledgment token (Japanese sounding) “un” and its variants.

asterisks * text *

Material delivered in a creaky voice.

S5: *bla-(0.4)ku:::* un:::::::::::::::::::::::::::(tilts gaze)

Japanese phrases are transcribed on three tiers. On the first tier, the Japanese term is in italics. The second tier is a literal translation (i.e., word by word) and the third tier is a translation with meaning based on the context of the talk. An extra tier is sometimes used for nonvocal behavior.

23 S5: ah [nan yaro
   what be
   ah what would it be?
   [. . . . .((shifts gaze & body toward DICT))

For transcribing gaze behavior without framegrabs, I adopted a system developed by Charles Goodwin (1981). Most of these are not displayed in this study. Only several are
used in describing the timing and placement of gaze movement and pauses. As in the
above example, the dots represent the time of the gaze movement from onset, indicated
by a bracket.

[ A bracket indicates the point where body movement begins.

. . . A dot or series of dots mark the movement of gaze to another.

(----------) For elapsed time of silence, each dash equals one-tenth of a second.
APPENDIX D
DATA SESSIONS AND PRESENTATIONS

29. June 24, 2006. At the end of a CA course with Don Carroll at Temple University Japan-Osaka, Jack Barrow led a session on "OK's."
31. August 7-11, 2006. CA seminar at University of Hawaii at Manoa with G. Kasper.
Gabriele Pallotti, University of Modena and Reggio Emilia; Johannes Wagner, University of Southern Denmark. Jack Barrow provided data of e-dictionary talk for a data session.

32. Sept. 12, 2006. Donna Fujimoto, novice L2 interaction; and Jack Barrow, e-dictionary use


35. Nov. 4, JALT 2006. "EFL Learner Practices in Institutional Activities" panel; Presenters: Jack Barrow, with Gabriele Kasper, Yuri Hosoda, and David Aline


37. Jan. 25, 2007. Yuriko Kite of Kansai University, interaction between novice and expert engineers

38. Feb. 5-8, 2007. L2Talk workshop with Dr. Rod Gardner and Tim Greer at Kobe University; Jack Barrow led a data session on e-dictionary use


