

© 2015 John A. Young, Jr.

EXPLORING JAPANESE LEARNERS' PERCEPTION, PRODUCTION, AND BELIEFS  
CONCERNING SPOKEN ENGLISH CONTRACTIONS

BY

JOHN A. YOUNG, JR.

DISSERTATION

Submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy in Secondary and Continuing Education  
in the Graduate College of the  
University of Illinois at Urbana-Champaign, 2015

Urbana, Illinois

Doctoral Committee:

Professor Sarah McCarthey, Chair  
Associate Professor Randall Sadler, Director of Research  
Professor Jennifer Cole  
Associate Professor Misumi Sadler

## **ABSTRACT**

This mixed-methods study examined the beliefs and performance of 10 adult Japanese speakers of English regarding the phenomenon of contraction in spoken English. Over the course of three months, a collective case study approach involving listening tasks and semi-structured interviews was employed to investigate the topic from multiple dimensions, both qualitatively and quantitatively. In addition to the creation of individual portraits of these English learners by exploring their unique learning histories, and their oral/aural performance, similar performance data collected from four native English speakers were used to further contextualize the Japanese participants' results. Analysis revealed distinct tendencies regarding contraction production and perception ability as they relate, for instance, to contraction type and the ratio of contraction. The research also uncovered common themes regarding general and individual-specific contraction-related beliefs. These findings can serve as a touchstone for researchers and educators concerned with the English oral/aural development of Japanese learners, specifically with regard to contraction-related issues affecting them.

*To my wife, Miho, who blazed a trail for me to follow. And to my parents and sisters for providing the foundation.*

## ACKNOWLEDGEMENTS

I would like to first give sincere thanks to Dr. Daniel Walsh who took me on as his student those many years ago. Thank you for all of the encouragement and advice as I slowly worked toward this seemingly unreachable goal. Although I was not able to finish this project with you, your words of wisdom will always remain.

I also owe a deep debt of gratitude to Drs. Randall Sadler & Sarah McCarthy for opening their doors to me after my long absence from this project. Without their understanding and guidance, this manuscript would not have reached fruition. Likewise, I owe many thanks to Dr. Jennifer Cole, for providing valuable assistance during the initial stages of the project, as well as for her encouragement to go even further with the research. Finally, I would like to thank Dr. Misumi Sadler for providing useful insights and feedback concerning first-language and cultural issues related to the Japanese participants in the study.

In closing, I would like to express my sincerest gratitude to all of the Japanese and English native speakers who agreed to participate in this project. Despite the many years between its beginning and completion, I will always cherish our brief time together and the earnestness and enthusiasm you shared with me. I would also like to extend my thanks to those behind the scenes, namely the raters and piloters, who gave their time and effort to ensure the quality of the materials.

## TABLE OF CONTENTS

<b>CHAPTER 1: INTRODUCTION</b> .....	1
<b>CHAPTER 2: REVIEW OF LITERATURE</b> .....	9
<b>CHAPTER 3: METHODOLOGY</b> .....	44
<b>CHAPTER 4: CASE STUDIES</b> .....	67
<b>CHAPTER 5: GROUP RESULTS</b> .....	146
<b>CHAPTER 6: DISCUSSION &amp; CONCLUSION</b> .....	185
<b>REFERENCES</b> .....	206
<b>APPENDIX A: CONSENT FORM (NS)</b> .....	216
<b>APPENDIX B: CONSENT FORM (NNS)</b> .....	217
<b>APPENDIX C: QUESTIONNAIRE SPECIFICATION</b> .....	219
<b>APPENDIX D: NNS QUESTIONNAIRE (ENGLISH &amp; JAPANESE VERSIONS)</b> .....	221
<b>APPENDIX E: NS QUESTIONNAIRE</b> .....	229
<b>APPENDIX F: INTERVIEW QUESTIONS SPECIFICATION</b> .....	230
<b>APPENDIX G: LISTENING TASK SPECIFICATION</b> .....	232
<b>APPENDIX H: CLOZE-TYPE LISTENING TASK ANSWER SHEETS</b> .....	237
<b>APPENDIX I: FORCED-CHOICE LISTENING TASK ANSWER SHEETS</b> .....	243
<b>APPENDIX J: LISTENING TASK ITEM KEYS</b> .....	249
<b>APPENDIX K: RESULTS OF CLOZE-TYPE LISTENING TASK</b> .....	251
<b>APPENDIX L: RESULTS OF FORCED-CHOICE LISTENING TASK</b> .....	253
<b>APPENDIX M: CONTRACTION-RELATED PRODUCTION TOKENS (NNS)</b> .....	254
<b>APPENDIX N: CONTRACTION-RELATED PRODUCTION TOKENS (NS)</b> .....	256

# CHAPTER 1

## INTRODUCTION

To begin this chapter, I first want to briefly explain my personal path to this topic of inquiry before describing the specific focus of the study and then contextualizing this research in terms of its purpose, significance, and the challenges. Near this chapter's conclusion, the research questions that serve as the guide for the study are presented.

### **Motivation**

The motivation for the current study derived in large part from my past and present experiences as an English as a second/foreign language (ESL/EFL) instructor, and from my desire to better understand and aid ESL/EFL students' ongoing quest to improve their experiences with spoken English. Admittedly, this is a very broad endeavor, however my work with international graduate students at an American university led to discoveries that helped me to narrow the scope of my focus. In particular, through many hours of listening to students' presentations, recorded homework assignments, and spontaneous conversations during one-on-one conferences, I became curious about their tendencies regarding the use of contractions in their oral English production. My initial curiosity led to a cursory investigation of the available literature on this topic, but I was disappointed to find research examining the actual perception and production of contractions by both native and non-native speakers of English to be generally lacking. For the present investigation, therefore, I have chosen to examine this component of spoken English within a specific community of English learners, namely Japanese English learners studying in the United States, in the hope of not only contributing to perceived deficiencies in the current knowledge base concerning spoken English contraction, but also to affect positive instructional change regarding how this phenomenon is presented explicitly and implicitly in English curricula in Japan and possibly beyond.

## **Focus of the current study**

The specific phenomena under investigation in this study are the production and perception of English contractions by Japanese learners of English, as well as their beliefs about contraction use. I have chosen to focus on contraction because of the relative clarity with which it can be defined and noticed in comparison to other forms of connected speech. In addition, it appears that contraction not only bridges the worlds of written and spoken English in ways that are rarely observable with other forms of connected speech, but also its use (or lack thereof) also carries social weight in terms of interlocutor judgments of language proficiency and formality. Because of the interesting properties of contraction and the fact that few studies have attempted to investigate its multidimensional nature, let alone the degree to which English language learners perceive them, use them, and conceive of them, the current study was undertaken.

At its most fundamental, contraction is a type of connected speech phenomenon and involves "the process or result of phonologically reducing a linguistic form so that it comes to be attached to an adjacent linguistic form" (Crystal, 2008; 111). In practical terms, Hahn and Dickerson (1999) state, "[contraction] helps native speakers to produce regular alternations between stressed and unstressed words more easily" (p. 28), thus, aiding the production of English prosody. Prosody, as defined by Pennington (1996) consists of commonly associated components, such as word stress, pitch, tone, phrase rhythm and intonation, and of more foundational aspects of speech such as voice setting/quality and fluent speech phenomena. Previous studies have examined the importance of prosodic, or suprasegmental, features in native English speaker judgment of non-native talk, and found that these features play a key role (Anderson-Hsieh, Johnson, & Koehler, 1992; Derwing, Munro, & Wiebe, 1998).

Although it can be argued that contraction is a rather small component of prosody, that native speakers themselves exhibit a great deal of variability in contraction production, and that



failure to contract does seem to affect comprehensibility of content to a large degree, clear distinctions have been observed between native speakers (NS) and non-native speakers (NNS) regarding this phenomenon. Such differences relate to accuracy of full form perception in aural stimulus containing contracted speech (Ito, 2006), acquisition of grammaticality perception (O'Grady, Nakamura, & Ito, 2008), and frequency of use in speech (Mair, 2009; Tomokiyo, 2000). Clearly, contraction is a distinctive component of oral English, and its use by second language (L2) learners of English should merit further investigation, as the current body of literature related to the teaching and learning of connected speech appears to be lacking (Brown & Kondo-Brown, 2006, p. 9).

Among the research studies that have looked at connected speech phenomena in general, or contraction, in particular, very few single studies have tried to examine the phenomena multi-dimensionally across modes (i.e. speaking, listening, reading, writing), and fewer still, if any, have considered how the learners themselves conceptualize the phenomena and their use of it. Among the connected speech studies cited by Brown and Kondo-Brown, for instance, the majority examined connected speech performance (including contraction) primarily from the point of view of aural perception (Bowen, 1975b, 1976; Brown & Hilferty, 1986; Henrichsen, 1984; Ito, 2006; Matsuzawa, 2006). Studies examining oral production of connected speech (Anderson-Hsieh et al., 1994) and contraction (Kweon, 2000; Odlin, 1978), however, have been relatively sparse. Of the studies mentioned above, only Kweon (2000) examined contraction across different modalities, namely oral production and grammaticality judgment of spoken and written language. Moreover, there is a perceived widespread lack of effort on the part of language researchers to adequately contextualize the individuals participating in such studies to a degree in which the consumers of the research can better understand how those learners themselves understand the phenomena being examined.

In stating future directions for phonological research, for instance, Hansen Edwards (2008) insists, “Research needs to be conducted on suprasegmentals and variation/social factors, especially in relation to gender, culture, and identity, as well as variation” (p. 274). In order to address this call, the current study hopes to shed light on the seemingly innocuous suprasegmental phenomenon of contraction in English and in doing so, simultaneously provide a richer contextual environment to better understand the quantitative data collected. It is my aim that the current study, which examines oral production of contraction in unscripted talk, aural perception of contracted forms in relation to their full forms, and English learners’ beliefs about contraction and its use will contribute to perceived deficiencies in the current literature base.

In examining the phenomenon of contraction within this study I focused my attention on a specific population, namely Japanese students studying in an American university setting. There are at least four reasons for focusing on this aspect of connected speech with this particular population. First, my familiarity with Japanese learners of English and the strong possibility of working closely with such learners in the future is one of the primary reasons for focusing on this population. Second, due to specific linguistic differences between English and Japanese, as well as issues with the way oral/aural English is and has been taught through the Japanese educational system, the oral/aural skills of Japanese learners of English have historically been a point of issue (Pennington, 1987). Although a great deal of literature has focused on Japanese learners' production and/or perception of sound-level segmental features, such as /r/ and /l/ distinction (e.g. Aoyama, Flege, Guion, Akahane-Yamada, & Yamada, 2004; Bradlow, Akahane-Yamada, Pisoni, Tohkura, 1999; Ingram & Park, 1998; Larson-Hall, 2006; Lotto, Sato, & Diehl, 2004) and vowel qualities (e.g. Ingram & Park, 1997; Lambacher, Martens, Kakehi, Marasinghe, & Molholt, 2005; Lee, Guion, & Harada, 2006; Saito, 2007), relatively few investigations have examined Japanese learners' production and/or perception of suprasegmental aspects of English,

such as word stress (e.g. Kawagoe, 2003; Kondo, 2009; Lee & Guion, 2008), intonation (e.g. Beckman, 1996), and connected speech phenomena (e.g. Anderson-Hsieh, Riney, & Koelher, 1994; Matsuzawa, 2006; Witzel & Witzel, 2008). Third, examining the phenomenon with a single language group will help to limit the amount of linguistic and sociocultural variation inherent in a study involving participants with different native languages. Finally, I view the current research as the first step in a three part plan to further investigate contraction use and instruction more deeply in the context of Japanese English education. Specifically, I will use the findings of this study to underpin investigations of contraction performance and conceptualization from the standpoint of Japanese teachers of English, as well as the presentation of contracted forms in textbooks used in Japanese schools.

### **Research Questions**

My goal through this research, then, was to obtain a better understanding of the way individual Japanese learners of English produce and perceive contraction in spoken English by working with a small sample of such learners studying in an American university setting. Through an examination of performance on objective measures, I constructed narratives detailing each participant's current state of interlanguage<sup>1</sup> with regard to contraction use. I will then go further in this investigation by attempting to contextualize their performance within a sociolinguistic/sociocultural framework based on their previous language learning experiences and their own cognizance of their oral production. Through this analysis, I look forward to exploring and interpreting the various aspects of congruence and incongruence I assume I will find. Specifically, the study is guided by the following questions:

---

<sup>1</sup> "The linguistic system created by someone in the course of learning a foreign language, different from either the speaker's first language or the target language being acquired. It reflects the learner's evolving system of rules, and results from a variety of processes, including the influence of the first language ('transfer'), contrastive interference from the target language, and the overgeneralization of newly encountered rules" (Crystal, 2008; p. 249). The term was introduced by Selinker (1972).

1. What is the quality of aural English contraction perception by a select group of Japanese participants? To what degree and in what way do these learners perceive contraction use in spoken utterances, and to what degree does listening task type affect performance?
2. What is the quality of spoken English contraction by these participants in unscripted talk? To what degree and in what way is variation manifested individually and as a whole?
3. What beliefs do these participants hold regarding their own perception and production of contraction, as well as its broader use across written and spoken modes of English communication? To what degree is there congruence and incongruence between their performance and beliefs about performance?
4. What pedagogical and research implications can be made through answering the questions above?

### **Significance**

First, the current study attempts to address a recognized dearth in primary research examining non-native production of connected speech phenomena in spoken English noted earlier, by increasing our understanding of how contraction is enacted and conceived of by a select group of non-native speakers of English. Second, by framing this research qualitatively with an emphasis on sociolinguistic/sociocultural interpretation of interlanguage variation in contraction production, the study also addresses perceived representation deficiencies in this type of research literature (Lazaraton, 2000) and research orientation (Tarone, 2007). Third, by involving the participants in the process of making meaning of their oral production of contraction within the larger context of their learning histories, the current study can serve as a vehicle for raising their metalinguistic awareness and shaping their future language development. Finally, the framework and findings of the study can be used to shape the design of future research studies investigating contraction use, or other connected speech phenomena, in other contexts.

## **Challenges**

As with all research endeavors, there exist a number of key challenges involved with the current study. Chief among them in this study is decision to use a small sample size for the investigation and the restriction this places on generalizing the findings to larger populations. Although generalizability of research findings has historically been a primary concern of scientific inquiry, there are many who contend that making meaning of observable phenomena, even those limited to moment-in-time contexts, is an equally important goal of systematic inquiry. It is my view that both contextually-rich small-scale studies and generalization-producing large-scale studies have a place in making meaning of the world around us. Undoubtedly, these two research types can serve as launching pads for each other in the quest to expand the understanding of various phenomena. Based on my constraints and beliefs as a researcher, I contend that the questions I am exploring through the current research are best investigated through the use of the former style of inquiry. I hope that the richness of the contextualization of the participants will be a greater benefit than the lack of generalizability is a hindrance.

Another challenge of the current study is finding a way to successfully interrelate this study of contraction use and beliefs with the fields of second language acquisition, phonology, and ESL/EFL education, and in such a way that the results will be of benefit to these areas. Since all writers must consider the audience that consumes their writing, I consider it important to choose my style very carefully, trying to straddle technical exactness with accessibility and transparency of expression for readers who may come from more general ESL/EFL teaching backgrounds.

Finally, it is clear that using qualitative and quantitative methods together in a single study poses inherent difficulties, but it is my view that failing to attempt to link that which is

quantifiable to that which is qualifiable and vice versa within the scope of a single study is a greater disservice to the pursuit of knowledge. I hope to do justice to this pursuit in the current study.

## CHAPTER 2

### REVIEW OF LITERATURE

#### Overview

The purpose of this chapter is to provide a theoretical framework for the study and to define key terms and concepts related to both the theoretical constructs and the topic of English contraction as a part of connected speech. After introducing the topic of contraction, and the learner-internal and learner-external issues involved with contraction production, the content will be organized according to the three main concepts under investigation: perception, production, and pronunciation-related beliefs. In addition to the focus on contraction, attention will be given to some of the fundamental considerations related to contraction use specifically by Japanese speakers of English.

#### Theoretical frameworks

Because the current research is examining both the oral/aural performance data of participants, as well as their conceptualizations of the linguistic phenomenon under investigation, namely spoken English contractions, two theoretical frameworks have been chosen for this study. To investigate the perception and production performance of the participants, one component of the study is framed within the scope of second language acquisition (SLA) research examining variation in language learners' interlanguage (IL) from a sociolinguistic perspective<sup>2</sup>. The second framework employed in this study is founded on research examining learners' beliefs related to the topic of contraction, including their knowledge and self-perceived use of this connected speech phenomenon. Through the use of sociolinguistic and sociocultural frameworks, an attempt can be made to heed the call by Firth and Wagner (1997) to conduct

---

<sup>2</sup> According to Tarone (2007), "Sociolinguistics is a well-established branch of linguistics that focuses on the study of the impact of society, including the impact of social context, on the way language is used. A sociolinguistic approach to SLA is one that studies the relationship between social and contextual variables as interlocutor, topic, or task and the formal features of learner language or interlanguage (IL) production" (p. 837)

SLA research with “enhanced awareness of the contextual and interactional dimensions of language use, [and] an increased ‘emic’ (i.e., participant-relevant) sensitivity” (p. 285).

**Sociolinguistic Framework.** The sociolinguistic study of phonological variation in native language (L1) production can be traced back to the work of Labov (1963, 1966, 1969), who established connections between variation in phonological production and the social contexts in which speakers are embedded. Following Labov’s groundbreaking work with English native speakers (NS), Selinker (1972) is credited with coining the term, *interlanguage*, to describe the existence of a systematically variable, intermediate language existing between non-native speakers’ (NNS) L1 and the target language (L2) they seek to acquire. Subsequent studies have linked the frameworks put forth by Labov and Selinker to examine variation in the interlanguage of non-native speakers of English from sociolinguistic perspectives. Simply put, variation and optionality “describe a situation where one phonological input has more than one output” (Anttila, 2007, p. 519)<sup>3</sup>.

It is important to first discuss the kinds of variability and the causes of variability related to interlanguage. According to Ellis (1985), the two primary kinds of systematic variability are situational variability and contextual variability. Utilizing categories proposed earlier by Brown and Fraser (1979), Ellis states that in situational variability, linguistic forms are varied according to extra-linguistic factors, namely those related to the *scene* and to the *participants* themselves. Whereas scene-related factors include “setting, type of activity, and subject matter,” participant-related factors involve “the individual characteristics of the language users (e.g., sex, age, ethnicity) and interpersonal role relationships” (p. 119). As Tarone (2007) points out, “L2 use is not just about cognition in a vacuum. Rather, learners’ L2 input and processing of L2 input in social settings are socially mediated; social and linguistic contexts affect L2 linguistic use,

---

<sup>3</sup> Anttila uses the example of the phrase “west side”, and shows how there are two acceptable (variable) pronunciations: one in which the /t/ in *west* is pronounced, and a second in which the /t/ is elided, or deleted.



choice, and development; and learners intentionally assert social identities through their L2 in communicating in social context” (p. 845). Consequently, variation in L2 pronunciation has been shown to be socially marked and influenced by a number of factors, including attention to speech (as dictated by the speech task), the characteristics of the speaker, the characteristics of the listener, and the context surrounding the interaction (for a review, see Dowd, Zuengler, & Berkowitz, 1990)

The second type of variability mentioned by Ellis (1985), contextual variability, occurs “when the language user varies his use of linguistic forms according to the linguistic environment,” namely grammatical or phonological environments (p. 120). Variable rules have been used to describe such variability, as they are “formulated to characterize the statistical co-occurrence of two or more linguistic variables” (Odlin, 1978; p. 452). These variables are linguistic units, such as vowels, consonants or larger units, such as words. According to Anttila (2007), “Variation and optionality are pervasive in the phonologies of natural language, and for this reason optional rules have always been a part of the generative phonologist’s descriptive toolbox (Chomsky and Halle, 1968)” (p. 520). In comparing the influence of both contextual and situational variables, Preston (2002) contends that linguistic context actually exerts a stronger influence than sociocultural factors based on his previous reviews of literature.

In addition to systematic variability, non-systematic variability in the speech of both native and non-native speakers must also be considered. Ellis (1985), for instance, points out that non-systematic variation can simply be the result of performance lapses or “the result of competing rules in the learner’s competence” that can produce idiosyncratic results in which phonological or grammatical variants are seemingly produced in free variation (p. 121).<sup>4</sup>

---

<sup>4</sup> To illustrate these examples of non-systematic variation, Ellis highlights his own phonological variation in the production of the words *data*, *often*, and *schedule*.

The current study will attempt to draw upon the concepts of contextual variability as well as situational variability in qualifying the production of English contractions by a select group of Japanese learners of English. Situational variability will be examined through the use of “thick description” (Geertz, 1973) to shed light on the scenes and participants, with particular attention paid to the characteristics of the research tasks and context. Although the formation of variable rules regarding the participants’ production of contractions is not within the purview of the current study, contextual variability will be considered and described in as much detail as possible. In considering both situational and contextual variability, the current study hopes to address the perceived deficiency in the literature accounting for NNSs’ production of spoken English contractions.

**Beliefs in SLA.** In order to address the topic of the participants’ beliefs about their own knowledge and use of English contractions, a second framework incorporating previously-mentioned “emic sensitivity” is considered. As pointed out by Barcelos (2003), the study of beliefs in SLA over the past 25 years has been undertaken with various definitions of the term in mind. Through an examination of related literature, she was able to the conclusion that “beliefs do not have a cognitive dimension only, but a social dimensions as well, because they are born out of our interactions with others and with our environment” (p. 8).

Considering the three categorizations of approaches used to investigate beliefs put forth by Barcelos, (i.e., normative, metacognitive, and contextual), the current study cannot be said to employ a normative approach because it neither seeks to describe or classify belief types, nor does it view learners’ beliefs as largely at odds with the majority to scholarly opinion, as contended by Horwitz (1987). The current study does, however, follow an approach more aligned with metacognitive and contextual approaches. Specifically, it uses semi-structured interviews and self-report, metacognitive approaches, “to give learners the opportunity to

elaborate and reflect on their experience” (Barcelos, 2003, p. 19). It also attempts to contextualize learners’ beliefs by linking them with specific actions, such as production and perception tasks, which is common practice in contextual approaches.

Though it could be argued that strides have been made since Firth and Wagner’s (1997) call for a greater degree of participant relevance in language-related research approaches, in the area of L2 phonology research, at least, relatively little has been done to include the perspective of participants in the framing of their own production and perception. It is too often the case in such research that the etic perspective of the researcher prevails in how phenomena are approached and how meaning is made. Often the main focus is on the product of the language learner, rather than on the participant as a whole. Unfortunately, as Schmidt (1995) observed, “learners are almost never asked about their learning or their accounts incorporated into theories of learning” (p. 5). Horwitz (1988) adds,

Although student beliefs about language learning would seem to have obvious relevance to the understanding of student expectations of, commitment to, success in, and satisfaction with their language classes, they have remained relatively unexplored. Studies of learner errors and interlanguage systems attempt to document learner hypotheses about the target language system but disregard more encompassing conceptions of the language learning task (p. 283).

By attempting to include my participants in the meaning-making exercise of this study instead of solely focusing on their performance on test instruments, it is my intent as the researcher to increase both their stake in the research process and the benefits associated with their increased agency.

Similarly, the current study aims to attend to the importance and uniqueness of the participants as individuals. As Derwing (2008) has noted,

The importance of assessing each person individually cannot be over-emphasized. There are numerous materials that characterize the errors that L2 speakers of particular languages make [...] but not all speakers of a given language will have these errors, and some individuals will exhibit problems that are not shared by others from the same L1. (p. 352)

In summing up what has been learned with regard to current phonologically-related SLA research, and the future challenges such research faces, Moyer (2004) made the following observations:

Empirical evidence in SLA has confirmed a pervasive neuro-cognitive influence, evident in the apparent loss of flexibility for the native-like acquisition of new patterns, especially in the phonological realm. Cognitive and psycholinguistic research have confirmed transfer effects from L1 to L2, similar patterns of development for certain features regardless of L1, and the likelihood of fossilization short of native-like production. At the same time, SLA is characterized by great individual variation. Each learner brings to bear his or her own talents, needs, style, and limits. At this point, the significance of attitude, motivation, and other social-psychological factors is unquestioned in the research. This juxtaposition of individual and universal aspects of acquisition often confounds empirical investigation. Perhaps no other level of language ability demonstrates this juxtaposition more clearly (and consistently) than phonology. (p. 7)

Clearly, when addressing the topic of an individual learner's beliefs of their language use, their metacognitive awareness, individuality, and broader sociocultural influences all come into play. Fortunately, a growing number of researchers investigating L2 oral production acknowledge and value what can be learned from research participants beyond the oral samples that they provide. Almost forty years ago, for instance, Schachter, Tyson, and Diffley (1976) took the view that simply analyzing the production of language learners to get a sense of their state of interlanguage was insufficient, and they strove to characterize learners' knowledge of their own language. More recently, Bayley and Regan (2004) made the observation that "knowledge of variation is part of speaker competence. The implication of this position is that, in order to become fully proficient in the target language, second language learners also need to acquire native-speaker (NS) patterns of variation" (p. 325).

However, when one takes into account the language-learning contexts of NNSs, attaining NS patterns of variation may not be possible or desirable. As Bayley and Regan point out, "It may be that what is categorical in NS speech is more easily acquired in the classroom than what is variable. The acquisition of NS patterns of variability appears to require prolonged contact

with native speakers” (p. 329). It would appear, then, that there should be greater consideration of individual learner’s instructional contexts and social interactions with regard to the production of variable forms, such as their use of contractions. To date, intensive examination of this type has yet to occur. As Edwards (2008) notes, “there has been no research on L2 phonology to date, as far as this researcher is aware, that employs [ethnographic] approach although this direction of variationist research provides a way of integrating both qualitative and quantitative methods, which enables both deeper and wider analyses of issues under investigation” (p. 271-272).

The current research, though not ethnographic, does attempt to marry qualitative and quantitative methods in a way that follows the lead of recent research that has mixed methods effectively (c.f. Lybeck, 2002; Moyer, 2004; and Ohara, 2001). To this end, the current study attempts to give voice to the participating individuals by providing opportunities for them to contextualize their own linguistic performance, both in relation to the immediate research context, as well as the broader scope of their language learning histories.

### **Contraction**

The specific linguistic phenomenon being examined through this study is contraction. However, before describing and discussing contraction, it is first important to briefly discuss the broader context of connected speech, of which contraction is a part. After providing some definitions and examples of connected speech phenomena, the importance of connected speech and contraction will be discussed in the larger context of language production and perception.

*Connected speech* is broadly described by Crystal (2008) as "the process or result of phonologically reducing a linguistic form so that it comes to be attached to an adjacent linguistic form" (p. 101). These physical processes of sound reduction and attachment, which are present to a large degree in natural input during first language acquisition, can be described by linguists as the product of the application of *sandhi* rules, whereby *sandhi* is a Sanskrit term meaning

“joining,” and refers to “phonological modification of grammatical forms which have been juxtaposed” (Crystal: 422). Thus, it can be said that the application of *sandhi* processes results in connected speech. These *sandhi* modifications can be subdivided into two basic types: those that operate within word boundaries (internal *sandhi*) and those that operate between word boundaries (external *sandhi*)<sup>5</sup>.

In detailing the primary processes that contribute to the production of connected speech, Brown and Kondo-Brown (2006) list a number of underlying factors, such as word stress, sentence stress and timing, and citation and weak forms of words, in addition to traditional *sandhi* phenomena, such as assimilation, liaison, elision, transition/juncture, intrusion, reduction, and the focus of the current research, contraction. These *sandhi* processes are the result of efficient oral production, and together, are defining elements in natural language output.

*Contraction*, then, is a subcategory of connected speech, and as such, it can be defined in relation to it. In fact, Crystal’s (2008) definition of *contraction* is essentially the same as his definition for *connected speech*, but he adds that contraction also includes “fusing a sequence of forms so that they appear as a single form” (p. 111). The phonological fusing that takes place in contraction is the process of *aphaeresis*, which is “[t]he loss or omission of one or more segmentals<sup>6</sup> from the beginning of a word” (Trask, 1996; p. 27).

Although in written form, contraction is a binary system (i.e., contractible two-word phrases are either represented as two distinct words or as a single word, using an apostrophe for deleted letters), MacKenzie (2011) proposed that spoken contractions actually possess “three distinct phonological shapes”: full forms, intermediate, and contracted forms (p. 153). The defining feature of the intermediate category is that the auxiliary possesses no initial consonant,

---

<sup>5</sup> Internal *sandhi*: (syn+pathy → sympathy); external *sandhi*: (can’t you → *canchu*)

<sup>6</sup> i.e., consonants and vowels

but does possess an audible vowel, specifically schwa, while full contractions do not. Within the framework of the current study, intermediate and contracted forms were conflated.

Because of the broadness of the initial definition of *contraction*, it is important to further qualify the term and narrow the type of contraction to be examined in this study. In reviewing the literature, it must be said that there is substantial variation in how contractions can be categorized<sup>7</sup>. With this in mind, I would like to introduce the three basic categorizations of English contraction discussed in previous literature. Contractions including the word “not” have been classified as *negative contractions* or *not-contractions* (Biber, Johansson, Leech, Conrad, & Finegan, 1999). In grammatical terms, *n’t* is viewed grammatically as an *inflectional affix* (Zwicky, 1977). Contractions involving *be*-verbs and auxiliaries<sup>8</sup> have been classified as *verb contractions* (Biber et al.) or *aux-contractions*. In more precise grammatical terms, they are *simple enclitics* (Zwicky).<sup>9</sup> The third type of contractions has been labeled *conversational contractions* (Rühlemann, 2008), and includes those not consistent with the first two categories. Examples include *to*-contractions, such as *gonna* (going to) and *gotta* (got to), as well as combinations of *not*-contractions with other words, such as *innit* (isn’t it) and *dunno* (don’t know)<sup>10</sup>.

---

<sup>7</sup> Contraction can be classified or examined on different linguistic levels. For instance, whether they are lexical (*not*-contractions) or phonological (verb contractions) (Ito, 2006).

<sup>8</sup> Auxiliary verbs are “a set of verbs, subordinate to the main lexical verb, which help to make distinctions in mood, aspect, voice, etc. [...] In English, the main auxiliary verbs are *do*, *be*, and *have*. [...] The modal auxiliaries include *can/could*, *may/might*, *shall/should*, *will/would*, *must*, *ought to* and *used to*.” (Crystal, 2008; p. 46).

<sup>9</sup> According to Crystal (2008), a clitic is “a form which resembles a word, but which cannot stand on its own as a normal utterance, being phonologically dependent on a neighbouring word (its host) in a construction” (p. 80). (An enclitic is a clitic bound to a host on its left.) Simple enclitics are bound morphemes, such as the contracted forms of the English auxiliary verbs *is* (‘s), *have* (‘ve), *has* (‘s), *will* (‘ll), *would* (‘d), *are* (‘re), and *had* (‘d), that affix to the terminus of host words. These enclitics are bound phonologically, but free syntactically (Zwicky & Pullum, 1983).

<sup>10</sup> Other examples cited by Rühlemann (2006) as being examples of conversational contractions (i.e. *yeah* for ‘yes’ and *cos* for ‘because’), do not appear to fit the definition of contraction offered by Crystal (2008) because they do not involve the fusing or attaching of multiple elements.

Considering the different types of contraction, it is important to clarify the target of this study—namely verb contractions and, to a lesser degree, *not*-contractions<sup>11</sup>. Conversational contractions, although quite interesting, will not be examined for two main reasons. First, both verb contractions and *not*-contractions are well represented in standard written text across various registers and are most familiar to NNS. Conversational contractions, however, although present in certain registers of written text, have not been formalized to the same degree as the previously-mentioned contraction types and are considered to be less familiar to NNS, at least in terms of orthographic representation. Furthermore, the syntactic and phonological complexity of these contractions make them more difficult to isolate and analyze.

The contractions targeted for the current study are limited to those listed below.

Table 1

*List of Contractions Targeted in the Current Study.*

Contraction types	Examples of contractions
proform + <i>have/has/had</i> (‘ve, ‘s, ‘d)	I’ve, they’ve, you’ve, we’ve she’s, he’s, it’s I’d, she’d, he’d, we’d, you’d, it’d, they’d
proform + <i>be</i> -verb (‘m, ‘s, ‘re)	I’m she’s, he’s, it’s, there’s, that’s, they’re, you’re, we’re
proform + <i>will</i> (‘ll)	I’ll, she’ll, he’ll, it’ll, they’ll, you’ll, we’ll
proform + <i>would</i> (‘d)	I’d, she’d, he’d, they’d, we’d, you’d
aux. verb + <i>not</i> (n’t)	don’t, won’t, can’t, couldn’t, isn’t, haven’t, hasn’t, shouldn’t, aren’t, doesn’t, didn’t, hadn’t, wasn’t, weren’t, wouldn’t

<sup>11</sup> Because the contracted form of *not*, (n’t), differs from the previously-mentioned clitics according to a number of criteria, it has been viewed by Zwicky and Pullum (1983) as an inflectional affix instead of a clitic.



Now that the linguistic focus of the study has been delineated, it is important to present and discuss the contributing factors underlying the production of these forms. The most critical factor governing the production of connected speech phenomena, like contraction, is the linguistic environment, as it dictates whether or not connected speech processes, such as the ones mentioned above, are even permissible within the grammar of a language<sup>12</sup>. Syntactic information, such as word type and word position, as well as phonological rules related to stress placement and sound change determine if and how *sandhi* processes can occur. In the case of contraction, where the reduction of auxiliary verbs is important, Kaisse (1984) observed,

At first glance the reduction of auxiliaries in English is a very simple and perhaps uninteresting phenomenon; it might seem that any form of *be*, of the modals, and of *have* in all but its main verb sense may occur in contracted form, in any environment where the full verb is found. (p. 40)

In fact, in Labov's (1969) seminal work examining contraction and deletion of the English copula, he lamented that at the time "the rules for SE [standard English] contraction have never been explored in print in any detail" (p. 722). He brought to light the necessity of examining the conditions surrounding contraction and creating phonological contraction rules. Labov was subsequently able to use Chomsky and Halle's (1968) stress assignment rules (i.e. nuclear stress rule and vowel reduction) in conjunction with his own "weak word rule" to describe the initial conditions governing *is* and *are* contraction<sup>13</sup>.

However, phonological rules alone are not sufficient in determining how contraction occurs. Beginning in the 1970s with work by King (1970) and Lakoff (1970), it was found that certain syntactic environments can restrict auxiliary reduction, effectively preventing grammatical contraction. The linguistic constraints surrounding another type of contraction, namely *to*-contraction, have been the subject of intensive study and debate for over four

---

<sup>12</sup> By *grammar*, I am referring to "the theory that the linguist constructs as a hypothesis concerning the actual internalized grammar of the speaker-hearer" (Chomsky & Halle, 1968; p. 4)

<sup>13</sup> Nuclear stress rule: [*I*stress, V]→[1stress] / V ... \_\_\_\_ ...]as weak word rule: [+W, 3stress, V]→[-stress], vowel reduction: [- stress, -tense, V]→schwa (p. 723).

decades,<sup>14</sup> and psycholinguistic research on contractions of this type has uncovered differences in NS and NNS acquisition of grammatical perception of it.<sup>15</sup>

More recently, usage-based grammar has examined how mental representations of language and the physical production of those representations interrelate and reciprocate. Building on the concept of chunking, for instance, Bybee and Scheibman (1999) use the negative contraction *don't* to show how oral repetition can effect constituency. They assert that “repetition conditions chunking (Haiman, 1994), sometimes overriding the syntactic and semantic logic of the organization of utterances” (p. 575). Considering this concept of chunking and the importance of repetition in automatizing chunked discourse, it is possible to see how learners in EFL environments might lack output opportunities to facilitate that automatization.

In the area of connected speech, including contraction, Lass (1984) points out that factors such as speaking rate, the formality of the speaking situation, and other social factors are critical in its production. So, while there is certainly a theoretical, rule-based framework describing the process and constraints of sound change that results in connected speech phenomena, the actual production of those phenomena appear to be codetermined by speaking tempo and extralinguistic factors in the social environment. As Lass points out, “[v]ariation and instability, the ‘dynamic’ aspects of phonology, are uninterpretable save against an invariant, stable background. This is true of connected speech at various tempi, various levels of formality, and socially conditioned variation, all of which interact” (pp. 294-295).

Though speaking rate (SR) is an important variable in the production of connected speech and much has been learned from the many studies that have examined the effect of its manipulation on comprehensibility and listener evaluation of talk (e.g. Anderson-Hsieh &

---

<sup>14</sup> *To*-contractions refer particularly to *want to* (or *wanna*) contractions. For more recent articles related to the debate see Bley-Vroman & Kweon (2002) and Witzel & Witzel, (2008).

<sup>15</sup> O’Grady, Nakamura, and Ito (2008) compare work with native-speaking children done by Crain and Thornton (1998) with studies that have examined adult Korean (Kweon, 2000) and Japanese (Ito, 2005) judgments of *to*-contractions.

Koehler, 1988; Griffiths, 1990; Munro & Derwing, 1998; Munro & Derwing, 2001), the role of speaking rate on the perception or production of contractions will not be examined in the current study. Still, it is important to consider the role of speaking rate, namely “the faster speech is, the greater will be the dynamic influences [of connected speech phenomena]. Accommodation, particularly coarticulation, will be greater. Similarly, sandhi will increase. The number of segments elided will increase, and in general the articulatory target of the speaker will be less frequently and less completely attained” (MacKay, 1987; p. 168). Although native speakers of a language may be able to accurately anticipate and perceive the articulatory targets aimed for by other speakers, it is important to consider that NNSs may not. As Gaeta (2001) astutely points out, “phonology is driven by two conflicting tendencies: the tendency towards being communicatively successful, and the tendency towards saving articulatory effort. The first tendency is listener-friendly, the second one is speaker-friendly.” (p. 107)

Another type of speed to consider in the production of connected or contracted speech is L2 processing speed. O’Grady et al. (2008), for instance, contend that slowness in processing “might lead to underexploitation of the opportunity to contract” (p. 489). They provided as an example Kweon’s (2000) study, in which almost 60% of mostly advanced-level subjects did not contract *want to* in permissible situations on an elicited production activity.

Clearly, adjustment of speech tempo to either increase or decrease the presence of connected speech phenomena occurs for the sake of communicative success. This conscious act of changing the tempo of one’s speech is dictated by the speaker-audience context surrounding the speech production, and moves the discussion of connected speech toward the social aspect of contraction use.

### **How do register and social factors relate to connected speech and variability?**

Contraction use has sometimes been conflated with *casual speech* and branded as being speech that is sloppy, or low, both in class or status (Brown & Kondo-Brown, 2006).

Hasegawa (2006) noted that the confounding of fast and casual speech may be because “languages whose linguistic phenomena have been most closely studied do not often involve grammatical processes that are sensitive to notions such as formalness, intimacy, familiarity, vulgarity, and so forth” (p.170). However, attempts have been made to distinguish fast speech from casual speech in English. Zwicky (1972), for instance, defined casual speech generally as “fast, and [...] stylistically marked as intimate, informal, and the like,” but later conceded that casual speech could also be generated at a slower rate of speech (p. 607).

The formality of speech is related to the concept of register. *Register*, as defined by Crystal (2008), is “a variety of language defined according to its use in social situations” (p. 409). Referencing work by Halliday (1978), Halliday and Matthiessen (2004), and Biber, Johansson, Leech, Conrad, & Finegan (1999), Rühlemann (2008) points out that register can be viewed from both an extralinguistic perspective, based on the interactional social situation, as well as a linguistic perspective, based on the language varieties used within those various situations. Despite the assertion that many connected speech phenomena are generally absent in formal speech, Brown and Kondo-Brown (2006) contended: “The truth is that connected speech is commonly used in all registers and styles. Even the most formal pronunciation of a language will typically contain some aspects of these phenomena [...] Otherwise, the words would be pronounced separately and the speech would sound disconnected and unnatural” (p. 5). They do admit however that style and register do affect the degree to which connected speech phenomena are used. For instance, a 2011 study by Amjadian and Ebadi examined the effect of gender and social familiarity on the production of *be*-verb contractions by examining IELTS oral interviews conducted with Iranian university students majoring in English. They found that interviewer familiarity appeared to impact the contraction production of the female participants more than

the males, with the women in the study producing more full-form expressions than contractions with the unfamiliar interviewer.

Exhibiting variation in the oral production of contractions is most certainly not unique to non-native speakers of English. Native English speakers also exhibit variation, but research examining their tendencies seems to be lacking. The few studies that have documented NS contraction tendencies have noted that frequency rates of the contracted forms are quite high, but can vary depending on the variety of English used by the speaker. Mair (2009), in examining International Corpus of English (ICE) data, for instance, noted clear differences between contraction frequency rates of five different varieties: British English, Irish English, New Zealand English, Jamaican English, and Indian English. He found that while speakers of the first three varieties contracted selected *be*-contractions at rates of between 92% to 98%, speakers of the last two varieties contracted at rates of 85% and 41% respectively.

### **Corpus data and register**

One of the best sources for examining how contractions are actually produced in actual communication is corpus data. According to Mair (2009), “the contraction of certain auxiliary verbs [...] and of the negation particle *not* [...] are extraordinarily well suited to an approach combining corpus linguistics and sociolinguistics. As precisely definable search strings, such forms are easily retrievable from digitized text and at the same time contractions of this type are one of the most reliable indicators of stylistic (in)formality” (p. 20).

One corpus that has been used in an extensive examination of contraction use is the Longman Spoken and Written English Corpus. It is a 40-million word corpus with approximately 12 million words of spoken English divided into three categories: British conversation (3.9 million words), American conversation (2.5 million words), and British non-conversational speech (5.7 million words). In Biber, Johansson, Leech, Conrad, and Finegan’s (1999) *Longman*

*Grammar of Spoken and Written English*, analysis of the corpus included a specific examination of contraction use, namely verb contractions and negative contractions, in both written and spoken word. Conceding that “[n]o corpus provides a perfect representation of a language” (p. 27), and that some contractions, like the contracted form of *we are* (*we’re*) are difficult to discern in spoken form, Biber et al. state, “In most cases, [...] there is little uncertainty for transcribers in choosing between contracted and non-contracted forms.” (p. 1129). Through their analysis of spoken and written contraction use in the corpus, many macro- and micro-level tendencies were observed.

At the macro-level, for instance, both verb and negative contractions were shown to exhibit a clear trend across the four registers examined in the Longman Spoken and Written English Corpus. Specifically, contraction was most frequent in conversation and less frequent in written fiction, written news, and academic prose in that descending order. In the case of *be*-verb contraction, for example, an overall contraction rate of 75% was observed in conversation, but in written news that overall rate dropped to 10% (p. 1129). Additionally, syntactic environments where contraction never takes place (such as sentences with no host<sup>16</sup> and sentences with the primary verb in clause-final position<sup>17</sup>) or rarely takes place (such as sentences containing a postmodifier in the noun phrase before a primary verb<sup>18</sup>) were also observed.

At the micro-level, Biber et al. noted the following contraction tendencies among the different types of verb contractions.

- “In most cases, [the] host [in verb contraction] is a pronoun [...] However, many other forms preceding a primary verb can serve as a host, including full nouns, *wh*- words, and *there*”
- “[verb contractions] also have a stronger tendency to occur before common verbs such as *give*, *go*, and *get* than before other main verbs.”
- “the contraction of *am* to *’m* after *I* shows the strongest tendency of all, while *are* is comparatively more inclined to retention of the full form.”

---

<sup>16</sup> e.g., *yes-no* questions

<sup>17</sup> e.g., “I think they are” not “I think they’re”

<sup>18</sup> e.g., “The boy who lives next door is walking home” or “The boy who lives next door’s walking home”

- “*have* contractions are far more likely to occur with the auxiliary *have* than with the main verb *have*. In addition, there is a particularly strong tendency to contract *have* to ‘*ve* after *I, you* and *we*.”
- “contraction of third person *has* and past tense *had* when they occur as the main verb is rare”
- “*Will* is contracted to ‘*ll* more frequently than *would* is contracted to ‘*d*.”

(p. 1129)

While analysis of corpora, such as Longman’s, informs us of the tendencies of native speakers, it is unclear how similar or dissimilar NNS tendencies are. Although corpora of Japanese speakers of English, such as the NICT-JLE corpus, provide useful data in examining English contraction tendencies by this population, to my knowledge, no such examinations have been conducted to date.

### **Teaching and learning of connected speech**

In learning their native language, young children are naturally exposed to connected speech input in great amounts long before they are introduced to metalinguistic conceptions of language, including the abstraction of sound to visual written representation and the subsequent linguistic formalization of oral communication. As Preston (2002) points out,

Native speakers typically learn a ‘vernacular’—the first-learned form of their language [that is] shaped on the basis of interaction with parents, siblings, and other children in contexts that are relatively free from formal constructions. Whatever else we learn (whether native or nonnative, in fact) is *postvernacular*, and it will not, no matter how good we get at it, have the deeply embedded status of our vernacular (author italics, pp. 148-149).

Non-native learners, on the other hand, particularly those learning a second or foreign language as part of a school curriculum, are most often introduced to the new language metalinguistically with heavy reliance on formalized presentation and written input.

Teachers, both native speakers and nonnative speakers, may actually be reluctant to provide naturalistic oral input utilizing connected speech for a number of reasons. Such reasons might include limitations in the teachers’ own ability to perceive or physically produce connected speech (particularly in EFL settings), or the teachers’ personal beliefs surrounding

connected speech. For instance, they may view connected speech as being too casual or too advanced for their students. Other considerations, such as lack of related materials, lack of time, or a lack of mandate in the curriculum have been found to be challenges that ESL teachers face with respect to explicit connected speech instruction (Rogerson, 2006; p. 94)

As a result of the deficiency in exposure to large amounts of naturally-occurring connected speech input, or even metalinguistic knowledge of the phenomena, non-native learners can be severely handicapped in real-world oral communication in the second/foreign language. Bowen (1975a), in discussing the importance of exposure to weak forms of vowel in unstressed syllables, stated,

Students who have been shielded from these normal weak-stressed reductions in the belief that such pronunciations are sloppy, careless, etc., are practically crippled when first exposed to normal English in real contexts. It is crucially important for any second-language student of English who will ever deal with the oral language to have at least the experience of hearing and practicing reduced forms as a means of developing an acceptance of these morphophonemic alternations (p. 224).

### **Core studies examining connected speech, especially contraction**

In examining the existing literature related to connected speech in English, and contraction in particular, only a small number of studies were found to be relevant to the current study. This lack of “concrete primary research” related to the examination of connected speech was specifically lamented by Brown and Kondo-Brown (2006, p. 9) in their edited volume focusing on the teaching of connected speech to second language learners. The following section highlights work by Bowen (1975b, 1976), Odlin (1978), Henrichsen (1984), Brown & Hilferty (1986), Anderson-Hsieh, Riney, and Koehler (1994), Tomokiyo (2000), Kweon (2000), Kato (2001), Ito (2006) and Matsuzawa (2006), and will be discussed in the context of the current study. Although studies such as these have focused on the production and perception of contraction or connected speech, there has been no research, to the best of my knowledge, examining NNSs’ beliefs regarding their use of contraction or connected speech, although



studies have been done examining teacher beliefs about pronunciation instruction related to connected speech (e.g., Rogerson, 2006).

**Perception of connected speech and contraction.** It appears that the majority of studies examining connected speech, including contraction, have examined learners' perception skills. These studies can be divided into two main types. One type has examined NNSs' performance without a focus on the role of instruction (e.g., Bowen, 1975b, 1976; Henrichsen, 1984; Ito, 2006). Another type of research has examined the role that instruction has on improving NNSs' recognition of reduced forms with regard to full forms (e.g., Brown & Hilferty, 1986; Matsuzawa, 2006).

An examination of the relevant research begins with a discussion of Bowen's (1975b, 1976) integrative grammar test (IGT). This test, which has been the basis for subsequent research examining connected speech perception (e.g. Henrichsen, 1984; Ito, 2006), was formulated on the assumption articulated by language testers at the time that "native speakers make use of redundancy features in their language to interpret a message that is distorted or obscured" (p. 30). Bowen's contention was that a test examining this would be an appropriate gauge of second-language learners' competence. Instead of manipulating the sound quality of the audio using white noise as previous researchers had (e.g., Spolsky, 1973), Bowen chose instead to affect the clarity of the items in the aural comprehension portion of the IGT through the use of "the normal reductions, assimilations, and contractions of informal spoken English" (p. 30).

In the 100-item IGT test, participants listened once to each of the sentences and were asked to write the full form of the second word in each of those sentences. The second words were always weak forms of auxiliaries, pronouns, and prepositions. Examples of simple contractions from the test are as follows:

Table 2

*Sample Items from Bowen's Integrative Grammar Test*

Participants hear	Participants should write
Who'd he been to see?	had
Who'd he wanna see?	did
Who'd he like to see?	would

(Bowen, 1976, p. 31)

Bowen touted the test as having a number of strengths, including a strong rate of correlation between the two 50-item parts of the test (.97), strong differentiation of native and non-native English speakers, a wide distribution pattern among non-native speakers, short administration and grading time, and strong correlation with the Michigan test, another standard test of English proficiency. Bowen was clear to point out that the test appears to function more as a grammar test than a listening comprehension test.

Using modified versions of Bowen's IGT items, Henrichsen (1984) further explored the effect of *sandhi* variation as a filter affecting the amount of intake NNSs acquire from aural input. A total of 65 participants, including 15 native speakers of English, completed two listening activities in which the only difference between the 15 items on each the two versions was the presence or absence of *sandhi* variation<sup>19</sup>. Henrichsen hypothesized that learners with higher proficiency levels would be able to better utilize their knowledge of English when perceptual saliency was decreased by the use of *sandhi* variation. As expected, the presence or absence of *sandhi* variation did not significantly affect native speakers, but significant effects could be observed with the NNS groups. In particular, when such variation was absent, the high-level NNS group exhibited comprehension rates similar to the NS group and significantly different from the low-level group. With *sandhi* variation present, however, a significant gap appeared

---

<sup>19</sup> Three types of sandhi variation were present across the fifteen items (contraction, assimilation, and reduction).

between high-level NNSs and NSs. According to Henrichsen, “Most important the analysis shows that there is a significant interaction between level of proficiency and presence/absence (condition) scores” (p. 116).

In yet another variation of Bowen’s original instrument, Ito (2006) sought to further examine the intake-input process in SLA by improving on perceived weaknesses in Henrichsen’s study. Specifically, Ito sought to reduce sentence complexity and analyze the results according to the type of reduced form. Her two categorizations were *lexical forms* and *phonological forms*, and for these she chose two kinds of contractions: negative contractions and simple contractions, respectively, with proforms followed by present tense copula (*is* and *are*) or present perfect forms (*has* and *have*). According to Ito, lexical forms are “those that are not derived based on phonological rules, but tend to be memorized as one lexical item: for example, *will not* → *won’t*; *do not* → *don’t*” (p. 69). Phonological forms, on the other hand, are “those that were derived as a result of the application of phonological rules: *take them* → *take ‘em*” (p. 69).

Ito’s results supported Hendrichsen’s findings that the input-intake process is negatively affected by the presence of reduced forms for NNS compared with native speakers. She also found that phonological forms proved more difficult for NNS to correctly comprehend than lexical forms. However, the results of her study could not support the hypothesis that there would be variation in the effect of reduced forms based on language proficiency.

In examining the effect of instruction on improvement in perception of connected speech phenomena, Brown and Hilferty (1986) and Matsuzawa (2006) both found focused instruction on connected speech aided their participants’ perception of reduced forms. Matsuzawa, in his study of 20 Japanese business people, for instance, discovered that among various types of connected speech phenomena examined, accurate perception of contractions and weak forms of function words were most problematic for his participants. Additionally, on a follow-up survey,

half of Matsuzawa's participants indicated that they had not been aware of the existence of reduced forms prior to their participation in his research.

In order to contribute further to the existing literature on NNSs' perception of contraction in spoken English, one component of the current research focuses on this aspect of linguistic performance. Unlike previous studies, however, the current study is not only concerned with the degree to which contraction inhibits the perception of the full forms, but also with the quality of the participants' discrimination of both the full and contracted forms from aural input. To the best of my knowledge, no other studies have been conducted that address this issue.

**Production of connected speech and contraction.** As mentioned previously, fewer studies dealing with connected speech have looked at issues of production, and within that small number, even fewer have dealt specifically with contraction. To better understand NNS tendencies in these areas, the following section highlights research by Odlin (1978), Anderson-Hsieh, Riney, and Koehler (1994), Tomokiyo (2000), Kweon (2000), and Kato (2001).

While earlier studies had examined variation in the production of phonemes, such as /z/ and /r/, by non-native speakers of English (e.g., Dickerson, 1975 and Dickerson & Dickerson 1977, respectively) In 1978, Odlin examined the use of variable rules specifically with the production of contractions. His objective was to find ordered patterns in the use of spoken contractions in data collected from six subjects whose native language was Spanish and one native speaker of English. Using a picture description task, the participants spent between 1-3 minutes each describing seven pictures. Odlin then constructed variable contraction rules based on the performance of the participants on that task, and was able to compare their performance to data collected by Labov (1972). His results correlated with the participants' scores on a standardized test of English proficiency, namely the CELT (Comprehensive English Language Test), to indicate that more proficient students tended to use contraction more frequently than

less proficient students. Odlin's study also suggested that there are developmental stages in learners' interlanguage with regard to the use of contractions. He stated that more proficient learners are able to link contraction not just with specific, memorized words preceding the contractible element, as less proficient learners appeared to do, but more abstractly with word classes in the preceding environment (p. 456).

Although not focusing specifically on contraction production, Anderson-Hsieh et al. (1994) examined the oral English production in both scripted and unscripted talk of 10 Japanese speakers of English (five high-level and five intermediate-level) and compared their production with five English native speakers. The primary focus was examining the degree to which oral production of connected speech modifications (namely linking, flapping, vowel reduction, consonant cluster simplification, deletion, and epenthesis) differed between the three groups. Of the results that could relate to contraction, Anderson-Hsieh et al. found that there was no significant difference between the high- and intermediate-level Japanese groups in terms of vowel reduction. Their instances of reduction were typically limited to articles, but not content and function words. In addition, both groups produced more deletion than epenthesis, including deletion of final /t/, /d/, /l/, /m/, and /n/. In analyzing differences between scripted and spontaneous talk, the research showed that NSs linked and simplified consonants significantly more in spontaneous talk than sentence reading; however, the Japanese groups rarely deleted syllables during spontaneous talk. At the conclusion of their research, Anderson-Hsieh asserted both that "language proficiency is an important factor affecting speech modifications." and "that as Japanese ESL learners achieve higher speaking proficiency, they modify speech more frequently in some of the same ways that native speakers do" (p. 48).

In examining ways to improve speech recognition software performance with non-native English speaker production, Tomokiyo (2000) conducted a small study with 18 NNSs and 6 NSs

to identify characteristics in the read and spontaneous speech production of Japanese, Mandarin, and native English speakers. One portion of the study, which utilized both an elicitation task and the reading of a story, analyzed participants' tendencies regarding contraction use. Tomokiyo found differences in both the types of contractions used by the NSs and the NNSs and the frequency of contractions taken, with the use of contracted forms more frequent in NS speech. For instance, the most frequently appearing contractible expressions in the data collected from NSs were "I am" and "I would". The contraction rates for these expressions were 43% and 69% respectively. NNSs, on the other hand, did not use "I would" in contracted or uncontracted form, and uttered "I am" only once, contracting it.

In contrast with these smaller studies, Kweon (2000) looked at the production of *to*-contraction and aux-contraction among a group of 104 Koreans. Kweon's study focused on syntactic constraints on the use of these types of contraction and NNSs' tendencies regarding the production and judgment of sentences including these contraction types. The production aspect of the study consisted of participants' single sentence responses to 20 hypothetical situations (10 for each contraction type) and a sentence-level oral repair task involving both contraction types. Overall, Kweon found that her participants were more conservative in their production of the contracted forms (i.e., less likely to contract), but more liberal in their judgments of the correctness of untenable contractions.

In her doctoral research, Kato (2001) examined six Japanese participants' production of *not*-contractions. Specifically, she focused on two aspects of their production: variation of full versus contracted forms, as well as the prosodic characteristics of those productions. Comparing her collection of 1,167 spoken tokens with over 10,000 similar tokens of NS data used by Yaeger-Dror & Deckert (1999) and Deckert & Yaeger-Dror (1999), Kato found both similarities and marked differences in the two groups' oral production of *not*-contractions. In particular, she

observed that her Japanese subjects tended to use full forms rather than *not*-contractions with *can*, as well as *be*-verbs, such as *is*, *are*, and *were*. However, her analysis showed similarity between NS and NNS with regard to the production of *not*-contractions featuring other auxiliary verbs (e.g., *do*, *have*, and modals).

Clearly, with the exception of Kweon's study, research examining the oral production of contractions has been limited to studies with small numbers of participants. Yet despite the possible advantage that studies with small *n*-sizes could have with regard to the depth of investigation, none of the studies cited here appeared to have exploited that advantage to the greatest extent possible, particularly with regard to the contextualization of the individuals involved and the quantity of data gathered. Though small in scale, the current study hopes to address these perceived deficiencies to some degree.

### **Japanese Learners of English**

***Linguistic, sociolinguistic, and educational issues.*** Because contextualization of the participants is a key goal of the current research, it is important to consider how linguistic and sociolinguistic constraints within the participants' native language, Japanese, may affect the production of English contractions. It is equally important to discuss the general characteristics of the English education environment through which most Japanese pass. Following a brief discussion of the fundamental differences between English and Japanese at the segmental and suprasegmental levels, specific linguistic and sociolinguistic characteristics that may impact the production of English contractions will be presented. In conclusion, key issues related to oral English education in Japan will be discussed.

***Segmental differences.*** Contrastive analysis has provided useful insights into the differences regarding the number and quality of Japanese and English consonant and vowel phonemes. Considering that unstressed *schwa*, which is absent in the Japanese vowel inventory,

is extremely important in English word stress and more broadly in phrase rhythm accuracy, Kondo (2000) suggests that Japanese learners “may need to make a contrast of full and reduced vowels and produce extremely variable schwa” (p. 30). In the context of the current study, in which vowel reduction and elision are important for the production of contracted forms, it would appear that Japanese are disadvantaged by the characteristics of their L1.

In terms of consonants, clear distinctions are also quite evident between Japanese and English. Significant differences between the two inventories include the absence of labiodental (/f/ and /v/) and interdental consonants (*theta* and *eth*) in Japanese, as well as noticeably fewer fricatives, and difficulty with /r/ and /l/ differentiation. Examining the Japanese tendencies regarding the production and perception of /r/ and /l/, for instance, Riney and Flege (1998) state that native Japanese are able to identify /r/ better than /l/ aurally, but are not able to produce it more accurately. They also cite studies<sup>20</sup> which have shown that in consonant clusters, /l/ is identified more accurately than /r/, but is not produced with greater accuracy (p. 240). Given the fact that many segmentals that are difficult for Japanese English speakers, namely /v/, /r/, and /l/, are involved in the production and perception of contractions, it is conceivable that Japanese speaker production and perception would be negatively impacted. In addition, there is considerable difference between Japanese and English in terms of the permissibility of consonant or consonant clusters placement in syllables. Specifically, Japanese only permits the production of light syllables (CV) or a syllable with a coda nasal (CVN)<sup>21</sup> (Kawagoe, 2003). English, however, allows for the production of closed syllables ending in one or more consonants. It is believed that this important difference adversely affects Japanese learners in terms of their production and perception of English contractions.

---

<sup>20</sup> Bradlow, Pisoni, Akahene-Yamada, & Tohkura (1997); Mochizuki (1981); Sheldon & Strange (1982); and Takagi (1993)

<sup>21</sup> C=consonant sound, V=vowel sound, and N=nasal sound



***Suprasegmental differences.*** Because pronunciation difficulty stems from more than just the production of segmental items in a sound system, two of the most significant suprasegmental differences between Japanese and English, accent and rhythm, are discussed below. One of the fundamental differences between Japanese and English lies in the area of accent. Whereas English relies on stress accent, Japanese utilizes pitch accent. In English, stress plays an essential role at both the word level and phrase level by combining loudness, duration, and pitch to emphasize particular syllables (Roach, 2000). At the word level, for example, stress allows the differentiation of words possessing the same orthographic representation but belonging to different parts of speech, such as the words *progress* (noun) and *progress* (verb). At the phrase level, stress on particular syllables is used to indicate lexical items that are semantically important (i.e., content words and loud function words).

In Japanese, however, stress does not have the same fundamental function. Instead, patterns of high and low pitch serve as the mechanism for differentiating words with the same orthographic representation in *kana*, the Japanese syllabic alphabet (Ladefoged, 2006). For instance, depending on which syllable receives the higher pitch, the Japanese word *ame* can mean *hard candy* or *rain*.

This difference in accent between English and Japanese is important because of the foundational nature of each in contributing to larger discourse features such as rhythm. If Japanese students are unfamiliar with this prosodic difference and are unable to recognize or orally produce an English stress accent, they will likely display non-native stress patterns at the phrase level, which may, in turn, cause communication difficulties.

Beyond accent differences, significant phonological differences between Japanese and English can also be observed in the rhythmic patterns of utterances. Whereas in English, the regular placement of word stresses combine to form a stress-timed rhythm, Japanese has been

characterized as having a mora-timed rhythm, in which the Japanese *kana* alphabet represents the mora unit of duration (Warner & Arai, 2001). As expected, such a difference in word demarcation and the stress of words transfers to longer stretches of discourse and can impair the accurate production and perception of English phrase rhythm. Differences in the rhythm characteristics of the two languages will be discussed below with regard to the process of elision and contraction.

***Contraction in the Japanese language.*** As in English, connected speech phenomena, such as contraction, assimilation, and elision, are prevalent in Japanese. However, because of a perceived lack of consensus on the use of reduced-form terminology, Toda (2006) subsequently developed a categorization of Japanese reduced forms consisting of four non-independent main types: a) elision, b) contraction, c) assimilation, and d) transition). Each of his types contains one to four sub-categorizations<sup>22</sup>. Examining Toda's four main categorizations, it appears that there is not a direct one-to-one correspondence between Japanese contraction and English contraction, as his contraction also includes palatalization<sup>23</sup>. Possibly the closest comparison between Japanese contraction and the English contraction highlighted in this study actually falls under the Toda's category of *elision* or Hasegawa's (2006) more descriptive, *less sonorous vowel deletion* (LSVD).

Although Japanese vowel elision is similar to what occurs in English simple contraction, there is clearly a difference in syntactic environments. In the type of Japanese elision similar to English contraction, for instance, initial vowels are eliminated from auxiliary-like verbs that follow gerundive forms of verbs. In English simple contraction, however, initial consonants (if present) and vowels are eliminated from *be*-verbs or auxiliaries following proforms. In addition,

---

<sup>22</sup> Elision: vowel elision; Contraction: palatalization, and vowel coalescence; Assimilation: vowel devoicing, sequential voicing, consonant gemination, and moraic nasalization; Transition: liaison, and close transition. (p. 199)

<sup>23</sup> Toda (2006) presents the change of the aspectual use of the verb *-shimau* 'to end up doing' to [chau] or [jau] as an example of contraction (p. 192).

Toda (2006) points out that while English vowel elision is tied to the characteristics of the stress-timed nature of English, elision in mora-timed Japanese is not a product of stress. Instead, vowel elision is the result of the Japanese preference for light syllables (i.e., consonant + vowel) rather than heavy syllables (i.e., consonant + two vowels)<sup>24</sup>.

According to Toda, “[v]owel elision [in Japanese] is observed in reduced forms of the aspectual use of the verb *-iru* ‘to be’ and *-iku* ‘to go.’ When these verbs appear as aspect marking morpheme *-te iru* and *-te iku*, [i] is eliminated” (p. 191). In colloquial speech, such constructions become contracted in the following way through the elimination of the initial vowel of the auxiliary; specifically, *-te iru* becomes *-teru* and *-te iku* become *-teku*. Example sentences highlighting elision in *-iru* and *-iku* can be seen in Table 3 below.

Table 3

*Contraction of motte iru and motte iku.*

*motsu + te + iru*

Mary *ga kasa wo motte iru* → *motteru*

Mary (subj. part.) umbrella (obj. part.) has (aux. verb *exist*)

Mary has an umbrella.

*motsu + te + iku*

Mary *ga kasa wo motte iku* → *motteku*

Mary (subj. part.) umbrella (obj. part.) has (aux. verb *go*)

Mary carries an umbrella.

Actually, the closest Japanese grammatical environment that corresponds to the one used for English simple contraction (proform + *be*-verb or auxiliary) might be that of Japanese proforms followed by a grammatical particle (i.e., *no*, *ga*, *wa*, *o*, *to*, *e*, and *ni*). In Japanese, grammatical particles such as these can follow proforms, and have been categorized by some as clitics, just as the contracted forms of *be*-verbs and auxiliaries in English. However, Vance

---

<sup>24</sup> Toda (2006) presents the compound noun *arumi* to illustrate how vowel elision takes place to create light syllables when the two root words *ara* ‘rough’ and *umi* ‘sea’ are combined (p. 191). In cases where the boundary vowels are the same, Hasegawa (2006) points out that the process of vowel degemination and lengthening (VD&L) occurs.

(1993), using criteria differentiating clitics, affixes, and independent words (Zwicky, 1985; Zwicky & Pullum, 1983), makes the argument that Japanese particles should not be considered clitics after all.<sup>25</sup> Thus, while contraction of a nature similar to that of English does exist in Japanese, the kind corresponding directly to the simple enclitics being examined in this study, do not.

*Japanese beliefs concerning contraction use.* Another important dimension to consider related to differences between English and Japanese is how contraction use is viewed in social contexts. It is widely known, for instance, that interlocutor status and the context of the interaction is very important within the dynamic of Japanese communication. Hill, Ide, Ikuta, Kawasaki, & Ogino (1986), for instance, discuss the Japanese concept of *wakimae*, which has been translated into English as *discernment*, and refers to “the almost automatic observation of socially-agreed-upon rules and applies to both verbal and non-verbal behavior” (p. 348). They note that through *wakimae*, “the speaker can be considered to submit passively to the requirements of the system. That is, once certain factors of addressee and situation are noted, the selection of an appropriate linguistic form and/or appropriate behavior is essentially automatic” (p. 348). The Japanese language, correspondingly, has a grammatical system that allows for nuanced expression of emotions such as politeness, formality, respectfulness, and humility. The expression of these elements is largely manifested in the verb forms used. In terms of politeness,

---

<sup>25</sup> The criteria Vance (1993) is referring to is the following four-item criteria for differentiating clitics from affixes: 1) Clitics can exhibit a low degree of selection with respect to their hosts, while affixes exhibit a high degree of selectivity with respect to their stems, 2) Arbitrary gaps in the sets of combinations are more characteristic of affixed words than of clitic groups, 3) Morphophonological idiosyncrasies are more characteristic of affixed words than of clitic groups, and 4) Semantic idiosyncrasies are more characteristic of affixed words than of clitic groups (Zwicky & Pullum, 1983; pp. 503-504).

In addition, Zwicky (1985) presents two main categories of tests (phonological and accentual tests) to distinguish clitics from independent words (p. 286-290).

three levels can be observed in verbs: plain (*jotai*), polite (*teinei*), and formal (*keigo*).<sup>26</sup> Formal verbs can be further categorized as either humble (*kensongo*) or respectful/honorific (*sonkeigo*).

With this in mind, Hasegawa (2006) states that while casual speech and fast speech are often synonymous when discussing connected speech, in Japanese, at least, there are clear differences between the two. For instance, she lists two processes within the categorization of fast speech—high vowel devoicing (HVD) and vowel degemination and lengthening (VD&L)—and three processes as casual speech phenomena: nasal syllabification (NS), vowel fusion (VF), and the previously-mentioned less sonorous vowel deletion (LSVD)<sup>27</sup>. Interestingly, the type of connected speech phenomenon associated most closely phonologically with English simple contraction, LSVD, is categorized by Hasegawa as a casual speech phenomenon instead of a fast speech phenomenon. This suggests that reduction of this kind carries well-defined social weight, and if sociolinguistic transfer occurs to English, misconceptions about the appropriateness of contraction use in English may arise.

Being that formality and politeness are conveyed to a large degree through verb modification in Japanese, and it has been shown that the Japanese reduction type most closely associated with English contraction is more aligned with informality than the rate of speech production, it will be interesting to probe Japanese language learners beliefs about English contraction use with regard to formality. Do Japanese speakers of English, or speakers of other languages for that matter, associate simple contraction with informality rather than as a product of efficient speech, and subsequently limit its use to a greater degree based on perceived social environment?

---

<sup>26</sup> Formality/politeness can also be expressed in the honorifics prefixes attached to nouns (*o-* or *go-*) or pronoun choices (*dare* ‘who’ informal vs. *donata* ‘who’ formal)

<sup>27</sup> “Reduction” here does not refer to reduction in vowel quality, but instead corresponds most closely to Toda’s (2006) “contraction” category of reduced forms, which contains the subcategory of palatalization. Palatalization is “any articulation involving the movement of the tongue towards the hard palate” (Crystal, 2008; p. 347). For example, want you → [wanchu].

*English education in Japan.* At the macro-level of Japanese government policy in relation to English education, strides been made over the past 25 years to increase the oral communication competence of Japanese students. Most notably, perhaps, was the establishment of the Japan Exchange and Teaching (JET) Program in 1987 to bring native speakers of English into Japanese middle and high schools, and more recently with amendments of national curriculum guidelines in the *Course of Study* and the introduction of English in elementary schools (MEXT, 2008, 2009, 2010). Specifically, the Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT), has made oral communication an integral part of the foreign language component of the *Course of Study*, and in 2003, the ambitious *Action Plan to Cultivate “Japanese with English Abilities”* was put forth and highlighted English language skills “required for all Japanese people<sup>28</sup>” (MEXT, 2003). The efficacy of this action plan and the *Course of Study* is still in question due to a perceived lack of guideline specificity and difficulties with teacher training (Tahira, 2012), as well as indications that students are still not being given sufficient opportunities to use English communicatively (Lockley, Hirschel, and Slobodniuk, 2012).

Considerations about the government mechanisms and motivations influencing English education aside, it is important to address the ground-level issues that Japanese schools and teachers currently dealing with regarding English education. Testing, and teacher education are two that seem to impact English education considerably. In the 1980s, the Japanese high school English curriculum focused on preparing students for written university entrance examinations—the majority of which tested students’ knowledge of the foreign language in the areas of translation, reading comprehension, and prescriptive grammar, but failed to test students production or comprehension of spoken English (Kitao, Kitao, Nozawa & Yamamoto, 1985).

---

<sup>28</sup> By “all Japanese people,” they specifically referred to lower/upper secondary school and university students.

How much has changed in the past 30 years? While it is safe to say that test preparation is still a driving force in English education, it has been suggested that the evaluation of aural and/or oral English skills in tests like the Test in Practical English Proficiency (*Eiken*), the Test of English for International Communication (TOEIC), and the recently revised Unified University Entrance Exam shows a move in a positive direction (Nishino & Watanabe, 2008). Even middle and high school English instructors are now being required to go through a screening process that involves oral/aural tests (MEXT, 2005). However, it could be argued that the written word is still the main medium of instruction and communication in Japanese English education and that with testing remaining a top priority, instruction time devoted to sociocultural and sociolinguistic aspects of English language use is in short supply. These two factors would seem to negatively impact Japanese learners' familiarity with and use of English contraction.

Considering all of the issues that are of concern for Japanese teachers, key among them related to the topic of oral English communication, at least, is their confidence with their own spoken English ability and the pre-service/in-service training they receive focused on English pronunciation. In a study by Jenkins (2005), for instance, a Japanese teacher of English who had 17 years of experience held a very strong view about the correctness and desirability of native-speaker English, going so far to say that she (and most other Japanese) “worships” native-speaker pronunciation and that “a Japanese-English accent damaged her confidence” (p. 539). How many other English teachers in Japan hold similar views about the “norms” of English pronunciation and their own spoken English ability?

Even when teachers of English are confident with their own pronunciation, they may not be equipped with the necessary educational background in pronunciation instruction. For instance, teachers who were themselves instructed through *yakudoku* (grammar-translation methodology) with limited emphasis on oral production, even at the university level, may

struggle in teaching their own students. Jolly (2000), for instance, highlighted Japanese EFL instructors' lack of knowledge of articulatory phonetics.

Studies have also suggested that there may be some discrepancies between students' and teachers' beliefs about the importance of pronunciation instruction in Japan. Matsuura, Chiba, and Hildebrandt (2001), for instance, found that while a full 91% of the 301 Japanese university students they surveyed viewed learning correct English pronunciation important, 68% of 82 university English instructors (41 native Japanese and 41 native English speakers) stated that they focused on pronunciation teaching.

Discrepancies also appear to exist between Japanese teachers' beliefs of what is important to teach about English pronunciation and their actual classroom practices. For example, Ohtaka and Hase (2000) surveyed Japanese English teachers at junior high and high schools across Japan concerning their views of various issues related specifically with oral English instruction. Although the largest percentage of teachers from both groups mentioned that rhythm was the most important pronunciation-related content that should be taught (junior high: 81%, high school: 73%), much smaller percentages (junior high: 62%, high school: 42%) admitted that they actually did cover content pertaining to rhythm. This admitted lack of actual coverage may, in part, be due to JTEs' reluctance to include instruction regarding English alternating phrase rhythm because they themselves lack sufficient understanding of its characteristics. A more recent study by Kikuchi and Browne (2009) found that when a group of 72 Japanese university freshmen were asked whether or not their high school English teacher "helped [them] to develop [their] English pronunciation through rhythm and intonation practice," only 6 respondents indicated strong or fairly strong agreement, while 31 indicated strong or fairly strong disagreement (p. 181).



Clearly, it is impossible to address all of the contextual factors surrounding and affecting the development of Japanese learners oral English proficiency; however, it is hoped that a framework has been provided to ground the current research, which examines a small group of Japanese learners of English. From the top of the educational structure (realized through governmental policy), through the mechanisms of delivery in the classrooms (controlled by instructors), to the internal and external factors affecting individual learners, there is still much to uncover about the interplay of these components and how they contribute to the oral English production of Japanese English learners. Through the current study's exploration of aural/oral performance and individual's underlying beliefs regarding of a common feature of naturalistic spoken English, it is hoped that some degree of light will be shed on both the micro- and macro-level components contributing to the production and perception of spoken English contractions by Japanese.

### **Summary**

In this chapter, I presented a description of the theoretical frameworks underpinning the current study, as well as a detailed explanation of the contraction phenomenon being examined. In addition to defining the specific forms of contraction under investigation, findings from key studies examining the production and perception of contraction were presented. The chapter concluded with an explanation of how English contraction is affected by linguistic and sociolinguistic factors within the Japanese language, and highlighted the characteristics of English education in Japan that may inhibit the teaching and learning of this fast-speech phenomenon in schools. The following chapter, Chapter Three, presents the methodology used in the execution of this study.

## **CHAPTER 3**

### **METHODOLOGY**

#### **Introduction**

In this chapter I will present the methodology used in the collection and analysis of data for the current study. I will begin by presenting the conceptual framework of the study, and then situate myself within the study. I will follow this with a description of the participants and site, the data collection materials and procedures, and the methods of analysis.

#### **Methodological framework**

To address the research questions motivating the study, a combination of qualitative and quantitative measures were used. Specifically, the research was approached as a collective case study (Stake, 1995), which was supplemented by statistical data detailing the participants' production and perception performance with spoken English contractions of the types specified in the previous chapter. Although the individual characteristics and contexts of each participant are stressed in the research, a comparison of tendencies across cases was also a goal of the study. Such an approach has been called for in L2 phonology research by scholars such as Hansen Edwards (2008), who stated, "The use of multiple data collection and analysis tools is the most promising direction for future research as it provides us with a deeper, broader, and more robust insight into the phenomena under study" (p. 272).

According to Baxter and Jack (2008), case study, as the type described by Stake, is constructivist in nature in that allows for the collaboration of researcher and participants in the making of meaning. They also point out that case study promotes the use of multiple data sources and is unique within qualitative research in that quantitative data can be incorporated to provide a more thorough representation of the phenomenon of interest. As a consequence, "[t]his convergence [of various data sources] adds strength to the findings as the various strands of data

are braided together to promote a greater understanding of the case” (p. 554).

In choosing a methodological framework for the current investigation, the idea of promoting the concept of multiplism, as expressed by Cook (1985), was a central concern. According to Cook, “when it is not clear which of several options for question generation or method choice is ‘correct,’ all of them should be selected so as to ‘triangulate’ on the most likely or the most likely to be true” (p. 38). Additionally, as Greene (2007) explains, multiplism “does not privilege convergence, consonance, or consensus and thereby triangulation, but views with equal regard divergence [and] dissonance” (p. 24).

The decision to use a combination of quantitative and qualitative methods within an overarching framework of collective case study was made in part to address perceived shortcomings in previous studies, specifically those examining connected speech or contraction use and those examining learner experiences and/or beliefs. In the case of connected speech or contraction use studies (e.g., Anderson-Hsieh et al., 1994; Brown & Hilferty, 1986; Ito, 2006; Kato, 2001; Kweon, 2000; Matsuzawa, 2006; Odlin, 1978), the clear trend has been to use only quantitative data collected from one or multiple performance instruments without much consideration of the participants beyond their performance. In the studies that have considered learner experiences or beliefs (e.g., Capraro, 2002), on the other hand, the inclusion of quantifiable data would have added a layer of objectivity to balance subjective data. Because of the dearth in studies examining the current phenomena on the whole, and particularly those utilizing both qualitative and quantitative components, a challenge of this study has been integrating the components gracefully and meaningfully without a template to refer to.

In addition to considering my own goals and apprehensions associated with this research project, a key concern in the design of this research project is that the research experience be mutually-beneficial to those participating. To this end, it was my intention that the quantitative

instruments and the interview opportunities be used to help inform the participants about their own spoken English performance and to provide a framework for deeper exploration of that performance through the dialogue opportunities with me.

### **Researcher role**

Before introducing the specifics of the current research, I would first like to situate myself within the research context and shed light on my research focus and broader worldview. I will also describe perceived biases related to the research. As Stake (1995) observes, discussing the interplay between researcher and subject within a qualitative framework, “Research is not helped by making it appear value free. It is better to give the reader a good look at the researcher. Often, it is better to leave on the wrappings of advocacy that remind the reader: Beware” (p. 95).

First and foremost, I must say that I approach research in ESL/EFL from the perspective of a practitioner, and in doing so categorize myself as a pragmatist who is concerned with better understanding contextual factors surrounding students' oral English production in order to affect positive observable change in their second/foreign language development. Clearly a number of factors, including those that are both internal to individual learners or part of his/her social environment, contribute substantially to their production of the hums, hisses, stops, and silences that we call the English language. With this mindset, I am striving to both utilize and ultimately go the beyond researcher-contrived test instruments to also observe what non-native speakers of English also do in more communicative interactions. Beyond simply observing what they do, I want to obtain a sense of their level of spoken behavior consciousness and investigate their beliefs concerning why their oral production is as it is.

**Bias.** One main bias in approaching this research is my familiarity with Japanese learners. Because of my history working with this population, and the fact that my wife is Japanese, I worry that my knowledge of their culture and my sympathetic disposition to their struggles with English language learning may prevent me from seeing each participant freshly as

an individual with his/her own strengths and weaknesses. To this end, I must resist the tendency to rely on stereotypical conceptualizations through each of the steps of the research process.

Another bias that may influence the way I approach this research is my predisposition towards qualitative methodology and my relative inexperience with quantitative methods and analysis. Because a large portion of the research utilizes quantitative measures and will require statistical analysis, I worry that my lack of familiarity will slow the progress of the research and prevent me from realizing the full potential of quantitative data collected. In order to counteract this weakness, I must utilize the material and human resources available to me to aid with the analysis and interpretation of these data.

### **Site and participants**

**Japanese participants.** Because of my desire to again work with Japanese learners of English in their home country upon the completion of my degree, the populations of focus for the current research are Japanese students studying at an American university as well as those studying at an intensive English institute associated with an American university. For this study, participants were recruited through purposeful criterion sampling of the Japanese student population at a large Midwestern university, hereafter referred to as Midwest University (MU) and the intensive English program serving the university, hereafter referred to as Midwest English Institute (MEI). As the primary criteria for selection, prospective participants had to a) be Japanese nationals whose parents are both Japanese nationals, b) not have lived outside of Japan for more than 5 years, c) be enrolled at Midwest University or the associated Midwest English Institute, 4) be from a variety of academic disciplines (including a maximum of one from an English- or language-related major). They were recruited through an introductory email sent to Japanese student organizations, ESL classes at MU and MEI, and by word of mouth.

Ultimately, a group of 10 students, whose English proficiency (as determined by TOEFL or TOEIC score) ranged from lower advanced to higher advanced,<sup>29</sup> was recruited for this study. The sampling included one MU graduate student, one graduate and three undergraduate exchange students to MU, four non-degree MEI students, and a visiting scholar. Although gender parity was attempted in selecting participants for the study, constraints resulted in a ratio of four female to six male participants. Ages of the Japanese participants ranged from 20-45 years, with a mean age of 30.4. Biographical and performance-related portraits of the Japanese participants are presented in greater detail in the following chapter<sup>30</sup>.

**Native English-speaking participants.** In addition to the Japanese students recruited for the study, a group of four native speakers of English, two females and two males, were also recruited to participate as a control group for the quantitatively analyzed portions of the research. As the primary criteria for selection beyond gender, the native speakers a) could not have lived outside of the United States prior to the completion of high school, b) should have parents who speak English as their first language, and c) could not be majoring in linguistics or a language-related field. These participants were recruited through emails sent to instructors teaching Japanese courses at MU, and this resulted in the selection of four undergraduate students from four distinct disciplines. Three of the four native speakers were life-long residents of Illinois and one was a native of North Carolina who moved to Illinois during her high school years. These participants ranged in age from 19-23 years, and possessed a mean age of 21.8. The following are brief biographical portraits of each of the four native English-speaking participants. To protect their identity, the participants' names were replaced with pseudonyms.

---

<sup>29</sup> An equivalency table employed by the Vancouver English Centre to describe students on a 15-level scale (<http://secure.vec.bc.ca/toefl-equivalency-table.cfm>) was used to guide proficiency designation. Based on the participants' TOEIC and TOEFL scores, they were categorized into three levels: higher advanced, middle advanced, and lower advanced. (Maximum TOEIC scores range from 10-990, iBT TOEFL scores range from 0-120, and paper-based TOEFL scores range from 0-677.)

<sup>30</sup> In order to minimize risk, their names have been replaced with Japanese pseudonyms.

**George.** Originally from the suburbs of Chicago, George was a 23 year-old freshman in the field of urban planning at MU. After spending three years in the Marines, George decided to use the GI Bill to attend school. As a Marine, he served as a combat engineer and was based in Okinawa, Japan, for more than three years. He also had opportunities to travel to and work in Cambodia, China, Australia, and the Philippines. Although George studied German in high school, was studying Japanese and hoped to study other languages, such as Latin, in the future. He had no immediate plans to return to Japan during his college career or following graduation.

**Jake.** Jake was a 19 year-old freshman studying computer science at MU. A native of an Illinois town near St. Louis, he explained that he has had few opportunities to travel around the United States and has never been overseas. Despite this, Jake became deeply enamored with social structure of Japan and has taken Japanese culture and language classes as a student at MU. His dream was to travel to Japan and possibly pursue a graduate degree in computer science from a Japanese university.

**Cassie.** Cassie, like George, was also from the suburbs of Chicago. A 21 year-old sophomore studying news/editorial journalism at MU, in her spare time she was heavily involved with the university's Anime Club. Cassie's only international travel experience came in high school when she was invited to join a tour of China organized by her art teacher. The experience was deeply moving for Cassie and strengthened her resolve to travel more internationally in the future. Although Cassie had taken a number of Japanese classes at MU, an increased workload in her core classes prevented her from studying Japanese beyond the current semester.

**Hannah.** Hannah was a 20 year-old junior in the Midwest University School of Music. Originally from North Carolina, her family moved to Illinois during her high school years so that she could attend a well-respected music conservatory in the area. Hannah's interest in Japan originated from her childhood enjoyment of Japanese animation and later blossomed to include a

fascination for other aspects of Japanese culture, such as *manga*, *kendo*, music, and arts. She longed to study abroad in Japan, but had yet to find the right program to attend.

**Raters.** Assisting with the evaluation of contraction use in the audio-recorded data collected during interviews, in which I was the first rater, were two native speakers of English. One of the native speakers was a 55 year-old female paralegal with previous transcription experience, who served as the second transcriber of interview recordings. The second native-speaker, a 51 year-old female doctoral student in Educational Psychology with extensive transcription experience, served as a third rater for the interview transcriptions.

## **Materials**

The following is a brief description of the materials that were used to gather both the qualitative and quantitative data used in the current study. More detailed information concerning the materials used in the research, including copies of those materials, can be found in the Appendix. In this study, three sources of data were used in answering the research questions: a questionnaire, two listening tasks, and interviews.

**Questionnaire.** The 39-item NNS questionnaire designed for the study (see Appendices C and D) served two main purposes. First, it allowed for the efficient collection of information about the participants, including basic demographic data (i.e., gender, age, field of study, etc.), and information about their educational history, including their formal and informal English instruction and use. The fact that the questionnaire was in Japanese and included a number of open-ended questions provided an opportunity for a high degree of richness in the participants' answers. Second, the information provided on the survey served as an interview guide for the three interviews that were conducted throughout the semester-long process of data collection. The translation of the participants' Japanese responses on the questionnaire into English was conducted by a native speaker of Japanese.



**Listening tasks.** Two listening tasks, the first consisting of a cloze-type format and the second consisting of a forced-choice format, were a means to better understand the participants' ability to perceive spoken contractions contextualized in sample sentences (see Appendices G, H and I). Although previous studies have examined NNSs' ability to correctly write the full forms of spoken English contractions by focusing on the role contraction plays in inhibiting the perceptual saliency of spoken input (e.g. Bowen, 1975; Henrichsen, 1984; Ito, 2006), the two listening tasks used in the current study examined a) the degree to which participants were able to correctly transcribe contracted and uncontracted forms from spoken stimuli, and b) the degree to which they were able to distinguish between contracted and full forms in speech when presented with each in a forced-choice format.

**Piloting.** The perception tasks used in the study were piloted with two Japanese speakers of English and two English native speakers at the beginning of the fall semester of 2010. Based on the data gathered, as well as discussions with committee members in the fields of linguistics and phonology, adjustments were made to items that proved problematic. Specifically, filler and target items that were deemed syntactically, semantically, or phonologically awkward were edited or replaced to reduce obfuscation of the target responses.

**Versions.** Two parallel versions of each listening task type (cloze and forced-choice) were used in the study. The ordering and content of the sentences used for Version 1 of both the cloze and forced-choice tasks were identical. Likewise, the ordering and content of the sentences used for Version 2 of both the cloze and forced-choice tasks were identical. Target item stimuli used for Versions 1 and 2 of each listening task were identical; however, the ordering of sentences between the two versions of each task type was inverted (i.e., the first contraction-focused sentence used for Version 1 of the cloze task became the last contraction-focused sentence of Version 2 of the forced-choice task).

The response attribute of the cloze-type task required participants to write missing portions of each sentence, while the forced-choice task required participants to circle one of two choices for the unknown portion of each sentence. Each version consisted of 76 total items (38 items featuring contracted or contractible items, and 38 filler items featuring contrasting segmental features). Among the 38 items focusing on the phenomenon of contraction, 19 required contracted responses and 19 required uncontracted responses. Both versions of the cloze-type task were used during the initial stage of perception testing and were alternated among the participants in the order that I met with them. Likewise, both versions of the forced-choice task were used in the second stage of perception testing and were alternated among the participants.<sup>31</sup>

**Audio stimuli.** Four audio recordings were used as the stimuli for the completion the four versions of the listening tasks (i.e., one for each version of the cloze-type task and one for each version of the forced-choice task). The recordings, which ranged in duration from 15:49 to 16:09, were recorded in a sound booth by the researcher, and were edited using the sound editing software, Audacity, to insert seven-second silences between each of the 76 spoken sentences in each of the task versions. Each sentence was spoken only once for two reasons: first, to closely replicate the audio format used in previous studies examining perception of underlying forms in contracted speech (e.g., Ito, 2006), and second, to more closely replicate the fleeting quality of spoken communication, in which second-chance opportunities to comprehend utterances are not always available. Only the spoken instructions differed between the two sound files used for the cloze task and the two used for the forced-choice task.

**Interview transcriptions.** I served as the lone interviewer in conducting three interviews with each of the non-native participants and two interviews with each of the native-speaking

---

<sup>31</sup> Details regarding the structure of the listening task can be found in the Listening Task Specification (Appendix G).

participants over the course of one semester (see Appendix F). These interviews served a dual purpose, in that both the content and the language used during the interviews were the subject of analysis. Although previous research studies (e.g. Adamson & Regan, 1991; Beebe 1980; Young, 1988) utilized interviews to elicit participant production of grammatical or phonological target items, the content of the interviews in those studies were not used to make meaning of the participants' contexts in relation to their production of the target forms. The current study attempted to use interviews for this purpose.

### **Data Collection Procedure**

**Japanese participants.** Data were collected from the Japanese participants during four meetings over the course of three months during the fall of 2010 in an unoccupied university office or classroom. The initial stage of data collection involved meeting the participants individually, providing them with an overview of the research project, presenting them with a copy of the consent form for the current research project, which was also translated into Japanese (Appendix A & B) and obtaining their signatures. I was also able to address any questions they had during this initial meeting.

Once the research protocol had been clarified and consent obtained, each participant was asked to complete the previously-described background questionnaire. Upon completion of the questionnaire, the participants proceeded to the next activity, a paragraph-reading task, which was audio recorded.<sup>32</sup> Following the completion of the paragraph-reading activity, each participant was told that they would be contacted about the second meeting in two to three weeks. They were informed of the time required for that meeting, and also told that the meeting would involve both a listening task and an interview about their questionnaire responses.

---

<sup>32</sup> Although a paragraph-reading task was originally designed as part of the research for the purpose of comparing scripted oral production of contracted and contractible items with unscripted production during the interviews, I was unable to develop a successful framework for analyzing and integrating the results of the task into the current project. Consequently, the details of the task and the results are not presented.

At the beginning of the second meeting, again conducted on an individual basis, the participants were greeted and told of session's activities. Barring any questions, the cloze-type listening task was administered. For this activity, the participant donned a set of headphones connected to a laptop computer and listened to a sound file containing the instructions for the task, which were also written on the accompanying worksheet (Appendix H and I). The version of the cloze task given to each participant was based on the order in which they scheduled their meeting with me. Participants with odd ordinal numbers were given Version 1 of the cloze task, and those with even ordinal numbers were given Version 2<sup>33</sup>. If the participants had questions following the presentation of the instructions and example sentence, the audio was stopped and the questions were answered at that time. Following the instructions, the audio for the cloze activity resumed, and the participant used the accompanying worksheet and a pen/pencil to complete the task, which required approximately 16 minutes.

Once finished, the cloze-type worksheet was collected and the interview portion of the data collection began. As with the paragraph-reading activity, the content of the interview was audio recorded. The semi-structured interview focused on the participants' responses to the questionnaire completed in the first stage of data collection. During the interview, each participant was able to clarify their responses and comment on questions related to their language histories, their beliefs about language learning, and/or their current use of English. The time for this initial interview varied between participants, ranging from 22 to 31 minutes, averaging 26 minutes per person. At the conclusion of the first interview, the participants were told that I would contact them in two weeks to schedule a third meeting. They were informed that the next meeting would include another listening activity and a 30-minute interview related to their language learning histories, current use of English, and their field of study.

---

<sup>33</sup> The version number that the participants received alternated between the first and second administration of the listening task. Participants who had received Version 1 for the cloze-type task received Version 2 for the forced-choice task, and vice versa.

Three to five weeks after the second meeting, a third meeting was held with each Japanese participant. I began the meeting by having them complete one version of the forced-choice listening activity following the same procedure employed in the second meeting. Participants with an even ordinal number received Version 1 of the task, and participants with odd ordinal numbers received Version 2. Again, the listening task required approximately 16 minutes to complete. Following this activity, the second interview commenced, and as with the initial interview, the content was audio recorded. The second semi-structured interview with each participant lasted between 23 and 40 minutes, and averaged 30 minutes per participant. The interview allowed for member checking of information obtained in the previous interview and for further exploration on topics related to each participant's learning history, their study in the United States, and future goals regarding their spoken English development.

Approximately four to five weeks after the third meeting, a final audio-recorded interview was conducted with each participant. The interview times ranged from 32 to 51 minutes, with an average of 45 minutes per participant. In this final interview, information from the first and second interviews were again be member checked, the participants' beliefs and experiences with contractions in spoken and written English were probed, and the focus of the current study was revealed. During the interview, the participants' responses to the perception tasks done in the second and third meetings were discussed, and constructive feedback was offered verbally to the participants. Completion of this interview signaled the end of data collection for this research project. Participants were asked to contact me if they had any questions or concerns about the research, and I promised to provide them with written feedback about their performance on the various tasks.

**Native English-speaking participants.** The native speakers' involvement in the research was concurrent with that of the Japanese participants; however, instead of conducting four

meetings with each person, only two were held. The first meeting consisted of a) explaining the research and gaining consent, b) asking them to complete a short questionnaire (see Appendix E), c) interviewing them about the content of the questionnaire, d) having them complete the paragraph-reading activity, and finally e) administering the cloze-type listening task<sup>34</sup>. The interviews, all of which were conducted by me as the lone interviewer, ranged in duration from 10 to 13 minutes and averaged 11.25 minutes. Approximately two to three weeks following the initial meeting, a final meeting was held with each native-speaker participant. During this meeting, the same forced-choice listening task used with the Japanese participants was administered, and after its completion, a final interview was held in which information from the previous interview was clarified and the purpose of the research was revealed. The final interview time for each participant ranged from 7 to 16 minutes and averaged 13.25 minutes.

### **Verification**

As a study utilizing a mixed-methods framework, in which both qualitative and quantitative methods of data collection, analysis, and interpretation underpin an examination of a collective case study, measures were taken to strive for the highest degrees of construct validity, internal validity, external validity, and reliability (Yin, 1993). To maximize construct validity, the specific phenomena under investigation (i.e., contraction perception and production ) were carefully defined prior to the investigation, and in the case of the measurement of contraction perception, two types of test instruments were used to examine the phenomenon from different perspectives. As suggested by Merriam (1998), multiple methods were used to enhance internal validity. Specifically the use of multiple sources of evidence, such as a questionnaire, semi-structured interviews, and two listening tasks, were employed to aid with data triangulation and

---

<sup>34</sup> As with the Japanese participants, the listening task version assigned to each American participant was based on the order in which they met me. Participants with an odd ordinal number received Version 1 and those with an even ordinal number received Version 2. The version numbers were then switched during the administration of the forced-choice listening task during the final meeting.

the exploration of data concordance and discordance. In addition, member-checking was utilized for the interview content and performance tasks to reduce the likelihood of misrepresenting or misinterpreting the participants' responses. During the process of analyzing interview data, multiple raters were used to determine the amount of variability inherent in accurately identifying the target phenomenon in collected speech. In addition, the use of multiple stages of data collection over the period of one semester provided a weak longitudinal quality that increased validity in ways that research incorporating a single data collection opportunity cannot. Finally, by expressing my own agenda and biases at length, I attempted to increase the level of transparency with which the researcher's role is understood in the investigation being undertaken.

As the current study examines a small group of situated Japanese non-native speakers of English through a collective case study, severe limitations are placed on external validity (i.e., generalizing the findings to a broader Japanese population) as defined within a quantitative/positivist framework. Therefore, external validity has been viewed from a constructivist perspective with a focus on interpretation of a limited context, in which concepts, such as transferability (Denzin & Lincoln, 2005), comparability & translatability (LeCompte & Goetz, 1982), or external generalizability (Maxwell, 1992) are used instead. As explained by LeCompte and Goetz, for instance, comparability and translatability refer to explicitly identifying the construct under investigation, the participants, and the research methods to such a degree that comparisons with similar and dissimilar groups can be confidently made (p. 34). By detailing the performance of specific English learners in relation to a specific linguistic feature through quantitative measures and supplementing that data with pertinent information regarding their language learning histories through qualitative analysis and interpretation, the current study

has attempted to serve as an empirically-grounded touchstone for such external comparisons to take place.

As with external validity, the mixed-methods nature of the current study does not lend itself well to exact replication in a positivist sense, particularly with regard to analysis and interpretation of the qualitative data. However, following suggestions made by Creswell (1994, p. 159) steps were taken to detail the entire research protocol, from stating the central assumptions of the researcher and detailing the design of test instruments, to discussing how quantitative and qualitative data were collected, analyzed, and interpreted, in order to provide a thorough and transparent record for other researchers to base future research upon.

### **Data Analysis**

The design of the current study was such that the process of data analysis occurred both concurrently and following the completion of the data collection. Data analyzed concurrently included the initial scoring and analysis of both listening tasks, as well as the summary transcription and analysis of the interviews. In particular, the concurrent transcription and analysis of the initial interviews informed the content of subsequent interviews with the participants and allowed for member checking of information. Analysis conducted following the completion of its collection included statistical analysis of the listening tasks' data, as well as detailed transcription and analysis of the first two rounds of NNS interviews and the first round of NS interviews. Below are more detailed descriptions of how the various data sources were analyzed.

#### **Listening tasks.**

*Cloze listening task.* The response sheets for the cloze listening task (Appendix H) were scored by the researcher alone based on the accuracy with which the target items (i.e., contracted and uncontracted elements) were written on the response sheet by the participants. Responses were initially categorized into four types: a) perfectly correct, b) completely misidentified, c)



mistakenly decontracted, and d) mistakenly contracted. Perfectly correct items were those in which the participant accurately wrote the contracted or uncontracted form of each aural stimulus. Completely misidentified responses were those in which a) the auxiliary and/or the proform preceding the auxiliary were not included or accurately written or b) the item was left blank entirely. Mistakenly decontracted responses were those in which the stimulus contained a contraction, but was written as two separate words by the participant. Mistakenly contracted responses were those in which the aural stimulus contained uncontracted phrases, but the participant wrote them as contracted.

Each target sentence on the test sheets was marked with a letter or letter combination to represent one of the four response categories mentioned previously, and each of these response types were tallied at the bottom of their test sheet.<sup>35</sup> In instances where target items were completely misidentified, a note was written next to the sentence to indicate what kind of error occurred (e.g., missing proform, no answer, missing auxiliary verb, etc.) for future reference when creating the case study narratives. Next, a Microsoft Excel file was created in which each participants' response to each of the 38 total target item was categorized according to the main contraction types ('s, 'd, and 've), the contraction subcategories (*had-*, *would-*, *is-*, and *has-* contraction) for both contracted and uncontracted stimuli on the particular test version they answered (Version 1 or Version 2). Once the data was input into the table, it was possible to obtain descriptive statistics related to individual and group performance on an item-by-item basis.

In order to obtain a richer understanding of the participants' responses on the cloze-type instrument, two criteria were used to determine their level of accuracy in perceiving the targeted contracted and uncontracted forms. The first criterion sought to determine to what degree each

---

<sup>35</sup> Perfectly-correct responses were marked "O", mistakenly uncontracted responses were marked "UN", mistakenly contracted responses were marked "MC", and completely misidentified responses were marked "X".

participant could perfectly represent the contracted and uncontracted stimuli orthographically, regardless of whether the underlying lexical forms were correctly identified. To obtain a score based on this accuracy criterion, the responses that were deemed perfectly correct were separated from the responses assigned to the other three categories. These imperfect responses were categorized as “incorrect”, and a count of perfect responses for all of the contracted and uncontracted stimuli was made for each participant. Combined, they yielded a possible total score of 38.

The second criterion for judging perception accuracy conflated perfect responses and lexically-correct responses (i.e., those in which the written responses to the stimuli were lexically correct, but mistakenly written in their contracted or uncontracted form) and sought to determine to what degree each participant had correctly comprehended the underlying lexical representation of the contracted stimuli, even if they had not written it correctly. This second criterion was used as a way to more accurately ascertain each person’s overall perception of the underlying lexical form, considering that the test prompt preceding the listening task did not explicitly inform the participants that they would be scored on how accurately they wrote contracted and uncontracted forms. Instead, they were simply told to write the one or two missing words that they heard in each sentence.

***Forced-choice listening task.*** The response sheets for the forced-choice listening task were also scored based on the accuracy with which the item responses correctly matched the contracted or uncontracted audio stimulus provided for each of the corresponding 38 items. Unlike the cloze-type listening task, in which responses were initially categorized four ways, the responses for this task were simply categorized as either correct or incorrect because of the binary response type. Tables of the item-by-item scores were created in the same manner as the cloze task, so that three scores were obtained: a total score of correct responses, a score for the

number of contracted stimuli correctly identified, and a score for the number of uncontracted stimuli correctly identified. Descriptive statistics were obtained regarding these scores and were used in describing the performance of individuals as well as the group as a whole. Performance on both the cloze-type and forced-choice tasks were then used for comparison with previous studies that examined contraction perception.

**Interview data.** In order to better understand the Japanese participants' use of contraction in unscripted talk and gain insight into their language learning contexts and beliefs, a total of 38 interviews lasting a total of 18.5 hours were conducted. Of this total, 30 interviews were conducted with the 10 NNS participants and 8 with the four NSs. The following is a description of how the interviews were transcribed and the steps taken in their analysis.

***Process of transcription.*** The interview data were transcribed on two levels. The first two interviews of each Japanese participant, as well as the first interview of each American participant, were transcribed by me, in the role of the first rater, in as much detail as possible using standard orthography. Restarts, repetitions, and partial word utterances were included in the transcription. Also included in the transcription were notes about the character of the talk, for instance if something was said as a whisper, with laughter, emphatically, or was not audible. When I was uncertain about words or phrases, I wrote my perception of what was said and placed the unclear utterance in parenthesis with a question mark. Back-channeling words and sounds (e.g., uh-huh, yeah, etc.) were not a focus of the research and were often, but not always, excluded from the transcriptions. At the conclusion of transcription process, word counts of the participants' production were made and documented at the end of each turn of talk<sup>36</sup>. Because the focus of the research was the participants' talk, I did not transcribe the interviewer's talk with the same level of detail, and none of the interviewer's talk was included in the analysis.

---

<sup>36</sup> Lexical items that were repeated in succession (e.g., I I I can't believe it.) were also included in the word counts.

The rationale for transcribing the interviews in the previously-mentioned level of detail for the interviewees was twofold. First, in creating the case study narratives, I found it more economical to review the detailed written notes than to re-listen to the recording. Second, when providing embedded transcript portions of the interviewees talk into each case study narrative, I could increase the level of authenticity by including their grammatical and oral disfluencies, if they occurred, in order to convey to the reader a more accurate sense of each person's spoken English proficiency on the whole.

A second type of transcription, which I characterize as interview logs, was reserved for the final interview with all of the Japanese and American participants. This format was utilized because only the content of the talk was the subject of analysis, not the syntax (i.e., the presence or absence of contractions). In these logs, the interviewer and participants' talk was generally paraphrased and summarized, and disfluencies and ungrammatical elements were typically ignored, except when quotation was used for particularly salient responses.

***Transcriber reliability related to contraction production.*** In order to determine the reliability of my first-level transcriptions, three additional ratings were conducted by two other raters. The first rating consisted of full transcriptions being created of three NS interviews (two from Hannah and one from Cassie) by a person familiar with the process of transcription in the field of law, but unfamiliar with the field of linguistics and the topic of the research. The second rating involved the same rater transcribing only contraction-related portions of two of my NNS transcripts (one from Jun and one from Ai) using audio from those interviews. The third rating, examining the same five interviews, was conducted by a person with substantial linguistics-related transcription experience. She was instructed to follow the same partial-transcription protocol as the second rating, however, for this rating, only the contraction-related portions in which the second rater and I were not in agreement were left blank for her to transcribe.

Cohen's kappa was run separately for each rating to determine the level agreement between my ratings and the ratings of the other two individuals on the presence of contracted and contractible elements in the interview data. For the first rating there was fair agreement,  $\kappa = .356$  (95% CI, .234 to .478), for the second rating, there was moderate agreement,  $\kappa = .490$  (95% CI, .318 to .661), and for the third rating there was fair agreement,  $\kappa = .357$  (95% CI, .150 to .564).

With only a fair to moderate level of inter-rater agreement on the contraction-related portions of the five selected interviews, it was clear that certain factors made attaining high levels of such agreement challenging. These factors included the variable quality of spoken contraction, as put forth by MacKenzie (2011), and other hindrances inherent in transcribing naturally-occurring speech, such as frequent repairs, restarts, grammatical errors, and in the case of the NNSs in this study, mildly- to heavily-accented English pronunciation. Based on my high degree of intimacy with the recordings, my familiarity with the particular feature being targeted, and my vested interest in obtaining a high level of accuracy and consistency throughout the transcriptions, and limitations on time and human resources, I made the decision to use my transcriptions and ratings for the production-related data.

***Analysis of contraction production.*** Using the Find tool in Microsoft Word to highlight apostrophes (‘) and target auxiliary verbs, searches were conducted in each of the first two NNS interviews and the first NS interviews (i.e., 24 interviews in total) for contracted and contractible phrases<sup>37</sup>. Each example found was color coded according to type based on the orthographic representation of the contracted forms, so that seven general categories were delineated: ‘m, ‘s (has/is), ‘re, ‘ve, n’t, ‘ll, and ‘d (had/would). Tables were constructed in Microsoft Excel to organize the counts of contracted and uncontracted examples according to general type, as well

---

<sup>37</sup> Only uncontracted items that did not violate syntactic constraints on contractibility were counted.

as more specific characteristics, such as auxiliary type, for *has-*, *is-*, *had-*, and *would-* contractions, or preceding proform (e.g., *I*, *he*, *they*)<sup>38</sup>.

Once the data were organized, descriptive statistics were obtained to understand each participants' spoken production, as well as trends within and between the two groups. These data were then compared with the results of previous studies examining the production of contractions in spoken English. The following table lists the specific foci of the production data analysis.

Table 4

*Contraction-related Interview Data Analysis Foci*

Unit of analysis	Focus of analysis
NNS Individuals	<ul style="list-style-type: none"> <li>• Ratio of contraction by contraction type (i.e., percentage of contractible items actually contracted per contraction type and as a whole)</li> <li>• Distribution of total contraction output by contraction type</li> <li>• Rate of contraction (i.e., words per contraction)</li> </ul>
NNS & NS Groups	<p>Comparison of production trends within and between groups related to</p> <ul style="list-style-type: none"> <li>• ratio of contraction</li> <li>• distribution of total contraction output by contraction type</li> <li>• rate of contraction</li> </ul>

***Analysis of interview content.*** Concurrent with the transcription of the interviews was the process of analyzing the texts with regard to the *a priori* topics delineated by the research questions. Three stages of qualitative content analysis were conducted. In the first stage, the participants' talk was read and re-read to identify relevant positive and negative experiences related to spoken English interactions, and these were organized according to sociolinguistic context of focus (e.g., family, education, career, current situation). In addition, statements related to beliefs about English language use, and more specifically about contraction use, both in

<sup>38</sup> Only proforms uttered by the NS or NNS participants were used in the creation of categorizations.

general and on an individual level, were also identified in the transcripts for use in the second and third stages of content analysis.

Once the quantitative analysis of the contraction-related perception and production data was completed, the second stage of qualitative data analysis occurred. In this stage, the previously-highlighted portions of each participant's transcripts related to their beliefs about their performance tendencies regarding the perception and use of contractions in English was compared with their actual performance on the listening tasks and in the unscripted talk of the interviews. Instances of concordance and dissonance were described at the individual level prior to the third stage of content analysis.

The third stage of qualitative analysis focused on identifying and synthesizing common themes and patterns among the NNS participants regarding their contraction-related beliefs, both at the general level and in terms of beliefs about their own performance. Instances of concordance and dissonance were described, and comparisons were made with existing literature.

## **Presentation of Results**

**Case study narratives.** As a collective case study, the qualitative and quantitative data obtained from the participants, along with my evaluative interpretations, were synthesized into individual narratives for each of the ten Japanese participants. Each narrative begins with a brief introduction of the participant, contextualizing them with basic demographic data and an indication of their level of English proficiency as it relates to standardized test, such as TOEFL or TOEIC. Following this, three main sections comprise the body of each narrative. The topics of these sections are “family and education”, “current situation”, and “performance and beliefs”. The first two of these sections were constructed using data collected from the questionnaire and interviews. The third section presents quantitative and qualitative contraction-related data

collected from the listening tasks and the interviews, as well as interpretations of these data. Each narrative concludes with a summary highlighting the main features of their learning histories, as well as key aspects related to their contraction-related performance and beliefs.

**Group results.** In addition to the case study narratives, which focus on individual participants, a separate chapter presents results comparing the performance of the Japanese participants as a whole with the contraction perception and production performance demonstrated by the four native speakers of English. An examination of similarities and differences with previously-conducted studies examining contraction performance are also presented in this chapter.

### **Summary**

The purpose of this chapter was to describe the methods used in conducting this study. After explaining the rationale for using a mixed-methods approach in the creation of a collective case study, I described the various components of the study, including the site, the participants, the researcher, the data collection materials, the methods for utilizing and analyzing those materials, and the method of presenting the results. The following chapter, Chapter 4, begins the presentation of the ten case studies.



## CHAPTER 4

### CASE STUDIES

#### **Introduction**

The purpose of this chapter is to synthesize the qualitative and quantitative data relevant to the investigation of the Japanese participants' perception, production, and beliefs regarding contractions on an individual level. The presentation of each case will begin with a brief introduction to the participant followed by three main sections. The first main section focuses on past familial and educational influences regarding English language use and learning. The second section focuses on current living and academic contexts here in the United States. The final component of each case is a presentation of the results from the two listening tasks, the descriptive analysis of their contraction production during the first two interviews, and a description of their beliefs regarding perception or production of contractions in English.

While the final section of each case provides insights into participants' internal processes and awareness related to English contraction, namely their state of contraction-related interlanguage and beliefs, the narratives of the first two sections are meant to contextualize the participants through a presentation of interview data highlighting salient positive and negative sociocultural influences specific to each of them. Embedded within these narratives are selected quotes which not only highlight key content points, but also allow the reader to "hear" their levels of fluency and lexical and grammatical accuracy.

#### **Mayu: Test proficient and invested, but still struggling with spoken English**

Mayu was a 37 year-old first-semester master's student in the Midwest University (MU) School of Labor and Employment Relations. She grew up in rural Akita prefecture in northern Japan, but moved to Tokyo to attend a national university. There she majored in social science, and following graduation, worked in the research and development department of a Japanese

corporation. She was inspired to enroll in Midwest University by a coworker who had decided to return to school, herself, to obtain a Ph.D. from the most prestigious national university in Japan. Mayu's iBT TOEFL score of 98 placed her in the highest proficiency level (upper advanced) among the Japanese participants.

**Family & education.** Mayu spent her years before university in the rural northern Japanese prefecture of Akita where she lived with her mother, her father, and an elder brother. When asked about English use by her family members, Mayu replied that everyone in her family has trouble with English and that she never heard her parents speaking English. Despite having no encouragement from her parents, Mayu revealed that she was interested in studying English in elementary school because her friends attended English classes. However, Mayu's mother refused her request to take part in such classes, because "it was her policy because [...] she believes that elementary school student should concentrate on learning Japanese" (Interview 1, p. 2)

Although Mayu exhibited an early interest in studying English, she described Japanese English education as "boring" because of the limited focus on grammar and the inability of Japanese teachers to speak English well (Interview 1, p. 5). In addition, Mayu stated that her high school English teachers propagated a stressful atmosphere despite the fact that she viewed English as a exciting tool for communicating with people from other countries. In both junior high school and high school, Mayu supplemented her studies with cram school lessons in many subject areas, including English, in order to prepare for high school and university entrance examinations. She indicated that her first native English-speaking teacher was a British person who only visited her high school once or twice a week.

Following her acceptance to Hitsotsubashi University in Tokyo, Mayu looked forward to more challenging English classes, but met with disappointment.

(Interview 1, p. 6)

Mayu: Actually there were there was no differences between the uh English English class in university and that in high school.

One bright spot for Mayu, however, was that she took an English class with a native-speaking teacher during her sophomore year, and this teacher inspired her to further her English education once she became employed after graduation.

It was during her time in the research and development department of a consulting company following graduation that Mayu's use of English blossomed. As part of her job, she was required to read English research articles and use spoken English with non-native speakers working for partner companies in other countries, such as China and Indonesia. She also had opportunities to travel abroad on company trips. During her employment, Mayu gained confidence with her English ability and was further inspired to further her own education in America by a coworker who was in the process of obtaining a Ph.D. from Tokyo University. Mayu also had an opportunity to study at a language school in New York, and prior to enrolling in Midwest University, she also studied English four or five days a week through classes at private language schools in Japan. The foci of these classes were conversation practice, as well as test preparation for TOEIC and TOEFL tests.

**MU Experience.** Mayu was enrolled as a master's student in Midwest University's School of Labor and Employment Relations and confided that she decided to study in America because there were few if any quality instructors in her field at Japanese universities. In addition to taking two classes in her major, she attended two ESL classes offered by the university, one an academic writing course and the other a pronunciation course aimed at international teaching assistants.

Mayu did not hide the fact that she has difficulty with spoken English. She indicated that when she first arrived at Midwest University she had great difficulty being understood by others,

but over time she received positive comments from classmates about the improvement of her oral production. However, in addition to her speaking difficulties, Mayu claimed to have difficulty listening to English, particularly the speech of university-aged native speakers.

(Interview 3, p. 3)

Mayu: Usually teachers use proper expressions, but students use many slangs. For me, I received education for academic English, so for me it is very difficult to understand what classmates say in casual scenes.

Instead of relying solely on native-speaker models of English pronunciation, Mayu instead looked to other non-native speakers for inspiration and guidance in improving her spoken English. In particular, she noticed that many Koreans on MU's campus spoke English quite well, and because of the similarities between Japanese and Korean, she asked advanced Korean classmates for advice about how to improve her English pronunciation.

Mayu did, however, admire the style with which native speakers in her classes made presentations. Unlike her presentations, she described theirs with such adjectives as "brilliant" and "lively," and hoped to present with such style in the future (Interview 3, p. 2). Finally, one of Mayu's primary goals regarding spoken English was "to make longer, more complicated sentences" that fully express the ideas that she wanted to convey (Interview 3, p. 2).

### **Performance & beliefs.**

*Perception.* Mayu clearly had difficulty on the initial cloze listening task, as she produced the second lowest percentage of perfectly correct answers (36.84%) and the largest percentage of completely misidentified items (55.26%) of all of the participants. However, she decontracted only 15.78% of the contracted stimuli and had no instances of writing contractions for uncontracted stimuli. Among the completely misidentified items, Mayu appeared to have equal difficulty with both contracted and uncontracted forms, as she misidentified 10 contracted items and 11 uncontracted items. Between these two categories she appeared to have the most

difficulty with items containing the auxiliary *would*, as she was unable to correctly identify any of the four contracted or three uncontracted items containing it.

On the forced-choice listening task, Mayu also exhibited difficulty in correctly discerning contracted from uncontracted stimuli relative to the other participants. She correctly identified 84.21% of the items, which was the second lowest percentage, and among her incorrect responses there was an equal distribution of three contracted stimuli and three uncontracted stimuli. Across both misidentified contracted and uncontracted items, four of the six items involved *is*-contraction—three misidentified contracted stimuli and one misidentified uncontracted stimulus.

Table 5

*Overall Percentages of Correct Responses on Perception Tasks*

	Total (%)	Contracted stimuli (%)			Uncontracted Stimuli (%)		
		's	'd	've	's	'd	've
Cloze task	37/45	43/57	0/29	40	43	43	60
Forced-choice Task	84	57	100	100	71	100	80

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

Table 6

*Percentages of Correct Contracted & Uncontracted Responses on Contraction Types with Two Forms*

	's stimuli		'd stimuli	
	is	has	had	would
Cloze task				
Contracted	25/50	33	0/67	0
Uncontracted	67	25	75	0
Forced-choice Task				
Contracted	0	100	100	100
Uncontracted	75	67	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

**Production.** Although Mayu exhibited a pronounced Japanese accent during the interviews and tended to speak at a relatively slow rate, disfluencies, such as frequent restarts and repairs, were not as common as some of the other participants in her age range. Possibly as a consequence of her slow rate of speech, Mayu also exhibited a tendency to contract at a relatively low rate. Overall, Mayu exhibited a contraction rate of one contraction per 58 words of talk, making her rate the lowest among the group, and far below the group average of one contraction per 39 words of talk. She also had a contraction ratio of 56.8%, which was also the lowest among the participants.

In addition to Mayu's sparse output of contractions, she also did not produce a broad range of contraction types. Specifically, selected *be*-contractions and *not*-contractions accounted for an equal proportion of Mayu's contraction production (50% each), and she uttered no *will/would*-contractions, *has/have/had*-contractions, or *are*-contractions.

Table 7

*Contraction Production Ratios Across Two Interviews*

	Time	Contraction Types						Totals	
		'm	's	're	've	n't	'll		'd
Interview One	22 min.								
Count		(2/2)	(6/13)	(0/1)	(0/0)	(4/15)	(0/0)	(0/1)	(12/32)
Percentage (%)		100	46.2	0	NA	26.7	NA	0	37.5
Interview Two	28 min.								
Count		(2/2)	(17/25)	(0/3)	(0/0)	(19/26)	(0/0)	(0/0)	(38/56)
Percentage (%)		100	68	0	NA	73.1	NA	NA	67.9
Total	50 min.								
Count		(4/4)	(23/38)	(0/4)	(0/0)	(23/41)	(0/0)	(0/1)	(50/88)
Percentage (%)		100	60.5	0	NA	56.1	NA	0	56.8

*Note.* "Count" denotes the number of contracted items divided by the total number of contractible items. "NA" denotes instances where no contractible items were produced.

Table 8

*Percentage of Total Contractions Produced by Type Across Two Interviews*

	Contraction Types (% of all contractions)						
	<i>'m</i>	<i>'s</i>	<i>'re</i>	<i>'ve</i>	<i>n't</i>	<i>'ll</i>	<i>'d</i>
Interview One	16.7	50.0	0	0	33.3	0	0
Interview Two	5.3	44.7	0	0	50	0	0
Total	8	46	0	0	46	0	0

Table 9

*Contraction Production Rate Across Two Interviews*

	<u>Time</u>	<u>Word Count</u>	<u>Contractions</u>	<u>Words/contraction</u>
Interview One	22 min.	1,355	12	113
Interview Two	28 min.	1,551	38	41
Total	50 min.	2,906	50	58

**Beliefs.** When asked in the final interview if she had ever learned about English connected speech, Mayu indicated that she had, particularly about linking and reduction, during her year and a half enrollment at a private Japanese prep school before coming to Midwest University. Specifically, one of school's Japanese instructors, a graduate of the University of Iowa, introduced her to the idea that production preceded perception, and used production drills extensively to prepare students for listening section of the TOEFL test. Mayu appeared to align strongly with this belief.

When asked about contractions, Mayu did not initially recognize the term, and like some of the other participants mistakenly referred to them as "constructions." At one point she asked, "Are *wanna* and *gonna* contractions?" and stated that it was not until university that she learned about such kinds of contractions. Once the term had been clarified using examples, Mayu explained that she had not been explicitly taught about contractions in junior high and high school, but did focus on them through listening and mimicking practice at the earlier-mentioned prep school.

(Interview 3, p. 4)

Mayu: I think [Japanese junior high and high school teachers] haven't received education about proper pronunciation of contractions, so they don't know how to teach those things to students.

Regarding her own use of contractions, Mayu stated that she does not frequently use contractions such as *wanna* and *gonna*, because she is “not accustomed to using those words”

(Interview 3, p. 4). When asked about her current use of contractions, she had the following to say.

(Interview 3, p. 4)

Mayu: I often use *he's* or *she's*. For me it's a little bit difficult to use *he'll* or *she'll* because of the /l/ sound. Sometimes people misunderstand when I use *he'll* or *she'll*, just in case I avoid using *he'll* or *she'll* and use *she will*.

John: How about *have*-contractions?

Mayu: No, because the /v/ sound is a problem for me (laugh).

John: How about 'd contractions?

Mayu: Yeah, for example, *I'd like to*.

An examination of the interview data revealed that Mayu did indeed fail to utter any *will*-contractions or even any contractible phrases containing *will*. However, Mayu did produce three uncontracted examples of *she is*, one uncontracted example of *he is*, and no contracted versions of either. She also did not contract the one example of a contractible 'd-contraction (*I had*) she uttered over the 50 minutes of interview time.

In terms of perceiving contractions, Mayu indicated with a tone of certainty that it was not problematic for her, because she practiced listening for contractions in Japan, but later mitigated her level of certainty by saying that they were sometimes difficult to perceive. Mayu also explained that she did not have much difficulty discerning which full-form auxiliary was being referred to in contractions that could have two representations, such as 'd-contractions.

(Interview 3, p. 4)

Mayu: I can recognize the difference from the context. I listen for hint words like *been*.



Mayu's results on the cloze listening task revealed that although she did not mistake *would* for *had* or vice versa on contracted items, she did have a tendency to leave those items blank or write the proform without the contracted auxiliary.

On the issues of contraction use and formality, Mayu explained that use of contraction in spoken Japanese "sounds childish," and that contraction use during presentations done in English depended on the social distance between her and the audience members (Interview 3, p. 4).

(Interview 3, p. 5)

Mayu: If the audience members are my acquaintances, like in a class, I feel like I can use contractions, but if I have to present a paper in a more formal situation like at a conference, I cannot use contractions.

Mayu also indicated that during her prep school lessons for TOEFL and GRE essay writing she had learned not to use contractions in writing. However, she held the belief that writing contractions in e-mails or when texting was appropriate, except in cases when the recipient of the e-mail was a person of higher social status, such as professors. However, she seemed conflicted about whether the practice of changing language based on social standing was appropriate when using English.

(Interview 3, p. 5)

Mayu: I don't know if it's normal or abnormal in the United States, but in Japan, usually people change the expression depending on the status.

Near the end of our final interview, Mayu made the following statement of belief about her use of English contraction.

(Interview 3, p. 5)

Mayu: Actually, I don't understand the benefits of using construction. I'm not native speaker so for me it is important to, how should I say, to convey my message to other people accurately, so as I said I have a problem with /l/ sound or /v/ sound, so in this case, it might be better for me to avoid using *I've* or *he'll* or *she'll*.

**Summary.** Despite Mayu's high test-based proficiency ranking for this group and the fact that she appeared to be highly invested personally, as well as instrumentally because of the use of English in her career, it was surprising that she exhibited such a great deal of difficulty

perceiving and producing spoken contractions in English. Not only were her scores on the perception tasks at or near the bottom on these measures, she produced the lowest rate and ratio of contraction during the two interviews, using only three contraction types (*am*, *is*, and *not*). In terms of beliefs related to her own contraction-related performance, there appeared to be general congruence with her assessment of her production tendencies, but an inflated sense of accuracy regarding her ability to perceive spoken contractions. In addition, Mayu appeared to be keenly aware of the interplay between formality and contraction in both written and spoken forms, but expressed negative views regarding the importance of using contraction in spoken English because of perceived contributions they make to communication breakdowns.

### **Seiji: The Leader in Contraction Production Volume**

Seiji was a 20 year-old exchange student in the Department of Electrical and Computer Engineering at Midwest University who was striving to transfer to MU permanently to attend graduate school at the conclusion of his exchange period. Although originally from a rural area of Hyogo prefecture, where his father owns a small, but world-renowned manufacturing company, Seiji moved to neighboring Okayama prefecture to attend the national university together with his older brother. Seiji's iBT TOEFL score of 82 placed him in the highest proficiency level (upper advanced) among the Japanese participants.

**Family & education.** According to Seiji, English was occasionally heard in his home while growing up, primarily in the form of conversations his father had with clients and friends from other countries. Seiji's father, who had traveled to America when he was in his 20s, unexpectedly found work as an engineer for a motorcycle racing team and worked in the United States for approximately 10 years. Despite his father's use of English for business purposes, Seiji explained that he did not talk about his experiences in America and did not particularly encourage him to study English. Besides his father, the only other family member whom Seiji

heard using English was his older brother, who attended a California language school for a year as a university student.

Although English was occasionally used in Seiji's immediate family growing up, it was in junior high school that Seiji first received formal instruction in the language. There he was taught by his first native-speaking English teacher, and he also received extracurricular tutoring through private lessons offered by his mother's friend after school. Those lessons did not continue as Seiji entered high school, however, because of his involvement in extracurricular activities, such as his school's table tennis club. Interestingly, Seiji's involvement in the table tennis club had a direct impact on his English language development, as the team's coach was also his English teacher. Seiji indicated that his coach/teacher had a profound influence on his desire to study English.

(Interview 1, p. 6)

Seiji: When I was a high school student there is a very, very good English teacher. And he was ah ah a (let me see...) ah like manager of my t..ah table team club so I could interact with him very well. And ah I..ah he know ah well about my English skill, and ah so he...so he ah made me some advice to..to improve my English skills. So, ah I think ah without him I can't come this university.

Seiji also credited this teacher with helping him improve his spoken English skills by lending him a book and CD that he often used for sentence-level listening and oral repetition practice. As he practiced on his way to and from school, Seiji shyly admitted that he would "pretend to be American" as he tried to repeat the sentences as exactly as he could (Interview 2, p.7).

Following high school, Seiji decided to attend nearby Okayama University, which had a well-respected engineering program, and was the university that his brother also attended. Seiji pointed out that within his school's engineering department, however, many English classes were taught by Japanese professors of engineering, not native speakers of English. Reflecting on the

quality of English education in his department, Seiji's disappointment was not limited to the classes taught by Japanese professors, but also those taught by native speakers as well.

(Interview 2, p. 10),

Seiji: I have uhh maybe two to three classes by the native speaker, but uh (laugh) the you know the engineering student cannot use English in Japan, so the class is the level of the class is very low, I think, so he he talked with us like the the people in kindergarten, so I mean yeah very slowly and very few words and not so complex sentence.

Outside of class, Seiji interacted with exchange students in order to improve his use of English in social contexts. He also had the opportunity to take an English class with a group of exchange students, in which communicative use of English was required to create poster presentations.

**MU experience.** Having already completed the first semester of his junior year at Okayama University, Seiji's original purpose for participating in the exchange program at Midwest University was to study English intensively in order to obtain a TOEFL score high enough to apply for the most prestigious engineering graduate program in Japan. However, in preparing for the exchange, Seiji's advisor encouraged him to study English so well that he passed the TOEFL exam even before beginning his exchange. Consequently, instead of taking ESL courses as he had expected, Seiji found himself taking difficult courses in his major.

(Interview 1, p. 7)

Seiji: I have no time to study English. And ah I thought that it's it's a language course [...] so I thought that I have to take English class in here ah very... a lot of English class in here, but (laugh) I couldn't take any English (skill?) English class here. And I take..yeah..I take engineering courses.

When he was not busy attending classes or studying in the library, Seiji shared a dorm room with a Korean roommate with whom he interacted sporadically because of conflicting schedules. In addition, Seiji admitted that he was under much stress because he was required to change classes weeks after the semester had begun due to a placement error, but he stated that he

established more friendships in his new classes than he did in his initial classes. Although he indicated that he interacted with native speakers approximately 70% of the time, he encountered more language-related difficulties with them than compared with his interactions with non-native speakers.

(Interview 1, p. 7)

Seiji: I sometimes confused by native speakers like ah for listening when I listen to ah native American speak.. ah speaking ah I sometimes confused eh 'cause I think there are a lot slang and uh it's a little bit different from textbook English and ah eh it's I..I can interact with ah non-native English speaker because they speak very slowly and eh the but the native speakers speaks very quickly. (laugh) I can't understand.

### **Performance & beliefs.**

**Perception.** Seiji's performance on the first listening task suggested that he generally had difficulty correctly identifying elements within contracted stimuli. Although he perfectly identified 47.36% of the items, which placed him in the middle of the participants in that category, his percentage of completely misidentified items (42.10%) ranked him third worst among the participants. Among these incorrect items, 75% contained contracted elements. Seiji's tendency to contract uncontracted stimuli or decontract contracted stimuli were 0% and 21.1% respectively. On the second listening task, Seiji was much more accurate, and was able to correctly identify 92.10% of the stimuli. In particular, he perfectly identified all of the uncontracted stimuli, as well as all of the 'd contractions. The three items that he misidentified were contracted *is*, *have*, and *has*.

Table 10

*Overall Percentages of Correct Responses on Perception Tasks*

	Total (%)	Contracted stimuli (%)			Uncontracted Stimuli (%)		
		's	'd	've	's	'd	've
Cloze task	47/58	0/29	0/14	60/80	100	57	80
Forced-choice Task	92	71	100	80	100	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

Table 11

*Percentages of Correct Contracted & Uncontracted Responses on Contraction Types with Two Forms*

	's stimuli		'd stimuli	
	<i>is</i>	<i>has</i>	<i>had</i>	<i>would</i>
Cloze task				
Contracted	0	0/50	0/25	0
Uncontracted	100	100	67	50
Forced-choice Task				
Contracted	75	67	100	100
Uncontracted	100	100	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

**Production.** During the first two interviews, Seiji expressed himself quite fluently and could elaborate at length in response to each of my questions. He also frequently used the adverbial filler, *like*, which approximated the speech of American undergraduate students. In terms of contraction use, he was very consistent in the total number he produced in each of the 27-minute interviews. Specifically he produced 75 contractions in the first interview and 74 in the second, making his total of 149 the highest of all of the participants and far outpacing the group average of 96.3. Although Seiji's total contraction output was the highest and his rate of contraction (33 words per contraction) was third best, his actual ratio of contractions to contractible elements was actually the third lowest among the Japanese participants (69.6%). A

considerable drop could be seen in this ratio from the first interview (79.8%) to the second (61.7%).

Among the contractions Seiji produced, 68.5% were *be*-contractions: *it's* (74), *I'm* (25), *there's* (2), and *that's* (1); and 31.5% were *not*-contractions: *don't* (23), *couldn't* (11), *can't* (5), *didn't* (4), *isn't* (2), and *doesn't* (2). Throughout the two interviews, Seiji uttered no *has-*, *will-*, *would-*, *had-*, or *are-*contractions.

Table 12

*Contraction Production Ratios Across Two Interviews*

	Time	Contraction Types						Totals	
		'm	's	're	've	n't	'll		'd
Interview One	27 min.								
Count		(19/19)	(38/51)	(0/2)	(0/0)	(18/21)	(0/1)	(0/0)	(75/94)
Percentage (%)		100	74.5	0	NA	85.7	0	NA	79.8
Interview Two	27 min.								
Count		(6/7)	(39/66)	(0/3)	(0/7)	(29/32)	(0/4)	(0/1)	(74/120)
Percentage (%)		85.7	59.1	0	0	90.6	0	0	61.7
Total	54 min.								
Count		(25/26)	(77/117)	(0/5)	(0/7)	(47/53)	(0/5)	(0/1)	(149/214)
Percentage (%)		96.2	65.8	0	0	88.7	0	0	69.6

*Note.* "Count" denotes the number of contracted items divided by the total number of contractible items. "NA" denotes instances where no contractible items were produced.

Table 13

*Percentage of Total Contractions Produced by Type*

	Contraction Types (% of all contractions)						
	'm	's	're	've	n't	'll	'd
Interview One	25.3	50.7	0	0	24	0	0
Interview Two	8.1	52.7	0	0	39.2	0	0
Total	16.8	51.7	0	0	31.5	0	0

Table 14

*Contraction Production Rate Across Two Interviews*

	Time	Word Count	Contractions	Words/contraction
Interview One	27 min.	2,395	75	32
Interview Two	27 min.	2,576	74	35
Total	54 min.	4,971	149	33

**Beliefs.** In the second interview, Seiji expressed his opinion about Japanese-accented English and stated his pronunciation-related goals. On the topic of Japanese-accented English and the obligation of Japanese English educators to teach phonetic symbols, he had the following to say.

(Interview 2, p. 6)

Seiji: [Japanese-accented English] is weird, I think (laugh) ‘cause you know ah in in Japan, McDonald is *makudonarudo*. And it’s it’s weird ‘cause ahhh we learn English by using Japanese words like *hiragana* or *katakana* and I think it’s because [...] you know like the pronunciation of the Japanese words and English words is completely different, so we can write the English words by using Japanese, so I think the education people should not use it like and then ahh just learn by using the the figure. Ah I don’t know the name, but uh there is a pronunciation figure.

He also viewed his own pronunciation in negative terms and expressed doubt about his ability to make progress in improving it.

(Interview 2, p. 9)

Seiji: I think still I have a lot of Japanese accent for like weird pronunciation so I want to fix it, but I am not sure I can do it because I heard that you know ahhh the boys are like, how can I say, like the girls can fix it when they are very old or like 20 [...] but boys are much younger than that so I don’t know I can fix it or not (laugh).

In the third interview, I asked Seiji directly if he knew what contractions were, but he replied that he did not recognize that term. After providing some examples, he understood what I was talking about and made the following observations about *to*-contractions.



(Interview 3, p. 4)

Seiji: A lot of American people use *wanna gonna*, so at first it was so confusing 'cuz I have never heard that, but I got used to listen and use it. After that it's much convenient for me because sometimes I was about to bite my tongue.

John: Is it easier for you to say *wanna* instead of *want to* now?

Seiji: Yeah, I think I can speak English much fluently if I use *wanna gonna* or some other short [forms]. I have never used it in Japan, so I learned it here. But actually it's not so good English for when I [speak] officially.

Seiji also discussed how his beliefs about the need to contract have changed over time and explained his perceived tendencies regarding his own contraction use.

(Interview 3, p. 4)

Seiji: I didn't feel it's needed. Actually I was very bad at speaking at first. I thought that I don't need to use it. After I came here, it took time to speak in English if I don't use those words.

John: Are there certain types of contractions that you frequently use?

Seiji: Yeah, I always use *I'm* but I think that's all. I have never used *you'd* or *he'd*, like *he'll*.

John: Why?

Seiji: I didn't feel the need to use it. Actually I have to study for TOEFL and think I cannot use *I wanna go there*, so I objected to use it. It's for test, and actually once I came here I feel like I have to use it. Most of people use it, so it is usual, but if I don't use it, I feel like I'm a stranger.

In fact, in his first two interviews Seiji *did* contract *I am* to *I'm* in 25 of 26 instances and *did not* contract two instances of *he will*, three instances of *it will*, and one instance of *he had*. This result indicates congruence between his *perception* of his contraction use and his *actual* use.

In terms of contraction perception, Seiji expressed confidence with his ability to perceive contractions because of intensive listening practice he experienced in high school. However, this belief appears somewhat at odds with the results noted in the presentation of his perception data. He also explained that he was aware of the general prohibition against using contractions in English academic writing. However, Seiji still appeared to have a lingering uncertainty regarding the relationship between contraction use and its appropriateness with people of higher social standing.

(Interview 3, pp. 4-5)

Seiji: I'm not sure I can use for professor or elderly people, because you know in Japanese there is like respect words. so I feel like I cannot use such kind of words for elderly people or professors. Do you think I can use it for professors? I sometimes feel like I have to use *I want to* or *would like to* for a little bit formal or speak to elder people.

**Summary.** Unlike Mayu, who had no exposure to English at home and mentioned no favorable experiences with English education prior to university, other than a strong interest in studying the language, Seiji grew up in an richer environment, in which his father's business dealings with international clients allowed occasional opportunities for him to experience the use of the foreign language directly at home. This, coupled with memorable support and encouragement Seiji received in high school from a particular English teacher, with whom he also interacted with outside of the classroom, appears to have provided Seiji with a foundation to further his English studies in the pursuit of a graduate degree in the future.

Not only was Seiji noticeably more accurate than Mayu on the perception tasks used in this study, but his production of contractions and contractible items outnumbered that of any other participant. Yet despite his increased production, Seiji exhibited the same narrow range as Mayu, producing only three types of contractions: *'m*, *'s*, and *n't*. He also struggled to accurately identify both types of *'d* contractions on the cloze task, and appeared to overrate his contraction perception ability, despite the fact that his beliefs about his own production were generally accurate.

During the interviews, Seiji was talkative and exhibited a keen awareness and sensitivity when discussing English pronunciation, critiquing both his own production and the production of other Japanese in general. Although he stated that his views concerning the importance of using contractions in conversation had changed after coming to the study in the United States, he still appeared to be unsure of contraction's role in formal interactions.

## **Dai: The Soft-spoken Judge**

Dai was unique among the participants in the study, in that he was the lone visiting scholar. Originally from small city in Gifu prefecture on the main island of Honshu, 30 year-old Dai was a judge in the city of Sapporo in the northernmost prefecture of Japan. At the request of the Japanese Supreme Court, he came to study at Midwest University for one year to learn more about particular aspects of the American legal system. During the semester that I interviewed him, his primary activities were sitting in on classes at the university's College of Law and attending both formal and informal English lessons offered in the surrounding community. Dai's TOEIC score of 785 placed him in the highest proficiency level (upper advanced) among the Japanese participants.

**Family & education.** Dai was the eldest of three children and admitted that growing up, he never heard his parents nor his siblings speak English. His father, a technician who specialized in designing windows for large buildings, and his mother, a housewife, did not appear to exert much of an influence on Dai as he made his way through school and chose his career path. As with most Japanese, Dai's first experience with English education was in junior high school, but his recollection of the quality of the English teachers at his school was not favorable.

(Interview 2, pp. 8-9)

Dai: Mmmm In junior high school mmmm ah ...to tell the truth teachers are mmm not good umm except the native speaker teaching assistant teacher

John: OK And you had you had one in junior high school?

Dai: Uh native speak-? Uhhh yeah, uh but maybe during our I wa- while I'm in junior high the teacher is changed

John: Meeting only once a week with the native speaker?

Dai: Uhhh less than once a week maybe mmm once a month

John: OK yeah and the other teachers, why did you say they weren't the other English teachers why....

Dai: Mmmmmmm now I I look back what they speak uhh I'm not sure they have knowledge and experience of uhhh English uhh an- and uh one of the teacher is looks looked maybe over 50 50 at that time. He his pronunciation is very ter-

terrible uh like “Good morning everybody” (mimicking heavy Japanese-accented pronunciation)

Following junior high school, Dai attended a high-level high school whose graduates were known for gaining admission to prestigious universities. In recollecting his experiences there, Dai contended that the quality of the English teachers was marginally better than in junior high, but the focus was solely on preparing students for university entrance examinations (Interview 2, p. 9). It was in high school that Dai had a very important experience that appeared to shape his interest both in English and in international travel. That experience was his participation in a sister-city exchange program offered by a city in Utah. As part of the program Dai stayed with a host family for one week, took part in classes at the local high school, and enjoyed the natural beauty of the state.

As a university student at the most prestigious national university in Japan, Dai stated that he was quite active in extracurricular activities during the pursuit of his bachelor’s degree in law. Not only did he participate in a drama club, but he also held down part time jobs as a national park ranger and as a translator of written news stories for a private broadcasting company. In addition, Dai was able to travel internationally both as part of a university group that conducted volunteer work abroad, as well as for personal reasons, such as a trip to visit a friend in Nepal to pursue his love of hiking.

When asked where his motivation for studying English originated, Dai indicated that hearing of the study abroad experiences of his high school and university friends encouraged him to pursue his own international experiences.

(Interview 1, pp. 5-6)

Dai: To tell the truth, I sometime I wanted to go abroad to study. At that time I feel studying English more, but basically, the education in school didn’t give give motivation.

John: So what did give you motivation? Was it the traveling, the thought about traveling that gave you the motivation or?

Dai: Yeah. Yes, traveling is one thing. When... the time I feel going abroad is meeting somebody from abroad. And listening about the abroad experience from my friend.

As a university student, Dai took two years of mandatory English instruction taught by Japanese teachers of English and an elective class taught by an American. He indicated that the mandatory classes were quite large, with over 50 students per class, but the elective class was noticeably smaller, with only 10 or 20 students per class. When asked about the use of spoken English in the both types of classes, Dai responded that in the mandatory classes he “didn’t use it at all,” and in the oral communication course offered by the native speaker “students just talked with the teacher” during the few opportunities they were given to speak (Interview 3, p. 2).

**MU experience.** As a visiting scholar at Midwest University at the behest of the Japanese Supreme Court, Dai’s days were spent sitting in on law classes at the university, attending legal proceedings and interviewing legal professionals in the community, and writing reports of his findings (in Japanese) to his superiors. He also attended English lessons offered by a private tutor as well as those offered by private or community-based organizations. He indicated that the majority of his English use revolved around reading and noted difficulty with spoken English in academic situations.

(Interview 2, p. 7)

John: Are you happy with your current level of English?

Dai: Recently I I feel the problem has gotten smaller in daily life conversation, but I I I have a trouble to listen and to the lectures in law school maybe because I’m I’m not familiar with the professional term. And the other is a professor speaks to an American student so the speed is a little too fast for me.

### **Performance & beliefs.**

**Perception.** For the cloze listening task Dai perfectly identified 47.37% of all target items, improperly decontracted 21.05% of the contracted items, improperly contracted 5.26% of the uncontracted items, and completely misidentified 39.47% of all items. His rate of complete

misidentification was the fourth highest among all of the participants, and was due in large part to his failure to write both contracted and uncontracted auxiliaries following pronouns. This occurred in 40% of incorrect items, and appears to indicate that Dai has difficulty noticing auxiliaries in the flow of speech. Specifically, he had difficulty correctly identifying contracted and uncontracted *has* and both types of ‘*d*’ stimuli.

In the forced-choice listening task, Dai correctly identified 89.47% of the target items. Two of his four incorrect responses were on sentences featuring full form *is* and the remaining two incorrect responses involved misidentifying contracted *has* and *have*. Interestingly, he was able to perfectly identify all instances of contracted and uncontracted ‘*d*’ stimuli on this task type. Dai’s score placed his performance mid-pack among the other participants on this task.

Table 15

*Overall Percentages of Correct Responses on Perception Tasks*

	Total (%)	Contracted stimuli (%)			Uncontracted Stimuli (%)		
		‘s	‘d	‘ve	‘s	‘d	‘ve
Cloze task	47/61	29/71	29/43	60	71	29	80/100
Forced-choice Task	89	86	100	80	71	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

Table 16

*Percentages of Correct Contracted & Uncontracted Responses on Contraction Types with Two Forms*

	‘s stimuli		‘d stimuli	
	<i>is</i>	<i>has</i>	<i>had</i>	<i>would</i>
Cloze task				
Contracted	33/100	25/50	50/75	0
Uncontracted	100	33	33	25
Forced-choice Task				
Contracted	100	67	100	100
Uncontracted	33	100	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

**Production.** In the first two interviews conducted with Dai, a total of 71 contractions out of a possible 92 contractible items were counted within 63 minutes of talk. Consequently, his overall contraction ratio was 77.17%, and his rate of contraction was one contraction per 48 words of talk, which was the third lowest rate in the group. Of Dai's 71 contractions, 49.30% were *be*-contractions: *it's* (20), *I'm* (14) and *that's* (1); 49.30% were *not*-contraction: *don't* (13), *didn't* (12) *can't* (8), *wasn't* (1) and *weren't* (1); and 1.41% were *have*-contractions: *I've* (1). Noticeably absent from Dai's production in spontaneous talk were *are*-contractions, *has/had*-contractions, and *will/would*-contractions.

Table 17

*Contraction Production Ratios Across Two Interviews*

	Time	Contraction Types						Totals	
		'm	's	're	've	n't	'll		'd
Interview One	31 min.								
Count		(5/5)	(13/18)	(0/0)	(0/0)	(12/16)	(0/1)	(0/0)	(30/40)
Percentage (%)		100	72.2	NA	NA	75	0	NA	75
Interview Two	32 min.								
Count		(9/9)	(8/10)	(0/1)	(1/1)	(23/29)	(0/2)	(0/0)	(41/52)
Percentage (%)		100	80	0	100	79.3	0	NA	78,8
Total	62 min.								
Count		(14/14)	(21/28)	(0/1)	(1/1)	(35/45)	(0/3)	(0/0)	(71/92)
Percentage (%)		100	75	0	100	77.8	0	NA	77.2

*Note.* "Count" denotes the number of contracted items divided by the total number of contractible items. "NA" denotes instances where no contractible items were produced.

Table 18

*Percentage of Total Contractions Produced by Type Across Two Interviews*

	Contraction Types (% of all contractions)						
	'm	's	're	've	n't	'll	'd
Interview One	16.7	43.3	0	0	40	0	0
Interview Two	22	19.5	0	2.4	56.1	0	0
Total	19.7	29.6	0	1.4	49.3	0	0

Table 19

*Contraction Production Rate Across Two Interviews*

	Time	Word Count	Contractions	Words/contraction
Interview One	31 min.	1,572	30	52
Interview Two	32 min.	1,747	41	43
Total	63 min.	3,319	71	47

**Beliefs.** When the topic of contraction was discussed in the final interview, Dai indicated that certain contractions were difficult for him. Specifically, he indicated a reluctance to use the word *won't* because he claimed that his pronunciation of the word was not different from the word *want*, and this caused confusion in conversation. He noted that other contraction types were also problematic in terms of production, namely *will*-contractions, because he had a tendency to use present tense when discussing future events (Interview 3, p. 4). Examining his interview production, Dai had two opportunities to contract *I will* and one opportunity to contract *it will*, but did not take those opportunities. In addition, he uttered no contracted or uncontracted examples of *will not* or *won't*. Consequently, his beliefs regarding the above mentioned contractions appear to be in line with his actual production.

More problematic than contraction *production* for Dai was contraction *perception*. For instance he stated that while he did not have difficulty producing *will/would*-contractions or *not*-contractions, the “short and weak” quality of final /t/, /d/, and /l/ in contractions made listening to these contractions difficult (Interview 3, p. 5).<sup>39</sup> The data from the perception tasks showed that although Dai indeed perfectly identified contracted and uncontracted *will* and *would* auxiliaries only 29% of the time when he was not provided a choice, in forced choice situations, he was able

---

<sup>39</sup> Although it appears Dai has little difficulty producing most *not*-contractions, an examination of the data reveals that he actually has a tendency to avoid contracting three types of *not*-contractions: *are not*, *is not*, and *have not*. Across the two interviews there were four occurrences of *are not*, five occurrences of *is not*, and one occurrence of *have not* left uncontracted, and no contracted examples of these produced.



to accurately identify *all* of the contracted and uncontracted items featuring *will* and *would*.

Clearly, Dai appears to have the ability to differentiate between the contracted and full forms of contractible phases, but has considerable difficulty when textual cues are not provided.

When asked about his use of contraction in writing, Dai could not recall being formally instructed against using contractions, and noted that his use of contraction depended on whether he is handwriting something or typing it. Because more keystrokes are required to make an apostrophe on a Japanese keyboard, he said that he tends to use full forms when typing, but contracted forms when writing by hand (Interview 3, p. 4).

As with other participants, Dai seemed to express some uncertainty regarding the relationship between spoken contraction in English and level of formality. “Don’t I need to care when using contraction in formal situations at all?” and “Is there the situation especially I have to use the exact form?” were two questions he asked once we had begun discussing the topic in the final interview. (Interview 3, p. 5).

**Summary.** Like Mayu, Dai, a soft-spoken visiting legal scholar, did not grow up in a household in which English use and study were promoted. However, unlike Mayu and Seiji, he did have an opportunity in high school to participate in a brief exchange program, and this experience served as a catalyst for both his desire to travel internationally and study English more earnestly. Years later, as he strove to broaden his understanding of the U.S. legal system during his time at MU, he admitted that he constantly grappled with the speed and vocabulary used in the classes, proceedings, and spoken interactions he took part in.

Although Dai’s performance on the perception tasks in this research revealed, among other things, a clear discrepancy between his ability to correctly identify contracted and uncontracted ‘*d*’ stimuli on open-ended and forced-choice responses, in the area of contraction production, Dai not only produced a higher contraction ratio than Seiji and Mayu, but also used a

contraction type (‘ve) they had not. He also provided insightful comments as to why contraction perception was difficult for him. Specifically, he explained that the reduction of an entire word to a “short and weak” consonant sound often hindered his ability to correctly perceive those items. Additionally, Dai echoed the uncertainty of Mayu and Seiji regarding the appropriateness of using spoken contractions in formal situations or interactions.

### **Yoshi: Taking a Break from the Business World to Pursue English Studies**

Thirty-three year-old Yoshi was one of four participants enrolled in the Midwest English Institute (MEI) during the research period. After spending the first five years of his life in Chiba prefecture near Tokyo, Yoshi moved to Japan’s second largest city, Osaka, where he spent the rest of his life until his graduation from an Osaka-area university. After working for a number of years in sales and accounting for an advertising company established by his grandfather and run by his father, Yoshi decided to take time off to pursue his dream of improving his English ability. His enrollment at MEI followed previous enrollments in other intensive English programs, both corporate and university-based, in Washington, D.C. and Maryland respectively. He planned to return to his family’s advertising company and use his improved English ability to increase the company’s global presence. Yoshi’s iBT TOEFL score of 60 placed him in the lowest proficiency level (low advanced) among the Japanese participants.

**Family & education.** Growing up in Japan’s second largest city with his father, mother, and older sister, Yoshi was active in extracurricular activities, such as swimming and *kendo*, or Japanese fencing, at a young age. He also exhibited an interest in English and American culture, and when asked where such an interest originated, he offered the following explanation.

(Interview 2, p. 4)

Yoshi: I want to speak different language because it’s looks cool (laugh) And sounds cool. And I heard some uh Japanese students uh who are who growing up in the different country uh get more advantages than people who are who growing up uh in Japan. And uh also I’m very uh interested in American culture. Because my father always said to me ah America is interesting country very good I spend

spend very good time. So I said (laugh) I want to go to America, but he said no. (laugh)

Despite the fact that he was not allowed to enroll in a school with English as the medium of instruction, Yoshi indicated that he felt encouraged by his parents to learn English, and sometimes listened to his father discuss his own experiences of living and working in the United States. His mother, a housewife, also pushed Yoshi hard academically from a young age, but this conflicted with his desire to pursue non-academic interests. Specifically, his mother's desire for him to study at a cram school during his elementary school years was particularly stressful for him.

(Interview 1, p. 1)

Yoshi: T: I'd like to play with my friend outside and that [cram] school takes so long time and I don't I hadn't have eh I couldn't I was not couldn't have so many friends in that school, so I want to quit that but so I I I asked my mother about that can can I quit I can quit that school and she said OK but I hire another teacher for you (laugh) so so but I I I don't like I didn't like studying so hard so I I didn't study well.

As a junior high school student, Yoshi was taught by his first native English-speaking teacher, but later in high school, all of his high school English teachers were Japanese. At university, Yoshi took English for four years during his pursuit of a bachelor's degree in economics, but he failed to feel challenged by these classes.

(Interview 2, p. 11)

Yoshi: [English classes were] very easy (laugh) I don't have to review or ah study before the class. I just go to class and open the book. I can read everything. (laugh) I can understand everything.

John: How about listening and speaking at the university? Was there more listening and speaking?

Yoshi: No. Like uh like uni- like high school

John: So no presentations or no?

Yoshi: No. Never

**MEI experience.** After graduating from university, Yoshi worked for approximately 12 years in multiple positions in his family's advertising company in various locations around Japan as well as in China. At the time of the research, he had been on hiatus from his job for approximately a year and a half, attending multiple English language programs in the United States: one in Washington D.C., one at the University of Maryland, and his program at Midwest English Institute. He was taking "advanced-level" courses at MEI, including pronunciation, advanced grammar, everyday speaking, and writing. His goal was to continue his study at MEI for an additional semester and apply for the MBA program at Midwest University. Once he obtained an MBA, Yoshi planned to return to his family's company and work to establish new overseas branches in neighboring Asian countries in which English would be used as the medium of instruction. According to Yoshi, "English is first language of business. Even if we work in Japan, we have to know English" (Interview 3, p. 2).

Unlike some of the other participants in the current study, Yoshi appeared to be utilizing his outgoing nature to create opportunities to use English in many social contexts outside of MEI classes. "Outside conversation is more helpful to me," he explained, and when asked about his current interactions at Midwest University, he had the following to say.

(Interview 1, p. 4)

Yoshi: Here is good for studying and good for good to make make friends and many people help me and I met ah a friend friends they are they are very exciting person and uh teach me a lot of things about American cultures or uh uh how to make communication or something.

John: Are they native Americans or international students?

Yoshi: Some friends are native Americans but some person some friends are for example Japanese Japanese American or Korean Americans or ah Thai Americans. One of my friends introduced some friends and also I I just uh uh ask question just in the café, coffee shop or something like (laugh) and then we just we we uh we were friends and ah we ah we met we meet once a week and take ah just ah talk ah about everything anytime.

**Performance & beliefs.**

*Perception.* On the first listening task, Yoshi recorded the second highest percentage of perfectly correct responses (60.53%) and his percentage of completely misidentified responses was tied for third lowest among the Japanese participants (21.05%). On the remaining items, he decontracted contracted stimuli 31.58% of the time and contracted full forms only once, or 5.26% of the time. Seventy-five percent of Yoshi’s completely misidentified responses were for contracted items, while 69.6% of the items that he perfectly identified were uncontracted.

On the forced-choice second listening task, Yoshi appeared to have more difficulty distinguishing full from contracted forms. His score of 84.21% correct, although still relatively high, placed him tied for second worst among all of the Japanese participants. Analyzing Yoshi’s results more closely, the majority of incorrect responses (66.66%) were contracted items. Also, of the six incorrect responses, four contained the *be*-verb *is*, once in uncontracted form and three times in contracted form.

Table 20

*Overall Percentages of Correct Responses on Perception Tasks*

	Total (%)	Contracted stimuli (%)			Uncontracted Stimuli (%)		
		's	'd	've	's	'd	've
Cloze task	61/79	43/86	14/43	60/80	86	86	80/100
Forced-choice Task	84	57	86	100	71	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

Table 21

*Percentages of Correct Contracted & Uncontracted Responses on Contraction Types with Two Forms*

	's stimuli		'd stimuli	
	<i>is</i>	<i>has</i>	<i>had</i>	<i>would</i>
Cloze task				
Contracted	50/100	33/67	0/33	25/50
Uncontracted	100	75	75	100

Table 21 (cont.)

Forced-choice Task	's stimuli		'd stimuli	
	<i>is</i>	<i>has</i>	<i>had</i>	<i>would</i>
Contracted	0	100	100	67
Uncontracted	75	67	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

**Production.** During the interviews with Yoshi, he was very talkative and often elaborated at length for each question. Through 69 minutes of interview time he produced a total of 120 contractions from 152 contractible elements, for a contraction ratio of 78.95% and a contraction rate of one contraction per 35 words of interview. Among his contractions, 51.67% were *be*-contractions: *it's* (35), *I'm* (18), *that's* (8), and *he's* (1); and 46.67% were *not*-contractions: *don't* (39), *didn't* (12), and *couldn't* (5). The remaining 1.66% of his contractions were split between one instance of *have*-contraction (*I've*) and one instance of *has*-contraction (*he's*). Throughout the two interviews, Yoshi produced no *will*-, *would*-, *are*-, or *had*-contractions.

Table 22

*Contraction Production Ratios Across Two Interviews*

	Time	Contraction Types							Totals
		<i>'m</i>	<i>'s</i>	<i>'re</i>	<i>'ve</i>	<i>n't</i>	<i>'ll</i>	<i>'d</i>	
Interview One	29 min.								
Count		(3/3)	(23/32)	(0/4)	(1/1)	(27/29)	(0/3)	(0/0)	(54/72)
Percentage (%)		100	71.9	0	100	93.1	0	NA	75
Interview Two	40 min.								
Count		(15/15)	(22/27)	(0/2)	(0/0)	(29/33)	(0/3)	(0/0)	(66/80)
Percentage (%)		100	81.5	0	NA	87.9	0	NA	82.5
Total	69 min.								
Count		(18/18)	(45/59)	(0/6)	(1/1)	(56/62)	(0/6)	(0/0)	(120/152)
Percentage (%)		100	76.3	0	100	90.3	0	NA	78.9

*Note.* "Count" denotes the number of contracted items divided by the total number of contractible items. "NA" denotes instances where no contractible items were produced.

Table 23

*Percentage of Total Contractions Produced by Type Across Two Interviews*

	Contraction Types (% of all contractions)						
	<i>'m</i>	<i>'s</i>	<i>'re</i>	<i>'ve</i>	<i>n't</i>	<i>'ll</i>	<i>'d</i>
Interview One	5.5	42.6	0	1.9	50	0	0
Interview Two	22.7	33.3	0	0	43.9	0	0
Total	15	37.5	0	0.8	46.7	0	0

Table 24

*Contraction Production Rate Across Two Interviews*

	Time	Word Count	Contractions	Words/contraction
Interview One	29 min.	1,895	54	35
Interview Two	40 min.	2,263	66	34
Total	69 min.	4,158	120	35

**Beliefs.** The topic of contraction was actually broached by Yoshi himself during a discussion of his low level of satisfaction with his English listening ability. In discussing previous difficulties he had encountered on the listening portion of a TOEFL test, he made the following observation.

(Interview 2, p. 8)

Yoshi: I just catch um the words that I know, but people speak very fast and sometimes use contractions, so sometimes I I get idea of opposite thing. I couldn't catch ah negative word and uh...last time when I took the TOEFL exam and I misunderstand everything because I can't understand ah negative sentence and I wrote wrong sentence (laugh).

Because the listening tasks associated with the current research did not include *not*-contractions, I was unable to verify this perceived difficulty.

Yoshi's low level of satisfaction also extended to his production of English. He stated that he felt "very frustrated" with his ability to express his ideas.

(Interview 2, p. 9)

Yoshi: I can't say ah I can't speak 100 percent. At least I want to speak 60 percent or 70 percent, but now I can I speak just 20 percent or 30 percent [of my ideas].

In the third interview, Yoshi also discussed his feelings about the influence of written English on spoken English and expressed his distain for the style of English spoken by his father and most Japanese.

(Interview 3, pp. 2-3)

John: In Japan, because you deal with written English primarily, do you think it's affected the way that you speak?

Yoshi: Yes, very much.

John: Positively or negatively?

Yoshi: Negatively because my father speaks like written language. Like a mathematical formula or computer, putting sentences together. Maybe my father's grammar is correct, but not exciting. Actually (laugh) I feel very annoying because it's slow and like formula. It's boring, and I think most Japanese students or Japanese speak like written language.

Yoshi also pointed out how the mode of English affected his perception of contractions and his ability to disambiguate contractions like *would*- and *had*-contractions that share the same written form.

(Interview 3, p. 3)

Yoshi: If I saw the written language I understand what when we connect the two two words but uh when I listen English listen English I don't I don't know exactly what they said. The problem is um if *he'd* if someone said *he'd*, *he would* or *he had*? I I don't know (laugh).

John: How would you know?

Yoshi: Maybe verb...if written, but when I'm listening just I guess. (laugh).

Examining Yoshi's perception task data, there were no instances in which he misidentified contracted *had* or *would* as the uncontracted form of the other. He did, however, confound *had*-contractions with contracted *have* on two occasions.

I also probed Yoshi to learn more about his beliefs about contraction use as it related to written English. He could not recall his junior high and high school teachers providing any guidance regarding the permissibility of contraction in writing, but indicated that he did not use



them in writing at that time because he had no knowledge of how to use them. When asked about his current understanding about the permissibility of contraction use in writing, Yoshi had the following to say.

(Interview 3, p. 4)

John: Are you familiar how to use contractions in written language?

Yoshi: I'm not sure.

John: When you write emails or essays do you write contractions?

Yoshi: No, because my teacher said if you write a letter you don't use you don't have to use contraction.

John: Which teacher? At MEI?

Yoshi: Yes. So basically we write each word

Unfortunately, an examination of the participants' writing did not fall within the purview of the current research, so no evidence can be provided to either support or refute this belief.

In the final interview Yoshi made many insightful comments that demonstrated a high level of sensitivity regarding his own contraction pronunciation and the pronunciation of those around him. For instance, he highlighted differences he has perceived in how contraction use differs among Americans, as well as how the contraction pronunciation of certain groups of international students may differ from that of Americans.

(Interview 3, p. 4)

Yoshi: Contractions is different among the American people. When I watched TV show TV program, some of the black American and white American when they use contraction it sounds different. Each person is also different. When I think most Asian students speak *wanna* or *gonna*, sounds different, because they put I think stress on *wanna gonna*, but American people don't put stress.

On the topic of his own tendencies regarding contraction production, Yoshi made the following observations.

(Interview 3, p. 4)

Yoshi: Like uh like other students I think I'm very typical Asian student (laugh). When I trim, any any kind of trimming, very difficult. When I pronounce speak trimmings and I heard by myself, that's different from American people. I I I sometimes try to use *wanna* to my friend: 'Do you wanna get some coffee?' But it's different.

Although Yoshi stated that he did not frequently use contractions because of difficulty he perceived others having when he trims, the interview data placed his contraction rate and ratio in the middle of this select group of Japanese students. In the following exchange, I tried to elicit Yoshi's beliefs about his use of the specific contraction types being examined in the current study.

(Interview 3, p. 5)

John: Do you use *I'm*?

Yoshi: Yeah. I think I often use, but I don't use *your 're*, because double /r/

John: Actually it's just one /r/

Yoshi: Maybe I don't understand. And when I heard *you're*, *you are* or *your*?

John: Yeah, they have the same pronunciation.

Yoshi: Also I don't use *it'll be* or *that'll be*.

John: Why not?

Yoshi: It's just difficult. My tongue don't move so quickly. My teachers pronounce them very well. When I speak *that'll*, I have to stop before going on to the next word.

John: How about *they've* or *I've*?

Yoshi: Yes. I can use. I think I often use. I try to use.

John: How about *you'd* or *he'd*?

Yoshi: No I don't use. One problem is that when I say *I'd* it sounds like *I'll*. My pronunciation is not clear so I don't use that.

Comparing Yoshi's statements of belief with his performance data in the two interviews, a high degree of congruence emerged. For instance, his use of *I'm* was the third highest among the participants, and he produced no *are*-contractions despite uttering five instances of *they are* and one instance of *we are*. In addition, he produced no *will*-contractions despite uttering a total of six contractible *will* phrases: *he will* (3), *I will* (2), and *it will* (1). In terms of *have*-contractions, there was only one token (*I've*) and no other contractible *have* phrases produced. Finally, there were no instances of *had*- or *would*-contraction and no production of contractible phrases with those auxiliaries.

**Summary.** Unlike Mayu, Seiji, and Dai, who grew up in relatively rural settings, Yoshi was raised in the shadow of Japan's two largest metropolitan areas. However, like Seiji, his

father was the head of a successful company and had the opportunity to live in the United States when he was younger. Having taken a leave of absence from his father's company, Yoshi was studying in the MEI in the hope of enrolling in MU's MBA program and then returning to Japan to aid his company's global development.

Although Yoshi's TOEFL score placed him with two other participants in the lowest proficiency category in this study, his outgoing nature and ability to seek out social interactions with native and non-native speakers outside of class appears to have aided his spoken English performance related to contraction. He provided a surprisingly strong performance on the more difficult cloze-type perception task, and contracted items at a higher ratio than all of the previously-mentioned participants, who are members of the two highest proficiency levels.

Despite exhibiting frustration with his current level of spoken English production on the whole, Yoshi, probably aided by discussions of pronunciation issues in his MEI classes, was able to display a high degree of metalinguistic awareness on the topic of contraction, including observations of differences between native and non-native use of it. He also appeared to be more accurate regarding his beliefs about his own contraction production than his beliefs about his contraction perception.

### **Nana: The Product of an English-rich Environment**

Originally from Tokyo, 21 year-old Nana was one of four exchange students participating in the current research. She was in her final year of bachelor study at, coincidentally, the same university that Mayu attended, and majored in social science. Having spent three years living in Dubai as an elementary school student, she was the only participant to have attended a portion of their education prior to university outside of Japan. Although her undergraduate focus was the examination of Japanese language education of Brazilian immigrants in Japan, she admitted that she would probably pursue a job in sales at an international company based in Japan following

the completion of her degree. Nana's paper-based TOEFL score of 940 placed her in the highest proficiency level (upper advanced) among the Japanese participants.

**Family & education.** Nana grew up in Tokyo with her mother, father, and younger brother. According to Nana, her parents, both graduates of International Christian University in Tokyo, encouraged her to study the language at an early age.

(Interview 1, p. 3)

Nana: They made me to go to English...school? Yeah. Language school or. They bought many English books. (laugh)

John: Like storybooks or?

Nana: Story books and like textbooks. (laugh)

John: How did you feel about... learning English?

Nana: Mmm. I thought I have to learn English so it was OK. (laugh)

During her elementary school years, her family moved to the country of Dubai because of her father's work. During the three years that she lived there, from age eight to eleven, she attended an elementary school for the children of Japanese expatriates in which the medium of instruction was Japanese, except for English and Arabic language classes. Outside of school, Nana was tutored for 30 minutes each week by a British woman who focused almost exclusively on spoken English and vocabulary development. Travel was also an important aspect of Nana's life during her elementary school years.

(Interview 1, p. 9)

Nana: When I was in elementary school I went a lot countries. But I didn't speak English because my parents were always be with me.

Upon her return to Japan, Nana continued to be tutored in English for one hour per week during her junior high and high school years by a native of the Seychelles. She also described having a native English speaker as an assistant teacher in her junior high school, but noted that in high school, which was a Christian all girls' school with a strong English program, all of her English teachers were Japanese. Outside of her high school English classes, Nana continued to

develop her language proficiency through two study abroad opportunities—a two-week stay at a language school in England, and a one-week enrollment in a language school in Singapore.

As a student of international social science at Hitotsubashi University in Tokyo, Nana took elective English classes, such as academic writing and public speaking. In addition, she also worked part-time as a one-on-one tutor of various subjects for junior high and high school students.

(Interview 2, p. 10)

John: Did you teach English as well?

Nana: (laugh) Yes.

John: How was that experience?

Nana: I taught English in Japanese (laugh) Yes and I taught most grammar, reading so yeah (laugh)

John: Did you work on pronunciation at all?

Nana: No No

John: Just strictly (reading?)

Nana: Yeah. For entrance exam

John: And which course did you feel most comfortable teaching?

Nana: English yeah

John: Why?

Nana: Because I taught English for four semesters and other subject are like temporary yeah (laugh)

**MU experience.** As a first-semester exchange student at Midwest University, Nana took four classes: one in her field of study and three, public speaking, and ESL writing course, and Korean, as elective courses. In describing her daily English use, Nana admitted spending approximately 50% of her day using her native language with fellow Japanese in her dorm and lacking confidence in her spoken English ability.

(Interview 1, p. 13)

Nana: I can understand like reading and speaking, ah no, listening, but I can't make it in a word (laugh) what I want to say, so

John: So the difficulty is the output?

Nana: Yes.

Nana also noticed a difference in the level of stress associated with the classes that she was taking. In classes in which she was the only international student, such as the public speaking

class, she had difficulty feeling relaxed, but in her ESL and Korean courses, which were overwhelmingly taken by international students, Nana felt more at ease. Her stated goals for her year in America were to learn more about immigration in America, and of course, improve her English.

After completing the spring semester at Midwest University, Nana planned to return Japan to continue work on her bachelor's thesis, which examined the Japanese language education of Brazilian-Japanese immigrants. Although Nana was sincerely interested in the issue, she instead saw herself working in the area of sales for an international company based in Japan once she graduated.

### **Performance & beliefs.**

**Perception.** Nana performed exceptionally well on both listening tasks administered in the research. On the initial cloze test, she provided the highest percentage of perfectly correct responses (89.47%) by a wide margin over the next most accurate Japanese participant, Yoshi (60.53%). Of Nana's four incorrect responses, three involved sentences featuring contracted *would*. It should be noted that Nana was the only Japanese participant to have no instances of wrongly contracting uncontracted stimuli or decontracting contracted stimuli.

On the forced-choice listening task, Nana was tied with Isamu for the second highest percentage of correctly identified items (94.74%). Both of her misidentified responses, contained contracted *is* in the stimulus.

Table 25

#### *Overall Percentages of Correct Responses on Perception Tasks*

	Total (%)	Contracted stimuli (%)			Uncontracted Stimuli (%)		
		's	'd	've	's	'd	've
Cloze task	89	100	57	100	100	86	100
Forced-choice Task	95	71	100	100	100	100	100

*Note.* Percentages have been rounded to the nearest whole number.

Table 26

*Percentages of Correct Contracted & Uncontracted Responses on Contraction Types with Two Forms*

Cloze task	's stimuli		'd stimuli	
	<i>is</i>	<i>has</i>	<i>had</i>	<i>would</i>
Contracted	100	100	100	25
Uncontracted	100	100	75	100
Forced-choice Task				
Contracted	33	100	100	100
Uncontracted	100	100	100	100

*Note.* Percentages have been rounded to the nearest whole number.

**Production.** During my three interviews with Nana, I was struck by her tendency to be as concise as possible in her responses to my questions, despite the fact that her overall English proficiency was arguably the highest of all of the participants. As a result of her reluctance to elaborate, my interviews with her were consistently shorter than average, and her production of contractions and contractible elements was near the bottom quarter of all Japanese participants. Consequently, her overall rate of contraction production was one contraction per 40 words of talk, or slightly below the overall average of one per 42 words of talk. Despite her relatively low production of contractions and contractible phrases, however, Nana's contraction ratio was quite high, as she was the only Japanese participant to contract more than 90% of contractible phrases (92.86%).

Of the contractions she uttered, 59.09% were not-contractions: *don't* (16), *can't* (11), *didn't* (8), *doesn't* (1), *couldn't* (1), *isn't* (1), and *haven't* (1); and 33.33% were *be*-contractions: *I'm* (9), *it's* (9), *he's* (2), and *she's* (2). Unlike many other of the Japanese participants, Nana also produced examples of *are*-contraction and *have*-contraction, which respectively accounted for 6.15% and 1.52% of her output. She uttered no tokens containing *will-*, *had-*, or *would-* contraction.

Table 27

*Contraction Production Ratios Across Two Interviews*

Interview One	Time	Contraction Types						Totals	
		'm	's	're	've	n't	'll		'd
	23 min.	(8/8)	(5/6)	(4/4)	(0/0)	(13/13)	(0/2)	(0/0)	(30/33)
Count		100	83.3	100	NA	100	0	NA	90.9
Percentage (%)									
Interview Two	23 min.	(1/1)	(7/7)	(0/0)	(1/1)	(26/27)	(0/0)	(0/1)	(35/37)
Count		100	100	NA	100	96.3	NA	0	94.6
Percentage (%)									
Total	46 min.	(9/9)	(12/13)	(4/4)	(1/1)	(39/40)	(0/2)	(0/1)	(65/70)
Count		100	92.3	100	100	97.5	0	0	92.9
Percentage (%)									

Note. "Count" denotes the number of contracted items divided by the total number of contractible items. "NA" denotes instances where no contractible items were produced.

Table 28

*Percentage of Total Contractions Produced by Type*

	Contraction Types (% of all contractions)						
	'm	's	're	've	n't	'll	'd
Interview One	26.7	16.7	13.3	0	43.3	0	0
Interview Two	2.9	20	0	2.9	74.3	0	0
Total	13.8	18.5	6.2	1.5	60	0	0

Table 29

*Contraction Production Rate Across Two Interviews*

	Time	Word Count	Contractions	Words/contraction
Interview One	23 min.	1,413	30	47
Interview Two	23 min.	1,157	35	33
Total	46 min.	2,570	65	40

**Beliefs.** In the final interview, I elicited Nana's perceptions and beliefs about the differences between the spoken English and written English.

(Interview 3, p. 2)

Nana: In spoken language they tend to use more casual English, but because I've learned



only polite English not casual English, so sometimes I can't understand what they're talking about.

John: Can you give some examples?

Nana: They make it shorter in speaking language and vocabularies are different.

John: What are some examples of shortened English?

Nana: *They are* becomes *they're*.

John: Growing up, did you learn about shortened or connected speech in school?

Nana: Not that much. Japanese teachers tend to speak polite speech. The first time I came here I couldn't understand what the other students talking about.

Nana was able to draw a similarity between Japanese and English use of contraction with the statement, "In written Japanese we don't use contraction. I think in English it's probably the same thing" (Interview 3, p. 3). She explained that she probably learned about this prohibition in an academic English writing class that she took at her Japanese university.

Regarding her own use of spoken English contraction, there were some instances in which Nana expressed certain beliefs that she later contradicted or amended. For instance, in the third interview she stated that her preference to use full forms instead of *has*-contractions was a conscious decision. However, later in the same interview she stated that she could not consciously control her contraction production when speaking with professors. Likewise, after stating initially that she wanted to use *wanna* and *gonna* but "can't get it," she later explained that she often uses *wanna*, but does not use *gonna* (Interview 3, p. 4). Examining the data, Nana offered no contracted or uncontracted tokens involving *has*-contraction, so it is unclear how accurately her belief matches her production of those contractible phases. Also, because *gonna* and *wanna* contraction were not examined in the current study, no comparison of production data could be made with her beliefs about her production.

Other contraction-related beliefs were shown to be weakly supported by interview data. For instance, Nana expressed a preference for using full form *will* instead of its contracted forms, and in the two instances of contractible *will* (*I will*) that were uttered throughout the two interviews, both were left uncontracted. Additionally, Nana had identified 'd-contractions as "so

difficult,” and throughout her two interviews, she spoke only one such contractible phrase (*I had*), and left it uncontracted (Interview 3, p. 5).

**Summary.** Of all ten participants, Nana was arguably the most aurally/orally proficient in English, obtaining the highest or second highest score on both listening tasks and producing the highest ratio and variety of contractions across both interviews. Her upbringing in a home in which learning English at a young age was fostered through the availability of English-language materials, enrollment in language schools, private tutoring, and living and travelling abroad almost certainly contributed to the impressive performance she displayed during the data collection process. Yet despite her advanced level of English proficiency, Nana was clearly the most reserved of all of the participants during each of the interviews, answering questions as concisely as possible and failing to elaborate at great length without prompting. Her limited oral production appeared to be negatively impacted by affective factors. In addition, there were instances in which her views about her own contraction use appeared inconsistent, even within the same interview.

### **Isamu: Contraction Proficient Beyond His TOEFL Score**

Originally from Osaka, but a university student in Miyagi prefecture on Japan’s eastern coast, Isamu was a 24 year-old graduate exchange student working toward the completion of his master’s degree in his university’s Department of Medical Engineering Research. He confided that in addition to pursuing his research interests at MU during his one-year stay, one of the primary reasons for coming to study in the United States was to improve his English ability in preparation for achieving his long-term goal of becoming an astronaut. Isamu’s iBT TOEFL score of 54 placed him in the lowest proficiency level (low advanced) among the Japanese participants.

**Family & education.** Early in our first interview, I asked Isamu to discuss his family's use of English, and in the process, he recalled the following childhood memory about his mother.

(Interview 1, p. 3)

Isamu: Ah yes so my mother my mother was majoring the English...English communication or something, so she can speak English very well. And uh when I was young when I was child, she uh I and mother was was walk was walking in the sta- in the station and uh she was talked with some foreigners and she could speak English very well, but I I didn't know I didn't understand what they are talking about so I just looking (laugh) my mother and those two foreigner.

Despite her degree, Isamu's mother never taught English formally, but was a source of English knowledge for him at home as he grew up.

(Interview 1, p. 3)

Isamu: Just she taught she taught me just only pronunciation. For example the the difference between R and L and something like that. (laugh) Just only if I if I don't know the meaning of some words I ask I ask her and she respond to she answered the meanings of the word.

Isamu's other immediate family members, his father and older brother, however, did not appear to offer the same level of English support. According to Isamu, his father, a small business owner, did not speak English at all, and although he indicated on the initial questionnaire that his older brother encouraged him to use English, when asked about it during the first interview, he later recanted that response, stating that the extent of his brother's encouragement was telling him to "just go for it".

In junior high school Isamu took the required three years of English classes and supplemented those lessons by attending cram school as well. Those supplemental lessons did not continue in high school, however, and surprisingly Isamu had no native-speaking English teachers in junior high and high school. In fact, Isamu recalled that his first interaction with an English native speaker came much later, during his freshman year of university. Despite the lack of native speaker interaction during his high school years, Isamu judged the quality of English

education at this point in his life better than junior high school and university, because he read intensely and needed to memorize vocabulary and other fundamental elements of English.

As a university student in Japan, Isamu's interest in English began to bloom. Although he could trace his rise in interest to his undergraduate years, English began to play a more functional role as Isamu became a graduate student.

(Interview 1, p. 8)

Isamu: After I entered [graduate school] I joined a laboratory. I need to read more English papers. I need to write English uh paper. I also write English paper and I also attend many international conference so I need to improve my English.

During this period, Isamu had opportunities to interact with foreign professors who visited his lab, present at an international conference in Switzerland, and attend a special two-week program at the University of Texas at Austin in which he attended lectures and interacted with other researchers in his field. Outside of class, however, Isamu explained that he did not have many interactions with international students despite the fact that there were many at his university.

**MU experience.** Isamu decided to take a year off from his university in Japan, where he studied how cells can sense mechanical stress, to attend Midwest University in order to both improve his English proficiency and broaden his research experience. His long-term goal was to become an astronaut, and to do so, he must have an advanced command of English. In the short-term, Isamu looked forward to completing his year at MU and then returning to Japan in the spring of 2011 to complete his degree in 2012. He was currently negotiating with a professor at MU for his return to the United States for doctoral studies.

As an MU student, Isamu spent twelve hours or more in his laboratory running experiments. When he was not in his lab, he shared a dorm room with an American undergraduate with whom he talked frequently when their schedules permitted. He also explained that he frequently interacted with his lab-mates, who were all international students, as

well as an American friend in his dorm. Sometimes, however, he found it difficult to understand the speech of his friends because they “really speak fast so each words is mixing” (Interview 3, p. 2).

Although Isamu estimated that he spent 40% percent of his day in “Japanese mode,” he made it clear that he was conscious about limiting his interactions with other Japanese on campus.

(Interview 1, p. 9)

Isamu: Uhh yeah I know uh I have ssssome Japanese ffffriends in here, but uh I I don’t want to, uh yeah sometimes we meet together and eat dinner or lunch and we talk in Japanese, but uh uh I actually I didn’t want I don’t want to so the speak use I don’t want to use Japanese because I’m coming here to improve my English.

### **Performance & beliefs.**

**Perception.** With 50% of the items on the cloze-type first listening task answered perfectly, Isamu was the fourth most accurate Japanese participant. However, of the 19 items that were identified perfectly, the vast majority (78.95%) contained uncontracted stimuli. For the 19 misidentified responses, 52.63% were stimuli that were improperly decontracted, 5.26% were improperly contracted, and 42.11% were completely misidentified. Of the eight completely misidentified responses, six involved the auxiliaries *had* or *would* in both contracted and uncontracted forms. On the forced-choice second listening task, Isamu tied with Nana for second highest percentage of correct responses (94.74%). His only two incorrect responses both contained contracted *is*.

Table 30

#### *Overall Percentages of Correct Responses on Perception Tasks*

	Total (%)	Contracted stimuli (%)			Uncontracted Stimuli (%)		
		's	'd	've	's	'd	've
Cloze task	50/79	0/100	0/43	80	86	71	80/100
Forced-choice Task	95	71	100	100	100	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

Table 31

*Percentages of Correct Contracted & Uncontracted Responses on Contraction Types with Two Forms*

Cloze task	's stimuli		'd stimuli	
	<i>is</i>	<i>has</i>	<i>had</i>	<i>would</i>
Contracted	0/100	0/100	0/50	0/33
Uncontracted	100	67	100	50
Forced-choice Task				
Contracted	50	100	100	100
Uncontracted	100	100	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

**Production.** Compared with the other participants in their 20s, Isamu's production during his two interviews was at a level similar to that of Seiji, but noticeably lower than Nana. This was largely due to grammatical errors and disfluencies he exhibited during his responses. During the 49 minutes of his total interview time, Isamu produced the third highest total of contractions (134) and contractible items (161) of the ten Japanese participants. Additionally, his contraction ratio of 83.23% ranked second among the group, and his contraction rate of one contraction for every 23 words of talk was the highest average frequency of contraction production.

Isamu also demonstrated a greater degree of contraction diversity than the majority of the Japanese participants. Of the 134 contractions he uttered, 59.01% were *be*-contractions: *I'm* (36), *it's* (16), *she's* (4), *he's* (3), and *that's* (2); and 38.06% were *not* contractions: *don't* (22), *didn't* (17), *can't* (3)<sup>40</sup>, *doesn't* (3), *couldn't* (3), and *haven't* (3). Isamu also single-handedly produced

---

<sup>40</sup> Interestingly, Isamu produced 11 instances of uncontracted *cannot*, by far the highest total of all of the Japanese participants, but had no other instances of uncontracted *not* elements.

58.33% of the Japanese participants' output of *are*-contractions, 73.68% of the group's *have*-contractions, and was the only Japanese participant to use *will*-contraction, one token of *I'll*. Despite his relatively broad range of contraction production, Isamu produced no tokens of *has*- or *had* contraction and uttered no contractible phases containing these auxiliaries.

Table 32

*Contraction Production Ratios Across Two Interviews*

Interview One	Time 25 min.	Contraction Types						Totals	
		'm	's	're	've	n't	'll		'd
Count		(25/25)	(11/13)	(2/8)	(14/14)	(38/49)	(1/2)	(0/0)	(91/111)
Percentage (%)		100	84.6	25	100	77.6	50	NA	82
Interview Two	24 min.								
Count		(11/11)	(14/20)	(5/6)	(0/0)	(13/13)	(0/0)	(0/0)	(43/50)
Percentage (%)		100	70	83.3	NA	100	NA	NA	86
Total	49 min.								
Count		(36/36)	(25/33)	(7/14)	(14/14)	(51/62)	(1/2)	(0/0)	(134/161)
Percentage (%)		100	75.8	50	100	82.3	50	0	83.2

*Note.* "Count" denotes the number of contracted items divided by the total number of contractible items. "NA" denotes instances where no contractible items were produced.

Table 33

*Percentage of Total Contractions Produced by Type Across Two Interviews*

	Contraction Types (% of all contractions)						
	'm	's	're	've	n't	'll	'd
Interview One	27.5	12.1	2.2	15.4	41.8	1.1	0
Interview Two	25.6	32.6	11.6	0	30.2	0	0
Total	26.9	18.7	5.2	10.4	38.1	0.7	0

Table 34

*Contraction Production Rate Across Two Interviews*

	Time	Word Count	Contractions	Words/contraction
Interview One	25 min.	1,660	91	18
Interview Two	24 min.	1,431	43	33
Total	49 min.	3,091	134	23

**Beliefs.** In the final interview with Isamu the specific topic of contraction was discussed, and as with many of the other participants, the *to*-contractions, *wanna* and *gonna*, were mentioned. In Isamu's case, he observed Americans using such contractions very frequently and stated that he himself often uses such contraction, as well as the contractions *gotta* and *I'll*--both in his speech and when sending e-mails and texts to friends. When pressed further about the frequency of his use of *will*-contraction, Isamu stated, "Sometimes I use when I'm texting, but not much in spoken English because it's much difficult to pronounce for me" (Interview 3, p. 5). Examining Isamu's interview data, he only produced two contractible examples of *will*-contraction (both *I will*), and contracted one of them.

The other contraction type that Isamu believed that he used infrequently was *would*-contraction. "I'm still not used to use *would*," he explained, and stated that he believes he tends to use *will* instead of *would*. According to Isamu, although using *would*-contraction in spoken contexts and when writing is problematic, he believes that he does not have difficulty disambiguating the two underlying forms represented by 'd'-contractions. However, an examination of his responses on the cloze listening task revealed that among seven items containing 'd'-contractions, Isamu completely misidentified four. In two cases, he identified these contractions as *have*-contractions, in one case he identified contracted *would* as *had*, and in one case he identified contracted *had* as *has*. It appears then that Isamu had more difficulty with hearing these contractions than he believed he had.

Although Isamu could not recall receiving explicit instruction from his previous English teachers regarding the use of contraction in writing, he did remember receiving explicit advice from a Midwest University friend this semester that he should not use contraction in academic situations, even when writing e-mails to professors or other "important people" (Interview 3, p. 5). Isamu did, however, express a difference in how he used contractions in his spoken



interactions with professors, and he also maintained particular beliefs about his contraction use in other academic contexts.

(Interview 3, p. 6)

Isamu: When I speak English I usually use so many contractions even when I talk with professor. When I speak Japanese I usually don't say contraction when I talk with professors or important people. I think I heard friend talking using contraction with professor, so I thought it was OK.

John: How about using contractions during presentations?

Isamu: No. Never.

As the scope of the current study did not involve participants' interactions with professors or performance during presentations, it is unclear how congruent Isamu's beliefs are with his actual production in these situations.

**Summary.** As a graduate exchange student hoping to one day become an astronaut conducting cellular experiments in space, Isamu did not grow up in an English-rich environment like Nana. He did, however, have a mother who majored in English in college, and was able to discover the importance of using English himself as graduate student in Japan. From intense reading of scientific English texts to listening to and making presentations in English at scientific conferences and interacting with foreign scholars, Isamu was highly invested in improving his language skills.

Despite being categorized into this study's lowest proficiency level by his TOEFL score, Isamu's performance on both the perceptive and productive tasks belied that categorization. Not only did he match Nana's high score on the forced-choice listening task, but he also had the second highest contraction ratio, the fewest number of words per contraction across the two interviews, and the greatest variety of contraction type production among the participants (only failing to produce any 'd contractions). In terms of beliefs, Isamu exhibited some inconsistency and overestimation related to his ability to accurately perceive 'd contractions, but seemed to

realize that contraction was a normal component of speech regardless of the social distance between interlocutors.

### **Keisuke: The Best Contraction Perception...When Given a Choice**

Keisuke, 40 years old, was one of two certified public accountants participating in the current study and also one of two married participants. Originally from Hiroshima in western Japan, he graduated from the commerce department of a prestigious private university in Tokyo, and after working as a corporate CPA for many years, became self-employed two years ago. He decided to spend one semester away from his wife and two children to study at the Midwest English Institute for business purposes. Specifically, Keisuke was studying English in the United States as one of 10 recipients of a scholarship offered by the Japanese Institute of Certified Public Accountants. With Japan's adoption of International Accounting Standards, Keisuke was striving to improve his English ability in order to be able to understand the new standards, which were written in English, and explain them to others. Keisuke's TOEIC score of 650 placed him in the central proficiency level (middle advanced) among the Japanese participants.

**Family and education.** Keisuke grew up in a family involved in the restaurant business. His father was the chief chef and owner of a Hiroshima restaurant specializing in Japanese food, his mother was a housewife, and his older brother worked together with his father in the restaurant business. Growing up, Keisuke stated that he never heard the people in his immediate family use English and stated with a laugh that his mother and father “can't speak English” (Interview 3, p. 4).

Despite his apparent lack of English input in his home environment, Keisuke mentioned that he had little difficulty with English when he was introduced to it in junior high.

(Interview 3, p. 5)

Keisuke: When I was a junior high school student, English is very ea- easy (laugh). From ABC and and “This is a pen. I am a student.” It is very easy subject for me.

He supplemented junior high English instruction with cram school classes during this period, but found them no more challenging than his ordinary school lessons. According to Keisuke the focus of these cram school lessons was English grammar and rudimentary writing practice, but not speaking.

In high school, Keisuke continued to attend cram school for two years and noted an increase in the level of difficulty with the English lessons he took, because they focused on university entrance examination preparation. Still, though, he contended that there was little or no instruction involving writing or speaking English. He also stated that he had no native English-speaking teachers in junior high, high school, or cram school, and went on to add that his Japanese teachers of English often taught their classes in Japanese and only used English when reading from the textbook.

As a student at Keio University, Keisuke took mandatory English classes during his first two years, but did not continue his English studies beyond that inside or outside of the university. It was in these mandatory classes that Keisuke was first taught by native speakers of English whom he admitted having great difficulty understanding in class. He could not recall doing any presentations in the native speakers' class, but instead, could only remember doing listening activities using cassettes and a minimum of actual speaking. Outside of the English classes, his only other recollection of using English was in an economics class, in which students had to make class presentations (in Japanese) summarizing or explaining portions of the English-language text used in the class.

On the subject of encouragement and motivation for learning English, Keisuke indicated two sources in particular, himself and his wife. First, due to a lack of encouragement from his English teachers growing up, he felt that he had to provide his own motivation.

(Interview 1, p. 6)

Keisuke: Hmm. [English teachers] encouraged not me but I I studied English by by by my myself myself. Yeah. I I encouraged myself.

Second, as a husband and father, he recognized the support and sacrifices made by his wife during his current quest to improve his English ability.

(Interview 1, p. 4)

Keisuke: Um I my my wife encourage me, but it it's very hard to to take care of my children if I I I I came I come here, but she she she she understands that but she en- encouraged me.

John: Does does your wife use English at all?

Keisuke: (Laugh) No not not at all.

John: So why sh- why does she want you to improve your English?

Keisuke: Um I she she she understands that that I I I want to improve my English, so she she she think, she understand that I want to I want to study English, so she encouraged me.

**MEI experience.** During the fall semester of 2010, Keisuke was enrolled in the intermediate program at Midwest English Institute as part of a scholarship he received from the Japanese Institute of Certified Public Accountants to study English abroad. The primary reason he chose to study at MEI was because its semester included more weeks of instruction than other available programs. As part of the intermediate program, Keisuke attended as a full-time student, taking four classes (e.g. Grammar, Reading, Writing, and Listening/Speaking/Pronunciation) for a total of 20 hours per week. Of these four classes he stated that he felt most comfortable in Writing and Grammar and least comfortable in Reading. When asked which class was most beneficial, he replied:

(Interview 2, p.3)

Keisuke: I I I think um Listening Listening Pronunciation Speaking class is most uh most use- useful huh? yeah useful huh? Because (laugh) I'm not I'm not good at uh speaking and listening English, so it is it's the class is most I think I think the class is most beau- uh useful for me.

Outside of class, Keisuke lived in a dorm with a roommate who was an exchange student from Ireland. Although he interacted with him on occasion, he noted that their conversation

opportunities were generally limited. Further supplementing Keisuke's classroom English experiences was his participation in extracurricular activities, such as meeting with a conversation partner once a week and native English-speaking members of a Foreign Language Club twice a week. In the course of a day, however, Keisuke estimated that 90% of his English use was with non-native speakers, such as his MEI classmates. For instance, he stated that he regularly ate dinner with MEI classmates from Thailand, Korea, and Taiwan.

When he was asked about his satisfaction with his English learning experiences at MEI, Keisuke expressed disappointment on two levels. On one level, because he was an intermediate-level student he was locked into a set curriculum that included two classes that he thought were unnecessary: writing and grammar.

(Interview 2, p.3)

Keisuke: About written English, I can understand - I can study in Japan. About spoken English, I can't study it in Japan, so I came here.

On another level, he also felt frustration with the class he viewed as most beneficial to him, Listening Speaking Pronunciation, because he was not given opportunities to integrate content about his field of expertise into presentations done in class. It appeared that there was a conflict between Keisuke's perceived English needs and his actual English needs. In addition, his motivation for studying the language appeared extrinsic rather than intrinsic.

### **Performance & beliefs.**

**Perception.** On the first listening task, Keisuke exhibited the distinct tendency of writing contracted stimuli using their full-form representations. This was done more frequently than any other Japanese participant and led to him receiving no points for perfectly identified contracted items. This contributed to him receiving the lowest percentage of perfectly identified target items (31.58%) of all of the Japanese participants. Keisuke also completely misidentified 34.21% of all of the target items, which placed him in the bottom half of participants in terms of overall

accuracy. Unexpectedly, however, Keisuke did exceptionally well on the forced-choice listening task, posting the highest score among all of the Japanese participants (97.4% correct).

Considering that he was the second oldest participant and his English proficiency, based on his TOEIC score, was not the highest among the group, Keisuke's performance on the task was quite remarkable. Keisuke also exhibited comprehension difficulties during the interview, which required me to restate or rephrase my questions quite often. The results suggest that Keisuke's sound-level perception of English outpaces his macro-level comprehension ability.

Table 35

*Overall Percentages of Correct Responses on Perception Tasks*

	Total (%)	Contracted stimuli (%)			Uncontracted Stimuli (%)		
		's	'd	've	's	'd	've
Cloze task	32/66	0/100	0/29	0/80	71	29	100
Forced-choice Task	97	86	100	100	100	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

Table 36

*Percentages of Correct Contracted & Uncontracted Responses on Contraction Types with Two Forms*

	's stimuli		'd stimuli	
	<i>is</i>	<i>has</i>	<i>had</i>	<i>would</i>
Cloze task				
Contracted	0/100	0/100	0/50	0
Uncontracted	75	67	67	0
Forced-choice Task				
Contracted	75	100	100	100
Uncontracted	100	100	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

**Production.** As evidenced by the preceding snippets of interview transcripts, Keisuke typically had great difficulty expressing himself fluently in spontaneous talk. His oral

performance was characterized by frequent restarts and repairs and grammatical inaccuracies. In terms of contraction production, Keisuke produced a total of 140 contractions out of a possible 172 contractible phrases in 61 minutes of interview talk, with 48 contractions produced in the first interview and 92 produced in the second. Consequently, Keisuke’s overall ratio of contracted to contractible elements was 81.4%, or the fourth highest percentage of the Japanese participants. His rate of contraction of one contraction for every 26 words of talk tied him with Isamu as the highest frequency among the group. It should, however, be noted that Keisuke’s tendency to restart and repair in conversation appeared to contribute to his relatively high totals.

Of Keisuke’s spoken contractions, 59.3% were *not*-contractions, including *don’t* (37), *can’t* (31), *didn’t* (8), *haven’t* (5), *couldn’t* (1), and *aren’t* (1). The remaining 40.7% were all *be*-contractions: *it’s* (43), *I’m* (11), *he’s* (1), *that’s* (1), and *there’s* (1). In both interviews no instances of *are*-contraction, *will/would*-contraction, and *have/has*-contraction were observed.

Table 37

*Contraction Production Ratios Across Two Interviews*

	Time	Contraction Types						Totals	
		<i>'m</i>	<i>'s</i>	<i>'re</i>	<i>'ve</i>	<i>n't</i>	<i>'ll</i>		<i>'d</i>
Interview One	28 min.								
Count		(5/5)	(19/27)	(0/0)	(0/0)	(24/28)	(0/1)	(0/0)	(48/61)
Percentage (%)		100	70.4	NA	NA	85.7	0	NA	78.7
Interview Two	33 min.								
Count		(6/6)	(27/38)	(0/2)	(0/0)	(59/64)	(0/1)	(0/0)	(92/111)
Percentage (%)		100	71.1	0	NA	92.2	0	NA	82.9
Total	61 min.								
Count		(11/11)	(46/65)	(0/2)	(0/0)	(83/92)	(0/2)	(0/0)	(140/172)
Percentage (%)		100	70.8	0	NA	90.2	0	NA	81.4

*Note.* “Count” denotes the number of contracted items divided by the total number of contractible items. “NA” denotes instances where no contractible items were produced.

Table 38

*Percentage of Total Contractions Produced by Type*

	Contraction Types (% of all contractions)						
	<i>'m</i>	<i>'s</i>	<i>'re</i>	<i>'ve</i>	<i>n't</i>	<i>'ll</i>	<i>'d</i>
Interview One	10.4	39.6	0	0	50	0	0
Interview Two	6.5	29.3	0	0	64.1	0	0
Total	7.9	32.9	0	0	59.3	0	0

Table 39

*Contraction Production Rate Across Two Interviews*

	Time	Word Count	Contractions	Words/contraction
Interview One	28 min.	1,569	48	33
Interview Two	33 min.	1,795	92	20
Total	61 min.	3,364	140	24

**Beliefs.** When the topic of connected speech phenomena was discussed in the final interview, Keisuke indicated that he had learned some phenomena, such as linking, in high school or university and was able to provide examples of contraction, such as *hafta* and *should've*. He reported being familiar with and conscious of contractions, however, he admitted it was difficult for him to distinguish contractions from other vocabulary words. He also stated preferences regarding his contraction tendencies. For instance, when discussing the conversational contraction *hafta*, Keisuke made the following comment, “I know about it, but in conversation I couldn’t speak. I pronounce *have to* (Interview 3, p. 4). With regard to the *will*-contraction, *he’ll*, Keisuke contended that he confuses the word with the homophone *heal*. “In spoken English I can’t distinguish shorter word or another word, I get confused,” he explained (Interview 3, p. 4)

Keisuke indicated that he did use certain contractions, such as *haven't* and *can't*, but stated a preference for using full forms of contractible phrases like *I will*, *he will*, *going to*, or *want to* because it was “easier and more understandable” than contracting (Interview 3, p. 5).



Examining the data, Keisuke's beliefs align very accurately with his actual production of *haven't* and *can't*, in that he produced 31 and 5 tokens of these, respectively, with no occurrences of their uncontracted forms. His stated preference for using full forms with *will* was also borne out by the fact that he did not contract either of the two contractible instances he produced. Finally, Keisuke indicated a lack of awareness that certain contracted forms, namely 'd contractions, could represent the shortened form of two different auxiliaries, *had* and *would*.

**Summary.** As one of the oldest participants in this study, Keisuke attended Japanese primary and secondary school in an era much different than the younger participants, an era characterized by the absence of native-speaking Assistant English Teachers (AETs) and the use of communicative methods in English classes. Having grown up in a household where English was neither spoken nor specifically encouraged, and having no experience traveling abroad as a student, Keisuke's formative years most closely resembled Mayu's, of all of the participants mentioned thus far. However, unlike Mayu, the fact that English use was not an integral part of his career appeared to contribute to the difficulty he exhibited in expressing himself fluently during the interviews.

Despite his struggles with the production of spoken English, Keisuke displayed a surprising degree of accuracy on the forced-choice listening task by obtaining the highest score of all of the participants. On the cloze-type task, however, it was quite clear that items containing *would* and *had* in both contracted and uncontracted forms were highly problematic for him. This appears to correlate with his stated lack of metalinguistic awareness regarding the representations of 'd contractions. Another key point raised by Keisuke related to contraction perception is that non-native speakers may confuse them with homophones (e.g. *he'll* and *heal*). This echoes a similar comment made by Yoshi when he discussed the pronunciation of *you're* and *your*.

In terms of production, Keisuke's ratio of contraction was slightly higher than the group mean, but as with Mayu and Seiji, he produced only three contraction types: *'m*, *'s*, and *n't*. Comparing his beliefs about his pronunciation with his actual performance data, he was surprisingly accurate with his observations.

### **Rie: The Oldest Participant, But Still Striving for English Improvement**

Rie was the second certified public accountant in the study, and at 45 years old, also the oldest participant. She was originally from a coastal city in northern Mie prefecture, near Japan's third largest city, Nagoya. After growing up and graduating from high school in Mie, Rie obtained admission to one of the top private universities in Tokyo and graduated with a bachelor's degree in economics. Unlike Keisuke, Rie was not self-employed, but instead worked for a very large private services company that was headquartered in New York City, and had offices in Japan. She, too, was studying English in preparation for Japan's adoption of the International Accounting Standards and planned to return to work in Japan at the end of the fall semester of 2010. Rie's iBT TOEFL score of 77 placed her in the central proficiency level (middle advanced) among the Japanese participants.

**Family & education.** Growing up in Mie prefecture, Rie conceded that her mother and father, who were retailers of Japanese clothing, did not specifically encourage her to study English, and English was never used in the home. Rie did, however, attend an extracurricular laboratory school in junior high school that included the production of English plays by the students. Through a homestay program offered by the lab school, Rie had the opportunity to live with a Minnesota host family for one-month when she was thirteen years old. She stated that one reason for her participation was that her parents' friends were letting their children participate in the program and Rie's parents did not want her to miss the opportunity. Though Rie returned to

Japan feeling that the program benefited her English development overall, the experience was not completely positive.

(Interview 1, p. 6)

Rie: I couldn't understand what my host family members say said because my knowledge is so short so scare. My knowledge of vocabulary and grammar is also very very short short small (laugh), so I couldn't understand any of them any of the speak speak of them.

As a junior high school student in the late 1970s and early 1980s, Rie's English classes were characterized by the teacher and students reading from textbooks and having few opportunities to write or speak English. The situation did not improve once Rie entered high school, as the primary goal of English education was to prepare students for the English portion of university entrance examinations.

(Interview 2, p. 3)

John: Did you have any teachers any English teachers who were passionate about English or who who were inspiring?

Rie: Ahh I think I think there are no such teacher yeah in my school days, but uh they uh they ask us (laugh) to only get to get high score (laugh) yeah.

According to Rie, the quality of English education actually deteriorated further at the university level, despite the fact that she attended one of the most prestigious private universities in Japan.

(Interview 1, p. 9)

John: Did you take two years of [university] English class?

Rie: Yes yes but uh these these classes are are worse (laugh) worse worse than high school yeah.

John: Really? How? In what way?

Rie: Mmm no no speaking and listening of course (laugh) and reading and writing is chance was decreasing.

It was at university that Rie had her first native English-speaking teacher, but because the class he taught focused on writing, she stated that there were few opportunities to use English communicatively.

**MEI experience.** Following graduation from university with a degree in economics, Rie joined her current employer and became involved in auditing of international corporations. Rie indicated that she has had few opportunities to use English in social interactions, except for occasional conversations with French coworkers, but does use English as part of her work, particularly when she must discuss financial statements with foreign CPAs at the end of each year.

Rie is now attending Midwest English Institute for one semester in an attempt to improve her English skills for business-related purposes. Specifically, she is preparing to use English to a greater degree in the coming years as Japan adopts International Financial Reporting Standards, which are only written in English. As with Keisuke, she is a full-time student at MEI, however she is taking more advanced high intermediate-level courses for 20 hours per week.

Outside of class, Rie lives in single-room dormitory. Though this living arrangement has provided her with opportunities to participate in dorm-related activities, such as group trips, she confided that it has been somewhat of a hindrance in terms of language development because having no roommate has left her with fewer opportunities to use English. To supplement her MEI English lessons Rie does meet twice weekly with a native speaker as part of MEI's Conversation Table program. However she revealed that she does not interact much with her fellow MEI students because of the age difference. At the completion of her semester at MEI in December, she plans to return to the same job she had prior to coming to America.

**Performance & beliefs.**

**Perception.** On the first listening task, Rie perfectly identified 47.36% of all of the items correctly. Among the remaining responses, she decontracted 47.37% of the contracted items, contracted none of the uncontracted stimuli, and completely misidentified 28.95% of all items. On the forced-choice listening task, Rie correctly identified 86.84% of all items, and among the

five missed items, three contained uncontracted stimuli and two contained contracted stimuli. Specifically, two of the three incorrectly identified uncontracted items contained *have* as the auxiliary.

Table 40

*Overall Percentages of Correct Responses on Perception Tasks*

	Total (%)	Contracted stimuli (%)			Uncontracted Stimuli (%)		
		's	'd	've	's	'd	've
Cloze task	47/71	57/86	0/57	0/60	71	71	80
Forced-choice Task	87	86	86	100	86	100	60

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

Table 41

*Percentages of Correct Contracted & Uncontracted Responses on Contraction Types with Two Forms*

	's stimuli		'd stimuli	
	<i>is</i>	<i>has</i>	<i>had</i>	<i>would</i>
Cloze task				
Contracted	75/100	33/67	0/67	0/50
Uncontracted	100	50	50	100
Forced-choice Task				
Contracted	67	100	75	100
Uncontracted	100	67	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

**Production.** Rie's overall oral production was characterized by frequent restarts, repetitions, repairs, and generally concise responses to the interview questions. She also demonstrated a rather small and narrow use of contractions. Within 59 minutes of interview time, she uttered the second fewest number of contractions of all of the participants, producing only 54 (17 in the first interview and 37 in the second) compared with the group average of 96, and her

rate of contraction production was the second lowest (one contraction per 56 words of talk). Her ratio of contraction of contractible phrases (69.23%) was also the second lowest of all of the participants.

Of the 54 items that she did contract, 55.6% were *not*-contractions: *didn't* (18), *couldn't* (4), *wasn't* (3), *don't* and *can't* (2 each), and *doesn't* (1). The remaining 44.4% were *be*-contractions: *it's* (19), *I'm* (4), and *there's* (1). Noticeably absent from her production were *are*-contractions, *have/has/had*-contractions, and *will/would*-contractions. An examination of Rie's interview data, however, revealed that she had the opportunity to produce eight *are*-contractions, two *would*-contractions, and one *will*-contraction, but left those tokens uncontracted.

Table 42

*Contraction Production Ratios Across Two Interviews*

	Time	Contraction Types						Totals	
		<i>'m</i>	<i>'s</i>	<i>'re</i>	<i>'ve</i>	<i>n't</i>	<i>'ll</i>		<i>'d</i>
Interview One	27 min.								
Count		(2/3)	(3/6)	(0/0)	(0/0)	(12/15)	(0/1)	(0/2)	(17/27)
Percentage (%)		66.7	50	NA	NA	80	0	0	63
Interview Two	32 min.								
Count		(2/2)	(17/19)	(0/8)	(0/0)	(18/22)	(0/0)	(0/0)	(37/51)
Percentage (%)		100	89.5	0	NA	81.8	NA	NA	67.9
Total	59 min.								
Count		(4/5)	(20/25)	(0/8)	(0/0)	(30/37)	(0/1)	(0/2)	(54/78)
Percentage (%)		80	80	0	NA	81.1	0	0	69.2

*Note.* "Count" denotes the number of contracted items divided by the total number of contractible items. "NA" denotes instances where no contractible items were produced.

Table 43

*Percentage of Total Contractions Produced by Type*

	Contraction Types (% of all contractions)						
	<i>'m</i>	<i>'s</i>	<i>'re</i>	<i>'ve</i>	<i>n't</i>	<i>'ll</i>	<i>'d</i>
Interview One	11.8	17.6	0	0	70.6	0	0
Interview Two	5.4	45.9	0	0	48.6	0	0
Total	7.4	37	0	0	55.6	0	0

Table 44

*Contraction Production Rate Across Two Interviews*

	Time	Word Count	Contractions	Words/contraction
Interview One	27 min.	1,275	17	75
Interview Two	32 min.	1,398	37	38
Total	59 min.	2,673	54	50

**Beliefs.** During the final interview, Rie was asked about her familiarity with connected speech phenomena, and she indicated that she was aware of most of the phenomena mentioned (i.e., assimilation, linking, and flapping). She stated that she had learned about these aspects of English while in Japan. For contraction, in particular, she recalled that she had been introduced to it in junior high school and held the belief that contraction was important in casual conversation. In terms of writing, however, Rie had been taught two years prior by an instructor of a TOEFL preparation class that contraction should be avoided. She stated that this avoidance of contraction extended to email correspondence, but later clarified her use of contraction in this genre of communication. She said, “I try not to use for teacher, but in the case of classmates or friends, it’s not a problem” (Interview 3, p. 6).

Although Rie held the view that contraction was important in casual conversation, she was again clear to distinguish informal talk between friends and a more formal register required for conversation with teachers.

(Interview 3, p. 5)

John: How about presentation or formal talk? Is contraction OK?

Rie: It’s OK to use with conversation partner, but I avoid using such words with my teacher.

John: Why?

Rie: Because it’s informal.

**Summary.** Much like Keisuke, Rie, the oldest participant in this study, grew up during a different era of Japanese English education, in which learning English for communicative

purposes was even less of a priority than it is today. Unlike Keisuke, however, Rie was able to experience extracurricular opportunities of using English creatively and in a foreign homestay situation to bolster her foreign language development. However, according to her, these types of challenging language-learning opportunities did not continue as she progressed through secondary and tertiary level in Japan. As a CPA who dealt with international clients, Rie chose to bolster her English language skills for a semester as a student in the MEI, but found that her age and living arrangements were limiting her ability to actively interact in the second language.

Rie's scores on the perception tasks generally ranked her near or slightly below the middle of all of the participants, but she fared worse with regard to her spoken production of contractions. In this area, she scored at or near the bottom in terms of total number of contractions produced, ratio of contraction, and the variety of contractions used. As with Keisuke, her output during the interviews was quite stilted, with restarts and repairs commonly occurring. With regard to her beliefs about spoken contraction, Rie viewed its occurrence positively in casual conversation, but judged it to be inappropriate in more formal interactions.

### **Jun: A Young Elite Using English in Socio-political Realms**

Jun was a 21 year-old exchange student who was originally from a historical coastal city in Kanagawa prefecture, which is about 30 miles from Tokyo. After completing high school in 2007, Jun entered a prestigious national university in Tokyo and plans graduate in 2012 with a bachelor's degree in law. He has been active internationally during his undergraduate years, visiting America twice for extended periods: once as an organizer for the Japan-America Student Conference and then again as an intern at the Japanese Embassy in Washington, D.C. During his year at Midwest University he was studying political science and using the time away from Japan to consider his future employment options. Jun's iBT TOEFL score of 94 placed him in the highest proficiency level (upper advanced) among the Japanese participants.



**Family & education.** Jun grew up in a household headed by a father who worked in marketing related to the automobile industry and a mother who was a piano teacher. Although he stated that his mother “almost cannot speak English,” he indicated that his father, because of his business dealings with clients in Hong Kong and Singapore, used English frequently (Interview 1, p. 2). Although Jun originally wrote on his questionnaire that he felt encouraged by his parents to learn English, he later retracted his statement during the first interview, and instead expressed feelings of regret about his father’s lack of encouragement for his English studies

(Interview 1, p. 3)

Jun: Now I like think whyyy like he like why he didn’t encourage me? I mean why he...He should have like encouraged me to study.

John: Why? Why should he have encouraged you?

Jun: ‘Cause like English is definitely important to like, how do you say, work globally or like real- realistically like as a business person or as of course scholar... any other field any any field. So and like he knows how like important like speaking English fluently is. Why not teaching me? But like his like education style, like the person himself should understand why it’s important and get into it.

Jun was able to recall, however, instances when his father taught him basic English words and phrases to use when he invited English-speaking clients and friends to their house for dinner. Later in junior high, Jun took classes with English native speakers once a week and also attended English tutoring sessions with his mother’s friend every weekend, during which time he was encouraged to speak English loudly while reciting written material. Because Jun attended a six-year school, he attended the same educational facility for high school, but surprisingly no classes with native speakers were offered, and according to Jun there were fewer chances to speak English than in junior high.

As a student of law at Tokyo University, Jun took the required English classes during his first two years, but also completed elective classes in academic writing and business English. He also participated in a special month-long program during his sophomore year, called the Japan-America Student Conference, in which he and a group of both Japanese and American college-

age students spent time conducting roundtable discussions on various socio-political topics. The following year Jun decided to become an organizer for the conference and traveled with the group as they toured various U.S. cities for a month. Jun returned to the United States once again as an intern at the Japanese Embassy in Washington D.C., where he worked as a translator for three weeks immediately prior to his enrollment at Midwest University as an exchange student for a year.

**MU experience.** At Midwest University, Jun was in the Department of Liberal Arts and Sciences and was taking courses related to political science. He stated that most of his daily interactions at the university were with native speakers of English and highlighted some communication difficulties he had.

(Interview 1, p. 9)

John: Is it easier for you to interact more with native speakers than non-natives?

Jun: Hhmmmmm. It's kind of difficult 'cause like they basically speak fast and you know like my listening is not as good as them so, yeah, sometimes usually I miss some words

Outside of class, Jun indicated that he did not often meet other Japanese students studying at Midwest University.

### **Performance & beliefs.**

**Perception.** On the first listening task, Jun responded to 52.63% of the items perfectly, which was the third highest percentage of all of the participants. However, he exhibited a tendency to decontract contracted items (63.2%). and only contracted one uncontracted stimulus. The number of responses that were completely misidentified was the second lowest total of all of the participants (5 items). Of the five missed items, interestingly two were misidentification of full-form *would* as *will*. For the second listening task, Jun correctly identified 92.11% of all items, with all of the misidentified items being contractions: two *is*-contractions and one *would*-contraction.

Table 45

*Overall Percentages of Correct Responses on Perception Tasks*

	Total (%)	Contracted stimuli (%)			Uncontracted Stimuli (%)		
		's	'd	've	's	'd	've
Cloze task	53/87	0/100	0/71	80	100	71	80/100
Forced-choice Task	92	71	86	100	100	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

Table 46

*Percentages of Correct Contracted & Uncontracted Responses on Contraction Types with Two Forms*

	's stimuli		'd stimuli	
	<i>is</i>	<i>has</i>	<i>had</i>	<i>would</i>
Cloze task				
Contracted	0/100	0/100	0/50	0/100
Uncontracted	100	100	100	50
Forced-choice Task				
Contracted	50	100	100	75
Uncontracted	100	100	100	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

**Production.** Within 52 minutes of interview talk, Jun contracted a total of 92 times out of 119 contractible phrases, for a contraction ratio of 77.31%, which placed him sixth among all of the participants. In terms of his rate of contraction, Jun pronounced one contraction for every 44 words of talk, slightly above the group average of 38. Of interest was that despite his high proficiency level, Jun did not exhibit a wide variety of contraction use. Specifically, *be*-contractions accounted for 61.9% of his production: *it's* (42), *I'm* (12), *that's* (2), and *there's* (1). *Not*-contractions, which accounted for 37% of his talk, consisted of only three types: *don't* (26), *didn't* (7), and *couldn't* (1). One example of *have*-contraction, namely *I've*, was the only other contraction type he used. Absent from Jun's production were *has/had*-contraction, *are-*

contraction and *will/would*-contraction. An examination of his contractible utterances revealed, however, that he had the opportunity to produce five *are*-contractions and one example each of *will*-, *would*-, and *had*-contraction.

Table 47

*Contraction Production Ratios Across Two Interviews*

	Time	Contraction Types						Totals	
		'm	's	're	've	n't	'll		'd
Interview One	27 min.	(6/6)	(23/26)	(0/3)	(1/1)	(20/26)	(0/1)	(0/1)	(50/64)
Count		100	88.5	0	100	74.1	0	0	78.1
Percentage (%)									
Interview Two	25 min.	(6/6)	(22/25)	(0/2)	(0/0)	(14/21)	(0/0)	(0/1)	(42/55)
Count		100	88	0	NA	66.7	NA	0	76.4
Percentage (%)									
Total	52 min.	(12/12)	(45/51)	(0/5)	(1/1)	(34/47)	(0/1)	(0/2)	(92/119)
Count		100	88.2	0	100	72.3	0	0	77.3
Percentage (%)									

*Note.* "Count" denotes the number of contracted items divided by the total number of contractible items. "NA" denotes instances where no contractible items were produced.

Table 48

*Percentage of Total Contractions Produced by Type*

	Contraction Types (% of all contractions)						
	'm	's	're	've	n't	'll	'd
Interview One	12	46	0	2	40	0	0
Interview Two	14.3	52.4	0	0	33.3	0	0
Total	13	48.9	0	1.1	37	0	0

Table 49

*Contraction Production Rate Across Two Interviews*

	Time	Word Count	Contractions	Words/contraction
Interview One	27 min.	2,037	50	41
Interview Two	25 min.	1,965	42	47
Total	52 min.	4,002	92	44

**Beliefs.** In the final interview with Jun, I asked him directly if he was familiar with the phenomenon of contraction, but he initially did not recognize the term. After I provided some examples, however, the term became clear to him, and he made the following observation about the difference between contraction and other types of connected speech that we had discussed during the interview.

(Interview 3, p. 2)

Jun: I think there is a big difference between contraction and other [connected speech phenomena], because the shape of the word is changing, but the other things are pronunciation. We learned more about contraction, and I don't have many chances to learn other types of connected speech. We don't have many chances to do listening, and we don't have many chances to train listening in class.

Jun also expressed his belief that the style of spoken English also affected his ability to comprehend. "It's more difficult to listen to colloquial conversation than CNN. For me news English is much easier," he explained (Interview 3, p. 2).

When asked if he perceived differences between spoken English and written English in terms of contraction use, Jun indicated that he was taught explicitly about the prohibition on using contractions in academic writing by a teacher at his Japanese university. "I learned that I shouldn't write *don't* in papers. I should write *do not*" (Interview 3, p. 3). Jun believed this tendency in written English did not limit his use of contractions in spoken English. "I never say *do not*," he explained (Interview 3, p. 3). A review of the interview data appeared to support Jun's statement, as he produced 26 examples of the contracted form, but only two examples of the uncontracted form.

Jun also appeared to be less prescriptive in the appropriateness of contraction use in formal talk than many of the other participants.

(Interview 3, p. 3)

John: Is it OK to use contraction in formal talk?

Jun: I think it is. I think it depends on the place.

Still, he later expressed some uncertainty about his beliefs regarding contraction use in both written and spoken forms of English. For instance, he asked, “Is it true [that we should not use contraction in academic writing]?” and “In official company interview or something can I contract?” (Interview 3, p. 3). Jun also drew distinctions between the appropriateness of contraction use in Japanese and in English. For example, he echoed the beliefs of other participants that contraction in Japanese sounds “childish” and “unprofessional,” and observed, “I don’t think I contract in [Japanese] interview” (Interview 3, p. 3).

When I asked Jun which English contractions he thinks he frequently uses, he first listed *not*-contractions, such as *don’t* and *can’t*, and then listed *will*-contractions, including *he’ll*, *we’ll*, and *she’ll*. Although it was previously stated that Jun’s beliefs about his use of *don’t* were generally accurate, the interview data revealed that he was only one of two Japanese participants who produced no tokens of *can’t*. He did, however, produce uncontracted *cannot* in three instances. Jun also uttered no *will*-contractions during his first two interviews. Therefore, in some cases, Jun’s beliefs about his contraction use and his actual contraction production were not in agreement. However, later in the interview Jun did observe that his production of *can’t* has caused problems for him in the past. “Sometime I want to say *cannot* and I say *can’t* and the other [people] realize as *can*. The meaning is completely opposite. Sometimes I say ‘I am able to’ or ‘I am unable’ because it’s easier to differentiate” (Interview 3, p. 5). Jun also indicated that ‘*d-* and ‘*s-*contractions were difficult to perceive because “it’s the last sound, so stress is not on the last sound” (Interview 3, p. 4). His performance on listening tasks seemed to support this observation. One of the final questions I asked Jun was whether or not it was important to him to improve his rate of contraction use, and he responded with the following comment.

(Interview 3, p. 4)

Jun: I think it's important because if I get used to constructions<sup>41</sup>, I mean get used to using it by myself, I think it improves, help me understand others' contraction use.

**Summary.** Having taken part in extended socio-political debates as a university undergraduate and worked briefly as a Japanese embassy translator, it was clear that English use played an integral role in Jun's life and would probably continue to do so into the future. His familial situation with regard to English use appeared to resemble Seiji's, in that both of their fathers were observed using English with business clients at home, but at the same time, Jun expressed regret that his father did not do more to encourage him to study the language.

In the study's perception tasks, Jun was in the top tier, but struggled somewhat with correctly identifying contracted and uncontracted 'd items on the cloze task. During the interviews, he was quite fluent and often used the adverbial form of *like* in much the same way that college-age native-speakers do. In terms of contraction production, his contraction ratio trailed only Nana's, but he did not display the same level of contraction variety as either Nana or Isamu, producing only two have-contractions in addition to the standard 'm, 's, and n't contractions favored by all of the participants.

### **Ai: The Housewife Who Enjoys the Study of English**

Ai was the 33 year-old wife of a Midwest University MBA student, and she attended Midwest English Institute part time. She grew up in a rural costal town of about 30,000 people in Shizuoka prefecture and dreamed of moving to Tokyo after graduating from high school. Her dream was fulfilled when she gained admission to a prestigious private university there and graduated with a degree in accountancy. During and after her college career, Ai had many opportunities to travel abroad, namely to Europe and America. Following the completion of her

---

<sup>41</sup> As some other participants, Jun mistakenly referred to contractions as constructions.

husband's degree, they planned to return to Japan. Ai's TOEIC score of 570 placed her in the lowest proficiency level (low advanced) among the Japanese participants.

**Family & education.** Ai grew up in a small town approximately 100 miles southwest of Tokyo, with her father, mother and older brother. Her father worked as a general contractor, and her mother worked for a local agricultural association. Ai stated that the members of her family "can't speak English" and expressed a sense of being disadvantaged in terms of English education because of the rural setting of her junior high and high schools (Interview 1, p. 2). Recalling her junior high English classes, she had the following to say.

(Interview 1, p. 3)

Ai: I think I study English focus is on grammar, just grammar. Yes. Prepare the test exam to enter high school to apply for university so just grammar and listening test is very small. The exam is almost grammar, yeah grammar and reading.

Ai, however, did fondly remember her third-year junior high school teacher using English songs at the beginning of class and enjoyed the listening and singing activities associated with the songs he used. For the most part, though, Ai recalled her Japanese teachers using English infrequently and stated that because she attended rural public schools, she had no opportunities to be taught by English native speakers. Ai expressed her disappointment with the six years of English education in preparing her for communicative use of the language.

(Interview 1, p. 5)

Ai: I think I think um I teacher is good to to prepare for exam to apply for university, but the English is real uh I I couldn't learn the real English so when I come here I I it doesn't it doesn't make sense I learn English for six years, so middle, ah middle high school and high school is total six years but I can't speak English so I can't hear English so I think I doesn't make sense to learn English.

Finishing high school, Ai's dream was to live in Tokyo, so she applied to and was accepted by Meiji University, a prestigious private university there. At Meiji she studied accounting and took English for two years, as well as German. Surprisingly, Ai had no classes taught by English native speakers. During her sophomore year, however, Ai did spend one



month in London attending an English conversation school, but the fact that she shared a dorm room with her Japanese friend tempered the amount of English she actually used during the experience. In discussing her motivation and opportunities to use English, Ai had the following to say.

(Interview 1, p. 9)

Ai: I think in my life the period is to study hard is maybe three ah third years student in high school. This this term is to study English hard. After then, I I enter university so (laugh) I stopping stopped studying English. (laugh) So yes. And after then I worked company, so I don't use the English.

**MEI experience.** Ai and her husband went to Midwest University in 2009 in order for him to complete an MBA degree. Deciding to stay active and improve her English skills while she waited for her husband to obtain his degree, Ai enrolled in Midwest English Institute in the spring of 2010. At that time, she attended one MEI class in the morning and also attended free English classes offered by a nearby community college in the afternoon. She made friends with students at both locations, but seemed to have more interactions with her community college friends.

In the summer of 2010, Ai and her husband moved to Manhattan for a month because of his work, and during that time Ai was able to continue her morning English studies at a language school there. In the afternoons, Ai joyfully recalled attending Broadway musicals, eating lunch with language school friends, and shopping.

Returning to Midwest University for the fall 2010 semester, Ai took two English classes at MEI, pronunciation and listening/speaking, but could not attend the community college in the afternoons because the free classes were no longer offered. In addition, Ai was no longer able to meet her community college friends for lunch because of an overlap in their schedules.

Compared with her exciting summer experiences in New York City, Ai, who was anxious to escape rural life earlier in her life, found herself locked in such an environment once again.

However, she remained focused on improving her Test of English for International Communication (TOEIC) score for the sake of improving her employment prospects once she returned to Japan in May of 2011. She looked forward to possibly using the sommelier certificate that she obtained in France to get a job working for a wine importing company, but her exact plans were still unclear.

### **Performance & beliefs.**

**Perception.** Ai indicated that English listening was a weak point for her, and this was borne out in the results of the two listening tasks. On the cloze task, Ai recorded the second greatest number of completely misidentified responses (52.63%) and the third fewest number of perfectly correct responses (42.11%). On a positive note, she contracted none of the uncontracted stimuli, and only uncontracted 10.5% of the contracted stimuli. Of her 20 completely misidentified responses, 11 were uncontracted items and 9 were contracted, so it is clear that her listening difficulties are not limited to contracted elements. She appeared to have difficulty not only correctly identifying the auxiliary used, but also the pronouns preceding the auxiliaries.

On the forced-choice listening task, Ai also faired poorly in relation to the other participants. She correctly identified only 76.32% of the items, which was the lowest among all of the participants, and much lower percentage than the group average of 90.6%, excluding her score. Of her incorrect responses, 66.67% contained contracted stimuli.

Table 50

#### *Overall Percentages of Correct Responses on Perception Tasks*

	Total (%)	Contracted stimuli (%)			Uncontracted Stimuli (%)		
		's	'd	've	's	'd	've
Cloze task	42/47	43/71	29	60	57	0	80
Forced-choice Task	76	71	43	100	86	86	80

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

Table 51

*Percentages of Correct Contracted & Uncontracted Responses on Contraction Types with Two Forms*

Cloze task	's stimuli		'd stimuli	
	<i>is</i>	<i>has</i>	<i>had</i>	<i>would</i>
Contracted	50/75	33/67	33	25
Uncontracted	67	50	0	0
Forced-choice Task				
Contracted	67	75	75	0
Uncontracted	100	67	67	100

*Note.* Percentages have been rounded to the nearest whole number. Cells with two percentages (e.g., 37/45) indicate perfect scores (on the left) and combined scores (on the right) of perfect responses combined with mistakenly-contracted and uncontracted responses.

**Production.** Ai's speech during the interviews was characterized by a relatively slow rate of delivery, struggles to select or recall appropriate lexical items, and observable difficulties with grammatical accuracy, which resulted in an overreliance on simple structures. She also exhibited difficulty comprehending many of my questions, resulting in a conscious adjustment of my own rate of delivery and grammatical/lexical complexity. Throughout the 57 minutes of total talk time in our first two interviews, Ai was able to produce 88 contractions. In terms of contraction rate, she produced one contraction for every 35 words uttered, positioning her sixth among the participants, and her ratio of contraction was third highest (82.24%).

*Not*-contractions were clearly Ai's most frequently used contraction type and accounted for 70.6% of her contraction production. They included *don't* (30), *can't* (18), *didn't* (6), *doesn't* (4), *couldn't* (1), *won't* (1). *Be*-contractions were the second most frequently used contraction type, accounting for 24.7% of her contracted items. These included *I'm* (13), *it's* (7), *he's* (1). The *had*-contraction, *you'd*, was repeated three times in the second interview as Ai discussed examples of American fast speech that cause listening difficulty for her. The *have*-contraction, *I've*, was also used once by Ai during the two interviews.

Table 52

*Contraction Production Ratios Across Two Interviews*

Interview One	Time	Contraction Types							Totals
		'm	's	're	've	n't	'll	'd	
Count	24 min.	(6/7)	(2/6)	(0/0)	(1/1)	(21/23)	(0/0)	(0/0)	(30/37)
Percentage (%)		85.7	33.3	NA	100	91.3	NA	NA	81.1
Interview Two	33 min.								
Count		(7/7)	(7/13)	(0/2)	(0/0)	(41/42)	(0/3)	(3/3)	(58/70)
Percentage (%)		100	53.8	0	NA	97.6	0	100	82.9
Total	57 min.								
Count		(13/14)	(9/19)	(0/2)	(1/1)	(62/65)	(0/3)	(3/3)	(88/107)
Percentage (%)		92.9	47.4	0	100	95.4	0	100	82.2

*Note.* "Count" denotes the number of contracted items divided by the total number of contractible items. "NA" denotes instances where no contractible items were produced.

Table 53

*Percentage of Total Contractions Produced by Type*

	Contraction Types (% of all contractions)						
	'm	's	're	've	n't	'll	'd
Interview One	20	6.7	0	3.3	70	0	0
Interview Two	12.1	12.1	0	0	70.7	0	5.2
Total	14.8	10.2	0	1.1	70.5	0	3.4

Table 54

*Contraction Production Rate Across Two Interviews*

	Time	Word Count	Contractions	Words/contraction
Interview One	24 min.	1,303	30	43
Interview Two	33 min.	1,790	58	31
Total	57 min.	3,093	88	35

**Beliefs.** Ai actually broached the topic of contraction herself in the second interview when I asked her to describe her perceived listening difficulties.

(Interview 2, p. 9)

Ai: I think mmmm American people speak English too fast. And then and I think

they say they say connected word. Maybe *you had better*, *you'd you'd better*, *you'd better*. I at first time I just I just know this. I didn't learn so. Mmmm for example, mmmmmmm yeah many case is word word contracted contact ah contracted I think contraction. I didn't learn at all so mmm I I I can't speak English to contract word, so I think I can't hear the English.

She mentioned on several occasions that the pronunciation class that she took at MEI helped to raise her awareness of pronunciation-related phenomena in English. Through the comment above, she demonstrated what she had learned in this pronunciation class and reflected on how this phenomenon adversely affected her comprehension of English. As with some of the other Japanese participants (i.e., Mayu and Jun), she stated the importance of being able to produce contractions as a prerequisite to better contraction perception.

In the final interview I asked Ai to provide me with some examples of contractions, and she listed the following: *wanna*, *hafta*, *gotta*, and *gonna*. As with some of the other participants, Ai had seen *wanna* and *gonna* in English song lyrics, but did not know what they meant. Although she stated familiarity with most of the simple contraction types, she claimed that she had learned 'd-contractions, such as *you'd*, only recently during her studies at MEI. This statement was interesting because Ai was the only participant to use a 'd-contraction (two instances of *you'd*, or *you had*) throughout all of the interviews. She also became aware through her MEI pronunciation class that her production of the contraction *I'll* was different than that of native English speakers because of her self-described "Japanese pronunciation" (Interview 3, p. 3). Ai explained that because of her difficulty with the production of /l/, she was averse to using *will*-contractions and preferred to use full forms. An examination of her interview data confirmed that she produced no tokens of *will*-contraction although she did produce full-form *I will* on three occasions.

Ai shared other beliefs regarding her perception of the differences between production and perception of contraction in English. In particular, Ai conveyed a clear belief that contraction perception was more important than contraction use.

(Interview 3, p. 3)

Ai: I think contraction is very important to listen to English. I think if I don't understand contraction, I can't listen English such as television and news. Very very important I think, but I didn't learn in Japan.

When asked about her aversion to producing 'd-contractions, Ai expressed a belief that conscious effort was associated with contraction production.

(Interview 3, p. 4)

John: Why don't you contract *had* or *would*?

Ai: I can't afford to think when I speak English.

She also had no clear conception of whether or not contraction use was appropriate outside of casual conversation, for instance during formal presentations.

In discussing the use of contraction in written English, Ai recalled that her previous teachers in Japan had never formally instructed her against the use of contractions. Although she indicated that an instructor at MEI had cautioned her against using *to*-contractions, such as *wanna* and *gonna*, in her writing, she did not recall being cautioned against using other contraction types, and therefore believed that using other contractions was permissible.

**Summary.** As the spouse of a Japanese national attending MU's MBA program, Ai was in a unique situation compared with the other participants in this study due to the fact that her enrollment in language classes at the MEI was a consequence of accompanying her husband and not her sole purpose in the United States. Because of a restriction on her ability to gain employment here, Ai appeared to be making the most of her time by taking advantage of her MEI enrollment, not only to socialize with native and non-native speakers during her time away from Japan, but also to work toward her goal of obtaining a higher score on the TOEIC test for future employment.

Across the perception and production measures of this study, Ai struggled to match the performance of the other participants. Her scores on the perception tasks were lowest or second lowest among the group, as she had particular difficulty with contracted and uncontracted forms of ‘s and ‘d contractions. Although the overall quality of her oral production was hampered by disfluencies, in terms of contraction production, there were two highlights for Ai: her contraction ratio was above average and she provided tokens for five of the seven contraction types measured. In addition, she exhibited a relatively high degree of metalinguistic awareness related to the topic of contraction, possibly the result of recent discussions in her MEI classes, and she was generally accurate in describing her own contraction use.

### **Chapter Summary**

The purpose of this chapter was to contextualize each of the 10 Japanese participants by first focusing on the individual nature of their English learning histories, including the influences of parents, educational systems, and other significant social experiences, and then highlighting data related specifically to their unique performance and beliefs regarding spoken English contraction. Although some comparison of backgrounds, performance, and beliefs occurred in this chapter, the following chapter, Chapter 5 will focus exclusively on within-group, as well as between-group comparisons with the four native English-speaking participants.

## CHAPTER 5

### GROUP RESULTS

#### **Introduction**

The purpose of this chapter is to present and view the results of the various production and perception tasks completed by the participants using a wider lens. Whereas the previous chapter focused on the performance of each individual, the aim of this chapter is to group the results of the Japanese participants and those of the English native speakers for the purpose of within-group and between-group comparisons, keeping in mind limitations inherent in having a small number of participants. The three areas of focus, perception, production, and beliefs, will serve as the organizational framework for the presentation of these group results.

#### **Perception**

The first research question of this study involved characterizing the Japanese participants' aural perception ability with regard to spoken English contraction. This characterization involved a) determining how the presence or absence of contractions affected participants' ability to correctly perceive spoken stimuli, b) determining how the mode of response can affect perception accuracy, and finally, c) determining how contraction type affected such perception. To make these determinations, analyses were conducted of the participants' performance on the two types of listening tasks, which each contained 19 items with contracted stimuli and 19 items containing uncontracted stimuli, for a total of 38 contraction-related items per task type. Results from these various analyses of the listening tasks are presented below to shed light on these questions.

**Effect of contracted versus uncontracted stimuli.** By combining the participants' responses to the items across both types of instruments (i.e., forced-choice and cloze-type), an analysis was conducted to determine if the type of audio stimuli, either contracted or



uncontracted, affected their ability to accurately select or write the correct responses. Due to the fact that there were instances in which participants wrote uncontracted answers for contracted audio stimuli, and on occasion wrote contracted answers for uncontracted audio stimuli on the cloze-type instrument, it was decided to analyze the results using two criteria. The first criterion was based on how accurately the participants answered with “perfect” responses (i.e., responses in which contracted and uncontracted stimuli were written to exactly match the audio stimuli on the cloze-type test form). A second criterion conflated the participants’ responses that contained the correct lexical items, in either mistakenly contracted or mistakenly uncontracted form, with the “perfect” responses described above. Results from an analysis using both criteria are presented below and in Tables 55 & 56.

*First criterion of analysis.* Of the 380 combined contracted stimuli that the ten NNSs were provided across both the cloze and forced-choice tasks, they were able to perfectly identify 220, or 57.89% ( $M=11$ ,  $SD=6.16$ ).<sup>42</sup> Conversely, they were able to perfectly identify 311, or 81.84% ( $M=15.55$ ,  $SD=3.30$ ), of the 380 uncontracted stimuli. The NSs, by comparison, perfectly identified all 152 instances of uncontracted stimuli, but only 129 of 152, or 84.87% ( $M=16.13$ ,  $SD=5.72$ ), contracted stimuli (see Tables 55 & 56).<sup>43</sup>

Consequently, this first criterion of analysis revealed a 23.95 percentage point difference in the means of the contracted and uncontracted responses of Japanese participants, and a 15.13 percentage point difference in the same means of the native English speakers, with both groups perfectly identifying uncontracted forms more accurately than contracted forms overall. Comparing the two groups of participants by their ability to correctly identify the two stimuli types, the mean difference between the NSs and NNSs for contracted stimuli was 26.98

---

<sup>42</sup> One of the NNSs (Keisuke) chose not write any of the contracted forms.

<sup>43</sup> One of the NSs (Jake) chose to write the uncontracted form of only 17 of the 19 contracted elements. The other three NSs, however, correctly identified 18 or 19 of those 19 items focusing on contractions.

percentage points and 18.16 percentage points for uncontracted stimuli, with the NSs being more accurate in both comparisons.

Although these results suggest that the Japanese participants had proportionately greater difficulty perfectly identifying the contracted items than the uncontracted items, and also had an accuracy rate closer to the native speakers for uncontracted rather than contracted items, this observation is tempered by the fact that the participants were not specifically instructed to delineate contracted and uncontracted forms when writing their responses. This fact appeared to have seriously affected the response style of at least one NS and one NNS in the study, but may have negatively impacted other participants who chose to contract or decontract responses ambiguously with the understanding that they were being assessed solely on the correctness of the underlying lexical form.

*Second criterion of analysis.* In order to ameliorate some of the ambiguity in the results of the first analysis, a second, more inclusive, criterion for analysis was used (see Tables 55 & 56). Within this criterion, “perfect” responses were combined with those that were lexically correct, but incorrect orthographically. Re-examining the data according to this second criterion, the number of correct responses for contracted stimuli by NNS rose by 63 to 283 of 380, or 74.47% ( $M=14.15$ ,  $SD=3.13$ ) correct, and the number of correct responses containing uncontracted stimuli rose by four to 315 of 380, or 82.89% ( $M=15.75$ ,  $SD=3.26$ ) correct. The second criterion also boosted the NSs’ correct percentage for contracted stimuli by 19 to 148 of 152, or 97.37% ( $M=18.50$ ,  $SD=0.53$ ) correct, but did not affect the percentage for correctly-answered uncontracted items, which remained at 100% (152 of 152).

Based on this second criterion of analysis, the mean difference between responses targeting contracted and uncontracted stimuli for the NNSs shrank from 23.95 percentage points to 8.42 percentage points, a reduction of 15.53 percentage points. Similarly, the difference on

this measure for the NSs shrank from 18.16 percentage points to 2.63 percentage points, also a reduction of 15.53 percentage points. This improvement for both groups of participants was primarily due to a substantial improvement in the scores for contracted items, rather than a large improvement in the scores for uncontracted items.

Examining the difference between the two participant groups on both contracted and uncontracted items, the mean difference between the NNSs and the NSs on the contracted items was 22.9 percentage points, and their difference on the uncontracted items was 17.11 percentage points. This was a reduction of 4.08 percentage points and 1.05 percentage points for contracted and uncontracted items, respectively, when compared with the first criterion of analysis, but still demonstrated a clear advantage for the NSs in being able to more accurately identify the two kinds of stimuli than the Japanese participants.

Table 55

*Mean Scores, Standard Deviations and Ranges for All Contracted Items on Cloze-type and Forced-choice Instruments According to Analysis Criteria*

	First Criterion			Second Criterion		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
NNSs (n=10)	11.00	6.16	0-18	14.15	3.13	7-18
NSs (n=4)	16.13	5.72	2-19	18.50	0.53	18-19

*Note.* First analysis tallied perfect responses only. Second analysis conflated perfect responses and responses on the cloze-type instrument that were lexically correct, but mistakenly written as uncontracted. The maximum possible score for each criterion was 19.

Table 56

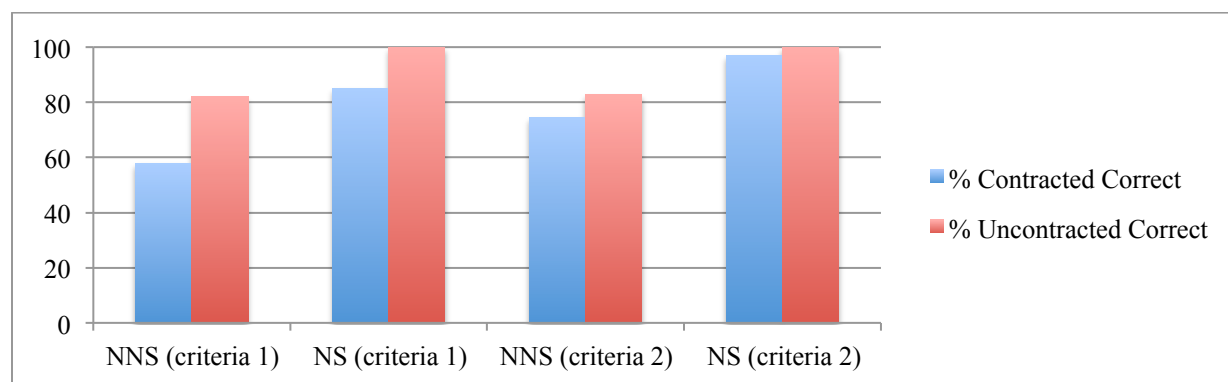
*Mean Scores, Standard Deviations and Ranges for All Uncontracted Items on Cloze-type and Forced-choice Instruments*

	First Criterion			Second Criterion		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
NNSs (n=10)	15.55	3.30	8-19	15.75	3.26	8-19
NSs (n=4)	19.00	0.00	19-19	19.00	0.00	19-19

*Note.* First analysis tallied perfect responses only. Second analysis conflated perfect responses and responses on the cloze-type instrument that were lexically correct, but mistakenly written as uncontracted. The maximum possible score for each criterion was 19.

Figure 1

*Percentage of Correct Responses on Combined Cloze-type and Forced-Choice Instruments by Analysis Criteria*



**Effect of response type.** In order to determine if the type of response, either forced choice or cloze-type, significantly impacted the participants' ability to correctly identify aural stimuli containing contractible phrases, the data obtained from the two task types were organized according to total score and scores on contracted and uncontracted items. Once again, two criteria were used for the analysis of cloze-type responses to include as correct responses that were lexically correct in addition to those which were perfect (i.e., orthographically correct).

**First criterion of analysis of cloze-type responses.** Of the 380 total items, both contracted and uncontracted, across the two versions of the cloze-type instrument answered by the 10 Japanese participants, 192, or 50.52% (M=19.2, SD 6.03), were correctly identified using the first criterion of analysis. Examining only the contracted items, the NNSs perfectly identified (i.e., correctly wrote the contracted form of) 58, or 30.52%, of the 190 present (M=5.8, SD 4.26). For the uncontracted items, they correctly identified 134, or 70.53%, of the 190 items (M=13.4, SD 3.27). In the case of the four native English speakers, they perfectly identified 133 of 152, or 87.50% (M=33.25, SD=8.18), of the total items. Examining only the contracted items, they answered 57 of 76, or 75% (M=14.25, SD=8.18) perfectly, and of the 76 total uncontracted items, they answered all correctly (see Table 57 & Figure 2).

Table 57

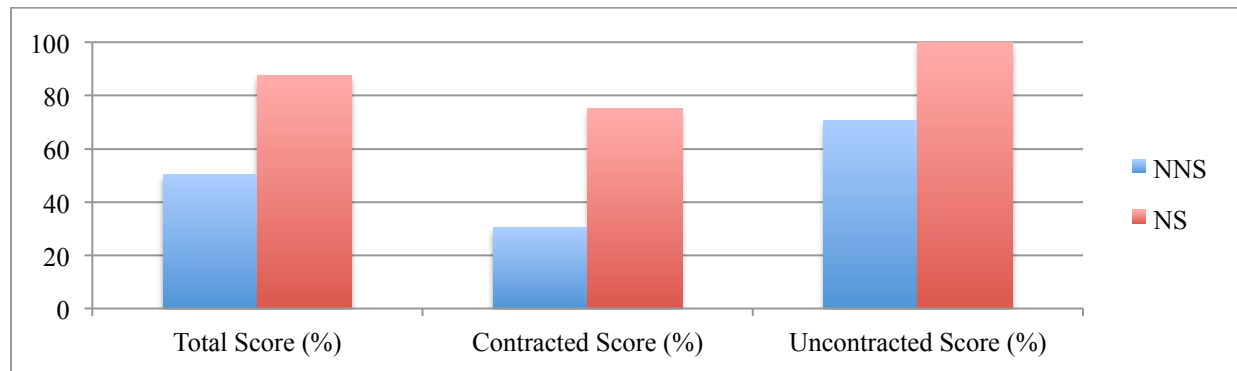
*Mean Scores, Standard Deviations and Ranges for Scores on Cloze-type Instrument Using the First Criterion of Analysis*

	Total Score			Contracted Score			Uncontracted Score		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
NNSs (n=10)	19.20	6.03	12-34	5.80	4.26	0-16	13.40	3.27	8-18
NSs (n=4)	33.25	8.18	21-38	14.25	8.18	2-19	19.00	0.00	19-19

*Note.* The maximum total score was 38. The maximum contracted and uncontracted scores were both 19.

Figure 2

*Comparison of Percentages of Correct Responses on Cloze-type Instrument Using First Analysis Criterion*



***Second criterion of analysis of cloze-type responses.*** When perfect answers were combined with answers in which the participants wrote lexically-correct answers, the overall percentage of correct responses by the Japanese participants rose from 50.52% to 68.16%, or 259 of 380 ( $M=25.90$ ,  $SD=5.93$ ), the percentage of correct contracted-only items rose from 30.52% to 63.68%, or 121 of 380 ( $M=12.1$ ,  $SD=3.07$ ), and the percentage of correct uncontracted-only items increased from 70.53% to 72.63%, or 138 of 190 ( $M=13.8$ ,  $SD=3.46$ ). In the case of the native English speakers, the overall percentage of correct responses using the second criterion rose from 87.5% to a perfect 100%, or 152 of 152 items. Consequently, their scores also increased for contracted items, rising from 75% to 100%, and remained unchanged for uncontracted items at 100% (see Table 58 & Figure 3).

Table 58

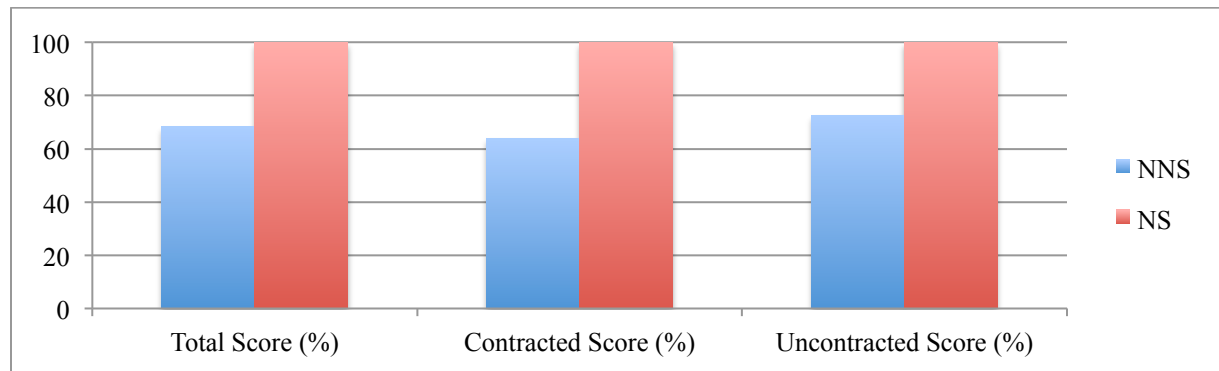
*Mean Scores, Standard Deviations and Ranges for Scores on Cloze-type Instrument Using the Second Criterion of Analysis*

	Total Score			Contracted Score			Uncontracted Score		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
NNSs (n=10)	25.90	5.93	17-34	12.10	3.07	7-16	13.80	3.46	8-18
NSs (n=4)	38	0.00	38-38	19	0.00	19-19	19	0.00	19-19

*Note.* The maximum total score was 38. The maximum contracted and uncontracted scores were both 19.

Figure 3

*Comparison of Percentages of Correct Responses on Cloze-type Instrument Using Second Analysis Criterion*



**Forced-choice responses.** In the second perception task, which utilized a forced-choice instrument, the Japanese participants answered 339, or 89.21% (M=33.9, SD 2.42) of the 380 total items correctly. Of the 190 contracted items, they correctly identified 162, or 85.26% (M=16.2, SD 1.40), and of the uncontracted items, they correctly identified 177, or 93.16% (M=17.7, SD 1.42) of the 190 items. The NSs were even more accurate on the forced-choice instrument, answering 148, or 97.37% (M=37, SD 0.00) of the 152 total items correctly.

Although they successfully answered all 76 of the uncontracted items correctly, they each missed one of the contracted items, accurately selecting 72, or 94.74% (M=18, SD 0.00) out of 76 total items (see Table 59 & Figure 4).

Table 59

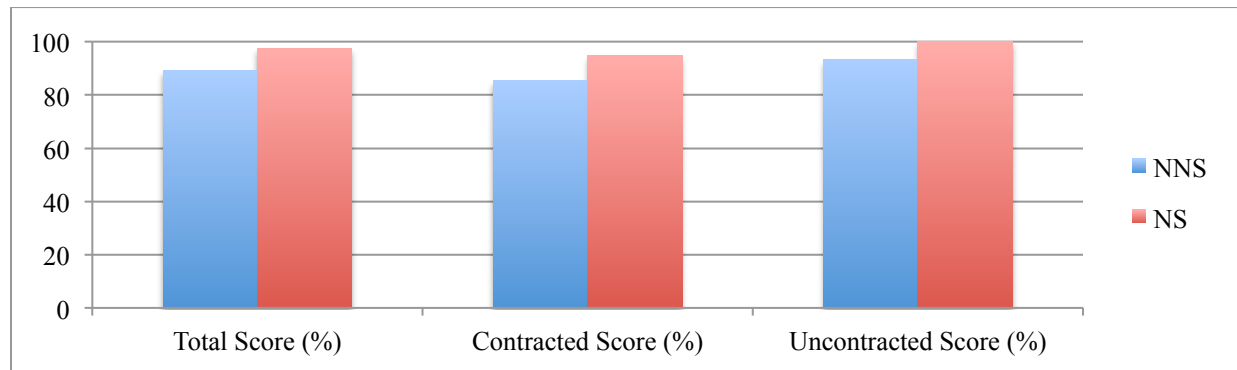
*Mean Scores, Standard Deviations and Ranges for Scores on Forced-Choice Instrument*

	Total Score			Contracted Score			Uncontracted Score		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
NNSs (n=10)	33.90	2.42	29-37	16.20	1.40	13-18	17.70	1.42	16-19
NSs (n=4)	37	0.00	37-37	18	0.00	18-18	19	0.00	19-19

*Note.* The maximum total score was 38. The maximum contracted and uncontracted scores were both 19.

Figure 4

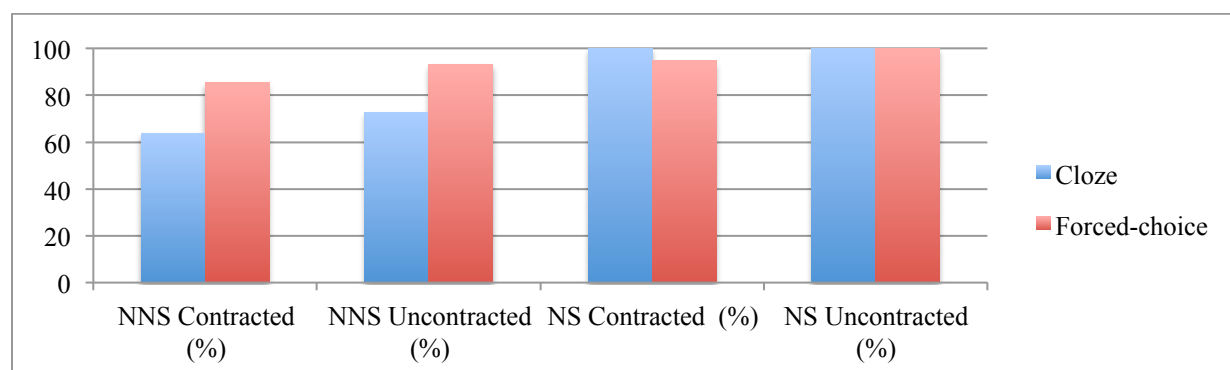
*Comparison of Percentages of Correct Responses on Forced-Choice Instrument*



Using the results of the second-criterion analysis of the cloze-type task for comparison with the forced-choice results, a marked difference was observed in the accuracy rates of the Japanese participants compared with the native English speakers (see Figure 5). In the case of contracted items, the NNSs were an average of 21.58 percentage points more accurate on the forced-choice measure. Similarly, they were 20.53 percentage points on average more accurate on uncontracted items on the forced-choice task, as well. The difference in response type did not appear to affect the NSs a consequential amount, however, as they scored perfectly on all of the contracted and uncontracted items on the cloze-type task and were only 5.26 percentage points lower on the contracted items of the forced-choice type.

Figure 5

*Comparison of Percentages of Correct Responses According to Response Type*



**Effect of contraction type.** In order to determine what, if any, effect contraction type had on the participants' ability to correctly identify the aural stimuli, the written responses were divided according to the three types of contractions of focus in the perception part of study: 's (*has & is* contraction), 'd (*had & would* contraction), and 've (*have* contraction). The NNS and the NS participants' responses were each conflated separately according to the three general categories, as well as according to the more specific four sub-categories (i.e., *has*, *was*, *had*, and *would*). As with the analysis of contracted versus uncontracted stimuli, two criteria were used: the first, which labeled only "perfect" responses on the cloze-type instrument as "correct" and a second, which conflated "perfect" cloze-type responses with written responses that were correct lexically, but were either mistakenly contracted or uncontracted (see Tables 60 & 61 and Figures 6 & 7).



Table 60

*NNSs' Combined Correct Response Percentages for Each Contraction Type on Both Listening Tasks*

	Contracted stimuli		Uncontracted stimuli	
	<u>First criterion</u>	<u>Second criterion</u>	<u>First criterion</u>	<u>Second criterion</u>
'd stimuli combined	51.42	65.71	76.43	NA
<i>would</i>	47.14	57.14	72.86	NA
<i>had</i>	55.71	74.29	80.00	NA
's stimuli combined	52.14	76.42	83.57	NA
<i>is</i>	45.71	68.57	90	NA
<i>has</i>	58.57	84.29	77.14	NA
've stimuli	75	84	88	92

*Note.* First criterion tallied perfect responses only. Second criterion conflated perfect responses and responses on the cloze-type instrument that were lexically correct, but mistakenly written as uncontracted. Only uncontracted *have* contraction data required a second criterion analysis due to some items being mistakenly contracted.

Table 61

*NSs' Combined Correct Response Percentages for Each Contraction Type on Both Listening Tasks*

	Contracted stimuli		Uncontracted stimuli	
	<u>First criterion</u>	<u>Second criterion</u>	<u>First criterion</u>	<u>Second criterion</u>
'd stimuli combined	82.14	98.21	100	NA
<i>would</i>	85.71	100	100	NA
<i>had</i>	78.57	96.43	100	NA
's stimuli combined	85.71	94.64	100	NA
<i>is</i>	78.57	89.29	100	NA
<i>has</i>	92.86	100	100	NA
've stimuli	87.50	100	100	NA

*Note.* First criterion tallied perfect responses only. Second criterion conflated perfect responses and responses on the cloze-type instrument that were lexically correct, but mistakenly written as uncontracted.

**'d contractions.** The first criterion revealed that NNSs had the most difficulty correctly identifying 'd contractions. Using the two categorizations of correct responses, these participants perfectly identified 72 of 140, or 51.42%, of these contracted items and 92 of 140, or 65.71%, correctly if conflated with mistakenly uncontracted items. The 'd contractions also proved to be the most difficult among the three types for the NS participants, as well. They perfectly

identified 46 of 56, or 82.14%, according to the first criterion, and 55 of 56, or 98.21%, when conflated with mistakenly uncontracted items.

In terms of uncontracted *'d* stimuli, the NNS participants were able to correctly identify 107 of 140 items, or 76.43%. There were no instances in which these participants mistakenly wrote contractions for the uncontracted stimuli. The NSs were able to perfectly identify all instances of uncontracted *'d* stimuli.

Examining the two types of *'d* contractions separately, analysis revealed that the Japanese participants had the most difficulty correctly identifying contracted and uncontracted *would* contractions. In particular, contracted stimuli were the most difficult. Of the 70 contracted *would* items, these participants correctly identified 33, or 47.14%, according to the first criterion and 40, or 57.14%, for the second. On the other hand, they were able to correctly identify 39 and 52 of 70 contracted *had* items, or 55.71% and 74.29% respectively. The NS participants, on the other hand, had more difficulty correctly identifying *had* contractions according to both criteria, identifying 22 and 27 of 28, for 78.57% and 96.43% for each criterion respectively. In contrast, they correctly identified 24 and 28 of 28, for 85.71% and 100% respectively for *would* contractions.

Comparing uncontracted *'d* items, *would*-contractions again proved more difficult for the Japanese participants to correctly identify. Of the 70 uncontracted *would* items, 51, or 72.86% were correctly identified. However, of the 70 uncontracted *had* items, the participants were able to correctly identify 56, or 80%. The native English speakers answered all of the items with uncontracted *'d* stimuli correctly.

***'s contractions.*** The second most difficult of the three types of contraction types examined to identify for both the NNSs and NSs appeared to be *'s* contractions. The Japanese participants correctly identified 73 of 140 of these contracted items, or 52.14%, perfectly and

107 of 140, or 76.42%, correctly when conflated with mistakenly uncontracted items. The NS participants were more accurate, perfectly identifying 48 of 56, or 85.71%, of contracted 's stimuli according to the first analysis criterion and 53 of 56, or 94.64% according to the second.

In terms of uncontracted stimuli, the NNS participants were able to correctly identify 117 of 140 items, or 83.57%. There were no instances in which these participants mistakenly wrote contractions for the uncontracted stimuli. As with the uncontracted 'd stimuli, the NSs had no incorrect responses for uncontracted 's stimuli.

Examining the two types of 's contractions separately, analysis revealed that the NNS participants had the most difficulty correctly identifying contracted *is* contractions and uncontracted *has* contractions. Of the 70 contracted *is* items, these participants correctly identified 32, or 45.71%, using the first criterion and 48, or 68.57%, with the second. On the other hand, they were able to correctly identify 41 and 59 of 70 contracted *has* items, or 58.57% and 84.28% respectively. The NS participants were also more accurate identifying *has* than *is* contractions. Using the first criterion, they perfectly identified 26 of 28, or 92.86%, of the contracted *has* items, but only 22 of 28, or 78.57%, of the contracted *is* items. Conflating perfect responses with mistakenly uncontracted ones, the NSs correctly identified all of the contracted *has* stimuli, but 89.29%, or 25 of 28, of the *is* stimuli accurately.

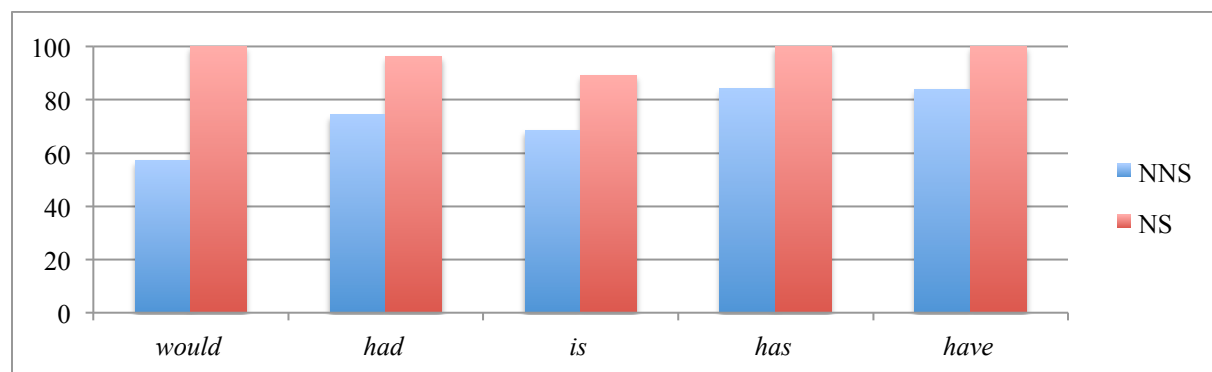
In comparing uncontracted 's items, it was *has* contractions that proved to be more difficult for the Japanese participants to correctly identify. Of the 70 uncontracted *has* items, 54, or 77.14%, were correctly identified. However, of the 70 uncontracted *is* items, they were able to correctly identify 63, or 90%. Again, there were no examples of the Japanese participants mistakenly writing contractions for the uncontracted stimuli. As with the other contraction types, the native English speakers perfectly identified all of the instances of the uncontracted stimuli.

***Have contractions.*** The category of contractions that the NNS and NS participants both appeared to have the least difficulty correctly identifying with regard to contracted and uncontracted stimuli were the *have* contractions. Of the 100 contracted items, the Japanese participants correctly identified 75 using the first criterion and 84 for the second, resulting in percentages of 75% and 84%, respectively. The English native speakers, by contrast, perfectly identified 87.5%, or 35 of 40, of the contracted items according to the first criterion, and 100% according to the second.

Of the 100 uncontracted *have* items, the Japanese participants correctly identified 88 using the first criterion and 92 using the second, resulting in percentages of 88% and 92%, respectively. Unlike the other three contraction types under investigation, however, there were four cases in which four participants (i.e., Dai, Yoshi, Isamu, and Jun) mistakenly wrote contractions for the uncontracted stimuli.<sup>44</sup> In the case of NSs, they remained perfect in their identification of uncontracted items by correctly answering all such items for this particular contraction type across the two task types.

Figure 6

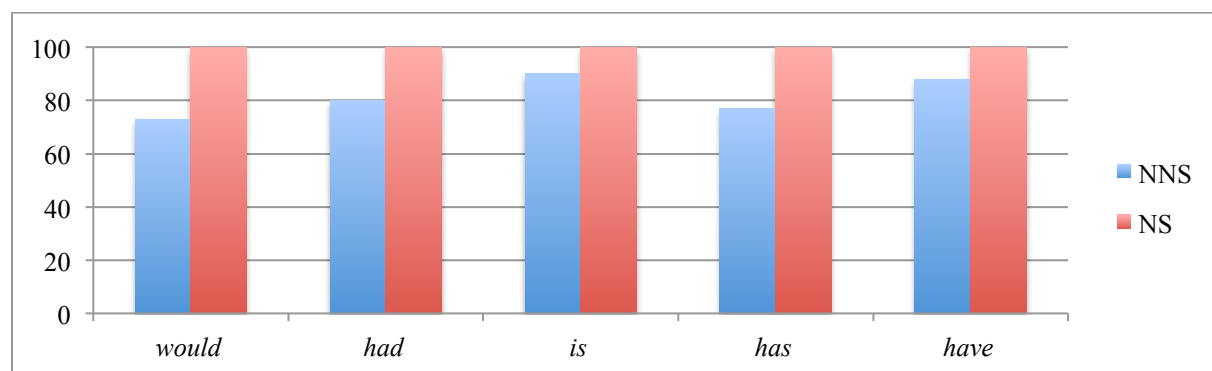
*Comparison of Correct Response Percentages on Contracted Stimuli According to Contraction Type (Second Criterion Analysis)*



<sup>44</sup> Three of the four instances of mistakenly writing a contraction for an uncontracted *have* stimulus occurred on one item (i.e., I know I have been wrong before.). This item was correctly answered by all of the native speakers, but proved problematic for most Japanese participants.

Figure 7

*Comparison of Correct Response Percentages on Uncontracted Stimuli According to Contraction Type (Second Criterion Analysis)*



**Perception summary.** The data presented in this portion of the chapter focused on the Japanese participants' ability to perceive three types of contractions (i.e., 've, 's, and 'd), of which two ('s and 'd) each have two distinct full-form lexical representations. Through an examination of the effect of factors such as listening task type, the presence of contracted versus uncontracted stimuli, and the type of contractions on their ability to correctly identify not only underlying lexical forms, but also contracted orthography, distinct tendencies emerged. Namely, while task type had virtually no effect on the NSs ability to correctly identify stimuli regardless of whether they were contracted or uncontracted, the Japanese participants were negatively impacted by both contracted stimuli and cloze-type responses. In addition, of the three contraction types examined, the Japanese were most accurate identifying 've, 's, and 'd in descending order for both contracted and uncontracted stimuli. Although they were more accurate than the NNSs, the NSs exhibited this same tendency regarding perception accuracy between the three contraction types. The following section of the chapter examines the contraction production tendencies of the NNSs in relation to each other and the NSs'.

## Production

The second research question of the study sought to better understand the quality of Japanese learners' production of contractions in unscripted speech. In contrast with the previously described perception tasks, which focused exclusively on three types of contractions (e.g., 's, 'd, and 've), the types of contractions included in this analysis also included other types of spoken contraction that commonly appear in standard written orthography (e.g., 'm, 're, n't, and 'll). Specifically, the dimensions of contraction production analyzed were a) the types of contractions used by the participants, b) the ratio of contraction in their speech, and c) the rate of contraction in their speech. An analysis of each of these dimensions is presented below.

**Contraction types.** The first two interviews with each of the ten Japanese participants, totaling 9.3 hours, and the first interviews with the four English native speakers, totaling 45 minutes, were examined for the presence of contracted elements to determine which types of contractions were used more prevalently in their talk. These contractions, gathered from almost 42,000 words of participants' talk, were coded not only according to overall type (e.g., 'm, 're, n't, 'll, 's, 'd, and 've), but also according to the lexical item preceding each contracted element (i.e., *be*-verb, modal, negative).<sup>45</sup> These occurrences of contracted phrases were categorized and tallied for each individual and then for each of the two groups (NS and NNS). The number of contraction occurrences and the percentages in relation to the total output of each participant and group are presented in the following tables.

**Contraction type distribution of Japanese participants.** The distribution of contractions by the seven types previously listed as a percentage of the total number of contractions produced by each of the ten Japanese participants across the first two interviews is presented in Table 62. Based on the data, it is clear that the most frequently used contraction type were *not* contractions

---

<sup>45</sup> For instance, across all of the interviews, only three proforms (*I*, *we*, and *they*) preceded the contracted form of *have*. However, twelve different lexical items (e.g. can, will, did, etc.) preceded the contracted form of *not* across the examined interviews.

(47.77%), followed by the *be*-verb contractions, 's and 'm, at 33.54% and 15.16% respectively. The remaining four types of contractions ('ve, 're, 'll, and 'd) were rarely used by the Japanese participants, accounting for only 3.52% of the total number of contractions uttered. The contraction type used least overall were 'll contractions, accounting for only 0.1% of all of the contractions uttered, meaning that only a single example was used in the 20 NNS interviews examined. Seven of the ten NNSs used *not* contractions most frequently; however, two favored 's contractions most, and one produced *not* and 's contractions in equal amounts. Not a single member of the Japanese participants produced a token for all seven varieties of contractions. Only one, Isamu, provided tokens for six types. The other participants produced tokens for three to five contraction types, with Ai and Nana producing tokens for five; Dai, Yoshi, and Jun producing tokens for four; and Seiji, Mayu, Keisuke, and Rie producing tokens for three.

Examining the two contraction types ('s and 'd) that can each represent two different underlying lexical forms, 99.37% of all 's contraction uttered by the Japanese participants were the shortened form of *is* (see Table 63). Only two instances of contracted *has* were produced by the entire group over the course of the interviews. In the case of the much more rarely produced 'd contractions, no examples of *would* contractions were produced, and only three examples of *had* contractions were uttered, all by a single participant.

Table 62

*Total Distribution of Contraction Types Produced by each NNS in Interview Data*

	'm	're	n't	'll	's	'd	've	Totals
Mayu	4 (8%)	0	23 (46%)	0	23 (46%)	0	0	50
Seiji	25 (16.78%)	0	47 (31.54%)	0	77 (51.68%)	0	0	149
Dai	14 (23.94%)	0	35 (49.30%)	0	21 (29.58%)	0	1 (1.41%)	71
Yoshi	18 (15%)	0	56 (46.67%)	0	45 (37.50%)	0	1 (0.83%)	120
Nana	9 (13.85%)	4 (6.15%)	39 (60%)	0	12 (18.46%)	0	1 (1.54%)	65
Isamu	36 (26.87%)	7 (5.22%)	51 (38.06%)	1 (0.75%)	25 (18.66%)	0	14 (10.45%)	134
Keisuke	11 (7.86%)	0	83 (59.29%)	0	46 (32.86%)	0	0	140
Rie	4 (7.41%)	0	30 (55.56%)	0	20 (37.04%)	0	0	54
Jun	12 (13.04%)	0	34 (36.96%)	0	45 (48.91%)	0	1 (1.09%)	92
Ai	13 (14.77%)	0	62 (70.45%)	0	9 (10.23%)	3 (3.41%)	1 (1.14%)	88
Totals	146 (15.16%)	11 (1.14%)	460 (47.77%)	1 (0.10%)	323 (33.54%)	3 (0.31%)	19 (1.97%)	963
Mean	14.60	1.10	46.00	0.10	32.30	0.30	1.90	96.30
SD	9.75	2.42	17.80	0.32	20.77	0.95	4.28	36.98
Range	4-36	0-7	23-83	0-1	9-77	0-3	0-14	50-149

*Note:* Percentages in parentheses denote percentage of individuals' output and combined output toward totals.



Table 63

*Distribution of ‘s and ‘d Contraction Types Produced by NNSs in Interview Data*

	‘s contractions		‘d contractions	
	<i>is</i>	<i>has</i>	<i>would</i>	<i>had</i>
Mayu	23	0	0	0
Seiji	77	0	0	0
Dai	21	0	0	0
Yoshi	44	1	0	0
Nana	12	0	0	0
Isamu	21	0	0	0
Keisuke	45	1	0	0
Rie	20	0	0	0
Jun	45	0	0	0
Ai	9	0	0	3
Totals	317 (99.37%)	2 (0.63%)	0 (0%)	3 (100%)

***Contraction type distribution of English native speakers.*** In order to contextualize the Japanese participants’ production distribution tendencies of the target contraction types, data from one interview with each of the four native English speakers are presented in Tables 64 and 65. The most noticeable difference between the NSs’ and NNSs’ contraction production was the wider distribution of contraction type usage. Whereas 96.47% of the total number contractions produced by the Japanese participants were of only three types (‘*m*’, ‘*n*’, and ‘*s*’), those three types comprised a much lower 76.64% of the NSs’ output. The majority of that difference was the result of a 24.97 percentage point advantage in the production *not* contractions by the NNSs. The four least-utilized contraction types (‘*re*’, ‘*ve*’, ‘*ll*’, and ‘*d*’) by the NSs still accounted for 23.36% of their total output, compared with only 3.52% for the NNSs. Also, unlike the Japanese participants, who failed to have a single member produce a token of each contraction type and averaged four contraction types used overall, all of the native English speakers produced tokens

for at least six of the seven categories, with one participant (Hannah) providing examples of all seven.

The categories with the most similar distribution percentages between the NSs and NNSs were ‘*d*’, ‘*m*’, and ‘*s*’ contractions, with percentage point differences of 0.51, 1.32, and 3.82, respectively, between the two groups. Both groups’ production distribution of ‘*s*’ contractions was also similar, in that *is* contractions comprised over 90% of those tokens when compared with *has* contractions. However, in the case of ‘*d*’ contractions, which were the least-produced contraction type, with only three tokens (0.82% of the total contraction output) the NSs produced only *would* contractions instead of only *had* contractions, as the single Japanese participant had uttered.

Table 64

*Total Distribution of Contraction Types Produced by NSs in Interview Data*

	‘ <i>m</i> ’	‘ <i>re</i> ’	‘ <i>n’t</i> ’	‘ <i>ll</i> ’	‘ <i>s</i> ’	‘ <i>d</i> ’	‘ <i>ve</i> ’	Totals
Cassie	10 (11.24%)	6 (6.74%)	16 (17.98%)	5 (5.62%)	35 (39.33%)	0	17 (19.10%)	89
George	5 (8.06%)	2 (3.23%)	14 (22.58%)	2 (3.23%)	38 (61.29%)	1 (1.61%)	0	62
Hannah	24 (23.53%)	3 (2.94%)	33 (32.35%)	2 (1.96%)	18 (17.65%)	2 (1.96%)	20 (19.61%)	102
Jake	21 (19.44%)	8 (7.40%)	20 (18.52%)	7 (6.48%)	45 (41.67%)	0	10 (9.26%)	111
Totals	60 (16.48%)	19 (5.22%)	83 (22.80%)	16 (4.40%)	136 (37.36%)	3 (0.82%)	47 (12.91%)	364
Mean	15.00	4.75	20.75	4.00	34.00	0.75	11.75	91.00
SD	8.98	2.75	8.54	2.45	11.46	0.96	8.88	21.34
Range	5-24	2-8	14-33	2-7	18-45	0-2	0-20	62-111

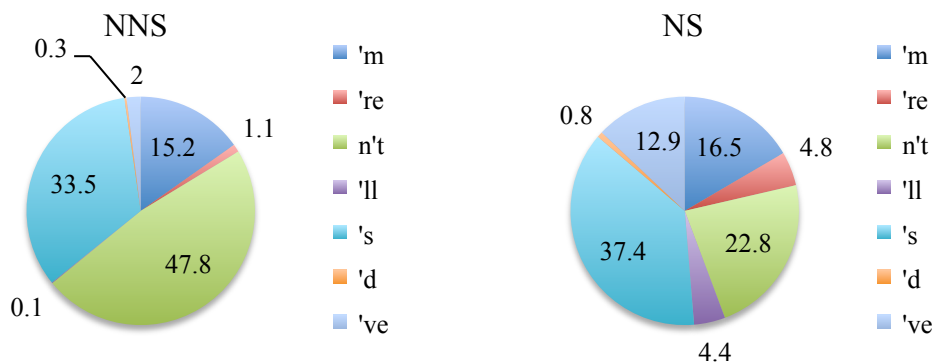
Table 65

*Distribution of 's and 'd Contraction Types Produced by NSs in Interview Data*

	's contractions		'd contractions	
	<i>is</i>	<i>has</i>	<i>would</i>	<i>had</i>
Cassie	31	4	0	0
George	38	0	1	0
Hannah	17	1	2	0
Jake	43	2	0	0
Totals	129 (94.85%)	7 (5.15%)	3 (100%)	0 (0%)

Figure 8

*Contraction Type Distributions for NNSs and NSs in Production Data*



**Contraction ratios.** To better understand the production tendencies of the Japanese and native English speakers in contracting syntactically-viable phrases, contraction ratios were obtained for each participant and for each group as a whole. This was done by making counts of all of the contracted and contractible elements in each of the targeted interviews (i.e., the first two NNS interviews and the first NS interviews) and categorizing them according to the seven contraction types mentioned in the previous section. The number of contracted items for each

type was divided by the total number of contractible elements of the same type to obtain the contraction ratios. The results of the tabulations are presented in the Tables 66 & 67.

***Contraction ratios of Japanese participants.*** Overall, the Japanese participants' contraction ratio was a combined 76.86% across all seven contraction types, or 963 of the 1253 total contractible items found in the 20 interviews examined. Examining the NNSs' contraction tendencies across each type separately, an extremely wide range of contraction ratios were produced. Clearly, the most commonly-contracted type was the *am* contraction, which was produced at a rate of almost 98%. The second most frequently contracted type were *not* contractions, which were produced at a ratio of almost 85%. Following that, two contraction types, *'ve* and *'s*, were contracted at rates of 73% and 72%, respectively. The remaining three contraction types, *'d*, *'re*, and *'ll*, were contracted much less frequently, at rates of 30%, 22%, and 4% respectively.

Despite fact that *I am* phrases were the most frequently contracted (146 of 149 tokens contracted), in terms of the most frequently produced contractible phrases, both *not* and *'s* phrases were considerably more common, with 544 and 448 tokens, respectively, counted across the Japanese participants' interviews. The contraction type with the fewest number of contractible tokens produced were *'d* contractions, with only 10 such tokens uttered. As mentioned previously, only one example of contracted *'ll* was produced across all of the Japanese participants' interviews, however 25 contractible *'ll* tokens were observed. Contraction types with similar or lower numbers of contractible tokens, namely *'ve* (26 tokens) and *'d* (10 tokens), were contracted with considerably higher frequency.

Data in the previous section concerning contraction type distribution by the participants showed that contractions of the *'s* and *'d* sub-categories *has*, *would*, and *had* were produced in very small numbers. In order to determine if larger numbers of uncontracted forms were

produced, but simply not contracted, an examination of the contraction ratios for these 's and 'd sub-categories was conducted, and the data is presented in Table 67. The results showed that only one uncontracted example of a *would* phrase and only one contractible *has* phrase in addition to the two that were contracted were produced among all 10 participants across the 20 interviews. Uncontracted *had* phrases, however, were shown to have been produced in greater quantity, with a total of six left uncontracted. The large majority of the uncontracted items among the two 's type subcategories was for *is* phrases, with 124 tokens left uncontracted.

Examining the performance of the individual Japanese participants, their contraction ratios ranged from Nana's high of 92.8% to Mayu's low of 56.8%, with three participants in the low 80% range (Isamu, Keisuke, and Ai), three participants in the upper 70% range (Jun, Yoshi, and Dai), and two participants in the upper 60% range (Rie and Seiji). Four of the NNSs (Nana, Seiji, Jun, and Ai) produced contractible phrases for each of the seven categories, but as stated previously, only Isamu produced contracted tokens for a maximum of six. Each of the other six Japanese participants failed to produce contractible phrases in at least one of the seven categories, and two (Mayu and Keisuke) produced no contractible phrases in two categories.

Focusing on the two participants at opposite ends of the contraction ratio spectrum, Nana's high performance was due to the fact that she contracted all instance of contractible phrases in three of the seven categories ('m, 're, 've) and contracted at rates above 92% in two other categories ('s and n't). For two of the categories ('ll and 'd) she had a total of three opportunities to contract, but did not, giving her a contraction percentage of zero for each. At the other end of the spectrum, Mayu matched Nana's 100% contraction ratio for *I am* phrases, but produced no contractible phrase for 've or 'll, and produced a total of five contractible phrase for 're and 'd, but contracted none. In the remaining two categories ('s and n't), she had contraction ratios of 61% and 56% respectively.

Table 66

*NNSs' Ratio of Contracted Tokens Across Contraction Types for Two Interviews*

		'm	're	n't	'll	's	'd	've	Totals
Mayu	Contracted	4	0	23	0	23	0	0	50
	Total	4	4	41	0	38	1	0	88
	% Contracted	100%	0%	56.10%	NA	60.53%	0%	NA	56.82%
Seiji	Contracted	25	0	47	0	77	0	0	149
	Total	26	5	53	5	117	1	7	214
	% Contracted	96.15%	0%	88.68%	0%	65.81%	0%	0%	69.63%
Dai	Contracted	14	0	35	0	21	0	1	71
	Total	14	1	45	3	28	0	1	92
	% Contracted	100%	0%	77.78%	0%	75%	NA	100%	77.17%
Yoshi	Contracted	18	0	56	0	45	0	1	120
	Total	18	6	62	6	59	0	1	152
	% Contracted	100%	0%	90.32%	0%	76.27%	NA	100%	78.95%
Nana	Contracted	9	4	39	0	12	0	1	65
	Total	9	4	40	2	13	1	1	70
	% Contracted	100%	100%	97.50%	0%	92.31%	0%	100%	92.86%
Isamu	Contracted	36	7	51	1	25	0	14	134
	Total	36	14	62	2	33	0	14	161
	% Contracted	100%	50%	82.26%	50%	75.76%	NA	100%	83.23%
Keisuke	Contracted	11	0	83	0	46	0	0	140
	Total	11	2	92	2	65	0	0	172
	% Contracted	100%	0%	90.22%	0%	70.77%	NA	NA	81.40%
Rie	Contracted	4	0	30	0	20	0	0	54
	Total	5	8	37	1	25	2	0	78
	% Contracted	80%	0%	81.08%	0%	80%	0%	NA	69.23%
Jun	Contracted	12	0	34	0	45	0	1	92
	Total	12	5	47	1	51	2	1	119
	% Contracted	100%	0%	72.35%	0%	88.24%	0%	100%	77.31%
Ai	Contracted	13	0	62	0	9	3	1	88
	Total	14	2	65	3	19	3	1	107
	% Contracted	92.86%	0%	95.38%	0%	47.37%	100%	100%	82.24%
Totals	Contracted	146	11	460	1	323	3	19	963
	Total	149	51	544	25	448	10	26	1253
	% Contracted	97.99%	21.57%	84.56%	4%	72.10%	30%	73.08%	76.86%
	Range	80-100%	0-100%	56-98%	0-50%	47-92%	0-100%	0-100%	57-93%

Note: NA denotes instances when no contractible items were present.

Table 67

*NNSs' Ratio of Contracted 's and 'd According to Underlying Lexical Forms*

		's		'd	
		<i>is</i>	<i>has</i>	<i>would</i>	<i>had</i>
Mayu	Contracted	23	0	0	0
	Total	38	0	0	1
	% Contracted	60.53%	NA	NA	0%
Seiji	Contracted	77	0	0	0
	Total	117	0	0	1
	% Cont.	65.81%	NA	NA	0%
Dai	Contract	21	0	0	0
	Total	28	0	0	0
	Percent	75%	NA	NA	NA
Yoshi	Contract	44	1	0	0
	Total	57	2	0	0
	Percent	77.19%	50%	NA	NA
Nana	Contract	12	0	0	0
	Total	13	0	0	1
	Percent	92.31%	NA	NA	0%
Isamu	Contract	25	0	0	0
	Total	33	0	0	0
	Percent	75.76%	NA	NA	NA
Keisuke	Contract	45	1	0	0
	Total	64	1	0	0
	Percent	70.31%	100%	NA	NA
Rie	Contract	20	0	0	0
	Total	25	0	0	2
	Percent	80%	NA	NA	0%
Jun	Contract	45	0	0	0
	Total	51	0	1	1
	Percent	88.24%	NA	0%	0%
Ai	Contract	9	0	0	3
	Total	19	0	0	3
	Percentage	47.37%	NA	NA	100%
Totals	Contract	321	2	0	3
	Total	445	3	1	9
	Percent	72.13%	66%	0%	33.33%

Note: NA denotes instances when no contractible items were present.

**Contraction ratios of native English speakers.** To once again better contextualize the performance of the Japanese participants, data collected from the four native English speakers examining the same phenomenon is presented in Tables 68 and 69. Compared with the NNSs' overall contraction ratio of 77%, it is clear that the NSs contracted at a much higher rate, with a

individual range of between 85% and 97%, and an overall total contraction ratio of over 93%.

Only one of the 10 Japanese participants (Nana) had a contraction ratio within the NSs' range. In three of the seven categories ('*m*', '*re*', and '*ll*'), the NSs contracted 100% of the contractible phrases, and at 99.27%, nearly all of the '*s*' items were contracted as well. Two other categories (*n't* and '*ve*') were also contracted at high ratios of 94% and 96%, respectively. Surprisingly, however, '*d*' phrases were contracted at a much lower rate than the other six types at only 14%, or 3 of 21 tokens. This rate was even 16 percentage points lower than the Japanese participants' performance on the same contraction type.

Examining the underlying lexical forms of the '*s*' and '*d*' contraction types, only *would* phrases were left uncontracted in great numbers compared with the other three sub-categories. Of a total 20 contractible productions of *would* phrases, only three were contracted. On the other hand, both *had* and *is* items had one phrase each not contracted, and there were no examples of uncontracted *has* phrases. Simply in terms of contraction ratio, the native English speakers exhibited a distinct preference to leave both types of '*d*' contractions uncontracted.



Table 68

*NSs' Ratio of Contracted Tokens Across Contraction Types for One Interview*

		<i>'m</i>	<i>'re</i>	<i>n't</i>	<i>'ll</i>	<i>'s</i>	<i>'d</i>	<i>'ve</i>	Totals
Cassie	Contracted	10	6	16	5	35	0	17	89
	Total	10	6	16	5	35	3	17	92
	% Contracted	100%	100%	100%	100%	100%	0%	100%	96.74%
George	Contracted	5	2	14	2	38	1	0	62
	Total	5	2	14	2	38	3	0	64
	% Contracted	100%	100%	100%	100%	100%	33.33%	NA	96.88%
Hannah	Contracted	24	3	33	2	18	2	20	102
	Total	24	3	38	2	19	12	22	120
	% Contracted	100%	100%	92.11%	100%	94.74%	16.67%	90.91%	85%
Jake	Contracted	21	8	20	7	45	0	10	111
	Total	21	8	20	7	45	3	10	114
	% Contracted	100%	100%	100%	100%	100%	0%	100%	97.37%
Totals	Contracted	60	19	83	16	136	3	47	364
	Total	60	19	88	16	137	21	49	390
	% Contracted	100%	100%	94.32%	100%	99.27%	14.29%	95.92%	93.33%
	Range	100-100%	100-100%	92-100%	100-100%	95-100%	0-33%	NA-100%	85-97%

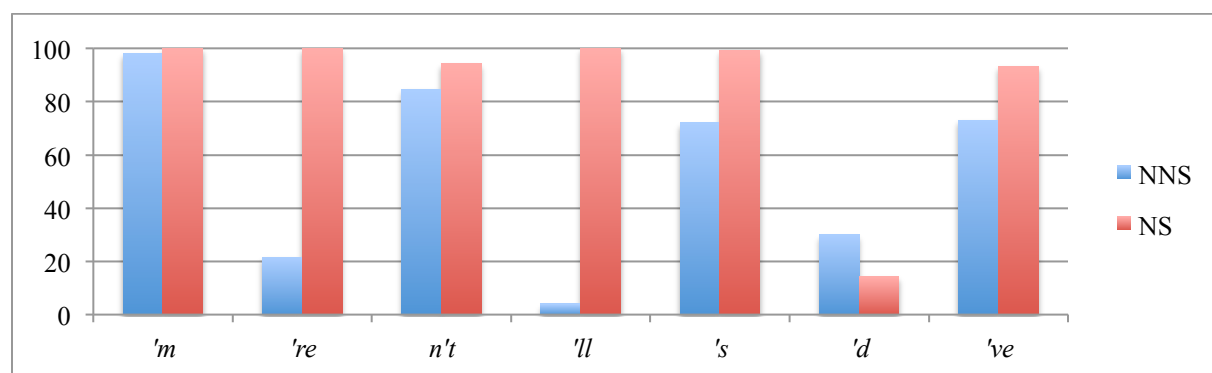
Table 69

*NSs' Ratio of Contracted 's and 'd According to Underlying Lexical Forms*

		<i>'s</i>		<i>'d</i>	
		<i>is</i>	<i>has</i>	<i>would</i>	<i>had</i>
Totals	Contracted	129	7	3	0
	Total	130	7	20	1
	% Contracted	99.23%	100%	15%	0%

Figure 9

*Comparison of Grouped Contraction Ratios of NNS and NS for Each Contraction Type*



**Contraction rate.** The final aspect of the Japanese participants' contraction production examined in this study was their contraction rate in relation to the total number of words they produced in the interviews. While the other two analyses, investigating contraction type distribution and contraction ratio production, focused solely on the quality of contraction production in reference to itself, the analysis of contraction rate shed light on the degree to which contracted speech permeated the participants' talk, which could possibly be a helpful measure in making proficiency assessments of non-native speakers' language.

In Tables 70 and 71, data, including word counts, contraction ratios, and contraction rates, from each of the first two interviews with the Japanese participants are presented. Although the average contraction rate for the group in the first interview was 49 words per contraction (wpc), a wide range of variability was produced among these participants (SD=27.03), as evidenced by Mayu's low rate of 113 wpc at one end of the spectrum, and Isamu's high rate of 18 wpc at the other.<sup>46</sup> In the second interview, however, there was a much lower range in variability among the participants' contraction rates, with Keisuke producing the highest frequency of 20 wpc and Jun producing the lowest frequency of 46 wpc, for a group average of 35 wpc (SD=7.46). Also in the second interview, seven of the 10 participants

<sup>46</sup> Excluding Mayu's anomalous score would lower the group's average rate of contraction to 38 wpc.

increased their rate of contraction between one wpc (Yoshi) and 72 wpc (Mayu). On the other hand, three participants, Isamu, Jun, and Isamu, reduced their contraction rate by 3, 6, and 15 wpc respectively. The average rate of change from the first to second interview for all of the participants was improvement of 14 fewer words per contraction.<sup>47</sup>

With the data from the two interview combined in Table 72, it is possible to denote four strata regarding the contraction rates of the Japanese participants. These four strata are based on contraction production levels of 20, 30, 40, and 50 wpc and allow for a general categorization of the participants.<sup>48</sup> The two participants who produced contractions most frequently in their talk over the course of the two interviews and qualified for placement in the highest stratum of 20 wpc were Isamu (23 wpc) and Keisuke (24 wpc). The second and third strata were occupied by three participants each with Seiji (33 wpc), Yoshi (35 wpc), and Ai (35 wpc) in the second stratum, and Nana (40 wpc), Jun (44 wpc), and Dai (47 wpc) in the third. Based on average contraction rates of 50 and 58 wpc respectively, Rie and Mayu occupied the lowest stratum. However, it should be noted that their contraction rate improvements from the first to second interview were the two highest of the group, at 37 and 72 fewer words per contraction respectively, indicating great variability in this aspect of their production. Conversely, the three most consistent participants across the two interviews were Yoshi, Seiji, and Jun, who varied from their original rate by only 1, 3, and 6 wpc, respectively, in the second interview.

With only one stage of native English speaker interviews to compare with the Japanese participants, it is impossible to examine contraction rate consistency across multiple interviews, however the data in Table 73 do provide a touchstone for comparison, if only on a one-to-one basis. Using the same categorization strata employed with the NNSs, all of the native speakers

---

<sup>47</sup> If Mayu's somewhat anomalous data is excluded, the the average rate of contraction improvement decreases to 7 fewer words per contraction.

<sup>48</sup> It should be noted that these four categorization are rather arbitrary, in that across the two interviews, some participants exhibited a great range in contraction rate (e.g., Mayu's contraction rate of 113 wpc in the first interview and 41 wpc in the second).

all qualify for placement in the highest strata, with a narrow production range between 19 and 24 words per contraction. Only two of the Japanese speakers, Isamu and Keisuke, fell into the range of the native speakers during any single interview, when they produced 18 and 20 respectively. The next best single-interview production was Ai's rate of 31 wpc in the second interview. An average difference of between 14 and 28 wpc separating the two participant groups on any single interview stage, suggests a clear demarcation between their performance levels, however, the existence of some performance overlap at the highest end of the spectrum for the Japanese speakers indicates that native-like performance on this measure for even those with relatively low proficiency levels<sup>49</sup> is not beyond their ability.

Table 70

*Contraction Rates by NNSs in First Interview Relative to Word Count & Contraction Percentage*

	word count	min.	contractions	contractible phrases	contract %	words/contr.
Mayu	1355	22	12	32	37.50	113
Seiji	2395	27	75	94	79.79	32
Dai	1572	31	30	40	75.00	52
Yoshi	1895	29	54	72	75.00	35
Nana	1413	23	30	33	90.91	47
Isamu	1660	25	91	111	81.98	18
Keisuke	1569	28	48	61	78.69	33
Rie	1275	27	17	27	62.96	75
Jun	2037	27	50	64	78.13	41
Ai	1303	24	30	37	81.08	43
Totals	16474	263	437	571		
<i>M</i>		26.3			74.10	49
<i>SD</i>					14.64	27.03
Range		22-31			38-91	18-113

<sup>49</sup> As determined by standardized tests of English, such as TOEFL and TOEIC.

Table 71

*Contraction Rates by NNSs in Second Interview Relative to Word Count & Contraction Percentage*

	word count	min.	contractions	contractible phrases	contract %	words/contr.
Mayu	1551	28	38	56	67.86	41
Seiji	2576	27	74	120	61.67	35
Dai	1747	32	41	52	78.85	43
Yoshi	2263	40	66	80	82.50	34
Nana	1157	23	35	37	94.59	33
Isamu	1431	24	43	50	86	33
Keisuke	1795	33	92	111	82.88	20
Rie	1398	32	37	51	72.55	38
Jun	1965	25	42	55	76.36	47
Ai	1790	33	58	70	82.86	31
Totals	17673	297	526	682		
<i>M</i>		29.7			78.61	35
<i>SD</i>					9.46	7.46
Range		23-40				20-47

Table 72

*Contraction Production Totals of NNSs Across Two Interviews*

	word count	min.	contractions	contractible phrases	contract %	words/contr.	wpc difference
Mayu	2906	50	50	88	56.82	58	-72
Seiji	4971	54	149	214	69.63	33	+3
Dai	3319	63	71	92	77.17	47	-10
Yoshi	4158	69	120	152	78.95	35	-1
Nana	2570	46	65	70	92.86	40	-14
Isamu	3091	49	134	161	83.23	23	+15
Keisuke	3364	61	140	172	81.40	24	-13
Rie	2673	59	54	78	69.23	50	-37
Jun	4002	52	92	119	77.31	44	+6
Ai	3093	57	88	107	82.24	35	-13
Totals	34147	560	963	1253			-136
<i>M</i>		56			76.86	39	-13.6
<i>SD</i>					9.79	11.05	
Range		46-69				23-58	

*Note:* “wpc difference” denotes increase or decrease in the number of words per contraction uttered from the first to second interview.

Table 73

*Rates of Contractions by NSs in Single Interview Relative to Word Count*

	word count	min.	contractions	contractible phrases	contract %	words/contr
Cassie	1823	11	89	92	97.74	20
George	1323	10	62	64	96.88	21
Hannah	2497	11	102	120	85	24
Jake	2100	13	111	114	97.37	19
Totals	7743	45	364	390		
<i>M</i>					93.33	21
<i>SD</i>					6.18	2.34
Range						19-24

**Production summary.** The data presented in this portion of the chapter focused on the Japanese participants’ tendencies regarding the production of contractions in spoken English

across seven categories (i.e., *'ve*, *'s*, *'ll*, *'re*, *'m, n't*, and *'d*). Through an examination of 20 NNS interviews of a combined 9.3 hours, as well as four NS interviews of a combined 45 minutes, three aspects of contraction production were measured and compared: contraction type distribution, contraction ratio, and contraction rate. In terms of contraction distribution, the Japanese participants showed a much narrower range of contraction type production when compared with the NSs. In addition, the NSs were shown to contract at a much higher ratio than the NNSs on average, with only one Japanese participant within the NS's range. Similar results related to contraction ratio based on contraction type also showed a clear advantage towards NSs, with two notable exceptions related to *'m* and *'d* contractions. Finally, the NSs produced both a narrower range and a higher average contraction rate in their talk, however, some overlap was observed with the production of the highest performing Japanese participants.

### **Summary of Perception and Production Results**

To better understand the cumulative perception and production performance of the individual Japanese participants in relation to each other and their English proficiency categorizations, two measures from each performance type are ranked in Table 74. The two perception measures were cloze and forced-choice task accuracy percentages, and the two production measures were contraction ratio and rate.<sup>50</sup> Each participants' performance was ranked from highest (1) to lowest (10) on each of the four measures and then averaged to generate an "overall ranking" for each person.

Of the four measures, the two that aligned most accurately with the Japanese participants' proficiency designations were the perception tasks. Specifically, the forced-choice perception task corresponded most closely, with six of the 10 NNSs' rankings matching their proficiency designations, and 4 of the rankings matching for the cloze-type perception task. In contrast, only

---

<sup>50</sup> The cloze task accuracy percentage using the second criterion of analysis was used for this table.

one of the rankings for both contraction production ratio and rate corresponded to the proficiency categorizations.

Examining the “overall rankings” of each participant, only two (Nana’s and Jun’s) appeared to align with their placement in the upper-advanced category. All of the other participants were ranked at least one level above or below their proficiency categorization, with two in the highest proficiency level (Mayu and Dai), obtaining overall rankings of 10 and 8, respectively, appearing to align most closely with the lowest proficiency rating. Equally interesting was that one of the participants categorized into the lowest proficiency level (Isamu) ranked first in the overall ranking. Clearly, there was substantial discordance between the constructs of general English proficiency and the overall rankings obtained through the measures used in this study.



Table 74

*Perception and Production Data Compared with NNSs Proficiency Levels as Determined by Standardized Test Scores*

Proficiency Level	Test Score	Perception				Production				Overall rank
		Cloze (%)	Rank	Forced (%)	Rank	Ratio (%)	Rank	Rate (wpc)	Rank	
Upper Advanced										
Nana	940	89	1	95	2	93	1	40	6	2
Mayu	98	45	10	84	8	57	10	58	10	10
Dai	785	61	7	89	6	77	6	47	8	8
Jun	82	87	2	92	4	77	6	44	7	4
Seiji	94	58	8	92	4	70	8	33	3	6
Avg.		68		90		75		44		
Middle Advanced										
Rie	77	71	5	87	7	69	9	50	9	9
Keisuke	650	66	6	97	1	81	4	24	2	3
Avg.		69		92		75		37		
Lower Advanced										
Yoshi	60	79	3	84	8	79	5	35	4	5
Isamu	54	79	3	95	2	83	2	23	1	1
Ai	570	47	9	76	10	82	3	35	4	7
Avg.		68		85		81		31		

*Note:* Test scores below 100 denote those for iBT TOEFL, scores above 100 denote those for TOEIC. The “rank” columns denote the each participant’s rank relative to the other participants on each of the four measures: cloze task percentage, forced-choice task percentage, contraction ratio, and contraction rate in words per contraction. “Overall rank” was determined by averaging each person’s four sub-rankings.

## Beliefs

The third research question of this study called for an investigation the beliefs held by the Japanese participants regarding their personal use of contraction, as well as broader views held about the general phenomenon of contraction in spoken and written contexts. The data used to examine this research question was obtained from the three rounds of interviews held with each

of the participants, with the majority of explicit discussion of contraction phenomena occurring in the final interviews.<sup>51</sup> The accompanying interview transcripts and logs were examined for talk related to contraction, and these were categorized according to commonly expressed themes. Although contraction-related beliefs of the Japanese participants were presented on an individual basis in Chapter 4, the following sections serve to consolidate and explore those individual beliefs as a whole.

**Perception of individual performance.** One of the purposes of this study was to compare and contrast the Japanese participants' beliefs about their own contraction performance in relation to their actual performance on the previously-explained quantitative measures. Reviewing the data, however, there were instances where participants stated no explicit beliefs regarding their contraction perception (e.g., Ai, Keisuke, and Nana), or in the case of Rie, neither production nor perception.<sup>52</sup> Of the remaining six participants who did express contraction-related perception and production beliefs, it appeared that they were generally more accurate with production-related beliefs. For instance, three participants (Mayu, Seiji, and Isamu) expressed confidence in their perception ability on the whole or for certain types of contractions, however, a review of their performances on the listening tasks exposed contrary results. Mayu, in fact, appeared to be the least accurate participant in terms of overall congruence between beliefs and performance, as she was the only participant to show considerable dissonance in both perception- and production-beliefs and actual performance. At the other end of the spectrum, Dai displayed a high degree of congruence between his stated beliefs and his performance in both perception and production of contractions. Between Mayu and Dai, the other participants

---

<sup>51</sup> Although the topic of contraction did occasionally surface in the first two rounds of interviews, I did not broach the topic myself, as I tried to obscure the true intent of the research to the greatest degree possible. When the topic was mentioned by the participants in the first two interviews, I occasionally asked a follow-up question, but made it a point not to actively pursue the topic.

<sup>52</sup> Instead, other contraction-related topics were pursued in the interviews with these participants, leaving no time for a discussion of beliefs. This failure to elicit beliefs-related talk in these cases was a serious oversight on my part as the researcher.

displayed varying degrees of congruence between stated beliefs about their contraction-related performance and their actual performance. In sum, with the exception of Mayu, the participants who expressed beliefs about their performance appeared to be able to more accurately appraise their tendencies regarding spoken output than correctly describe their tendencies regarding aural contraction perception.

**Hindrance to communication.** In addition to comparing specific participant beliefs with their actual performance, another aspect of this study involved exploring the interview data for other key general themes related to beliefs about contraction use in spoken English. One such key belief expressed by many of the Japanese participants was that the use of contractions is actually a hindrance to smooth communication, both in terms of their own comprehension ability and their comprehensibility to other interlocutors.

**Perception hindrance.** In terms of their difficulties with comprehension, some participants, such as Jun, Yoshi, and Dai, specifically mentioned the difficulty of perceiving the final consonant sound of contracted forms because of the reduced (i.e., quick and quiet) quality. In the case of *not* contractions, for instance, this misperception can cause complete misidentification of the polarity of utterances, which is something Yoshi described happening to him on the listening component of a high-stakes test. Another challenge that participants discussed concerning perception was the confusion they experience trying to disambiguate contractions from homophones (e.g., *he'll/heal* or *your/you're*), or as in the case of 'd contractions, the two underlying lexical forms obscured by the contraction. A final issue that some Japanese participants believe complicates the accurate perception of contractions is the variety of English being spoken. During the interviews, for instance, they recounted perception difficulties they had experienced in interactions with both native-speakers from different ethnic

groups, as well as non-native speakers, whom they claimed appeared have their own difficulties producing close approximations of native-speaker-like contractions.

***Production hindrances.*** In addition to the beliefs held by the Japanese participants about the perception difficulties caused by the use of contraction, they also shared beliefs of how their own production of contraction prohibits successful communication. Of all of the Japanese participants, probably the one most skeptical of the importance of contraction production was Mayu, who explained that, in her opinion, their use prevented her talk from being understood accurately. Other participants also provided specific examples of how contraction production hindered their communication efforts. For instance, Dai stated that he avoided using *won't* because his pronunciation caused listeners to confuse it with the word *want*. Likewise, Jun described strategies he used to avoid saying *can't* because of frequent miscommunication. Other participants (Mayu and Yoshi) also stated beliefs linking the quality of the final consonants in contractions, namely /l/, /r/, /v/, and /d/, and the slow movement of their tongue to their difficulty producing contractions accurately.

Despite Mayu's overall skepticism regarding the effectiveness of using contractions, she, Jun, and Ai expressed the somewhat contradictory belief that in order to improve contraction perception, it is important to first focus on contraction production. Similarly, at least three other participants (Seiji, Isamu, and Rie) spoke of the importance of using contractions in their production. Seiji, for instance, stated that his belief about the importance of using contractions had actually changed after coming to the U.S., and he came to realize that they aid fluency and help to increase the rate of talk. Isamu discussed his emulation of English native speakers' use of contractions after noticing their frequent use of them, and Rie stated that she believed contraction was an important part of casual conversation.

**Role of education.** While describing contraction-related hindrances, some of the Japanese participants traced performance difficulties to the quality of spoken English education in Japan when they were in school. Although Rie mentioned that she was taught about English fast-speech phenomena, and specifically contraction, in junior high, and Keisuke recalled being taught about contraction in high school, their experiences were in the minority. Other participants (e.g., Ai, Jun, Seiji, Isamu, and Nana) discussed deficiencies in the way they were taught about contraction, including a complete lack of coverage of such topics in primary- and secondary-level curricula, limited listening opportunities in English classrooms, limited access to native-speaking teachers, and Japanese teachers lacking the knowledge and/or ability to demonstrate contraction effectively.

**Formality & politeness.** Another prevalent belief expressed by the majority of the Japanese participants was that contraction use in spoken English connotes informal or impolite speech, and should consequently be avoided when speaking with individuals of higher social status or in academic situations, such as making presentations. Instead of viewing contraction neutrally, as simply the result of more efficient speech production, most attached a negative value to contraction use in the previously-mentioned contexts, and some, such as Mayu and Jun, made explicit comparison to contraction use in spoken Japanese, which they viewed as “childish” or “unprofessional” in such contexts.

However, some participants (e.g., Seiji, Dai, and Jun) who viewed spoken contraction use in formal contexts negatively, also clearly expressed uncertainty about their beliefs by asking me to confirm or disconfirm the veracity of these beliefs during the course of the interviews. This suggests that they are still in the processes of hypothesis testing, and their beliefs are still in flux regarding this aspect of spoken English use. Only one of the participants (Isamu) indicated that his beliefs about the appropriateness of contraction use with professors had actually changed

after coming to study at MU. He stated that the change occurred after observing fellow MU classmates using contractions, such as *to*-contractions (e.g., *wanna* and *gonna*), when speaking with university instructors, and this led him to change how he speaks to them as well.

Although no direct connection was explicitly made by the participants, these rather conservative, value-laden views of contraction use in spoken English appeared to be linked to explicit instruction they had received in various educational contexts in Japan or the United States that stressed the avoidance of contraction use in academic writing. With the exception of Ai, the majority of participants expressed a clear awareness of this prohibition, as well as the belief that contraction use in email correspondences with classmates and friends was permissible. Because the current study focused solely on spoken aspects of contraction in English, it is still unclear to what degree beliefs about its use in written contexts affect beliefs concerning spoken production.

### **Chapter Summary**

The purpose of this chapter was to present the grouped results of both the Japanese participants and the native English speakers to identify within-group and between-group tendencies related to spoken English contraction performance. Specifically, the analysis focused on the areas of contraction-related perception, production and beliefs. In each of these areas, examples of concordance and dissonance were observed between the two groups. In the following chapter, I discuss these instances of concordance and dissonance in relation to the established research questions and previous literature. I also examine implications for further research and pedagogy, and present some of the key limitations associated with this study.

## CHAPTER 6

### DISCUSSION & CONCLUSION

#### Introduction

This purpose of this chapter is to situate the previously-described case studies and group results within the larger framework of existing literature, and examine them critically from multiple perspectives to gain deeper insights into their meaning and usefulness. The study's research questions serve as the anchor points for the organization of this discussion, so that the chapter begins with an initial focus on results related to contraction perception, before moving to a discussion of contraction production and beliefs. The study's limitations are presented prior to research and pedagogical implications in the final section of the chapter.

#### Contraction Perception

The first research question of the study focused on investigating the perception characteristics of the Japanese learners in the study when presented with English contractions in aural stimuli. Of particular interest was how factors, such as listening task type, the presence of both contracted and uncontracted forms, and contraction type affect their ability to correctly identify these target utterances. In order to provide a touchstone for their results, the perception characteristics of a small group of native English speakers on the same measures were also documented for comparison.

**Effect of task type.** Unlike previous contraction-related studies (e.g., Henrichsen, 1984; Ito, 2006; Matsuzawa, 2006), which utilized a single response type (i.e., requiring participants to write complete sentences), the current study used two: cloze-type and forced choice. The intention of using two response types was to explore the range of the Japanese participants' ability to 1) correctly identify contracted or uncontracted forms in minimally-aided contexts (i.e., the cloze-type task), and 2) correctly discern contracted forms from uncontracted forms with

explicit textual aid (i.e., the forced-choice task). The key findings related to each task type are discussed below.

***Forced choice.*** The advantage of using the forced-choice task was two-fold, in that, with only two possible answers, it focused the participants' attention solely on the discrimination of surface-level phonological features of the contracted and uncontracted stimuli, without the burden of considering syntactic issues. In addition, the binary response type eliminated ambiguity in determining the correctness of answers, as was the case with the cloze-task, so scoring could be done efficiently. With only two choices, however, the probability of scores being answered correctly by chance was higher than the cloze task.

The results showed that the Japanese speakers were able to correctly make the determination between full and contracted forms at an overall rate of almost 90%, with one participant scoring within the range of the native English speakers. As expected, because of the simple binary nature of the task, there was considerably less variation in the participants' scores when compared with the cloze task. However, there remained an overall range of 19 percentage points between highest to lowest NNS scores, indicating that this task type does provide some, albeit a narrow, measure of NNSs' ability to discern the difference in surface-level phonological form between contracted and uncontracted stimuli. In addition, this task correlated best overall with the participants' overall language proficiency categorization, as determined by TOEIC or TOEFL scores (see Table 74), matching the categorization of six of the ten participants. In contrast to the Japanese participants' performance, there was no variation in the scores of the four native speakers, with each incorrectly answering one item, for an overall score of 97% each. Although the results suggest a sizeable difference between the performance of the two groups on the forced-choice task, a significant difference could not be confirmed due to the small sample size.



*Cloze task.* Before discussing the key findings related to the participants' performance on the cloze task, I would first like to discuss an important finding regarding the design of the task itself. Unlike the simple response type used in the forced-choice task, scoring the cloze task was more complex and required two criteria for analysis. When designing this task, a decision was made to avoid explicitly instructing the participants to write contracted or uncontracted forms of the target items, as was done in Ito's (2006) study, in order to observe how they would respond to the contractible elements without explicit prompting. This decision, however, appeared to lead to a discrepancy between what the task was hoping to measure and what it actually did. As a result, the ambiguity of the task instructions caused the participants to utilize one of three separate criterion for "correct" responses regarding contracted stimuli.<sup>53</sup> Therefore, instead of being able to examine the Japanese participants' surface-level, phonological perception of contracted versus uncontracted forms as intended, the results of the cloze task appeared to provide a better indication of the degree to which contraction affected the perceptual saliency of the underlying lexical forms, as was the focus of Ito's (2006) study.

The results indicated that despite using a more lenient criterion for analysis, which was inclusive of lexically-correct items, the difference between the NNSs' performance on the cloze task and the forced-choice task was quite substantial, but again, not verifiable as statistically significant due to the small sample size. Not only was the range between most- and least-accurate participants much wider than the forced-choice task, but also the overall mean was 21 percentage points lower. A comparison of the rankings of the Japanese participants' cloze-task scores with their proficiency levels indicated less congruence than the forced-choice scores,

---

<sup>53</sup> One criterion utilized by one Japanese and one native speaker, for instance, indicated that they thought they were required to write the full forms of every item, even for contracted stimuli. The second criterion, which was employed by the majority of the Japanese speakers, assumed that writing either the contracted or uncontracted form qualified as an acceptable correct response. The third "correct" response criterion, which was the one intended for this task type, required contractions to be written as contractions and uncontracted items to be written as separate lexical items. Unfortunately, only three of the native speakers and two of the Japanese participants used that criterion.

however, with only four of the ten participants matching their proficiency. In addition, unlike the forced-choice task, no Japanese participants were able to score within the range of the NSs on this task.

Although it would appear that the cloze task provides a more rigorous indicator of NNSs' true ability to differentiate both the phonological and underlying lexical structure of contracted phrases, except for Bowen's (1975b, 1976) work, it is unclear how well this kind of task aligns with other standardized measures of listening proficiency specifically and language proficiency on the whole. Additional research is necessary to make that determination. This kind of task does, however, have clear benefits over the forced-choice type for research purposes, in that the written responses provide a richness of data not present in the other type examined, which can be further mined by the researcher and also used as point of discussion with test takers to better understand response trends.

**Effect of contracted & uncontracted stimuli.** Another aspect of contraction perception explored in this study was the effect of contracted and uncontracted stimuli on the participants' combined forced-choice and second-analysis cloze scores. The results focusing solely on the Japanese participants indicated that contracted stimuli were only slightly more difficult for them to accurately identify than the uncontracted ones, however there was a substantial difference between the NNSs' and NSs' scores, particularly those related to contracted stimuli. Again statistical significance could not be determined regarding these differences, however these trends align with Henrichsen (1984) and Ito (2006), in terms of the differences between NSs and NNSs and the added difficulty of contracted versus uncontracted stimuli for NNSs. Consequently, it supports their contention that reduced forms, such as contraction, disrupt the input-intake process for second-language learners, contributing to a degree of comprehension impairment when compared with full forms. As this study and those on which this part is based have only tested

the impact of reduced saliency caused by contraction use at the sentence level, examining the effect in more naturalistic speech samples would further this kind of research.

**Effect of contraction type.** The final facet of perception-related contraction examined in this study was the effect of contraction type on the Japanese participants' ability to accurately perceive contractible aural stimuli. Three examples of phonological contractions ('*d*', '*s*', '*ve*') were chosen for this study because this type were shown by Ito (2006) to be more problematic for NNSs than lexical types. Additionally, '*d*' and '*s*' contractions were specifically selected because they represent two different lexical forms each, which would increase the difficulty for NNSs in determining the correct underlying form if contracted stimuli were mistakenly uncontracted.

The combined results of both the forced-choice and cloze tasks showed that for both contracted and uncontracted stimuli, the same order of difficulty emerged among the three contraction types, with the Japanese participants having the most difficulty identifying '*d*' contractions (particularly *would*), less difficulty with '*s*' contractions, and the greatest accuracy with '*ve*' contractions. In addition, the Japanese were more accurate with the uncontracted than the contracted forms for all three types. Unfortunately, the other similar contraction-related perception studies (e.g., Bowen, 1975b, 1976; Henrichsen, 1984; Ito, 2006) provide no item-specific data for purposes of comparison. In the case of Ito, for instance, contractions were grouped into two categories (lexical and phonological) and not by individual types. However, Biber, Johansson, Leech, Conrad, and Finegan's (1999) analysis of spoken English corpus data analysis found that native speakers tend to leave *would* uncontracted in speech. Consequently, fewer examples of this contraction type in text and naturally occurring speech might account for the increased difficulty the Japanese participants encountered in perceiving those contraction types compared with the other two. The native English speakers, on the other hand, scored

perfectly for the uncontracted items of all three types, as well as *have* contractions. Of the remaining two contracted types, they encountered more difficulty with the 's contractions than the 'd contractions, with contracted *is* being most problematic. Statistical significance was once again unable to be determined.

### **Contraction Production**

The second research question of the study focused on investigating the production characteristics of the selected Japanese participants in unscripted talk. Of particular interest were the characteristics of contraction type distribution in their speech, as well as the ratio and rate of their contraction production. Again, their performance in these areas was compared with a small group of native speakers as a point of reference.

Compared with the perception tasks, which required minimal interaction between me and the participants, the use of semi-structured interviews provided a much more contextualized, interactional, and, hopefully, more meaningful part of the research process for the participants. It was at this stage, through more than 18 hours of interviews, that sociolinguistic and sociocultural elements were allowed to come to the forefront, and the research began to heed the call of Firth and Wagner (1997) and Derwing (2007) to employ emic sensitivity and engage the participants as individuals, increasing their agency. The interviews were also the opportunity for the participants to explain and build upon their metacognitive awareness regarding related aspects of the English language, as well as express situational and contextual variability (Ellis, 1985) in their talk, which could then manifest in their use of the target items. Discussing the characteristics of their contraction productions is the aim of this section, however other points mentioned here, specifically metacognitive awareness, are discussed in a later section of this chapter related to the topic of beliefs. The production-related results discussed first in this section are the participants' distribution tendencies regarding contraction types.

**Distribution of contraction types.** The results pertaining to the distribution of contraction types showed marked tendencies among the Japanese participants and between the groups of NNSs and NSs. One of the most striking features of the Japanese participants' talk was the narrowness of the range of contraction types they used. Specifically, as a group, 97% of the total contractions uttered during the 20 interviews were of three types: *not* contractions, *'s* contractions, and *'m* contractions in descending order of volume of production. In fact, four of the ten participants (Mayu, Seiji, Keisuke, and Rie) produced *only* those three types, and even the most liberal Japanese speaker (Isamu) produced 84% of his contractions in those three categories. In contrast, the native English speakers produced a greater diversity of contraction types, on the whole, with the most conservative (George) producing 92% in the three categories favored by the Japanese, and the most liberal (Jake) producing 80%.

Although references were found for data pertaining to contraction ratio, which is discussed in the following section, no references were discovered examining contraction type distribution tendencies in samples of either Japanese or English conversation for comparison. It is, therefore, unclear to what degree the data collected here is representative of broader contraction type distribution tendencies of other Japanese learners of English. It is also unclear how consistent these tendencies are across different interactional contexts, or to what degree a wider or narrower distribution of contraction types might correlate with English proficiency assessments. There are still obviously many questions concerning this aspect of contraction production, however, including a measure of the variety of contraction types used, in relation to the total number produced, would be a useful statistic for comparison and contrast with other measures of speaking proficiency.

**Contraction ratio.** The results examining the frequency with which the participants contracted contractible phrases showed clear trends regarding contraction types preferences,

differences between the NNS and the NS groups, as well as individual variation among the participants. For instance, 'm contractions had the highest contraction ratio by far among the Japanese speakers and was tied for first as well with the English native speakers. The high rate of 'm contraction, in addition to a higher contraction ratio for *will* than *would* between both groups was consistent with an analysis of Longman Spoken and Written English Corpus data by Biber et al. (1999).

However, there was some dissonance with Biber et al.'s assertions in other areas. For instance, they assert that contractible *are* phrases are less likely to be contracted, but the results from this study showed that while it was true of the NNSs, it was not for the NSs, who contracted all instances. In addition, Biber et al. state that there is "a particularly strong tendency to contract *have to 've* after *I, you* and *we*" (p. 1129), however the current study's data was dependent on the group. Although there were no tokens of contractible *you have* or *we have* produced in this study by either group, the NSs did contract 96% of instances of *I have*. The Japanese participants, however, contracted *I have* at a much lower rate of 71%. Finally, although Biber et al. observed an overall contraction ratio of 70% for *be*-verbs in the corpus conversation data, the rates in this study display a large amount of variation, with the NSs contracting at a ratio of almost 100%, and the NNSs contracting at a ratio of 64%. The *be*-verb contraction tendencies in the current study appear to align with findings by Mair (2009), who examined International Corpus of English data, and documented selected *be*-verb rates for British, Irish, and New Zealand English speakers at rates above 92%. The results in this study, however, show that the Japanese participants fall between the rates of speakers of Jamaican and Indian English speakers who produced selected *be*-verb contractions at rates of 85% and 41% respectively.

Studies using much smaller data sets than Biber et al., such as Kweon (2000),

Tomokiyo (2000), Kato (2001), also discussed the issue of contraction ratio. Kato, focusing on *n't* contractions, observed that Japanese tend to contract less than NSs overall and use full forms with *can* and *be*-verbs, such as *is*, *are*, and *were*. Although the results of the current study agree with the assertion about *are not* contractions, *can't*, *isn't* and *weren't* were all used more frequently than the uncontracted forms.<sup>54</sup> Observations of similarity between certain NNS and NS *n't* contraction ratios appeared to be consistent with Kato's findings regarding *don't* and *haven't* contractions, but not *couldn't*, in which the NS ratio for her study was considerably higher.<sup>55</sup>

Regarding the two other studies, this study found consensus with Kweon's and Tomokiyo's general assertions that NNSs are more conservative with their ratio of contraction, however, there was considerable disagreement with certain findings of Tomokiyo's study overall. For instance, although there was consensus regarding the low production of contractible *would* tokens by the NNSs, she observed that the production of *I am* tokens were almost nonexistent among them. This is in sharp contrast to this study, in which '*m* was the third most commonly produced contraction type. In addition, Tomokiyo observed very low contraction ratios for NSs' production of *I'm* (43%) and very high contraction ratios for *I'd* (69%) compared with the observations of the current study of 100% and 14% respectively.<sup>56</sup>

The results of this study related to contraction ratio exposed considerable differences between individual participants and the two groups. Specifically, the average contraction ratio of the 10 NNSs spanned a much wider range than the four NSs, with only one Japanese participant (Nana) falling within that higher range. Despite her native-like performance, the difference between the overall contraction ratio of each group still showed considerable difference. The

---

<sup>54</sup> However, there were only a small total number of tokens in the current study for *is not* and *were not*, of 5 and 1 respectively. Three of five *is not* tokens were contracted, and the single *were not* token was contracted.

<sup>55</sup> Again, the number of NS tokens in the current study was small: 4 contracted and 2 uncontracted.

<sup>56</sup> The production task of Tomokiyo's study was quite different than the current study, which may account for most of the dissonance.

aforementioned wide range in the NNSs' contraction ratio harkens back to Odlin's (1978) assertion that there are developmental stages in interlanguage linked to contraction use, whereby learners with higher proficiency levels are able to link contraction more abstractly with word class than individual words in preceding environments. Examining the contraction ratios of the participants, however, the link between English proficiency (as defined by standardized test score) and this particular measure of contraction performance alone is not clear, as some of the lower-proficiency participants contracted at considerably higher ratios than higher-proficiency ones. On the whole, the results related to ratio do appear to support the assertion by Anderson-Hsieh, Riney, and Koehler (1994) that Japanese speakers' exhibit a reluctance to delete syllables during spontaneous talk.

Examining the tendencies of both groups more carefully, the examples of greatest contraction ratio difference between the NS and NNS groups were with *'ll*, *'re*, and *'s* contraction, in descending order, with the NSs contracting at much higher rates. Considering that research has shown marked production and perception difficulties associated with presence of */l/* and */r/* segmentals for Japanese learners of English (e.g., Riney & Flege, 1998), the fact that these segmentals were the least contraction suggests that negative influence from the first language may be more of a hindrance in the production of these contraction types than the others. In addition, a sociolinguistic factor related to contraction-related beliefs uncovered in the interviews may also have contributed to this preference for uncontracted *'ll* and *'re*. Specifically, knowing that their production of contracted *'ll* and *'re* is a hindrance to accurate perception by the interlocutor, the NNSs may be intentionally retaining the full forms for these particular types to avoid miscommunication as part of a learned strategy. The uncertainty as to the degree of linguistic or sociolinguistic influence appears to merit greater research exploration.



A secondary finding of interest related to contraction ratio was that the Japanese participants actually contracted at a higher rate than the native English speakers on one contraction type: *'d* contractions. It is unclear why the NNSs' rate was so low, considering that Tomokiyo (2000) experienced a much higher rate in her study, however it does generally align with Biber et al. (1999), who mentioned a lower *would* contraction ratio in relation to *will* contractions. It appears that the Japanese participants' low contraction ratio for this particular contraction type actually closely resembles the native English speakers' tendency in this case.

Contrasting the Japanese participants' production contraction ratios with their performance on the three items on the perception tasks (*'d*, *'s*, and *'ve*), it is interesting to note that the contraction ratios of *'s* and *'ve* were very similar, but *'d* was contracted much less frequently than both.<sup>57</sup> Considering the degree of variation in NNSs' production characteristics regarding contraction ratio, more investigations of these tendencies, particularly involving the ones that appear to differ most noticeably, but were not a focus of the current study's perception tasks (i.e., *'ll* and *'re*), would be useful in understanding to what degree there is a relationship between this feature and overall oral proficiency.

**Contraction rate.** The examination of contraction rate (i.e., the number of words produced for each contraction present) has not been seen in previous literature, but was used in this study to better understand the average frequency of contraction production in the speech stream for the individuals and groups. The results indicated that the NSs produced contractions at a higher rate (i.e., lower rate of words per contraction, or wpc) than the Japanese participants on average and within a much narrower range. The NNSs, on the other hand, expressed a much wider range in contraction rate, with the participant with the highest rate (Isamu) producing half the number of words per contraction than person with the lowest rate (Mayu). The data also

---

<sup>57</sup> NNSs were least accurate identifying contracted and uncontracted *'d* in the perception tasks.

showed an overall increase in the NNSs' contraction rate from the first interview to the second, with only three of the 10 participants reducing their rate.<sup>58</sup>

Comparing the contraction ratio and contraction rate performance, we see that many of the Japanese participants rank the same or similarly in both categories. For instance, Mayu ranked last for both contraction ratio and contraction rate. However, some variation was evident between the two categories, as well. For example, while Nana ranked first in contraction ratio, she ranked sixth in contraction rate, showing that she contracted contractible items most frequently, but only produced a mid-level number of contractions within the speech stream relative to the other nine participants. Because of these noticeable differences from contraction ratio, incorporating contraction rate, along with contraction distribution and contraction rate in the creation of a single measure of a contraction-related performance would appear to add a useful tool in better understanding the various dimensions of individual- and group-related variation. It is recommended that future studies examine this assumption.

### **Beliefs about Contraction**

The third research question of this study was the most unique, in that it focused on a topic that has yet to be explored in depth by other studies: the beliefs held by Japanese participants regarding their personal use of contraction, as well as contraction use in a more general sense. Using interview content, such as contraction-related statements (e.g., opinions and examples) in conjunction with both contraction tokens gleaned from the interview data and perception data from the listening tasks, an attempt was made to uncover information useful in better understanding the findings produced from the performance data alone, both at an individual level and at the group level.

---

<sup>58</sup> Mayu was somewhat of an outlier, in that her wpc for the first interview (117) was substantially higher than the group average without her (42). For comparison, she produced 58 wpc in the second interview.

As mentioned in the review of literature, exploring the realms of beliefs and metalinguistic awareness in SLA have been deemed both important (Barcelos, 2003; Moyer, 2004; Schachter, Tyson, & Diffley, 1976), but also largely ignored (Edwards, 2008; Horowitz, 1988; Schmidt, 1995). The current study attempted to address this issue by implicitly and explicitly engaging the participants about their individual, performance-specific beliefs on one hand, but also beliefs related to broader sociocultural factors, such as education, native language influence, cultural norms, and personal interactions in society.

The results of the performance-specific investigation of beliefs showed variation in how well the individual participants were able to judge their perception and production tendencies, but on the whole, appeared to indicate that they were more accurate with their production-related beliefs. The fact that during the course of the interview they could utter the contractions of interest aloud to confirm the naturalness of their production allowed them to verify their beliefs in a way they could not with their perception beliefs. Although individual performance-related beliefs were confirmable to some degree on an individual basis, this was tempered by the fact that much depended on the number of tokens provided in their talk for comparison. In many cases, confirmations could only be made using a very small number of tokens, thereby limiting their strength. Inconsistencies regarding which contraction types were discussed or whether participants focused more on production beliefs than perception beliefs, for instance, made drawing conclusions at the group level challenging. In addition, I, as the researcher, had not provided a more detailed or uniform way of cataloging these beliefs so that a more specific and generalizable comparison could be made between the participants. Future studies examining congruence between spoken language beliefs and actual production should account for these challenges.

Beyond the examination of Japanese participants' context-specific performance-related beliefs, the study also provided a space for them to express their opinions about contraction use in general and discuss the factors contributing to the way they use, or think they use, them. The finding that many of the participants were confused about or had conservative views on the use of spoken contractions in hierarchal relationships, such as with professors, appears to highlight particular sociolinguistic differences between Japanese and English as they relate to ideas of politeness and casual speech. As Hill, Ide, Ikuta, Kawasaki, and Ogino (1986) explain, Japanese place great emphasis on how politeness and formality are expressed through language, and those expressions are arguably more varied and nuanced than they are in English. The fact that, as Toda (2006) and Hasegawa (2006) explain, the production of contraction in English resembles the same phonological process to transform formal speech into casual (i.e., impolite) speech in Japanese, might explain why some of the participants expressed that they were, at the least, confused and, at most, averse to using contractions with people of higher social standing or in academic speaking situations, such as presentations. Whether or not they actually do change their speech with regard to contraction use in those contexts was not examined in this study; however, the underlying belief and uncertainty were confirmed.

Another contributing factor to their confusion and conservativeness regarding the production of spoken contractions may be transfer from their knowledge of English academic writing. The majority of Japanese participants confirmed that they were aware of prohibitions in the use of contractions in written English, and explained instances in which they were explicitly taught this "rule." For those participants who described having limited or poor quality exposure to instruction in spoken English regarding contraction use, or no opportunities to interact with native speakers, it may be the case that without exposure to negative evidence, the explicit instruction about contractions avoidance in writing classes serves as the touchstone for their

beliefs regarding the appropriateness of contractions in spoken interactions. Explorations of this possible relationship between written and spoken uses of contraction would serve to inform this question about the source of Japanese learners' conservative beliefs about contraction use in spoken English.

Another finding regarding beliefs was that, for the most part, the Japanese participants viewed spoken contractions in English as a hindrance to effective communication. They were able to provide specific examples of how the saliency of their talk or the talk of others was obscured by the use of contraction and led to communication breakdown. In the case of their own production, they were able to explain compensation strategies that allowed for the avoidance of problematic contraction types. Some participants, however, explained that social interactions with English tutors, classmates, and people from various native-speaking and foreign language backgrounds facilitated noticing of how contraction types in this study, as well as *to-*contractions, are used in real life. Consequently, views about the importance and usefulness of contraction were said to have changed. This illustrates the dynamic nature of sociocultural influences on beliefs about spoken English, and should merit further additional investigation.

### **Limitations**

Before discussing the final research question, which pertains to pedagogical and research implications, I first want to present some of the important limitation of the study, as they appear to be pertinent to the topic of research implications.

Although this study was undertaken, in part, to overcome some of the shortcomings of previous research examining how non-native speakers of English engage with the fast-speech phenomenon of contraction, it is clear that it, too, suffers from a number of key shortcomings of its own. In my quest to contextualize the participants to the greatest degree possible, I made the decision to employ a mixed-methods collective case study approach focusing on a small group of

Japanese learners of English. However, this decision to limit the participant pool to ten people negatively impacted the quantitative aspect of the study, in that, perception and production data could not be analyzed to the fullest potential using inferential statistics. For instance, a larger study would have allowed for factor analysis to better understand how personal characteristics of the participants as well as linguistic characteristics of the measures interacted to create a more nuanced portrait of how contraction perception and production occurred. As it stands, the results of the current study are not generalizable to a larger Japanese population.

As mentioned in the previous sections related to the perception tasks, there were important issues regarding the cloze-type task, in particular. Possibly the most important issue concerned what the test was designed to measure. Although initially intended to specifically assess the participants' ability to differentiate the surface-level phonological forms of contracted and uncontracted aural stimuli, a lack of specification in the instructions led the participants to formulate their own criteria regarding what constituted appropriate responses. This, in turn, required the need for two criteria of analysis, with the more accurate one allowing correct responses to contain the underlying lexical forms. As a consequence, the cloze task measured a different construct than intended.

Another limitation of the perception tasks was the restricted number of contraction types examined (i.e., 'd, 's, and 've). Based on the results of the production data analysis, the inclusion of more contraction types would have allowed for a more thorough comparison with perception-related beliefs and production tendencies. In particular, inclusion of the contractions that the Japanese participants were reluctant to produce in speech (i.e., 'll and 're) would have allowed for greater triangulation of data.

In terms of limitations related to the production data, the single-interviewer format, while enhancing consistency and providing a more contextualized, interactive experience than the

perception tasks, also prevented the exploration of variability in the participants' speech related to different social contexts (e.g., speaking with a professor, making a presentation, talking with friends). As a consequence, it was not possible to compare stated beliefs about the quality of talk in those situations with actual examples.

Another issue with the production data related to the timely and accurate transcription of contractions in the interviews. Focusing on a very subtle feature of spoken English through hours of interviews was a very time-consuming process; therefore, attempting to do this with an even greater number of participants would be a logistical challenge. Also, with only fair to moderate agreement between the native-speaking raters on the contracted and contractible elements, there was greater perception variability than I had anticipated. More consideration regarding the purpose and roles of the additional raters should have occurred.

### **Pedagogical & Research Implications**

Clearly, the limitations listed in the previous section illustrate that improvements can be made in the way the exploration of contraction-related performance and belief is conducted. Before discussing pedagogical implications of the findings of this study, I would first like to discuss implications regarding research.

**Research implications.** A key component of the current research was marrying qualitative and quantitative methodologies to better understand a type of fast-speech phenomenon in way that could be meaningful to the researcher, the participants, and others interested in this phenomenon. Despite a number of previously-mentioned limitations, the mixed-methods approach allowed for the examination of the topic from multiple perspectives using multiple measures, attempting to heed Edwards' (2008) call for L2 phonology research to utilize such a mixed-methods approach "which enables both deeper and wider analyses of issues under investigation" (p. 271-272). As such, future studies in this area should examine the

possibility of incorporating mixed-methods approaches, not only to better contextualize the data, but also to promote mutually-beneficial outcomes for the participants, as well. For instance, because many participants discussed the lack of explicit instruction in school related to contraction and also deficiencies on the part of teachers to effectively model fast-speech phenomena, a comprehensive mixed-methods approach involving examinations of textbooks, interview data gathered from teachers and students, and classroom observations could help to better understand the formative educational context experienced by Japanese learners of English in their home country in shaping their use of spoken English.

Another implication drawn from the research relates to the multifaceted aspect of spoken English contraction. As a construct that can be studied both quantitatively and qualitatively, it is possible to better understand how contraction perception and production relate to the larger construct of oral proficiency and its measurement using standardized tests. As was shown in this study, there were clear instances of concordance and discordance regarding how the ten participants' contraction-related performance related to stated TOEFL and TOEIC scores. Therefore, additional research examining whether or not there is utility in considering contraction-related performance in the determination of spoken proficiency and overall proficiency should be attempted.

Finally, as lamented previously, there appears to be a dearth of literature focusing specifically on the phenomenon of contraction in SLA research, so that researchers interested in the topic have relatively few reference points to use for comparison. As shown through this study, and by the limitations of this study, there are still many unanswered questions regarding contraction use that could be further explored. From gaining a better understanding of how contraction is represented mentally through psycholinguistic analysis, to analysis of how the spoken and written modes of contraction interrelate, as well a continued exploration of how



social factors influence perception, production, and beliefs regarding contraction through a sociolinguistic perspective, there are many aspects related to this topic that have yet to be investigated.

**Pedagogical implications.** In addition to the research implications mentioned above, the findings of this study suggest that certain considerations exist regarding how English curricula in Japan specifically, but in other countries as well, might better serve students regarding the phenomenon of contraction, as well as other fast-speech phenomena present in spoken English.

First, it is important to examine how spoken English curricula are designed and implemented at the national, prefectural, and local levels through a top-down approach in order to see how content related to fast-speech phenomena is currently covered in guidelines and textbooks at the various grade levels. With some of the Japanese participants in the current study suggesting that their English teachers were either not aware of or not using contraction during classroom instruction when they were in school, it would be useful to examine not only how contractions and other fast-speech phenomena are being modeled in classrooms now, but also examine how spoken English is addressed in university teacher-training programs.

In addition, with more Japanese children studying English in elementary school, it would seem important to ensure that awareness raising takes place as early as possible. Using materials that highlight contractions in naturalistic written dialogues, as well as explicitly raise awareness of differences between spoken and written English would address some of the issues raised by my participants regarding confusion about contraction appropriateness across the two modes of English. To supplement awareness raising, audio-visual materials could be utilized contrasting speech containing fast-speech phenomena with speech containing none, to clearly illustrate to learners the affect that contraction and other natural fast-speech phenomena have on the saliency

of talk. Cahill (2006), for instance, has developed many aural activities specifically for low-level high school students in Japan that focus on discerning fast-speech phenomena.

However, simply being exposed to *ideas* and *examples* of fast-speech phenomena are not enough. As some of my Japanese participants asserted, production is required for perception. Considering the limited amount of time in English classrooms, simple pair practice drills could be implemented, whereby each student has a list of individual contractible phrases, sentences with embedded contractible phrases, or short paragraphs with embedded contractible phrases (for more advanced learners). Using five minutes of a lesson, the two students could alternate reading their phrase, sentence, or paragraph, while the other student must select whether the contractible phrases were actually contracted by the speaker or not using a forced-choice response. For more advanced practice, students could take turns reading selected sentences to their partner using uncontracted phrases and their partner must, from memory, repeat the phrase contracted. To test recognition of underlying lexical forms, this activity could be done in reverse, so that one person reads a sentence containing a 's or 'd contraction, and the partner would have to repeat from memory but also provide the lexically-correct decontracted form.

## **Conclusion**

The current study was undertaken to explore how a small, situated group of Japanese learners engage with and make meaning of contraction in spoken English across the dimensions of perception, production and beliefs. Utilizing a mixed-methods and collective case study framework, I developed individual portraits of each of the ten participants, couching the analysis of data collected from perception tasks and interviews within a presentation of biographical data, including their family and educational backgrounds, as well as their current situations at the time of the study. Together with data collected from a small group of native English speakers, I compared the Japanese participants' performance quantitatively and qualitatively by examining

the degree to which beliefs about their personal contraction-related performance were concordant or dissonant. Through the analysis, some assertions within existing literature were supported, such as the tendency for contractions to adversely affect the perceptual saliency of underlying lexical forms for Japanese speakers. Additionally, new findings linking beliefs with perception and production performance suggest that the production tendencies of some contraction types may be linked to avoidance strategies more than others. Due to limitations of this study, additional research is required to investigate these tentative findings; however, it is hoped that this examination of individual and small group tendencies regarding perception, production, and beliefs concerning spoken English can serve as a touchstone for future studies.

## REFERENCES

- Adamson, H. D., & Regan, V. M. (1991). The acquisition of community speech norms by Asian immigrants learning English as a second language. *Studies in Second Language Acquisition, 13*, 1-22.
- Amjadian, M. & Ebadi, S. (2011). Variationist perspective on the role of the social variables of gender and familiarity in L2 learners' oral interviews. *Theory and Practice in Language Studies, 1*(6), 722-728.
- Anderson-Hsieh, J., & Koehler, K. (1988). The effect of foreign accent and speaking rate on native speaker comprehension. *Language Learning, 38*(4), 561-613.
- Anderson-Hsieh, J., Johnson, R., & Koehler, K. (1992). The relationship between native speaker judgments of nonnative pronunciation and deviance in segmentals, prosody, and syllable structure. *Language Learning, 42*(4), 529-555.
- Anderson-Hsieh, J., Riney, T., & Koehler, K. (1994). Connected speech modifications in the English of Japanese learners. *Issues and Developments in English and Applied Linguistics, 7*, 31-52.
- Anttila, A. (2007). Variation and optionality. In P. de Lacy (Ed.), *Cambridge Handbook of Phonology* (pp. 519-536). Cambridge: Cambridge University Press.
- Aoyama, K., Flege, J. E., Guion, S., Akahane-Yamada, R., & Yamada T. (2004). Perceived phonetic dissimilarity and L2 speech learning: the case of Japanese /r/ and English /l/ and /r/. *Journal of Phonetics, 32*, 233-250.
- Barcelos, A. M. F. (2003). Researching beliefs about SLA: A critical review. In P. Kalaja and A. M. F. Barcelos (Eds.), *Beliefs about SLA: New research approaches* (pp. 7-33). Dordrecht, Netherlands: Kluwer Academic Publishers.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report, 13*(4), 544-559.
- Bayley, R., & Regan, V. (2004). Introduction: The acquisition of sociolinguistic competence. *Journal of Sociolinguistics, 8*(3), 323-338.
- Beebe, L. M. (1980). Sociolinguistic variation and style shifting in second language acquisition. *Language Learning, 30*, 433-447.
- Beckman, M. E. (1996). The parsing of prosody. *Language and Cognitive Processes, 11*(1), 17-68.
- Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan E. (1999). *Longman Grammar of Spoken and Written English*. Harlow: Pearson Education Limited.

- Bowen, J. D. (1975a). *Patterns of English pronunciation*. Rowley, MA: Newbury House.
- Bowen, J. D. (1975b). An experimental integrative test of English grammar. *Working Papers in Teaching English as a Second Language*, 9, 3-17.
- Bowen, J. D. (1976). Current research on an integrative test of English grammar. *RELC Journal*, 7, 30-37.
- Bradlow, A., Akahane-Yamada, R., Pisoni, D., & Tohkura, Y. (1999). Training Japanese listeners to identify English /r/ and /l/: Long-term retention of learning in perception and production. *Perception & Psychophysics*, 61(5), 977-985.
- Bradlow, A. R., Pisoni, D. B., Akahane-Yamada, R., & Tohkura, Y. (1997). Training Japanese listeners to identify English /r/ and /l/: Some effects of perceptual learning on speech production. *Journal of the Acoustical Society of America*, 101, 2299–2310.
- Brown, P., & Fraser, C. (1979). Speech as a marker of situation. In K. Scherer and H. Giles, (Eds.), *Social Markers in Speech* (pp. 33-55). Cambridge: Cambridge University Press.
- Brown, J. D., & Hilferty, A. (1986). The effectiveness of teaching reduced forms for listening comprehension. *RELC Journal*, 17(2), 59-70.
- Brown, J. D., & Kondo-Brown, K. (2006). Introducing connected speech. In J. D. Brown & K. Kondo-Brown, (Eds.), *Perspectives on teaching connected speech to second language speakers* (pp. 1-15). Honolulu, HI: University of Hawai'i, National Foreign Language Resource Center.
- Bybee, J., & Scheibman, J. (1999). The effect of usage on degrees of constituency: The reduction of *don't* in English. *Linguistics*, 37(4), 575-596.
- Cahill, R. (2006). Teaching reduced interrogative forms to low-level EFL students in Japan. In J. D. Brown, & K. Kondo-Brown, (Eds.), *Perspectives on teaching connected speech to second language speakers* (pp. 99-125). Honolulu, HI: University of Hawai'i, National Foreign Language Resource Center.
- Capraro, F. P. (2002). A journal study of the spoken English learning experience of prospective international teaching assistants. Unpublished doctoral dissertation. Stanford University.
- Chomsky, N., & Halle, M. (1968). *The sound pattern of English*. New York: Harper & Row.
- Cook, T. D. (1985). Postpositivist critical multiplism. In R. L. Shotland & M. M. Mark (Eds.), *Social science and social policy* (pp. 21-62). Thousand Oaks, CA: Sage.
- Crain, S. & Thornton, R. (1998). *Investigating Universal Grammar*. Cambridge, MA: MIT Press.
- Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.

- Cross, J. (2002). A comparison of Japanese and English suprasegmental pronunciation as an aid to raising learner awareness. *The Language Teacher*, 26(4). Retrieved Aug. 1, 2010 from [http://jalt-publications.org/old\\_tlt/articles/2002/04/cross](http://jalt-publications.org/old_tlt/articles/2002/04/cross)
- Crystal, D. (2008). *Dictionary of linguistics and phonetics*. 6<sup>th</sup> Edition. Malden, MA: Blackwell Publishing.
- Deckert, S. & Yaeger-Dror, M. (1999). Disagreement and contraction: Evidence from a large corpus of American English. *CLIC (Crossroads of Language, Interaction, and Culture)*, 1, 49-59.
- Denzin, N. K., & Lincoln, Y. S. (2005). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *SAGE handbook of qualitative research* (2<sup>nd</sup> ed.) (pp. 1-28). Thousand Oaks, CA: Sage.
- Derwing, T. M. (2008). Curriculum issues in teaching pronunciation to second language learners. In J. G. Hansen Edwards & M. L. Zampini, (Eds.), *Phonology and second language acquisition* (pp. 347-369).
- Derwing, T. M., Munro, M., & Wiebe, G. (1998). Evidence in favor of a broad framework for pronunciation instruction. *Language Learning*, 48(3), 393-410.
- Dickerson, L. J. (1975). The learner's interlanguage as a system of variable rules. *TESOL Quarterly*, 9(4), 401-407.
- Dickerson, L. J., & Dickerson W. B. (1977). Interlanguage phonology: current research and future directions. In S. P. Corder and E. Roulet (Eds.), *The Notions of Simplification, Interlanguages and Pidgins. Actes du Cinquieme Colloque de Linguistique Applique de Neufchatel*.
- Dowd, J., Zuengler, J., & Berkowitz, D. (1990). L2 social marking: Research issues. *Applied Linguistics*, 11(1), 16-29.
- Ellis, R. (1985). Sources of variability in interlanguage. *Applied Linguistics*, 6(2), 118-131.
- Firth, A., & Wagner, J. (1997). On discourse, communication, and (some) fundamental concepts in SLA research. *The Modern Language Journal*, 81, 285-300.
- Gaeta, L. (2001). Striving for optimality: output-oriented models of language change. In K. Dziubalska-Kolaczyk (Ed.), *Constraints and preferences*, (pp. 101-141). Berlin: Mouton de Gruyter.
- Geertz, C. (1973). Thick description: Toward an interpretive theory of culture. In *The interpretation of cultures: Selected essays* (pp. 3-30). New York: Basic Books.
- Greene, J. C. (2007). *Mixed methods in social inquiry*. San Francisco: Jossey-Bass.

- Griffiths, R. (1990). Speech rate and NNS comprehension: A preliminary study in time-benefit analysis. *Language Learning*, 40(3), 311-336.
- Hahn, L. & Dickerson, W. B. (1999). *Speechcraft: Discourse pronunciation for advanced learners*. Ann Arbor: University of Michigan Press.
- Haiman, J. (1994). Ritualization and the development of language. In W. Pagliuca (Ed.), *Perspectives on grammaticalization* (pp. 3–28). Amsterdam: Benjamins
- Halliday, M. A. K. (1978). *Language as social semiotic. The social interpretation of language and meaning*. London: Edward Arnold.
- Halliday, M. A. K., & Matthiessen, C. (2004). *An introduction to functional grammar* (3<sup>rd</sup> edition). London: Edward Arnold.
- Hansen Edwards, J. G. (2008). Social factors and variation in production in L2 phonology. In J. G. Hansen Edwards & M. L. Zampini, (Eds.), *Phonology and second language acquisition* (pp. 251-279). Amsterdam: John Benjamins.
- Hasegawa, N. (2006). On casual speech: How it differs from fast speech. In J. D. Brown & K. Kondo-Brown, (Eds.), *Perspectives on teaching connected speech to second language speakers* (pp. 169-187). Honolulu, HI: University of Hawai'i, National Foreign Language Resource Center.
- Henrichsen, L. E. (1984). Sandhi-variation: A filter of input for learners of ESL. *Language Learning*, 34(3), 103-126.
- Hill, B., Ide, S., Ikuta, S., Kawasaki, A., & Ogino, T. (1986). Universals of linguistic politeness: Quantitative evidence from Japanese and American English. *Journal of Pragmatics*, 10, 347-371.
- Horwitz, E. K. (1987). Surveying students' beliefs about language learning. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 110-129). London: Prentice Hall.
- Horwitz, E. K. (1988). The beliefs about language learning of beginning university foreign language students. *The Modern Language Journal*, 72(3), 283-294.
- Ingram, J. C. L., & Park, S. –G. (1997). Cross-language vowel perception and production by Japanese and Korean learners of English. *Journal of Phonetics*, 25, 343-370.
- Ingram, J. C. L., & Park, S. –G. (1998). Language, context, and speaker effects in the identification and discrimination of English /r/ and /l/ by Japanese and Korean listeners. *Journal of the Acoustic Society of America*, 103(2), 1161-1174.

- Ito, Y. (2006). The comprehension of English reduced forms by second language learners and its effect on input-intake process. In J. D. Brown, & K. Kondo-Brown, (Eds.), *Perspectives on teaching connected speech to second language speakers* (pp. 59-66). Honolulu, HI: University of Hawai'i, National Foreign Language Resource Center.
- Jenkins, J. (2005). Implementing an international approach to English pronunciation: The roles of teacher attitude and identity. *TESOL Quarterly*, 39(3), 535-543.
- Kaisse, E. M. (1985). *Connected speech: The interaction of syntax and phonology*. Orlando, FL: Academic Press.
- Kato, A. (2001). *Interlanguage variation in pitch and forms of English negatives: The case of Japanese speakers of English*. Unpublished doctoral dissertation, University of Arizona.
- Kawagoe, I. (2003). Acquisition of English word stress by Japanese learners. In J. Liceras et al. (Eds.), *Proceedings from the 6<sup>th</sup> Generative Approaches to Second Language Acquisition Conference (GASLA 2002)* (pp. 161-167). Somerville, MA.
- Kikuchi, K., & Browne, C. (2009). English educational policy for high schools in Japan: Ideals vs. reality. *Regional Language Centre Journal*, 40(2), 172-190.
- King, H. (1970). On blocking the rules for contraction in English. *Linguistic Inquiry*, 1, 134-136.
- Kitao, S.K., Kitao, K., Nozawa, K., & Yamamoto, M. (1985). Teaching English in Japan. In K. Kitao & S. K. Kitao (Eds.), *English teaching: Theory, research and practice*. Tokyo: Eichosha.
- Kondo (2000). Production of schwa by Japanese speakers of English: An acoustic study of shifts in coarticulatory strategies from L1 to L2. In M. Broe & J. Pierrehumbert (Eds.), *Acquisition and the lexicon: Papers in laboratory phonology V*. Cambridge: Cambridge University Press.
- Kondo, M. (2009). Is acquisition of L2 phonemes difficult? Production of English stress by Japanese speakers. In M. Bowles et al. (Eds.), *Proceedings from the 10<sup>th</sup> Generative Approaches to Second Language Acquisition Conference (GASLA 2009)*. (pp. 105-112). Somerville, MA.
- Kweon, S. -O. (2000). *The acquisition of English contraction constraints by advanced Korean learners of English: Experimental studies on wanna contraction and auxiliary contraction*. Unpublished doctoral dissertation, University of Hawai'i at Manoa, Honolulu.
- Labov, W. (1963). The social motivation of a sound change. *Word*, 19, 273-309.
- Labov, W. (1966). *The social stratification of English in New York City*. Washington, D.C.: Center for Applied Linguistics.



- Labov, W. (1969). Contraction, deletion, and inherent variabilities of the English copula. *Language*, 45(4), 715-762.
- Ladefoged, P. (2006). *A course in phonetics* (5<sup>th</sup> edition). Boston: Thomson Wadsworth.
- Lakoff, G. (1970). Global rules. *Language*, 46, 627-639.
- Lambacher, S., Martens, W., Kakehi, K., Marasinghe, C., & Molholt, G. (2005). The effects of identification training on the identification and production of American English vowels by native speakers of Japanese. *Applied Psycholinguistics*, 26, 227-247.
- Larson-Hall, J. (2006). What does more time buy you? Another look at the effects of long-term residence on production accuracy of English /r/ and /l/ by Japanese speakers. *Language and Speech*, 49(4), 521-548.
- Lass, R. (1984). *Phonology: An introduction to basic concepts*. Cambridge: Cambridge University Press.
- Lazaraton, A. (2000). Current trends in research methodology and statistics in applied linguistics. *TESOL Quarterly*, 34(1), 175-181.
- LeCompte, M. D. & Goetz, J. P. (1982). Problems of validity and reliability in ethnographic research. *Review of Educational Research*, 52(1), 31-60.
- Lee, B. & Guion, S. (2008). Effects of hyperarticulated clear speech in English stress production by Korean and Japanese bilinguals. *Studies in Phonetics, Phonology and Morphology* 14, 245-258.
- Lee, B., Guion, S., & Harada, T. (2006). Acoustic analysis of the production of unstressed English vowels by early and late Korean and Japanese bilinguals. *Studies in Second Language Acquisition*, 28, 487-513.
- Lockley, T., Hirschel, R., and Slobodniuk, A. (2012). Assessing the action plan: Reform in Japanese high school EFL. *Electronic Journal of Foreign Language Teaching* 9(2). Retrieved July 6, 2015 from <http://e-flt.nus.edu.sg/v9n22012/lockley.pdf>.
- Lotto, A., Sato, M., & Diehl, R. L. (2004). Mapping the task for the second language learner: The case of Japanese acquisition of English /r/ and /l/. In J. Slifka, S. Manuel, & M. Matthies (Eds.), *From sound to sense: 50+ years of discoveries in speech communication* (pp. 181-186).
- Lybeck, K. (2002). Cultural identification and second language pronunciation of Americans in Norway. *The Modern Language Journal*, 86, 174-191.
- MacKay, I. (1987). *Phonetics: The science of speech production* (2<sup>nd</sup> Edition). Little, Brown, & Company.

- MacKenzie, L. (2011). English auxiliary contraction as a two-stage process: Evidence from corpus data. *Proceedings of the 29th West Coast Conference on Formal Linguistics*, ed. Jaehoon Choi et al., 152-160. Somerville, MA: Cascadilla Proceedings Project.
- Mair, C. (2009). Corpus linguistics meets sociolinguistics: the role of corpus evidence in the study of sociolinguistic variation and change. In A. Renouf & A. Kehoe, (Eds.), *Corpus linguistics: refinements and reassessments* (pp. 7-??). Amsterdam: Rodopi.
- Matsuura, H., Chiba, R., & Hildebrandt P. (2001). Beliefs about teaching and learning communicative English in Japan. *JALT Journal*, 23(1), 69-89.
- Matsuzawa, T. (2006). Comprehension of English reduced forms by Japanese business people and the effectiveness of instruction. In J. D. Brown, & K. Kondo-Brown, (Eds.), *Perspectives on teaching connected speech to second language speakers* (pp. 59-66). Honolulu, HI: University of Hawai'i, National Foreign Language Resource Center.
- Maxwell, J. A. (1992). Understanding and validity in qualitative research. *Harvard Educational Review*, 62(3), 279-300.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- MEXT. (2003). *Action plan to cultivate 'Japanese with English abilities.'* Retrieved March 26, 2009, from <http://www.mext.go.jp/english/topics/03072801.htm>
- MEXT. (2005). *Koritsu gakkou kyoin saiyo senko shiken no jisshi hoho ni tsuite [Guidelines for recruiting public school teachers]*. Retrieved March 26, 2009, from [http://www.mext.go.jp/b\\_menu/houdou/17/12/05122202.htm](http://www.mext.go.jp/b_menu/houdou/17/12/05122202.htm)
- MEXT. (2008). *Chugakkou gakushu shidou yoryo gaikokugo eigoban kariyaku*. [Course of study guidelines for foreign languages in junior high schools; provisional version]. Retrieved July 6, 2015, from [http://www.mext.go.jp/a\\_menu/shotou/new-cs/youryou/eiyaku/1298356.htm](http://www.mext.go.jp/a_menu/shotou/new-cs/youryou/eiyaku/1298356.htm).
- MEXT. (2009). *Koutou gakkou gakushu shidou yoryo gaikokugo eigoban kariyaku*. [Course of study guidelines for foreign languages in senior high schools; provisional version]. Retrieved July 6, 2015, from [http://www.mext.go.jp/a\\_menu/shotou/new-cs/youryou/eiyaku/1298353.htm](http://www.mext.go.jp/a_menu/shotou/new-cs/youryou/eiyaku/1298353.htm)
- MEXT. (2010). *Shogakkou gakushu shidou yoryo gaikokugo katsudo eiyakuban kariyaku*. [Course of study guidelines for foreign language activities in elementary schools; provisional version. Foreign language activity]. Retrieved July 6, 2015, [http://www.mext.go.jp/component/english/\\_icsFiles/afieldfile/2011/03/17/1303755\\_013.pdf](http://www.mext.go.jp/component/english/_icsFiles/afieldfile/2011/03/17/1303755_013.pdf)
- Mochizuki, M. (1981). The identification of /r/ and /l/ in natural and synthesized speech. *Journal of Phonetics*, 9, 283-303.

- Moyer, A. (2004). *Age, accent, and experience in second language acquisition: An integrated approach to critical period inquiry*. Clevedon: Multilingual Matters.
- Munro, M. J., & Derwing, T. M. (2001). Modeling perceptions of the accentedness and comprehensibility of L2 speech: The role of speaking rate. *Studies in Second Language Acquisition*, 23, 451-468.
- Munro, M. J., & Derwing, T. M. (1998). The effects of speaking rate on listener evaluations of native and foreign-accented speech. *Language Learning*, 48(2), 159-182.
- Nishino, T., & Watanabe, N. (2008). Communication-oriented policies versus classroom realities in Japan. *TESOL Quarterly*, 42(1), 133-138.
- Odlin, T. M. (1978). Variable rules in the acquisition of English contractions. *TESOL Quarterly*, 12(4), 451-458.
- O'Grady, W., Nakamura, M., & Ito, Y. (2008). *Want-to* contraction in second language acquisition: An emergentist approach. *Lingua*, 118, 478-498.
- Ohara, Y. (2001). Finding one's voice in Japanese: A study of the pitch levels of L2 users. In A. Pavlenko, A. Blackledge, I. Piller, and M. Teutsch-Dwyer (Eds.), *Multilingualism, second language learning, and gender* (pp. 231-256). Berlin: Mouton de Gruyter.
- Pennington, M. C. (1987). Acquiring proficiency in English phonology: Problems and solutions for the Japanese learner. *Nagoya Gakuin Daigaku Gaikokugo Kyoiku Kiyo*, 16, 1-18.
- Pennington, M. C. (1996). *Phonology in English language teaching*. London: Longman.
- Preston, D. (2002). A variationist perspective on SLA: Psycholinguistic concerns. In R. Kaplan, (Ed.), *Oxford handbook of applied linguistics* (pp. 141-159). Oxford: Oxford University Press.
- Riney, T. J., & Flege, J. E. (1998). Changes over time in global foreign accent and liquid identifiability and accuracy. *Studies in Second Language Acquisition*, 20, 213-243.
- Roach, P. (2000). *English Phonetics and Phonology* (3rd ed.). Cambridge: Cambridge University Press.
- Rogerson, M. (2006). Don'cha Know? A survey of ESL teachers' perspectives on reduced forms instruction. In J. D. Brown, & K. Kondo Brown, (Eds.), *Perspectives on teaching connected speech to second language speakers* (pp. 85-97). Honolulu, HI: University of Hawai'i, National Foreign Language Resource Center.
- Rühlemann, C. (2008). A register approach to teaching conversation: Farewell to standard English. *Applied Linguistics*, 29(4), 672-693.
- Saito, K. (2007). The influence of explicit phonetic instruction on pronunciation teaching in EFL settings: The case of English vowels and Japanese learners of English. *Linguistics Journal*, 3(3), 16-40.

- Sakui, K. & Cowie, N. (2008). "To speak English is tedious": Student resistance in Japanese university classrooms. In P. Kalaja, V. Menezes, & A. M. F. Barcelos (Eds.), (pp. 98-110) *Narratives of learning and teaching EFL*. Palgrave Macmillan.
- Schachter, J., Tyson, A. F., & Diffley F. J. (1976). Learner intuitions of grammaticality. *Language Learning*, 26(1), 67-76.
- Schmidt, R. (1995). Consciousness and foreign language learning: A tutorial on the role of attention and awareness in learning. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning* (pp. 1-63). Honolulu: Second Language Teaching a Curriculum Center, University of Hawai'i.
- Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics*, 10, 209-231.
- Sheldon, A., & Strange, W. (1982). The acquisition of /r/ and /l/ by Japanese learners of English: Evidence that speech production can precede speech perception. *Applied Psycholinguistics*, 3, 243-261.
- Spolsky, B. (1973). What does it mean to know a language, or how do you get someone to perform his competence? In J. W. Oller, Jr. & J. C. Richards (Eds.), (pp. 164-176) *Focus on the learner: Pragmatic perspectives for the language learner*. Rowley, MA: Newbury House Publishers.
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Tahira, M. (2012). Behind MEXT's new course of study guidelines. *The Language Teacher*, 36(3), 3-8.
- Takagi, T. (1993). Perception of American English /r/ and /l/ by adult Japanese learners of English: A unified view. Unpublished doctoral dissertation, University of California, Irvine.
- Tarone, E. (2007). Sociolinguistic approaches to second language acquisition research—1997-2007. *Modern Language Journal*, 91, 837-848.
- Toda, T. (2006). Focus on form in teaching connected speech. In J. D. Brown & K. Kondo-Brown, (Eds.), *Perspectives on teaching connected speech to second language speakers* (pp. 169-187). Honolulu, HI: University of Hawai'i, National Foreign Language Resource Center.
- Tomokiyo, L. M. (2000). Linguistic properties of non-native speech. IEEE International Conference on Acoustics.
- Trask, R. L. (1996). *A dictionary of phonetics and phonology*. London: Routledge.
- Vance, T. (1993). Are Japanese particles clitics? *Journal of the Association of Teachers of Japanese*, 27(1), 3-33.

- Warner, N. & Arai, T. (2001). Japanese mora timing: A review. *Phonetica*, 58, 1-25.
- Witzel, J. D., & Witzel, N. O. (2008). *Wanna* contraction in intermediate Japanese learners of English. *Arizona Working Papers in SLA & Teaching*, 15, 121-138.
- Yaeger-Dror, M. & Deckert, S. (1999). *Disagreement, contraction, and prosody: Evidence from a large corpus of American English*. Paper presented at the Pragma 99, Tel Aviv.
- Yin, R. K. (1993). *Applications of case study research*. Newbury Park, CA: Sage.
- Young, R. (1988). Variation and the interlanguage hypothesis. *Studies on Second Language Acquisition*, 10, 281-302.
- Zwicky, A. M. (1970). Auxiliary reduction in English. *Linguistic Inquiry*, 1(3), 323-336.
- Zwicky, A. M. (1972). On casual speech. Papers from the 8<sup>th</sup> regional meeting of the Chicago Linguistic Society.
- Zwicky, A. M. (1977). On clitics. Bloomington: Indiana University Linguistics Club.
- Zwicky, A. M. (1985). Clitics and particles. *Language*, 61(2), 283-305.
- Zwicky, A. M., & Pullum, G. K. (1983). Clitization vs. inflection: English *n't*. *Language*, 59(3), 502-513.

## APPENDIX A: CONSENT FORM (NS)

### Project:

You are invited to participate in a research project being carried out by John Young under the supervision of Dr. Daniel Walsh of the Department of Curriculum & Instruction at the University of Illinois Urbana-Champaign. The purpose of this project is to investigate participants' perception, production and thoughts about an important aspect of spoken English.

### Benefits of Participation:

By participating in this study, you will have an opportunity to 1) add to the body of knowledge related to spoken English use by native and non-native speakers, 2) discuss your particular language learning experiences, 3) discuss your beliefs about a particular aspect of spoken English. As part of your participation, you will also receive a copy of the final research report.

### More details about the study and materials to be examined:

As part of this study, the following materials will be examined, and they will take the indicated amount of time:

- 1) A written questionnaire (approx. 5 minutes);
- 2) Your audio recorded responses on two listening/speaking activities (approx. 40 minutes total)
- 3) Two audio-recorded interviews related to your questionnaire responses and your performance on the above-mentioned activities. (approx. 15 minutes each)

The data will be collected on two separate occasions over the course of a semester, with the first meeting lasting approximately 60 minutes and the second lasting approximately 30 minutes.

### Dissemination of the study:

After completing the research, I plan to first publish it as a doctoral dissertation within the University of Illinois' College of Education (Department of Curriculum & Instruction). I then plan to submit revised versions of the research as one or more articles to scholarly journals for publication. In addition, I plan to present this research at various academic conferences.

### Minimizing Risk:

In order to protect your identity, your name will be replaced with a pseudonym in the final report, and the data gathered will only be used for publication or presentation in academic settings. Your participation in this study will have no impact on your standing at your current institution, and at any time during the semester, you may:

- 1) discuss the project with me;
- 2) request that I exclude entire or partial sections of your survey, oral and written activity responses, or interviews from the data;
- 3) withdraw from the study entirely.

You will also receive a copy of this consent form for your own records.

If you have any questions regarding this form or the entire project, please contact me, John Young, at my office at the University of Illinois: (217) 333-2452, by cell phone: (217) 377-0674, or by e-mail: [bayoujay@hotmail.com](mailto:bayoujay@hotmail.com). You may also contact my advisor, Dr. Daniel Walsh, at (217) 244-1218 or [danielw@illinois.edu](mailto:danielw@illinois.edu). If there are any questions about your rights as a research participant, you may also contact Anne Robertson at [arobrtsn@illinois.edu](mailto:arobrtsn@illinois.edu) or by phone at 217-333-3023, or the University of Illinois at Urbana-Champaign Institutional Review Board Office at [irb@illinois.edu](mailto:irb@illinois.edu).

Please put an "X" next to the following parts of the research study that you agree to participate in.

- I agree to complete a short written questionnaire.  
 I agree to be interviewed  
 I agree to these interviews being audio recorded.  
 I agree to complete two listening/speaking activities and have my oral responses audio recorded.

Thank you,  
John Young  
Ph.D. candidate in the Department of Curriculum & Instruction, University of Illinois Urbana-Champaign

I have read the information above and understand the extent of my participation in this project. I voluntarily agree to participate.

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_  
Participant's name printed \_\_\_\_\_

## APPENDIX B: CONSENT FORM (NNS)

### Project:

You are invited to participate in a research project being carried out by John Young under the supervision of Dr. Daniel Walsh of the Department of Curriculum & Instruction at the University of Illinois Urbana-Champaign. The purpose of this project is to investigate participants' perception, production and thoughts about an important aspect of spoken English.

### Benefits of Participation:

By participating in this study, you will have an opportunity to 1) receive written and oral feedback on your use of spoken English and 2) discuss your particular language learning experiences. As part of your participation, you will be provided with a report detailing perceived strengths and weakness of your oral English production, which may benefit your future study and use of the language. You will also receive a copy of the final research report.

### More details about the study and materials to be examined:

As part of this study, the following materials will be examined, and they will take the indicated amount of time:

- 1) A written survey of your language learning background and beliefs (approx. 20 minutes);
- 2) Your audio recorded responses on two listening/speaking activities (approx. 40 minutes total)
- 3) Three audio-recorded interviews related to your survey responses, your past and present language learning experiences, and your performance on the above-mentioned activities. (approx. 30 minutes each)

The data will be collected on four separate occasions over the course of a semester, with each meeting lasting approximately 45 minutes. Because an estimate of the English proficiency of the participants is also important to the study, I would like to your permission to obtain your TOEFL or other standardized test score (such as TSE or TOEIC) from your current institution, if you are unable to provide an official copy.

### Dissemination of the study:

After completing the research, I plan to first publish it as a doctoral dissertation within the University of Illinois' College of Education (Department of Curriculum & Instruction). I then plan to submit revised versions of the research as one or more articles to scholarly journals for publication. In addition, I plan to present this research at various academic conferences.

### Minimizing Risk:

In order to protect your identity, your name will be replaced with a pseudonym in the final report, and the data gathered will only be used for publication or presentation in academic settings. Your participation in this study will have no impact on your standing at your current institution, and at any time during the semester, you may:

- 4) discuss the project with me;
- 5) request that I exclude entire or partial sections of your survey, oral and written activity responses, or interviews from the data;
- 6) withdraw from the study entirely.

You will also receive a copy of this consent form for your own records.

If you have any questions regarding this form or the entire project, please contact me, John Young, at my office at the University of Illinois: (217) 333-2452, by cell phone: (217) 377-0674, or by e-mail: [bayoujay@hotmail.com](mailto:bayoujay@hotmail.com). (This e-mail address can accept text in Japanese or English.) You may also contact my advisor, Dr. Daniel Walsh, at (217) 244-1218 or [danielw@illinois.edu](mailto:danielw@illinois.edu). If there are any questions about your rights as a research participant, you may also contact Anne Robertson at [arobrtsn@illinois.edu](mailto:arobrtsn@illinois.edu) or by phone at 217-333-3023, or the University of Illinois at Urbana-Champaign Institutional Review Board Office at [irb@illinois.edu](mailto:irb@illinois.edu).

Please put an "X" next to the following parts of the research study that you agree to participate in.

- I agree to complete a written survey about my English learning history.
- I agree to be interviewed
- I agree to these interviews being audio recorded.
- I agree to complete two listening/speaking activities and have my oral responses audio recorded.
- I give permission for the researcher to obtain a copy of my TOEFL (or equivalent test) score from my institution.

Thank you,

John Young

Ph.D. candidate in the Department of Curriculum & Instruction, University of Illinois Urbana-Champaign

I have read the information above and understand the extent of my participation in this project. I voluntarily agree to participate.

Participant's signature \_\_\_\_\_

Date \_\_\_\_\_

Participant's name printed \_\_\_\_\_

## CONSENT FORM (NNS JAPANESE VERSION)

### 研究参加同意書

私は現在、イリノイ大学アーバナ・シャンペーン校、教育学部の博士課程（教授法専攻）在籍のジョン・ヤングと申します。この度、ダニエル・ウォルシュ教授とともに、英語学習者の口語英語活動の研究を実施することになりました。

#### 研究参加の利益：

研究参加の利益として、参加者には以下の全項目が与えられます。1) 各自の口語英語に関する研究者による口頭と文書のフィードバック。2) 今までの英語学習経験を顧み、学習方法や口語英語に対する姿勢を再認識する機会。また、研究者による各自の口語英語の長所・短所について書かれたレポート。3) 更に、希望者には研究結果のコピー。

#### 研究対象：

この研究では以下を調査します。

- 1) 英語学習の経験と考え方に関するアンケート（約20分）
- 2) 与えられる2つのアクティビティへの応答（約40分）
- 3) アンケートに関するインタビュー3回分と、上記アクティビティの内容の録音データ（各役30）

研究データは1学期中に4回に渡って収集します。各回は45分程度の予定です。研究データ分析には、現在の皆さんのTOEFLやTSE、TOEIC等の公式テストのスコアが重要な役割をするため、参加者各自が公式テストのスコアを研究者に提供できない場合は、研究者は皆さんが現在所属する学校機関よりテストスコアを入手する必要があります。その際、テストスコアの入手を許可して頂きたいと思います。

#### リスク解消：

身元保護のため、参加者の実名を使用せず全ての文書で仮名を使います。アンケート、アクティビティ、インタビューで得られた内容は、イリノイ大学の教育学部内で卒業論文として纏めますが、後に再編集し、学術雑誌の掲載や学会発表をする可能性があります。また、この研究参加は皆さんが現在所属している機関での地位・評価とは一切関係がありません。今学期中に、皆さんは：

- 1) この研究について研究者と話す事ができます。
  - 2) 研究対象物のどの部分も研究対象から外す要請ができます。
  - 3) いつでも研究不参加を申し出られます。
- また、皆さんのサインを含めた、この同意書のコピーを受け取る事ができます。

研究に関して何か質問がありましたら、私にお聞き頂ければ幸いです。メールアドレスは、bayoujay@hotmail.com、電話番号は217-333-2452です。私のオフィスはFLBの3142室です。ウォルシュ教授（Professor Walsh）に直接ご質問されることも可能です。電話番号は217-244-1218、メールアドレスは、[danielw@illinois.edu](mailto:danielw@illinois.edu)です。研究参加者としての権利に関する質問は、アニー・ロバートソン（Anne Robertson）にメール、[arobrtsn@illinois.edu](mailto:arobrtsn@illinois.edu)もしくは電話で217-333-3023御連絡下さい。更に、イリノイ大学研究審査委員会（[irb@illinois.edu](mailto:irb@illinois.edu), 217-333-2670）へのご質問・お問い合わせも承ります。

上記の内容をお読みになり、承諾していただける以下の項目に‘X’の記述をお願い致します。

- ( ) 英語学習経験のアンケートに答える事に同意します。  
( ) インタビューの参加に同意します。  
( ) インタビューの録音に同意します。  
( ) 2つのリスニングとスピーキングのアクティビティに参加し、応答の録音に同意します。  
( ) 研究者が私のTOEFLスコアを所属校より入手する事を許可します。

研究へのご協力、本当にありがとうございます。

ジョン・ヤング

博士候補生 イリノイ大学、カリキュラム&インストラクション科

上記の内容及び、この研究に参加する意義・目的を理解しました。有志によって参加する事に同意します。

サイン：\_\_\_\_\_ 日付：\_\_\_\_\_

名前：\_\_\_\_\_



## APPENDIX C: QUESTIONNAIRE SPECIFICATION

### General objective:

The general objective of the survey is to gather data about the participants in order to contextualize them as thoroughly as possible within the frame of the current research study. The responses to the survey will also serve as a basis for follow-up interview questions to more deeply probe participants' past and current experiences.

### Specific objective:

The specific objective of the survey is to gather basic demographic information, factual information about participants' education histories, recollections of English learning experiences (formal and informal), recollections of pronunciation instruction, and self-reports of current English use. The following are the specific area of focus:

- 1) current status (educationally)
- 2) current proficiency (based on standardized test scores)
- 3) family English language use/encouragement
- 4) educational background (elementary through university)
- 5) previous travel and study abroad experience
- 6) extracurricular exposure to English and use of English
- 7) previous pronunciation instruction
- 8) current degree of English use
- 9) beliefs about current spoken English ability (perceived strengths and weaknesses)

### Item specifications:

Focus: Basic demographic information

- Item 1: participant's name
- Item 2: participant's age
- Item 3: participant's gender

Focus: Current educational status

- Item 4: participant's current organizational/educational affiliation (ex. IEI, Konan University)
- Item 5: participant's current status within the organization (ex. undergrad, graduate student)
- Item 6: participant's area of study (ex. Microbiology, undecided)
- Item 7: date of arrival at current U.S. institution

Focus: Proficiency gauge

- Items 8-11: participant's score on internationally-recognized tests of spoken English (measure of proficiency)

Focus: Familial exposure to and level of encouragement related to English

- Item 12: participant's recollection of parent's frequency of English use
- Item 13: participant's recollection of other family members' use of English
- Item 14: participant's recollection of parental encouragement to learn/improve English
- Item 15: participant's recollection of other family member encouragement to learn/improve English

Focus: Location of formal education

Item 16-20: participant's location of educational experience (prior to elementary school through tertiary ed.)

Interview follow-up questions should ask about type of school attended at each stage (ex. international, regular public, private, Japanese school, etc.)

Focus: Formal English instruction experience (in school and outside of school)

Items 21-26: participant's exposure to English instruction (both formal and informal) outside of school prior to elementary school and through the present

Focus: Past extracurricular exposure to or use of English

Item 27: participant's recollection of their use of spoken English growing up

Item 28: participant's recollection of exposure to English media while growing up

Item 29: participant's report of travel abroad experience

Item 30: participant's report extracurricular experiences

Items 31: participant's report of work experience

Focus: Extralinguistic factors

Item 32: participant's strategy use (past/present)

Items 33: participant's motivating factors (past/present)

Focus: Explicit pronunciation instruction

Item 34: participant's recollection of pronunciation instruction

Final interview follow-up should questions should ask about awareness of connected speech phenomena. (blending, linking, elision, flapping, contraction, assimilation). Use visual aid for this.

Focus: Current use of spoken English

Item 35: participant's self-perception of English vs. native language daily use

Item 36: participant's self-perception of native speaker vs. non-native speaker interaction

Focus: Current self-evaluation of spoken English ability

Items 37-38: Participant's self-evaluation of current satisfaction with English speaking and listening ability

Item 39: participant's self-evaluation of particular strengths and weakness in spoken English

#### Response Attributes:

Participants should read each of the numbered items and write (using Japanese) the requested information in the blanks or spaces provided. Participants should respond to each of the numbered items as accurately as possible. If questions arise about the information, the participants are welcomed to ask me to clarify the information being requested by the item(s).

**APPENDIX D: NNS QUESTIONNAIRE (ENGLISH & JAPANESE VERSIONS)**

- 1) Name: \_\_\_\_\_
- 2) Age: \_\_\_\_\_
- 3) Gender: M or F
- 4) Current institution(s): \_\_\_\_\_
- 5) Current status: \_\_\_ undergraduate, \_\_\_ master's student, \_\_\_ Ph.D. student,  
\_\_\_ exchange student, \_\_\_ other (please specify) \_\_\_\_\_
- 6) Field of specialization: \_\_\_\_\_, undecided?
- 7) When did you arrive at your current U.S. institution?: \_\_\_\_\_
- 8) Most recent TOEFL score (date): \_\_\_\_\_
- 9) Most recent TOEIC score (date): \_\_\_\_\_
- 10) Most recent TSE score (date): \_\_\_\_\_
- 11) Have you taken any other international tests of spoken English? If so, please list the name, date, and score.
  
- 12) Growing up, I heard my parents using English  
\_\_\_ frequently, \_\_\_ on occasion, \_\_\_ very rarely, \_\_\_ never
- 13) Growing up, did you hear other family members using English on occasion? If so, who?
- 14) Growing up, how encouraged were you by your parents to learn/improve your English ability?  
\_\_\_ very much \_\_\_ somewhat \_\_\_ not much \_\_\_ never
- 15) Growing up, were you encouraged to learn/improve your English ability by family members other than your parents? If so, by whom?
- 16) Did you ever live outside of Japan prior to elementary school? If so, for how long?
- 17) Where did you attend elementary school?  
\_\_\_ only in Japan  
\_\_\_ in Japan and \_\_\_\_\_ (country). How long did you attend elementary school  
outside of Japan? \_\_\_\_\_  
\_\_\_ only in \_\_\_\_\_ (country)
- 18) Where did you attend middle school?  
\_\_\_ only in Japan  
\_\_\_ in Japan and \_\_\_\_\_ (country). How long did you attend middle school  
outside of Japan? \_\_\_\_\_  
\_\_\_ only in \_\_\_\_\_ (country).
- 19) Where did you attend high school?  
\_\_\_ only in Japan  
\_\_\_ in Japan and \_\_\_\_\_ (country). How long did you attend middle school  
outside of Japan? \_\_\_\_\_  
\_\_\_ only in \_\_\_\_\_ (country).

20) Following high school, what educational institutions have you attended, both in Japan, the U.S. and elsewhere (including university, trade school, language institute, etc.)? How long were you at those institutions?

Put an "X" next to the appropriate answer(s)

21) Prior to attending elementary school, did you receive English instruction?

- yes, informally at home from my family members
- yes, through private lessons at home or at a language school
- no
- don't remember

22) Did you receive English instruction within your elementary school?

- yes
- no
- don't remember

23) While in elementary school, did you receive English instruction outside of school?

- yes, informally at home from my family members.
- yes, through private lessons.
- no
- don't remember

24) While in middle school, did you receive English instruction outside of school?

- yes, informally at home from my family members.
- yes, through private lessons.
- no
- don't remember

25) While in high school, did you receive English instruction outside of school?

- yes, informally at home from family members.
- yes, through private lessons.
- no
- don't remember

26) Did you continue to receive English instruction after graduating from high school?

- yes, as part of my university, trade school, etc.
- yes, through private lessons at home or at a private language school
- no
- don't remember

27) Growing up, were there instances when you frequently or occasionally used spoken English with others? If so, with whom?

28) Growing up, do you think you listened to English media (movies, TV shows, music) more than most Japanese? Explain briefly.

- 29) Have you ever had any travel experiences outside of Japan? If so, where did you go?
- 30) Growing up, did you ever participate in extracurricular activities using English? (For instance, been a member of an English Club, participated in English speech contests, etc.) If so, please explain briefly.
- 31) Have you ever worked in a job in which you used English to some degree? If so, what kind of job?
- 32) What strategies have you used to develop your spoken English and which have been most successful?
- 33) Up to this point, who/what has motivated you most in improving your English ability? (ex. family? friends? teachers? other people/things?)
- 34) What kind of English pronunciation instruction do you recall receiving in Japan?
- 35) These days, what percentage of a typical day is spent in “English mode” (listening/speaking/writing/reading) and “Japanese mode”?  
       \_\_\_\_\_ % English mode      \_\_\_\_\_ % Japanese mode
- 36) What percentage of your daily English use is typically with native speakers of English and non-native speakers of English?  
       \_\_\_\_\_ % English native speaker      \_\_\_\_\_ % non-native English speakers
- 37) How satisfied are you with your current level of spoken English? (Choose one.)  
       \_\_\_\_\_ very satisfied (I’m almost always successful in speaking situations)  
       \_\_\_\_\_ somewhat satisfied (I’m generally successful in speaking situations)  
       \_\_\_\_\_ neither satisfied nor dissatisfied  
       \_\_\_\_\_ somewhat dissatisfied (I often have difficulty in speaking situations)  
       \_\_\_\_\_ extremely dissatisfied (I almost always have difficulty in speaking situations)
- 38) How satisfied are you with your current level of English listening? (Choose one.)  
       \_\_\_\_\_ very satisfied (I’m almost always successful in listening situations)  
       \_\_\_\_\_ somewhat satisfied (I’m generally successful in listening situations)  
       \_\_\_\_\_ neither satisfied or dissatisfied  
       \_\_\_\_\_ somewhat dissatisfied (I often have difficulty in listening situations)  
       \_\_\_\_\_ extremely dissatisfied (I almost always have difficulty in listening situations)
- 39) As objectively as possible, please describe your strengths and weaknesses regarding your use of spoken English?

Strengths:

Weaknesses:

**NNS QUESTIONNAIRE**  
**アンケート**

フリガナ:

1) 名前: \_\_\_\_\_

2) 年齢: \_\_\_\_\_

3) 性別: 男/女

4) 所属学部・学科:

5) 学年: \_\_\_ 学士, \_\_\_ 修士, \_\_\_ 博士, \_\_\_ 交換留学生,

\_\_\_\_\_ その他: \_\_\_\_\_

6) 専門分野: \_\_\_\_\_, 未定

7) 初めて現在所属するアメリカの学校に着いたのはいつですか?

8) 最後に受けた TOEFL のスコアと受験年月日:

9) 最後に受けた TOEIC のスコアと受験年月日:

10) 最後に受けた TSE のスコアと受験年月日:

11) 上記以外の国際的に実施されている英語口語試験を受験した事がありますか?

いいえ/はい: 試験名、スコア、受験年月日を記述して下さい。

12) 今までに、両親が英語を話しているのを聞いた事がありますか。

\_\_\_\_\_ 頻繁, \_\_\_\_\_ 時々, \_\_\_\_\_ あまり無い, \_\_\_\_\_ 全く無い

13) 今までに、ご両親以外のご家族が英語を話しているのを聞いた事がありますか?

いいえ/はい: ご家族のどなたが話していましたか?

14) 英語学習、英語能力の向上に関し、ご両親は、励まし、応援してくれましたか?

\_\_\_ とても \_\_\_ まあまあ \_\_\_ あまり \_\_\_ 全然

15) 英語学習、英語能力の向上に関し、ご両親以外のご家族は、励まし、応援してくれましたか?

いいえ/はい: ご家族のどなたが応援してくれましたか?

16) 小学校入学前に日本以外の国に住んだ事がありますか？

いいえ／はい：何歳の時どの位の期間住みましたか？

17) 通った小学校は？

\_\_\_ 日本のみ

\_\_\_ 日本と外国（国名： \_\_\_\_\_ 期間： \_\_\_\_\_）

\_\_\_ 外国のみ（国名： \_\_\_\_\_）

18) 通った中学校は？

\_\_\_ 日本のみ

\_\_\_ 日本と外国（国名： \_\_\_\_\_ 期間： \_\_\_\_\_）

\_\_\_ 外国のみ（国名： \_\_\_\_\_）

19) 通った高校は？

\_\_\_ 日本のみ

\_\_\_ 日本と外国（国名： \_\_\_\_\_ 期間： \_\_\_\_\_）

\_\_\_ 外国のみ（国名： \_\_\_\_\_）

20) 高校卒業後、日本、アメリカ、その他の国で教育機関に通いましたか（大学、語学  
学校、専門学校等を含む）？

いいえ／はい：国名、教育機関名、所属・通学期間を記載して下さい。

以下の質問は、あてはまる回答の横に「X」を記載して下さい。

21) 小学校入学以前に英語を勉強した事がありますか？

\_\_\_ はい、正式な学習ではありませんが、自宅で家族から習いました。

\_\_\_ はい、家庭教師、またはイーオン等の語学学校のレッスンで学習しました。

\_\_\_ いいえ

\_\_\_ 覚えていません。

22) 小学校で英語学習をしましたか？

\_\_\_ はい \_\_\_ いいえ \_\_\_ 覚えていません

23) 小学校の時、学校外で英語学習をしましたか？

\_\_\_ はい、正式な学習ではありませんが、自宅で家族から習いました。

\_\_\_ はい、家庭教師、またはイーオン等の語学学校のレッスンで学習しました。

\_\_\_ いいえ

\_\_\_ 覚えていません。

24) 中学の時、学校外で英語学習をしましたか？

\_\_\_ はい、正式な学習ではありませんが、自宅で家族から習いました。

\_\_\_ はい、家庭教師、またはイーオン等の語学学校のレッスンで学習しました。

\_\_\_ いいえ

\_\_\_ 覚えていません。

25) 高校の時、学校外で英語学習をしましたか？

\_\_\_ はい、正式な学習ではありませんが、自宅で家族から習いました。

\_\_\_ はい、家庭教師、またはイーオン等の語学学校等で学習しました。

\_\_\_ いいえ

\_\_\_ 覚えていません。

26) 高校卒業後、英語の学習をしましたか？

\_\_\_ はい、大学・専門学校等のカリキュラム内で学習しました。

\_\_\_ はい、家庭教師、またはイーオン等の語学学校等で学習しました。

\_\_\_ いいえ、

\_\_\_ 覚えていません。

27) 今までに、英語で会話をする機会がありましたか？

いいえ／はい：誰と会話しましたか？

28) 今までに、日本語の映画、テレビ、音楽より、英語の映画、テレビ、音楽を多く耳

にしたと思いますか？ 簡潔に説明を記述して下さい。



29) 海外旅行をした事がありますか？

いいえ／はい：何処に行きましたか？

30) 今までに、英語クラブや英語のスピーチコンテスト等の英語を使った課外活動に参加した事がありますか？

いいえ／はい：簡潔に説明を記述して下さい。

31) 少しでも英語を使う仕事をした事がありますか？

いいえ／はい：どんな仕事でしたか？

32) 英会話能力の修得のために、どんな事をしましたか？何が一番効果的でしたか？

33) 英語能力の向上を最も支援してくれたのは誰・何ですか？

(例えば、家族、友人、先生等や、本、映画等)

34) 覚えている限り、日本でどんな英語発音指導を受けましたか？

35) 最近の日常生活の中で、英語使用率と日本語使用率の比率はどの位ですか？

\_\_\_\_\_ % 英語使用率 \_\_\_\_\_ % 日本語使用率

36) 最近の日常生活の中で、どの位の割合で英語母語話者と、もしくは他言語母語話者と英語を話しますか？

\_\_\_\_\_ % 英語母語話者 \_\_\_\_\_ % 他言語母語話者

37) 自己の英会話能力にどの程度満足していますか？（選択して下さい。）

\_\_\_\_\_ 大満足（いつ、どんな場面でも英語で話せる）

\_\_\_\_\_ ある程度満足（たいてい英語で話せる）

\_\_\_\_\_ 満足でも不満足でもない

\_\_\_\_\_ あまり満足していない（時々、思う様に英語で話せない）

\_\_\_\_\_ 全く満足していない（全く思う様に英語で話せない）

38) 自己の英語のリスニング能力にどの程度満足していますか？（選択して下さい。）

\_\_\_\_\_ 大満足（いつ、どんな場面でも英語が理解できる）

\_\_\_\_\_ ある程度満足（たいてい英語が理解できる）

\_\_\_\_\_ 満足でも不満足でもない

\_\_\_\_\_ あまり満足していない（時々、英語が理解できない）

\_\_\_\_\_ 全く満足していない（全く英語が理解できない）

39) 客観的に見て、自己の英語会話能力について記述して下さい。

長所:

短所:

## APPENDIX E: NS QUESTIONNAIRE

- 1) Name: \_\_\_\_\_
- 2) Age: \_\_\_\_\_
- 3) Gender: M or F
- 4) Current institution(s): \_\_\_\_\_
- 5) Current status: \_\_\_ undergraduate, \_\_\_ master's student, \_\_\_ Ph.D. student,  
\_\_\_\_\_ other (please specify) \_\_\_\_\_
- 6) Field of specialization: \_\_\_\_\_, undecided?
- 7) When did you arrive at your current U.S. institution?: \_\_\_\_\_
- 8) Where are you from in the States? \_\_\_\_\_
- 9) What language(s) have you studied? \_\_\_\_\_
  
- 10) When did you begin study those languages? \_\_\_\_\_
  
- 11) Have you ever lived outside of the country? If so, where and for how long? \_\_\_\_\_

## APPENDIX F: INTERVIEW QUESTIONS SPECIFICATION

### First Interview

Interview questions will be based on responses to the initial survey. These questions will probe the interviewees' formal educational background, family use of English, exposure to informal and formal English instruction, motivation & strategy use with regard to English use/improvement, explicit English pronunciation instruction, current use of English, self-evaluation of spoken English ability.

Questions will be asked to:

1. clarify their current educational status. (ex. What are you currently studying? Are you also affiliated with a Japanese institution? How long have you been studying in the U.S.?)
2. clarify their familial exposure to and use of English. (ex. Could you tell me about English use in your family? Could you tell me whether or not you felt encouraged to learn English by your parents or other family members?)
3. clarify their past general educational experiences. (ex. Could you tell me a little about where you went to school when you were growing up? Did you ever attend school outside of Japan?)
4. clarify their English instruction through formal schooling. (ex. Could you tell me about how you were exposed to English in school? Could you describe English classes you took growing up? Could you describe English lessons you had outside of school?)
5. clarify their extracurricular exposure to and use of English. (ex. Could you tell me about your travel experiences outside of Japan? Could you describe your use of English outside of classrooms while you were growing up? Could you tell me about your exposure to English-language media while you were growing up?)
6. clarify some extralinguistic factors related to English use. (ex. Could you tell me about your English study habits? Could you talk a little about your motivation to learn/use English? What do you think are some of the similarities and differences between written English and spoken English? What do you see as differences between formal English and casual English?)
7. clarify their exposure to English pronunciation instruction. (ex. When you were in school, what do you remember in terms of pronunciation instruction? Where you ever taught about fast-speech phenomena in English? Do you remember being explicitly taught about differences between spoken English and written English in school or elsewhere?)
8. clarify their current use of English and native language (Japanese). (ex. Could you tell me about your use of English during a typical day? Could you describe your daily use of Japanese?)
9. clarify their current self-perception of their spoken English quality. (ex. Could you talk a little about your level of satisfaction with your current spoken English ability? Could you discuss your impressions of your strengths and weaknesses related to spoken English?)

### Second Interview

The second interview will serve as a means to both 1) gather speech samples from participants containing contraction use and 2) gather qualitative information about their past and present language learning experiences

Questions will be asked to

1. follow up on and clarify the responses given during the first interview.
2. have the participants talk at length about specific episodes in their language learning histories in general and specifically related to oral English instruction.
3. have the students discuss their expectations about their future spoken English needs and strategies to meet those needs.

### **Third Interview**

Questions in this interview will probe the participants' responses to the perception and production activities. During the interview, the researcher will present the participants with audio and written samples from the perception and production activities for the purpose of eliciting questions about their performance.

Questions will be asked to

1. clarify responses given in the second interview.
2. probe participants' awareness of English contraction use.
3. probe possible reasons for participants' use or failure to use contractions.
4. probe the link between contraction use and participants' previous English learning experiences, both in formal and informal settings.
5. probe the level of importance linked to contraction use by the participants.
6. probe participants' beliefs about their ability to improve their use of contraction and other connected speech phenomena.

## APPENDIX G: LISTENING TASK SPECIFICATION

### General Objective:

The general objective of this listening task is to obtain written transcriptions of auditory stimulus from participants. The purpose is to determine the quality and quantity of participants' orthographic representations of simple contracted forms from spoken stimulus.

### Specific Objective:

Participants will listen to 76 English sentences, and they must write the missing two-word portions of each sentence they hear on a corresponding answer sheet. In writing their answer, they are free to write either the full form or the contracted form of items containing contractible elements.

### Contraction Types of Focus:

Because of greater difficulties subjects had with phonological reduced forms compared with lexical reduced forms in Ito's (2006) study, only phonological reduced forms will be the focus here. The five contraction types are: 's (has/is), 've, & 'd (had/would).

### Test Design:

The design of this activity borrows heavily from the instrument used by Ito (2006), who in turn borrowed heavily from the instruments used by Henrichsen (1984) and Bowen (1975).

### Sample Item:

**Directions:** When the audio begins, you will hear 76 sentences. There will be a short pause after each sentence (7 seconds). During each pause, write the missing part of each sentence you hear on the lines provided for you. Each sentence will be spoken only once. As you can see, most of the words in each of the sentences are already written for you. Your job is to write the missing word(s) that you hear (cloze-type). Your job is to select the missing word(s) that you hear (forced choice). At most, there will only be one or two missing words per sentence. If you cannot hear all of the missing words, write as many as you can. Just do your best.

Let's listen to an example sentence. If you have any questions after hearing the example, please ask me.

**Example (cloze-type):** I think (   what     you   ) said is correct.

**Example (forced choice):** I think   what you     what he   said is correct.

(An audio-recorded voice will read the following sentence.)

*I think whatcha said is correct.*

### General Prompt Attributes:

- 1) A total of 76 sentences will be read for each of the two versions of the instrument.
- 2) Each sentence will be read once.
- 3) There will be 7 seconds of silence between the end of one sentence and the beginning of the next sentence.
- 4) Each sentence will begin with a one- or two-word carrier phrase, such as "I think/thought," or "I know."

- 5) Each sentence will contain between 8 to 10 words (including the initial carrier phrase and the uncontracted word).
- 6) Words in each sentence will contain between 1 and 4 syllables.
- 7) There will be 14 proform + 's items (7 *is* contractions, 7 *has* contractions), 14 proform + 'd items (7 *would* contractions, 7 *had* contractions), & 10 proform + 've items
- 8) Each sentence will have only one contracted element at most.
- 9) Target-element sentences and filler sentences will alternate so that no two target-element sentences will occur successively. Likewise, no filler sentences will occur successively.
- 10) Target items spoken as contracted forms on one version of the worksheet will not be contracted on the second version of the worksheet.
- 11) Half of participants will complete version one initially and half will complete version two. Participants who complete version one of the cloze-type task will complete version two of the forced-choice task, and vice versa.

Response attribute:

(Cloze-type task) Using the response sheet provided, participants should listen to the accompanying audio file using headphones and write the missing word(s) that they hear in each of the 76 sentences.

(Forced-choice task) Using the response sheet provided, participants should listen to the accompanying audio file using headphones and circle the missing word(s) that they hear in each of the 76 sentences from the two possible choices.

Target Item Bank:

*Had/would* contraction

- 1) I think I'd do well in his class.
- 2) I think I would do well in his class.
- 3) I knew you'd notice his mistake.
- 4) I knew you would notice his mistake.
- 5) I know he'd like to learn that material.
- 6) I know he would like to learn that material.
- 7) I think they'd talk more if they could.
- 8) I think they would talk more if they could.
- 9) I know she'd buy a computer if needed.
- 10) I know she would buy a computer if needed.
- 11) I think we'd both like the new restaurant.
- 12) I think we would both like the new restaurant.
- 13) I think it'd be nice to see you again.
- 14) I think it would be nice to see you again.
- 15) I thought I'd played better last weekend.
- 16) I thought I had played better last weekend.
- 17) I think we'd better find a new place to study.
- 18) I think we had better find a new place to study.
- 19) I think you'd better take the bus.
- 20) I think you had better take the bus.
- 21) I think he'd been a student there before.
- 22) I think he had been a student there before.

- 23) I think she'd worked there for many years.
- 24) I think she had worked there for many years.
- 25) I thought they'd gotten married in Paris.
- 26) I thought they had gotten married in Paris.
- 27) I think it'd been his turn to work.
- 28) I think it had been his turn to work.

Has/is contractions

- 29) I think there's room for everyone at the table.
- 30) I think there is room for everyone at the table.
- 31) I think that's got to be the right answer.
- 32) I think that has got to be the right answer.
- 33) I know that's the correct address.
- 34) I know that is the correct address.
- 35) I know it's difficult for you to study everyday.
- 36) I know it is difficult for you to study everyday.
- 37) I think she's trying to improve her grades.
- 38) I think she is trying to improve her grades.
- 39) I know she's worked hard for many years.
- 40) I know she has worked hard for many years.
- 41) I think he's been under a lot of stress.
- 42) I think he has been under a lot of stress.
- 43) I think it's been a long time.
- 44) I think it has been a long time.
- 45) I think there's been a mistake.
- 46) I think there has been a mistake.
- 47) I know he's never worked in a company.
- 48) I know he has never worked in a company.
- 49) I think she's been a good friend of mine.
- 50) I think she has been a good friend of mine.
- 51) I think he's working at a good restaurant.
- 52) I think he is working at a good restaurant.
- 53) I think she's teaching English this year.
- 54) I think she is teaching English this year.
- 55) I think he's playing soccer with his friends.
- 56) I think he is playing soccer with his friends.

Have contractions

- 57) I think we've spent too much time on this.
- 58) I think we have spent too much time on this.
- 59) I think you've been to that museum before.
- 60) I think you have been to that museum before.
- 61) I think they've stayed in this hotel before.
- 62) I think they have stayed in this hotel before.
- 63) I think I've never been to a concert.
- 64) I think I have never been to a concert.
- 65) I know I've been wrong before.
- 66) I know I have been wrong before.



- 67) I think they've told me many times.
- 68) I think they have told me many times.
- 69) I know you've always been good at math.
- 70) I know you have always been good at math.
- 71) I know we've tried hard to fix it.
- 72) I know we have tried hard to fix it.
- 73) I think they've seen that movie already.
- 74) I think they have seen that movie already.
- 75) I think we've worked hard this semester.
- 76) I think we have worked hard this semester.

Filler Items:

- 1) I think what matters is a positive attitude.
- 2) I think the matter has been solved.
- 3) I think the bottle is near the table.
- 4) I think the bottle is a nice color.
- 5) I know that atoms are very small.
- 6) I know that atoms are everywhere.
- 7) I know that better than anyone else.
- 8) I know that the better person will win.
- 9) I know that battle lasted for many days.
- 10) I know that it was a heated battle.
- 11) I think the water is too cold to swim in.
- 12) I think the water is hard to find.
- 13) I think the bottom is hard to reach.
- 14) I think the bottom one is largest.
- 15) I think that pretty much does it.
- 16) I think that was a pretty hard test.
- 17) I think the butter is on the table.
- 18) I think making butter is very easy.
- 19) I think the store is a little farther.
- 20) I think he knows a little about that.
- 21) I think the truce will help everyone.
- 22) I think the truth will help everyone.
- 23) I thought that the pass was quite short.
- 24) I thought that the path was quite short.
- 25) I know that his faith has changed.
- 26) I know that his face has changed.
- 27) I know that he can sing very well.
- 28) I know that he can think very well.
- 29) I know that he tried to thaw the meat.
- 30) I know that he tried to saw the meat.
- 31) I think she has a big mouth.
- 32) I think she has a big mouse.
- 33) I think the sick one cannot be sold.
- 34) I think the thick one cannot be sold.
- 35) I think that answer is the one he sought.
- 36) I think that answer is the one he thought.

- 37) I think the math is not right.
- 38) I think the mass is not right.
- 39) I think the bass is almost ready.
- 40) I think the bath is almost ready.
- 41) I think the green glass looks beautiful.
- 42) I think the green grass looks beautiful.
- 43) I think that the lace was too long.
- 44) I think that the race was too long.
- 45) I think that clash could have been avoided.
- 46) I think that crash could have been avoided.
- 47) I think the tile she bought was cheap.
- 48) I think the tire she bought was cheap.
- 49) I think the doctor looked at his wrist.
- 50) I think the doctor looked at his list.
- 51) I think she can turn at the next right.
- 52) I think she can turn at the next light.
- 53) I know she just got out of the lane.
- 54) I know she just got out of the rain.
- 55) I know the essay was collected yesterday.
- 56) I know the essay was corrected yesterday.
- 57) I think she can bring the supplies.
- 58) I think she can bring the surprise.
- 59) I think that this is the rear one.
- 60) I think that this is the real one.
- 61) I think the model looks like the original.
- 62) I think the model was cheap to build.
- 63) I think the fast thing to do is call the police.
- 64) I think the first thing to do is call the police.
- 65) I think the firm needs to hire more people.
- 66) I think the farm needs to hire more people.
- 67) I think she lost her will after the accident.
- 68) I think she lost her wheel after the accident.
- 69) I know his walk makes him tired.
- 70) I know his work makes him tired.
- 71) I think we should help his hurt uncle.
- 72) I think we should help his hurt ankle.
- 73) I think trouble is common in her job.
- 74) I think travel is common in her job.
- 75) I think the burn needs to be cleaned.
- 76) I think the barn needs to be cleaned.

## APPENDIX H: CLOZE-TYPE LISTENING TASK ANSWER SHEETS

(Version 1 Stage 1)

Name \_\_\_\_\_ Date: \_\_\_\_\_

### **Instructions:**

When the audio begins, you will hear 76 sentences. There will be a short pause after each sentence (7 seconds). During each pause, write the missing part of each sentence you hear on the lines provided for you. Each sentence will be spoken only once.

As you can see, most of the words in each of the sentences are already written for you. Your job is to write the missing word(s) that you hear. At most, there will only be one or two missing words per sentence. If you cannot hear all of the missing words, write as many as you can. Just do your best.

Let's listen to an example sentence. If you have any questions after hearing the example, please ask me.

**Example:** I think ( what you ) said is correct.

1. I think (what matters) is a positive attitude.
2. I think (we've) spent too much time on this.
3. I thought that (the pass) was quite short.
4. I think (she has) been a good friend of mine.
5. I think the (green glass) looks beautiful.
6. I thought (I'd) wait a few more minutes.
7. I think (trouble is) common in her job.
8. I think (you've) been to that museum before.
9. I think that (the lace) was too long.
10. I think (there is) room for everyone at the table.
11. I think (the math) is not right.
12. I think (they'd) talk more if they could.
13. I think the store is (a little) farther.
14. I think (they have) stayed here before.
15. I think we should help his (hurt uncle).
16. I know (he's) never worked in a company.

**Please go to the next page.**

17. I know that (his faith) has changed.
18. I think (you had) better take the bus.
19. I think (that clash) could have been avoided.
20. I think (I've) never been to a concert.
21. I know that he (can sing) very well.
22. I know (it is) difficult for you to study everyday.
23. I think (the butter) is on the table.
24. I think (it'd) been his turn to work.
25. I know that he tried (to thaw) the meat.
26. I know (I have) been wrong before.
27. I think (the tile) she bought was cheap.
28. I think (there's) been a mistake.
29. I think that answer is the one (he sought).
30. I know (you would) do it if you could.
31. I think (that pretty) much does it.
32. I think (they've) told me many times
33. I think she has a (big mouth).
34. I think (he's) working at a good restaurant.
35. I think the doctor looked at (his wrist).
36. I thought (I had) played better last weekend.
37. I think (the bass) is almost ready.
38. I know (you have) always been good at math.
39. I think (the bottom) is hard to reach.
40. I know (she has) worked hard for many years.
41. I think (the sick) one cannot be sold.
42. I know (she'd) buy a computer if needed.
43. I think she can turn at the (next right).
44. I know (we have) tried hard to fix it.
45. I think (the water) is too cold to swim in.
46. I think (he's) playing soccer with his friends.
47. I know she just got out of (the lane).
48. I think (we had) better find a new place to study.

**Please go to the next page.**

49. I know (that battle) lasted for many days.
50. I think (they have) seen that movie already.
51. I know the essay (was collected) yesterday.
52. I think (that's) got to be the right answer.
53. I know that the (better person) will win.
54. I know (he would) like to learn French.
55. I think she can bring (the surprise).
56. I think (we've) worked hard this summer.
57. I know (that atoms) are very small.
58. I think (she is) teaching English this year.
59. I think that this is (the rear) one.
60. I thought (he'd) been a student there before.
61. I think (that bottle) is near the table.
62. I think (it's) been a long time.
63. I think (the fast) thing to do is call the police.
64. I think (we would) both like the new restaurant.
65. I think she lost (her will) after the accident.
66. I know (that is) the correct address.
67. I know (his walk) makes him tired.
68. I thought (she'd) worked there for many years.
69. I think (the firm) needs to hire more people.
70. I think (he has) been under a lot of stress.
71. I think (the model) looks like the original.
72. I think (it would) be nice to see you again.
73. I think (the truce) will help everyone.
74. I think (she's) trying to improve her grades.
75. I think (the burn) needs to be cleaned.
76. I thought (they'd) gotten married in Paris.

**Thanks for participating!**

Name \_\_\_\_\_ Date: \_\_\_\_\_

**Instructions:**

When the audio begins, you will hear 76 sentences. There will be a short pause after each sentence (7 seconds). During each pause, write the missing part of each sentence you hear on the lines provided for you. Each sentence will be spoken only once.

As you can see, most of the words in each of the sentences are already written for you. Your job is to write the missing word(s) that you hear. At most, there will only be one or two missing words per sentence. If you cannot hear all of the missing words, write as many as you can. Just do your best.

Let's listen to an example sentence. If you have any questions after hearing the example, please ask me.

**Example:** I think ( what you ) said is correct.

1. I thought (they had) gotten married in Paris.
2. I think (the barn) needs to be cleaned.
3. I think (she is) trying to improve her grades.
4. I think (the truth) with help everyone.
5. I think (it'd) be nice to see you again.
6. I think (the model) was cheap to build.
7. I think (he's) been under a lot of stress.
8. I think (the farm) needs to hire more people.
9. I think (she had) worked there for many years.
10. I know (his work) makes him tired.
11. I know (that's) the correct address.
12. I think she lost (her wheel) after the accident.
13. I think (we'd) both like the new restaurant.
14. I think (the first) thing to do is call the police.
15. I think (it has) been a long time.
16. I think (the bottle) is a nice color.

**Please go to the next page.**

17. I think (he had) been a student there before.
18. I think this is (the real) one.
19. I think (she's) teaching English this year.
20. I think he knows (a little) about that.
21. I think (we have) worked hard this semester.
22. I know she can bring (the supplies).
23. I know (he'd) like to learn French.
24. I know that (the better) person will win.
25. I know (that has) got to be the right answer.
26. I know the essay (was corrected) yesterday.
27. I think (they've) seen that movie already.
28. I know that it was a (big battle).
29. I think (we'd) better find a new place to study.
30. I know she just got out of (the rain).
31. I think (he is) playing soccer with his friends.
32. I think (the water) is hard to find.
33. I know (we've) tried hard to fix it.
34. I think she can turn at the (next light).
35. I know (she would) buy a computer if needed.
36. I think (the thick) one cannot be sold.
37. I think (she's) been a good friend of mine.
38. I think (the bottom) was hard to reach.
39. I know (you've) always been good at math.
40. I think (the bath) is almost ready.
41. I thought (I'd) played better last weekend.
42. I think the doctor looked as (his list).
43. I think (he is) working at a good restaurant.
44. I think she has a (big mouse).
45. I think (they have) told me many times.
46. I think that was (a pretty) hard test.
47. I knew (you'd) notice his mistake.
48. I think that answer is the one (he thought).

**Please go to the next page.**

49. I think (there has) been a mistake.
50. I think (the tire) she bought was cheap
51. I know (I've) been wrong before.
52. I know that he tried (to saw) the meat.
53. I think (it had) been his turn to work.
54. I think (making butter) is very easy.
55. I know (it's) difficult for you to study everyday.
56. I know that he (can think) very well.
57. I think (I have) never been to a concert.
58. I think (that crash) could have been avoided.
59. I think (you'd) better take the bus.
60. I know that (his face) has changed.
61. I know (he has) never worked in a company.
62. I think we should help his (hurt ankle).
63. I think (they've) stayed here before.
64. I think he knows (a little) about that.
65. I think (they would) talk more if they could.
66. I think (the mass) is not right.
67. I think (there's) room for everyone at the table.
68. I think that (the race) was too long.
69. I think (you have) been to that museum before.
70. I think (travel is) common in her job.
71. I think (I would) do well in his class.
72. I think the (green grass) looks beautiful.
73. I know (she's) worked hard for many years.
74. I thought that (the path) was quite short.
75. I think (we have) spent too much time on this.
76. I think (the matter) has been solved.

**Thanks for participating!**



## APPENDIX I: FORCED-CHOICE LISTENING TASK ANSWER SHEETS

(Version 1 Stage 2)

Name \_\_\_\_\_ Date: \_\_\_\_\_

### **Instructions:**

When the audio begins, you will hear 76 sentences. There will be a short pause after each sentence (7 seconds). During the pause, circle the missing part of the sentence you hear from the choices provided. Each sentence will be spoken only once.

As you can see, most of the words in each of the sentences are already written for you. Your job is to select the missing word(s) that you hear. Just do your best.

Let's listen to an example sentence. If you have any questions after hearing the example, please ask me.

**Example:** I think what you what he said is correct.

1. I think what matters that matter is a positive attitude.
2. I think we have we've spent too much time on this.
3. I thought that the path the pass was quite short.
4. I think she has she's been a good friend of mine.
5. I think the green glass green grass looks beautiful.
6. I thought I would I'd wait a few more minutes.
7. I think travel is trouble is common in her job.
8. I think you have you've been to that museum before.
9. I think that the lace the race was too long.
10. I think there is there's room for everyone at the table.
11. I think the mass the math is not right.
12. I think they would they'd worry if we were late.
13. I think the store is a little a bit farther.
14. I think they have they've stayed here before.
15. I think we should help his hurt uncle hurt ankle.
16. I know he has he's never worked in a company.

**Please go to the next page.**

17. I know that his face his faith has changed.
18. I think you had you'd better take the bus.
19. I think that clash that crash could have been avoided.
20. I think I have I've never been to a concert.
21. I know that he can sink can sing very well.
22. I know that it is it's difficult for you to study everyday.
23. I think the batter the butter is on the table.
24. I think it had it'd been his turn to work.
25. I know that he tried to thaw to saw the meat.
26. I know I have I've been wrong before.
27. I think the tire the tile she bought was cheap.
28. I think there has there's been a mistake.
29. I think that answer is the one he sought he thought.
30. I knew you would you'd notice his mistake.
31. I think that pretty that really much does it.
32. I think they have they've told me many times
33. I think she has a big mouse big mouth.
34. I think he is he's working at a good restaurant.
35. I think the doctor looked at his wrist his list.
36. I thought I had I'd seen him last weekend.
37. I think the bass the bath is almost ready.
38. I know you have you've always been good at math.
39. I think the bottle the bottom is hard to reach.
40. I know she has she's worked hard for many years.
41. I think the thick the sick one cannot be sold.
42. I know she would she'd buy a computer if needed.
43. I think she can turn at the next right next light.
44. I know we have we've tried hard to fix it.
45. I think the water the vaulter is too cold to swim in.
46. I think he is he's playing soccer with his friends.
47. I know she just got out of the lane the rain.
48. I thought we had we'd always done it this way.

**Please go to the next page.**

49. I know that batter that battle lasted for many days.
50. I think they have they've seen that movie already.
51. I know the essay was corrected was collected yesterday.
52. I think that has that's got to be the right answer.
53. I know that the bigger person better person will win.
54. I know he would he'd like to learn French.
55. I think she can bring the surprise the supplies.
56. I think we have we've worked hard this summer.
57. I know that atoms that ants are very small.
58. I think she is she's teaching English this year.
59. I think that this is the real the rear one.
60. I thought he had he'd been a student there before.
61. I think that bottle that butter is near the table.
62. I think it has it's been a long time.
63. I think the first the fast thing to do is call the police.
64. I think we would we'd both like the new restaurant.
65. I think she lost her wheel her will after the accident.
66. I know that is that's not the correct address.
67. I know his walk his work makes him tired.
68. I thought she had she'd worked there for many years.
69. I think the farm the firm needs to hire more people.
70. I think he has he's been under a lot of stress.
71. I think the motor the model looks like the original.
72. I think it would it'd be nice to see you again.
73. I think the truce the truth will help everyone.
74. I think she is she's trying to improve her grades.
75. I think the burn the barn needs to be cleaned.
76. I thought they had they'd gotten married in Paris.

**Thanks for participating!**

Name \_\_\_\_\_ Date: \_\_\_\_\_

**Instructions:**

When the audio begins, you will hear 76 sentences. There will be a short pause after each sentence (7 seconds). During the pause, circle the missing part of the sentence you hear from the choices provided. Each sentence will be spoken only once.

As you can see, most of the words in each of the sentences are already written for you. Your job is to select the missing word(s) that you hear. Just do your best.

Let's listen to an example sentence. If you have any questions after hearing the example, please ask me.

**Example:** I think what you what he said is correct.

1. I thought they had they'd gotten married in Paris.
2. I think the burn the barn needs to be cleaned.
3. I think she is she's trying to improve her grades.
4. I think the truce the truth will help everyone.
5. I think it would it'd be nice to see you again.
6. I think the motor the model was cheap to build.
7. I think he has he's been under a lot of stress.
8. I think the farm the firm needs to hire more people.
9. I think she had she'd worked there for many years.
10. I know his walk his work makes him tired.
11. I know that is that's not the correct address.
12. I think she lost her wheel her will after the accident.
13. I think we would we'd both like the new restaurant.
14. I think the first the fast thing to do is call the police.
15. I think it has it's been a long time.
16. I think the bottle the butter is a nice color.

**Please go to the next page.**

17. I think he had he'd been a student there before.
18. I think this is the real the rear one.
19. I think she is she's teaching English this year.
20. I think he knows a bit a little about that.
21. I think we have we've worked hard this semester.
22. I know she can bring the surprise the supplies.
23. I know he would he'd like to learn French.
24. I know that the bigger the better person will win.
25. I know that has that's got to be the right answer.
26. I know the essay was corrected was collected yesterday.
27. I think they have they've seen that movie already.
28. I know that it was a big batter big battle.
29. I thought we had we'd always done it this way.
30. I know she just got out of the lane the rain.
31. I think he is he's playing soccer with his friends.
32. I think the water the waiter is hard to find.
33. I know we have we've tried hard to fix it.
34. I think she can turn at the next right next light.
35. I know she would she'd buy a computer if needed.
36. I think the thick the sick one cannot be sold.
37. I think she has she's been a good friend of mine.
38. I think the bottle the bottom was hard to reach.
39. I know you have you've always been good at math.
40. I think the bass the bath is almost ready.
41. I thought I had I'd seen him last weekend.
42. I think the doctor looked at his wrist his list.
43. I think he is he's working at a good restaurant.
44. I think she has a big mouse big mouth.
45. I think they have they've told me many times.
46. I think that was a really a pretty hard test.
47. I knew you would you'd notice his mistake.
48. I think that answer is the one he sought he thought.

**Please go to the next page.**

49. I think there has there's been a mistake.
50. I think the tire the tile she bought was cheap.
51. I know I have I've been wrong before.
52. I know that he tried to thaw to saw the meat.
53. I think it had it'd been his turn to work.
54. I think making batter making butter is very easy.
55. I know it is it's difficult for you to study everyday.
56. I know that he can sink can think very well.
57. I think I have I've never been to a concert.
58. I think that clash that crash could have been avoided.
59. I think you had you'd better take the bus.
60. I know that his face this faith has changed.
61. I know he has he's never worked in a company.
62. I think we should help his hurt uncle hurt ankle.
63. I think they have they've stayed here before.
64. I think he knows a little a bit about that.
65. I think they would they'd worry if we were late.
66. I think the mass the math is not right.
67. I think there is there's room for everyone at the table.
68. I think that the lace the race was too long.
69. I think you have you've been to that museum before.
70. I think travel is trouble is common in her job.
71. I thought I would I'd wait a few more minutes.
72. I think the green glass green grass looks beautiful.
73. I know she has she's worked hard for many years.
74. I thought that the path the pass was quite short.
75. I think we have we've spent too much time on this.
76. I think the matter the latter has been solved.

**Thanks for participating!**

## APPENDIX J: LISTENING TASK ITEM KEYS

(Version 1, Stages 1 & 2)

C=contracted, U=uncontracted, and letters in parentheses are the environments including and following the contractible lexical item

- |                               |                       |
|-------------------------------|-----------------------|
| 1) matter                     | 42) C would (db) (35) |
| 2) C have (vsp) (75)          | 43) right             |
| 3) pass                       | 44) U have (vtr) (33) |
| 4) U has (zb) (37)            | 45) water             |
| 5) glass                      | 46) C is (zpl) (31)   |
| 6) C would (dw) (71)          | 47) lane              |
| 7) trouble                    | 48) U had (db) (29)   |
| 8) C have (vb) (69)           | 49) battle            |
| 9) lace                       | 50) U have (vs) (27)  |
| 10) U is (zr) (67)            | 51) collected         |
| 11) math                      | 52) C has (sg) (25)   |
| 12) C would (dw) (65)         | 53) better            |
| 13) little                    | 54) U would (dl) (23) |
| 14) U have (vst) (63)         | 55) surprise          |
| 15) uncle                     | 56) C have (vw) (21)  |
| 16) C has (zn) (61)           | 57) atoms             |
| 17) faith                     | 58) U is (zt) (19)    |
| 18) U had (db) (59)           | 59) rear              |
| 19) clash                     | 60) C had (db) (17)   |
| 20) C have (vn) (57)          | 61) bottle            |
| 21) sing                      | 62) C has (sb) (15)   |
| 22) U is (zd) (55)            | 63) fast              |
| 23) butter                    | 64) U would (db) (13) |
| 24) C had (db) (53)           | 65) will              |
| 25) thaw                      | 66) U is (z eth) (11) |
| 26) U have (vb) (51)          | 67) walk              |
| 27) tile                      | 68) C had (dw) (9)    |
| 28) C has (zb) (49)           | 69) firm              |
| 29) sought                    | 70) U has (zb) (7)    |
| 30) U would (dn) (47)         | 71) model             |
| 31) pretty                    | 72) U would (db) (5)  |
| 32) C have (vt) (45)          | 73) truce             |
| 33) mouth                     | 74) C is (ztr) (3)    |
| 34) C is (zw) (43)            | 75) burn              |
| 35) wrist                     | 76) C had (dg) (1)    |
| 36) U had (dpl) (41)          |                       |
| 37) bass                      |                       |
| 38) U have (v open o)<br>(39) |                       |
| 39) bottom                    |                       |
| 40) U has (zw) (73)           |                       |
| 41) sick                      |                       |

(Version 2, Stages 1 & 2)

C=contracted, U=uncontracted, and letters in parentheses are the environments including and following the contractible lexical item

- |                      |                  |
|----------------------|------------------|
| 1) U had (dg)        | 45) U have (vt)  |
| 2) barn              | 46) pretty       |
| 3) U is (ztr)        | 47) C would (dn) |
| 4) truth             | 48) thought      |
| 5) C would (db)      | 49) U has (zb)   |
| 6) model             | 50) tire         |
| 7) C has (zb)        | 51) C have (vb)  |
| 8) farm              | 52) saw          |
| 9) U had (dw)        | 53) U had (d b)  |
| 10) work             | 54) butter       |
| 11) C is (s eth)     | 55) C is (tsd)   |
| 12) wheel            | 56) think        |
| 13) C would (db)     | 57) U have (vn)  |
| 14) first            | 58) crash        |
| 15) U has (zb)       | 59) C had (db)   |
| 16) bottle           | 60) face         |
| 17) U had (db)       | 61) U has (zn)   |
| 18) real             | 62) ankle        |
| 19) C is (zt)        | 63) C have (vst) |
| 20) little           | 64) little       |
| 21) U have (vw)      | 65) U would (dt) |
| 22) supplies         | 66) mass         |
| 23) C would (dl)     | 67) C is (zr)    |
| 24) better           | 68) race         |
| 25) U has (zg)       | 69) U have (vb)  |
| 26) corrected        | 70) travel       |
| 27) C have (vs)      | 71) U wd (dw)    |
| 28) battle           | 72) grass        |
| 29) C had (db)       | 73) C has (zw)   |
| 30) rain             | 74) path         |
| 31) C is (zpl)       | 75) U have (vsp) |
| 32) water            | 76) matter       |
| 33) C have (vtr)     |                  |
| 34) light            |                  |
| 35) U would (db)     |                  |
| 36) thick            |                  |
| 37) C has (zb)       |                  |
| 38) bottom           |                  |
| 39) C 've (v open o) |                  |
| 40) bath             |                  |
| 41) C had (dpl)      |                  |
| 42) list             |                  |
| 43) U is (zw)        |                  |
| 44) mouse            |                  |



## APPENDIX K: RESULTS OF CLOZE-TYPE LISTENING TASK

Cloze-type Listening Task			Analysis Criterion 1		
Participant (NNS)	Stage	Version	Total Score (38)	Contract. (19)	Uncontract. (19)
Mayu	1	2	14	5	9
Seiji	1	1	18	3	15
Dai	1	1	18	7	11
Yoshi	1	2	23	7	16
Nana	1	2	34	16	18
Isamu	1	1	19	4	15
Keisuke	1	1	12	0	12
Rie	1	2	18	4	14
Jun	1	1	20	4	16
Ai	1	2	16	8	8
Mean			19.2	5.8	13.4
SD			6.03	4.26	3.27
Totals			192/380	58/190	134/190
Percentage			50.53%	30.53%	70.53%

Cloze-type Listening Task			Analysis Criterion 2			
Participant (NNS)	Stage	Version	Total Score (38)	Contract. (19)	Uncontract. (19)	Incorrect
Mayu	1	2	17	8	9	21
Seiji	1	1	22	7	15	16
Dai	1	1	23	11	12	15
Yoshi	1	2	30	13	17	8
Nana	1	2	34	16	18	4
Isamu	1	1	30	14	16	8
Keisuke	1	1	25	13	12	13
Rie	1	2	27	13	14	11
Jun	1	1	33	16	17	5
Ai	1	2	18	10	8	20
Mean			25.9	12.1	13.8	12.1
SD			5.93	3.07	3.46	5.93
Totals			259/380	121/190	138/190	121/380
Percentage			68.16%	63.68%	72.63%	31.84%

Cloze-type Listening Task			Analysis Criterion 1		
Participant (NS)	Stage	Version	Total Score (38)	Contract. (19)	Uncontract. (19)
Cassie	1	1	37	18	19
George	1	2	38	19	19
Hannah	1	1	37	18	19
Jake	1	2	21	2	19
Mean			33.25	14.25	19
SD			8.18	8.18	0
Totals			133/152	57/76	76/76
Percentage			87.50%	75.00%	100%

Cloze-type Listening Task			Analysis Criterion 2		
Participant (NS)	Stage	Version	Total Score (38)	Contract. (19)	Uncontract. (19)
Cassie	1	1	38	19	19
George	1	2	38	19	19
Hannah	1	1	38	19	19
Jake	1	2	38	19	19
Mean			38	19	19
SD			0	0	0
Totals			152/152	76/76	76/76
Percentage			100%	100%	100%

**APPENDIX L: RESULTS OF FORCED-CHOICE LISTENING TASK**

Forced-choice Listening Task					
Participant (NNS)	Stage	Version	Total Score (38)	Contract. (19)	Uncontract. (19)
Mayu	2	1	32	16	16
Seiji	2	2	35	16	19
Dai	2	2	34	17	17
Yoshi	2	1	32	15	17
Nana	2	1	36	17	19
Isamu	2	2	36	17	19
Keisuke	2	2	37	18	19
Rie	2	1	33	17	16
Jun	2	2	35	16	19
Ai	2	1	29	13	16
Mean			33.9	16.2	17.7
SD			2.42	1.40	1.42
Totals			339/380	162/190	177/190
Percentage			89.21%	85.26%	93.16%

Forced-choice Listening Task					
Participant (NS)	Stage	Version	Total Score (38)	Contract. (19)	Uncontract. (19)
Cassie	2	2	37	18	19
George	2	1	37	18	19
Hannah	2	2	37	18	19
Jake	2	1	37	18	19
Mean			37	18	19
SD			0	0	0
Totals			148/152	72/76	76/76
Percentage			97.37%	94.74%	100%

## APPENDIX M: CONTRACTION-RELATED PRODUCTION TOKENS (NNS)

The following tables contain the counts of the contracted tokens (left column) and uncontracted tokens (right column) for each of the contractible phrases observed in the two NNS interviews from which the data were collected. Contractible phrases not present in the tables were not observed in the interview data in either contracted or uncontracted form.

Participant (NNS)	I am		It is		That is		He is		She is		There is		Who is		What is	
Mayu	4	0	19	5	0	0	0	1	0	3	0	6	3	0	1	0
Seiji	25	1	74	0	1	1	0	7	0	1	2	30	0	1	0	0
Dai	14	0	20	0	1	0	0	2	0	0	0	2	0	0	0	3
Yoshi	18	0	35	2	8	3	1	4	0	1	0	3	0	0	0	0
Nana	9	0	8	0	0	0	2	1	2	0	0	0	0	0	0	0
Isamu	36	0	16	1	2	3	3	1	4	1	0	0	0	2	0	0
Keisuke	11	0	42	7	1	0	1	6	0	0	1	6	0	0	0	0
Rie	4	1	19	1	0	0	0	2	0	0	1	2	0	0	0	0
Jun	12	0	42	1	2	1	0	1	0	2	1	0	0	0	0	0
Ai	13	1	7	0	0	0	2	4	0	5	0	0	0	1	0	0
Totals	146	3	282	17	15	8	9	29	6	13	5	49	3	4	1	3

Participant (NNS)	It has		He has		She has		We are		They are		You are		I have		We have	
Mayu	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0
Seiji	0	0	0	0	0	0	0	2	0	2	0	1	0	7	0	0
Dai	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Yoshi	0	0	1	1	0	0	0	1	0	5	0	0	1	0	0	0
Nana	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	0
Isamu	0	0	0	0	0	0	4	3	0	4	3	0	12	0	2	0
Keisuke	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Rie	0	0	0	0	0	0	0	3	0	5	0	0	0	0	0	0
Jun	0	0	0	0	0	1	0	1	0	4	0	0	1	0	0	0
Ai	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0
Totals	1	0	1	1	0	1	4	10	4	26	3	4	17	7	2	0

Participant (NNS)	Do not		Did not		Cannot		Could not		Does not		Have not		Was not		Is not	
Mayu	15	0	3	3	3	3	1	2	0	1	1	0	0	1	0	4
Seiji	23	0	4	0	5	3	11	0	2	0	0	0	0	1	2	1
Dai	13	0	12	0	8	0	0	0	0	0	0	1	1	0	0	5
Yoshi	39	0	12	0	0	3	5	0	0	0	0	0	0	2	0	1
Nana	16	0	8	0	11	0	1	0	1	0	1	0	0	0	1	1
Isamu	22	0	17	0	3	11	3	0	3	0	3	0	0	0	0	0
Keisuke	37	0	8	0	31	0	1	0	0	0	5	0	0	0	0	6
Rie	2	2	18	0	2	0	4	0	1	0	0	0	3	1	0	0
Jun	26	2	7	2	0	3	1	0	0	0	0	0	0	0	0	6
Ai	31	0	6	0	19	0	1	0	4	0	0	0	0	0	0	2
Totals	224	4	95	5	82	23	28	2	11	1	10	1	4	5	3	26

Participant (NNS)	Were not		Are not		Will not		Should not		Would not		Has not		I will		He will	
Mayu	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
Seiji	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
Dai	1	0	0	4	0	0	0	0	0	0	0	0	0	2	0	0
Yoshi	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3
Nana	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Isamu	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
Keisuke	0	0	1	1	0	1	0	0	0	0	0	1	0	1	0	1
Rie	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Ai	0	0	0	0	1	1	0	0	0	0	0	0	0	3	0	0
Totals	1	0	1	12	1	2	0	1	0	1	0	1	1	12	0	6

Participant (NNS)	It will		You had		He had		I had		It would		They would	
Mayu	0	0	0	0	0	0	0	1	0	0	0	0
Seiji	0	3	0	0	0	1	0	0	0	0	0	0
Dai	0	1	0	0	0	0	0	0	0	0	0	0
Yoshi	0	1	0	0	0	0	0	0	0	0	0	0
Nana	0	0	0	0	0	0	0	1	0	0	0	0
Isamu	0	0	0	0	0	0	0	0	0	0	0	0
Keisuke	0	0	0	0	0	0	0	0	0	0	0	0
Rie	0	1	0	0	0	0	0	0	0	2	0	0
Jun	0	0	0	0	0	1	0	0	0	0	0	1
Ai	0	0	3	0	0	0	0	0	0	0	0	0
Totals	0	6	3	0	0	2	0	2	0	2	0	1

## APPENDIX N: CONTRACTION-RELATED PRODUCTION TOKENS (NS)

The following tables contain the counts of the contracted tokens (left column) and uncontracted tokens (right column) for each of the contractible phrases observed in one NS interview from which the data were collected. Contractible phrases not present in the tables were not observed in the interview data in either contracted or uncontracted form.

Participant (NS)	I am		It is		That is		He is		She is		There is		Who is		What is	
Cassie	10	0	13	0	10	0	3	0	1	0	2	0	1	0	1	0
George	5	0	21	0	6	0	2	0	3	0	6	0	0	0	0	0
Hannah	24	0	5	0	5	0	1	1	2	0	4	0	0	0	0	0
Jake	21	0	31	0	7	0	3	0	0	0	2	0	0	0	0	0
<b>Totals</b>	<b>60</b>	<b>0</b>	<b>70</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>

Participant (NS)	It has		He has		Who has		We are		They are		You are		I have		We have	
Cassie	0	0	3	0	1	0	0	0	4	0	2	0	17	0	0	0
George	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Hannah	1	0	0	0	0	0	0	0	2	0	1	0	16	2	3	0
Jake	0	0	2	0	0	0	3	0	2	0	3	0	10	0	0	0
<b>Totals</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>43</b>	<b>2</b>	<b>3</b>	<b>0</b>

Participant (NS)	They have		Do not		Did not		Cannot		Could not		Does not		Have not		Was not	
Cassie	0	0	8	0	5	0	0	0	0	0	0	0	0	0	3	0
George	0	0	11	0	1	0	1	0	0	0	0	0	0	0	0	0
Hannah	1	0	14	2	8	2	4	0	4	0	1	0	1	1	0	0
Jake	0	0	16	0	2	0	0	0	0	0	1	0	1	0	0	0
<b>Totals</b>	<b>1</b>	<b>0</b>	<b>49</b>	<b>2</b>	<b>16</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>0</b>

Participant (NS)	Is not		Had not		I will		They will		We will		It will		You will		He would	
Cassie	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	1
George	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
Hannah	1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0
Jake	0	0	0	0	3	0	1	0	3	0	0	0	0	0	0	0
<b>Totals</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>

Participant (NS)	I would		It would		She would		You would		We would		They would		I had	
Cassie	0	0	0	0	0	0	0	0	0	1	0	1	0	0
George	1	1	0	0	0	1	0	0	0	0	0	0	0	0
Hannah	0	5	1	1	0	1	0	0	0	2	0	0	0	1
Jake	0	0	0	0	0	0	0	1	0	2	0	0	0	0
Totals	1	6	1	1	0	2	0	1	0	5	0	1	0	1