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Politeness in Japanese Sign Language (JSL): Polite JSL Expression as Evidence for Intermodal Language Contact Influence

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Politeness in Japanese Sign Language (JSL): Polite JSL expression as evidence for intermodal language contact influence

By

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ABSTRACT

Politeness in Japanese Sign Language (JSL): Polite JSL expression as evidence for intermodal language contact influence

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Doctor of Philosophy in Linguistics

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Professor Eve Sweetser, Chair

This dissertation shows how signers mark polite register in JSL and uncovers a number of features salient to the linguistic encoding of politeness. My investigation of JSL politeness considers the relationship between Japanese sign and speech and how users of these languages adapt their communicative style based on the social context. This work examines: the Deaf Japanese community as minority language users and the concomitant effects on the development of JSL; politeness in JSL independently and in relation to spoken Japanese, along with the subsequent implications for characterizing polite Japanese communicative interaction; and the results of two studies that provide descriptions of the ways in which JSL users linguistically encode polite register. The studies show that JSL displays social indexical features with potential typological salience across sign languages.

The elaborate system of overt encoding of polite expression in Japanese speech is commonly conceived of as indicating and reinforcing the special significance of polite behavior or practice in Japanese society. Nevertheless, sign language users as members of an overlapping society use a different language, which either marks politeness contrastively or fails to signify certain aspects of politeness signaled by spoken Japanese. The structural contrasts between JSL and spoken Japanese show that a language must receive consideration in light of actual communicative practice in order to determine its relation to social norms. Additionally, the reliance of JSL on dependent segments, or nonmanuals, to mark polite expression indicates that any linguistic analysis of politeness is impoverished as long as such kinds of dependent segments, analogous to features such as prosody in spoken languages, do not receive consideration.

Since JSL and spoken Japanese represent, in a sense, two languages sharing one society, they represent a novel language contact context in which two languages segregate primarily via language modality rather than physical geography, as in the case of spoken contact languages. Using contact signed and spoken language pairs, researchers can uniquely tease apart the relation between language use and social context as a sign language is cultivated in a closely related society or ground of material relations of a preexisting spoken language.

Chapter Two, "JSL as a Minority Language" illustrates the social context of Deaf Japanese people and JSL, and shows how Deaf Japanese inhabit a society dominated by a hearing culture. The resultant saturation in the language-context relations of the hearing culture produces a sign language with a number of influences from the socially dominant spoken and written language culture, along with concomitant effects on the JSL lexicon and morphology. A shared visual-kinesic communicative culture additionally results in a JSL that has assimilated features bearing resemblance to gestures from the inventory of speakers and signers.

Chapter Three, "Japanese Signer and Speaker Polite Expression" demonstrates that although the structures of JSL and spoken Japanese differ, they have the capacity to index the same social interaction contexts. The presence of two differing languages, with a mixture of shared and unique indices, derived from a shared social milieu demonstrates that the examination of language structures in relation to their actual application is prerequisite to framing any cross-cultural analysis grounded in linguistic form.

Chapter Four, "JSL Politeness Studies" unearths a number of JSL politeness marking features, including nonmanual, lexical and discourse features. The first study reproduces for JSL the Hill et al. Pen Study (1986) and elicits responses to a request for a pen signed with various levels of politeness. The second study replicates the Hoza ASL study (2007) and uses a Discourse Completion Test (Blum-Kulka et al. 1989) to collect responses from JSL signers to request scenarios. The close examination of polite expression via the two JSL studies shows that a subset of JSL politeness marking features appear to emerge from the visual-kinesthetic modality shared with Japanese speakers, as some features maintain enough transparency for non-signers to interpret them similarly to signers. Additionally, besides confirming some of the results of an earlier JSL politeness study by Okabe et al. (2005), the studies identify a number of politeness indices in JSL similar to register marking cues described in the ASL literature (Berkowitz 2008; Cokely and Baker-Shenk 1980; Hoza, 2007; Liddell and Johnson 1989[1985]; Roush 2007 [1999]; Zimmer 1989). JSL exhibits particular politeness indexing features shared with ASL, such as the

polite grimace, manipulation of signing space size and variation of signing rate, which may have typological salience across sign languages.

To Frederick Allen (1967-2009)

平成２３年３月１１日東日本大震災により被害を受けられた皆様にお見舞い申し上げます

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Vita

Johnny Earl George graduated with a B.A. in English Literature and Education at the University of Texas, Arlington in 1989. In 1991 he received an M.A. in English Literature and Language from the University of Virginia, Charlottesville. From 1992, he spent two years in Papua New Guinea as a Peace Corps volunteer teaching at Kiriwina High School in Milne Bay Province. Upon return to the U.S. he served as an Instructional Associate at Eastfield Community College in his hometown Dallas, Texas. He began his ongoing relationship with Japan in 1996 upon moving to Tsuruga city in Fukui Prefecture. He spent two and a half years teaching English in Fukui, largely for the Japan Power Company nuclear plant in Tsuruga, and from late 1998 moved to Kanazawa city, Ishikawa Prefecture to participate in the Japanese Exchange Teaching Program. He began learning JSL in Tsuruga in a small community group in 1997 and continued his involvement with JSL in Kanazawa when he joined the sign language group *Ate-no-kai*. He entered the Berkeley Linguistics Department in the Fall of 2001 and completed his M.A. in Linguistics in 2003. From 2005 he served as a Graduate Student Researcher for the UCB Center for Race and Gender. He spent a year between 2008-2009 at the National Rehabilitation Center for Persons with Disabilities (NRCPD) College, Sign Language Interpretation Department as a Fulbright-Hays Doctoral Dissertation Research Abroad Fellow for the U.S. Department of Education.

CHAPTER 1
INTRODUCTION - POLITENESS IN JAPANESE SIGN LANGUAGE (JSL)

This work investigates the production of polite expression in JSL through the examination of: the Deaf Japanese community as minority language users and the concomitant effects on the development and spread of JSL (Chapter Two);[1] politeness in JSL independently and in relation to spoken Japanese, along with the subsequent implications for characterizing polite Japanese communicative interaction (Chapter Three); and the results of two studies that provide descriptions of the ways in which JSL users linguistically encode polite register (Chapter Four).

Chapter One begins with a fundamental question, "How do Japanese Sign Language (JSL) users express polite register in JSL?" While a more specific characterization of politeness appears in §3.3, simply put, polite register or politeness can refer to an individual's choice of utterance, selected in terms of its perceived appropriateness for a given situation. For instance, a person has a number of ways to make a request, and depending on the scenario, any given interlocutor may deem some request forms more appropriate relative to others. In English, a speaker could request for a glass of water by asking, "Could I have a glass of water please?" Alternatively the speaker could make an indirect request by saying, "I need a glass of water." One could evenly bluntly demand, "Gimme a glass of water!" A large body of linguistic research in speech and a significantly smaller body of work in sign language examines the relationship between classes of expressions, such as requests, and the way interlocutors manipulate their language on the basis of a number of social factors. Social factors include: the setting, such as the home or the workplace; the relative status of the interlocutor, for instance a supervisor or coworker; and/or the perceived imposition of the request—for example, does the requester wish for a glass of water or to borrow someone's Mercedes? Politeness refers to the production of such types of communicative exchanges.

Interestingly, the ways Japanese *speakers* produce polite expression bear relevance to the preliminary question about JSL signers. Upon initial consideration, besides sharing the same geographical space, JSL and spoken Japanese do not appear to require a strong relationship. JSL serves as the language of the Deaf and has little mutual intelligibility with spoken Japanese. If the Deaf presumably cannot hear, it seems unlikely that such a community could develop and maintain a language that comprises any interactions that correspond to speech usage. Naturally, the written language is accessible to literate people with sight; however, writing does not necessarily indicate the appropriate contexts to enact particular types of

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[1] *Uppercase "Deaf" refers to those who identify themselves as culturally Deaf and a distinct minority group. It contrasts with lowercase "deaf" that simply refers to those with some level of hearing–impediment. For convenience, this work will always use "Deaf" unless a given section refers to an explicitly non-Deaf community perspective.*

communicative exchanges such as those involved in greetings and introductions. JSL users at times apply JSL expressions with a level of equivalence to Japanese speech, such as *YOROSHIKU ONEGAISHIMASU*,[2] 'nice to meet you', or 'I appreciate your help', in contexts similarly to speakers.

The connection between JSL and spoken Japanese lies in the nature of the Deaf and hearing communities. As delineated in §2.1, Deaf Japanese share an identity as a minority group immersed in a hearing dominated society; such interaction has concomitant effects on JSL due to the influence of extensive, persistent language contact with spoken Japanese. As described in §2.3, the Deaf community comprises individuals with different degrees of hearing, so access to speech sounds will vary from none for the most profoundly deaf, to a minimal level of access for those with some amount of hearing ability. The combination of a Deaf community with some access to speech and continuous immersion in the speech community entails that socially dominant spoken Japanese will have some influence on the minority language JSL; examples in §2.3 and the research covered in Chapter Four supports this conclusion.

Besides spoken and written Japanese, there exists yet another connection between JSL and Japanese speech in the form of a visual-kinesic communicative culture. §2.4 covers visual-kinesic communication, the shared communicative medium between signers and speakers that consists of gestures, facial expressions, and other types of bodily actions as delineated by researchers such as Birdwhistell (1970), Kendon (2004), and McNeill (1992). Visual-kinesic codes result in a shared medium of communication available to non-visually impaired Deaf and hearing people alike. Visual-kinesic communicative elements can either accompany speech or appear independently, as detailed in §2.4.2. The two JSL politeness research studies from Chapter Four show that JSL in its encoding of politeness adapts a number of features from the shared visual-kinesic communicative repertoire of signers and speakers.

The association between JSL and spoken Japanese leads to the question of the extent of the relationship. Rather than recap the content covered in subsequent chapters, a discussion of two concrete examples will serve as a way to illustrate the JSL/spoken Japanese relationship. The first considers how shared social context produces a connection between sign and speech, and the second examines a JSL polite expression in light of its relationship to Japanese speech.

O-HANAMI

The relationship between the communities of signers and speakers received a brief treatment above. Another factor important to the consideration of a sign language and

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[2] *The sign language literature conventionally represents signed lexical items in all capitalized letters. This work oftentimes uses Japanese rather than English to represent a signed expression since the source Japanese representation may have relevance to the discussion of the sign.*

its connection to its contact spoken language(s) is the indexation of the separate languages to the same social contexts. Such a link demonstrates that a sign language will more closely relate to its contact spoken language(s) than any non-contact languages. In effect, the same social contexts oftentimes mediate both JSL and spoken Japanese.

As an example, consider a culturally related expression such as *o-hanami* 'cherry blossom viewing' in spoken Japanese, which shares the same indexical ground or social context as the JSL sign glossed as *O-HANAMI*. The terms capture a number of the same cultural associations such as, [DURING LATE MARCH OR EARLY APRIL SITTING IN A PARK UNDER BLOOMING CHERRY BLOSSOM TREES, SOMETIMES WITH A LITTLE RAIN, ON A LARGE BLUE TARP WHILE EATING FOOD AND DRINKING BEER WITH FAMILY, FRIENDS AND/OR CO-WORKERS.] JSL is not mediated through spoken Japanese or vice-versa; the interpretation of the given sign in Japanese sign or speech has mediation via the habitually associated social context. As this social context typically lacks availability in a different cultural space, some loose translation such as, 'cherry blossom viewing', in English obviously requires the work of setting up all the relevant aspects of the activity to fully relate the meaning of the given translation.

Sharing the same social *habitus* or practices, discussed in §3.3.3, Japanese signers and speakers refer to very similar cultural frames although applying differing languages. Although JSL and Japanese index the same event, contrasts unique to the *habitus* of each group of language users may exist. For instance, since signers use the visual-kinesthetic modality, they may associate *O-HANAMI* with particular seating arrangement, such as making a huge circle, that exploits the communicative modality in a way that optimizes interaction between all signers—this type of association may not exist for the space of hearers or they may habituate themselves to another type of seating pattern.

The simple lexical example of *O-HANAMI* additionally emphasizes the literal structural connection between Japanese sign and speech in that the JSL consists of a calque, or the borrowing of a word to meaning association from spoken Japanese. JSL consists literally of two concatenated manual signs—signs made with the hands rather than the face or body position—*HANA* 'flower' and *MI* 'to view'. Similarly the spoken Japanese expression comprises *hana* 'flower' and *mi* 'to view'. Further examples of this type of etymological relationship receive treatment in §2.3.

There exist two components to the relationship between Japanese sign and speech, the literal linguistic product and the mapping of that output to a given social context. As a result, as illustrated for polite expression in §3.1, two languages may use similar expressions to relate the same context, similar expressions to mark different contexts, differing expressions to index differing contexts, or even differing expressions that map to a similar context. Consideration of JSL in relation to spoken Japanese and communicative context demonstrates the complex ways two separate, but related, languages varyingly overlap in their indexation of social contexts.

In the case of politeness, discourse strongly driven by the social context and relative status of interlocutors, polite communicative strategies by the Deaf should, to some extent, reflect polite communicative strategies by speakers despite the distinction in language modalities. A specific example of a polite JSL expression follows.

'Won't you enter our group?'

The following JSL expression from the film *I Love You* (Osawa and Yonaiyama 1999) illustrates politeness marking communicative elements involved in the relationship between Japanese sign and speech. The film centers on the family life of a character named Asako and her involvement with a Deaf theater troupe. In a pivotal scene from the film, Asako's friend Katsuko wants to form a theater troupe and wishes Asako to join. As Katsuko, portrayed by a native JSL signing actress,[3] signs the request that will seriously inconvenience Asako, Katsuko bows her head lower, furrows her brows, narrows her eyes and slightly grits her teeth.

Below appears a transcription consisting of JSL manual signs glossed in written Japanese and English with all-caps. The transcription also has tiers labeling the chin position, head movement and facial expression along with each sign. Different elements from Katsuko's expression merit attention.

A Japanese Sign Language (JSL) request phrase from the film I Love You.

Sign in Japanese	[呼び出す]	入る	お願いします---------->	
Sign in Japanese (Romanized)	[*yobidasu*]	*HAIRU*	*ONEGAISHIMASU*--------->	
Sign in English	[beckon]	ENTER	PLEASE---------->	
Chin position	neutral	forward	+forward ---------->	
Head movement			lower	hold
Facial expression	Slight grimace (tenses eyes & cheeks)	Relaxes face; raises brows	Grimace (tenses eyes & cheeks; grits teeth)	relaxes
Japanese caption	うちの団体入らない？			
Japanese caption (Rom)	*Uchi no dantai hairanai?*			
English translation	Won't you enter our group?			

The JSL expression requires some combination of nonmanuals, or sign elements independent of the hands discussed in §3.2.1, to produce the request; these nonmanuals lack a conventional gloss, hence much of the expression has no conventional word-to-sign Japanese gloss. The written Japanese translation, from the

[3] *This work uses "native signer" to refer to sign language users who acquired sign language from birth onwards due to membership in a sign language using Deaf family.*

film's subtitles, represents an indirect request through the presence of a negation suffix, *–nai*. The JSL request consists of the word *ONEGAISHIMASU* 'please' but otherwise lacks a manual sign related to the request. Katsuko's use of a number of nonmanuals raises the question of what elements have salience for the formation of the request. Katsuko uses her head position, head movement and facial expression to form the request, but without further analysis determining what any given feature entails, the identification of JSL politeness markers presents difficulty. The Chapter Four Pen Study conclusions under §4.2.3.9 identify the lexical item *ONEGAISHIMASU*, head movement, head position, and grimace as features with different degrees of salience in marking Katsuko's request in regards to politeness.

Given that Katsuko makes a very polite request to Asako, understanding *why* she uses a very polite register requires more information than the politeness expressing features can provide. The social nature of the relationship has relevance. Asako, unrelated to Katsuko, might consider Katsuko as a member of an out-group, or person not part of her typical network of social peers such as family members or co-workers, with a significant degree of social distance. Knowledge about their specific relationship would help zero in on the motivation for Katsuko's choice of register. In this case, the two characters have a very close relationship, so similarly to a result from the Chapter Four discourse study covered in §4.3.3, the polite marking of the Katsuko's request has a relationship to the high imposition involved, or sacrifice Atsuko must make to join the troupe. JSL as well as spoken Japanese require the use of the appropriate register based on the discourse context; however, some of the crucial politeness marking features in this JSL example do not reside in the glossed "words" or signs, but rather in the accompanying nonmanual features.

One could further posit questions about the JSL signs themselves in relationship to the Japanese visual-kinesthetic communication system. Katsuko uses a lexical sign, *ONEGAISHIMASU*, with resemblance to a gesture with related semantics from the Japanese visual-kinesic communicative repertoire, described in §2.4.2. The relationship between JSL and visual-kinesic indices available to Deaf and hearing people signals a link between signers and speakers execution of polite communicative acts.

Ultimately, JSL in relation to spoken Japanese highlights the complexities of the relationship between form and social function. Although JSL assimilates elements from the spoken and visual-kinesic Japanese politeness repertoire, JSL does not completely map with spoken Japanese. Nevertheless, JSL provides a linguistic means of negotiating polite interaction in Japanese societal contexts independently of the use of spoken or written Japanese. Currently, JSL and other sign languages serve as a fresh area of study as they are greatly underrepresented in the linguistics and academic literature in general. JSL has enormous potential for elucidating the relation between linguistic politeness phenomena and social relation systems in Japan.

Comparative research on the Japanese sign and speech politeness systems provides a fresh way to deconstruct representations of politeness phenomena.

Organization

This work examines how signers mark polite register in JSL and uncovers a number of features relevant to the linguistic encoding of politeness. The investigation of JSL politeness generates a number of considerations in regards to the relationship between Japanese sign and speech, and how users of these languages adapt their communicative style based on a given interaction context. Additionally this research shows that JSL displays social indexical features that potentially have typological salience across sign languages.

Chapter Two, "JSL as a Minority Language" illustrates the social context of Deaf Japanese people and JSL, and shows how Deaf Japanese inhabit a society dominated by a hearing culture. The resultant saturation in the language-context relations of the hearing culture produces a sign language with a number of influences from the socially dominant spoken and written language culture, along with concomitant effects on the JSL lexicon and morphology. A shared visual-kinesic communicative culture additionally results in a JSL that has assimilated features bearing resemblance to gestures from the inventory of speakers and signers. The conclusions of this chapter show consistency with the prediction that a socially dominant language will asymmetrically influence a minority language as discussed in the seminal language contact literature (Haugen 1949; Weinreich 1953; Thomason and Kaufman 1988).

Chapter Three, "Japanese Signer and Speaker Polite Expression" demonstrates that although the structures of JSL and spoken Japanese differ, they have the capacity to index the same social interaction contexts. JSL and spoken Japanese consist of related politeness marking indices, such as the JSL calque *YOROSHIKU ONEGAISHIMASU*; the languages also have politeness indexing structures different from each other, such as polite register marking agglutination in spoken Japanese in contrast to politeness indexing nonmanuals in JSL. The languages demonstrate that contrasting linguistic politeness systems can emerge from the same social context. The presence of two differing languages, with a mixture of shared and unique indices, derived from a shared social milieu demonstrates that specific language form cannot serve as a sole means to interpret a cultural or social context. The nature of the JSL/spoken Japanese contrast shows that the examination of language structures in relation to their actual use is prerequisite to framing any cross-cultural analysis grounded in linguistic form. This consideration of JSL and spoken Japanese add further support to work which calls for the examination of language form and context as separate, interactive components of a communicative system (Eelen 2001; Hanks 1996; Michael 2008; Ochs 1992; Okamoto 1999; Watts 2003).

Chapter Four, "JSL Politeness Studies", through two original studies, unearths a number of JSL politeness marking features, including nonmanual, lexical and discourse. The first study reproduces for JSL the Hill et al. Pen Study (1986), and elicits responses to a request for a pen signed with various levels of politeness. The second study replicates the Hoza ASL study (2007), and uses a Discourse Completion Test (Blum-Kulka et al. 1989) to collect responses from JSL signers to request scenarios. The close examination of polite expression via the two JSL studies shows that a subset of JSL politeness marking features appear to emerge from the visual-kinesthetic modality shared with Japanese speakers, as some features maintain enough transparency for non-signers to interpret them similarly to signers; such a result calls for further research on speech-accompanying gesture to see the extent of the relationship between JSL and such visual-kinesic elements. Additionally, besides confirming some of the results of an earlier JSL politeness study by Okabe et al. (2005), the studies identify a number of politeness indices in JSL similar to register marking cues described in the ASL literature (Berkowitz 2008; Cokely and Baker-Shenk 1980; Hoza, 2007; Liddell and Johnson 1989[1985]; Roush 2007 [1999]; Zimmer 1989). JSL exhibits particular register marking features shared with ASL, such as the *polite grimace*, use of signing space and signing rate, which may have typological salience across sign languages. Only further research on polite expression in other sign languages can determine the extent of similarity or dissimilarity across sign languages in terms of polite expression.

JSL and spoken Japanese represent a novel language contact context in which two languages segregate primarily via language modality rather than physical geography, as in the case of spoken contact languages. The examination of JSL, as well as other contact signed and spoken language contexts, supports our construal of the relation between language use and social context as a sign language emerges from the same ground of material relations of a preexisting spoken language.

CHAPTER 2
JAPANESE SIGN LANGUAGE (JSL) AS A MINORITY LANGUAGE

Introduction

As is typical of minority language using groups, the Deaf in Japan must negotiate social contexts in both their own and the majority community as bicultural/bilingual citizens. The Deaf do not exist as a separate group apart from mainstream Japanese citizenry, but reside at the social intersection of *both* Deaf and hearing cultures, as depicted in §2.1. Interaction and negotiation in a speaker-centered world produces a social environment in which JSL exists as a stigmatized minority language, since spoken Japanese has dominant social and economic currency over JSL. This chapter will present communicative interaction contexts that affect the social currency of JSL and its development. Coverage includes a general background on the Deaf community context that spans key areas of Deaf interaction in the speaking world and the resultant social attitudes held by the Japanese citizenry towards signers as a minority group. §2.3 discusses some of the impact of language contact between JSL and spoken and written Japanese. The conditions for language interference (Weinreich 1953) as described by Thomason and Kaufman (1985)—including a proportionally small population size, extensive bilingualism, in reference to written Japanese and literacy for the Japanese Deaf as detailed in §2.3, and an asymmetrical social standing in relation to the socially dominate group—produce a context whereby JSL borrows heavily from the socially dominant language. §2.4 covers elements from the shared visual communicative culture that has influenced the development of JSL.

A Deaf person carries a distinctive social identity but at the same time participates as a member of the larger society; the social context fosters shared communicative practices with the dominant hearing culture along with communicative practices distinctive to one's identity as culturally Deaf. Deafness becomes another intersection in the construction of identity in the same way as gender, race or nationality and significantly affects life routines. The Deaf as a part of normal daily life interact in social contexts dominated by the hearing in private spaces such as the home, and public spheres including school and the workplace. Although the degree of interaction between signers, hearing or Deaf, and speakers varies, the Deaf have familiarity with signer and hearing interaction styles and communicative practices. The notion of *intersectionality* (Crenshaw 1989, p. 1991), articulated by McCall (2005) as "the relationships among multiple dimensions and modalities of social relations and subject formations" (p. 1771), informs the discussion of the Deaf as a group embodying the intersection of multiple socially subordinated categories. McCall details the basis of the emergence of intersectionality in women's studies.

> Interest in intersectionality arose out of a critique of gender-based and race-based research for failing to account for lived experience at neglected points of intersection—ones that tended to reflect multiple subordinate locations as opposed to dominant or mixed locations. It was not possible, for example, to understand a black woman's experience from previous studies of gender combined with previous studies of race because the former focused on white women and the latter on black men. (McCall 2005, p. 1780)

Intersectionality serves as a relevant rubric for explicating Deaf culture as the Deaf community contends with stigmatization via a medical or pathological model of deafness that feeds the social construction of a minority group affected by language discrimination, along with wage and educational inequities.[4] While this work emphasizes the Deaf as a bicultural group that functions in Deaf and hearer societal contexts, a larger intersectionality that incorporates various interactive facets of identity such as ethnicity, gender, class, and race informs the global social context that situates JSL as a language in a diglossic relationship (Ferguson 1959; 1967) with a socially dominant spoken Japanese, as explained in detail in §2.2.1. By necessity this work limits itself to consideration of only some subset of these intersecting categories and focuses on a specific type of linguistic performance in JSL. The consideration of some subset of identifying categories sufficiently demonstrates how marginalization affects the social currency of the Deaf and their language.

Historically, JSL has existed in a social context similar to a diglossia in relation to spoken and written Japanese in that the use of JSL remained confined to use in peer groups while spoken and written Japanese served as the mediums of education and public interaction. The prevalence of the medical or pathological model of deafness affects social constructions of deafness resulting in the subordination of the Deaf population and their language. The pathological model situates deafness as a disability that institutions seek to circumvent via the prohibition of visual language codes in an effort to promote the use of oral language through vigorous speech training and lip reading, or correct via devices such as cochlear implants. Traditional institutional views described the Deaf as non-lingual with the inability to speak reflecting a limited intellectual capacity. Although severe bans on the use of sign language existed, sign language persisted as the medium of communication among students in Deaf schools. Recently, JSL has gained a significantly wider social currency as institutional understanding of Deaf culture and their language has increased.

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[4] *This work focuses solely on members of the Deaf community as those primarily defined by some degree of hearing loss and reliance upon sign language as the primary means of communication. While a broad range of issues within the discussion of a disability hold a degree of relevance, such issues go far beyond the scope of this work concerned specifically with the acquisition and spread of JSL, and social barriers specific to the dissemination of JSL.*

In a similar way as other minority languages in contact with languages with greater social currency borrow from the dominant language, as detailed by Thomason and Kaufman (1988, p. 72), JSL borrows from the surrounding language. JSL reflects Japanese influence in lexical borrowings, word structure and communicative elements such as mouthing that indexes certain words with spoken phonemes, as detailed in §2.3. JSL evidences three types of influence from the communicative culture of Japan—one from the visual communicative culture, as discussed in §2.4, and via the unequal borrowing from the Japanese spoken and written language as discussed in §2.3.

Although the influence of language status varies with the particular language community, there tends to be some effect on language variation and spread partly due to language status (Haugen 1949; Inglehart and Woodward 1967; Thomason and Kaufman 1988, p. 72; Weinreich 1953, p. 3), especially in the case of stigmatized languages. Sign language acts as a visible *marker* associated with the Deaf community. Labov (1986) defines *marker* in an illustration of the close, but complex relationship between language status and language change. Labov (1986) focuses on the impact of dialect variation awareness on the part of speakers. Language change proceeds apace at a level below the consciousness of speakers until a particular feature becomes a linguistic *indicator.* At the next point when the feature has a conscious association with a particular group, the speech feature becomes a *marker* associated with the group with some concomitant effects on speaker behavior. A number of speech features persist despite an awareness of a particular language feature, while others are subject to change towards a particular prestige model. The fact that JSL language users rely on a socially misconstrued language modality has significant consequences for the distribution and development of sign languages.

2.1 The Deaf as a Minority Group (Deaf Social Contexts)

§2.1 will show specifically in what ways JSL users are socially marginalized and how this marginalization affects the social currency of JSL. Labov (2001) discusses in detail how a social group's social prestige relates to access to particular markers of social currency. Labov notes that such prestige has a high correlation with indices such as income and education level (p. 60). In order to provide some sense of the relative social prestige of the Deaf as a socially defined group §2.1 looks at Deaf social contexts including the size of the population, the use of sign language in the home, some aspects of Deaf education and the Deaf in employment.

A number of ways to define a group with minority status exist. The Council of Europe in *The European Charter for Regional or Minority Languages* (1992; 1993) defines a national minority as a small, underrepresented group of citizens that share an ethnicity, language or culture distinct from the rest of the population. The Deaf in Japan meet the primary criteria of such a definition in that they make up a small,

marginalized group that share a distinct language, JSL. In Japan there has been increasing acceptance of the idea espoused in the *Deaf Proclamation* by Kimura and Ichida (1995) that the Deaf represent a national minority in Japan, and that status should receive widespread recognition. While the idea of the Deaf community as a distinct minority group has not yet taken hold in mainstream Japanese society, there are a number of academics, professionals and Deaf people along with their families who have taken on this idea of the Deaf as a minority community.

The Deaf resemble an ethnic minority in that they, in much smaller numbers, inhabit a society dominated by those who can hear. Interaction in a majority hearing world means that the Deaf have to confront pathologized social constructions of Deaf identity that situates them as marginalized citizens. The Deaf hold a lower economic status as a result of institutional and social discrimination against people identified as having physical impairment. Over time, especially since World War Two, Deaf in Japan have won important rights that have opened up their access and life chances considerably; however, Deaf Japanese continue to confront particular barriers as a subaltern population, such as inequities in education, employment and social mobility. Additionally, the Deaf confront various social obstructions to their early access to sign language.

2.1.1 The Deaf Population

As in other countries, the Deaf in Japan make up a very small percentage of the population. The best estimate available comes from the Ministry of Health, Labor and Welfare, which generates the national census and does a major survey of people that they identify with disabilities about once every five years. The latest survey by the Ministry of Health, Labor and Welfare (2008) reported 338,000 deaf individuals receiving disability benefits in 2006, so the Deaf make up roughly 0.25% of the population based on this estimate.[5] According to the same report 64,000 within this population report using sign language.

Another frequently cited estimate for the number of Deaf who use JSL comes from the national records of school rolls. Ichida et al. (2001) note that the Ministry report does not distinguish between those who learned JSL in childhood from those who did not learn sign language during some critical acquisition period.[6] In order to determine the number of fluently signing Deaf they calculated an estimate based on the numbers of students registered as sixth graders in Deaf schools. Motivations for consideration of this population include the fact that the Deaf school population of

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[5] *The Ministry of Internal Affairs and Communications (2005) in the latest Japan census estimates the population of Japan at 127,767,994.*

[6] *The report referred to by Ichida was based on a census population estimate for 1996 of 43,000 JSL users. The resulting numbers of Ichida et al. may reflect an underreporting of signer numbers by the census which access a sample populace in contrast to the more thorough Ichida et al. work that compiled all Deaf school records.*

sixth graders exists as a long-term government record from 1922, and they reasoned that children at that age could serve as a reasonable benchmark for exposure to sign language at an early age. Using this number and the death rate estimated by the Japan census they estimated the number of what they label as fluent JSL signers at around 60,000 in Japan.

Lacking in numbers, the Deaf must make great efforts to get their viewpoints significant consideration in major government institutions such as the education system. The small population size also means that the general populace gets little exposure to the Deaf. Hearing people tend to have little direct knowledge about the Deaf population. They may draw their ideas about the Deaf from representations in popular dramas that represent the Deaf, such as *Hoshi no Kinka* (Tatsui 1995) or *Orange Days* (Kitagawa 2004), which tend to portray the Deaf as those in isolation from a larger Deaf community who successfully lip read and use very simple forms of sign communication. These dramas do not aim to represent the Deaf community insomuch as use deafness as a conceit to enhance the melodramatic quality of the narratives. The lack of knowledge in the general populace about the Deaf has serious implications as most Deaf children are born to hearing parents who then, usually without adequate information or resources, have to make crucial decisions about their child's education or lifestyle that will dramatically affect the child's future.

2.1.2 The Deaf in the Home

The social stigmatization of the use of sign language, and hence of being Deaf, results in the valuing of the more prestigious spoken Japanese over signed communication at the expense of the dissemination of JSL as either the heritage language or the natural communication modality.

As in the US, noted in the oft cited quote grounded in census research that under ten percent of Deaf children in the US are born to at least one Deaf parent (Lane et al. 1996; Mitchell and Karchmer 2004; Rawlings and Jensema 1977), most Deaf in Japan are children of hearing parents and so primarily rely on local-network idiolects consisting of combinations of gesture and mouthing to communicate with family members.[7] Kimura and Ichida (1995) note that this home culture of speech results in late exposure to sign, usually at some point after a child attends a residential school for the Deaf.[8] For children who are mainstreamed into schools with hearing students, they receive little or no exposure to sign language until they become adults. Parents unfamiliar with the experience of deafness, sign language or Deaf culture tend to favor getting training for their children to learn speech, so emphasis falls on

[7] *Sign language researchers such as Ichida estimate that the percentage of Deaf children born to Deaf parents in Japan resembles the US figures; however, currently the Japan census and academic literature does not provide an actual survey for this figure in Japan (personal communication, Ichida).*
[8] *Bettger (2000) notes this fact for US Deaf children.*

maximizing the child's ability to comprehend and produce speech (Nakano 2001). Essentially the home life of a Deaf child of hearing parents primarily involves negotiating communication with non-signing speakers to a large degree. An implication of the resultant home contexts is that the population of Deaf who sign from birth or even childhood onward are far fewer in number than those who learn sign language sometime later in life.

Those Deaf who marry and raise their own families also find themselves surrounded by hearers and immersed in the hearing world within their own homes. The vast majority of the Deaf have hearing children since only a small proportion of Deaf people pass on deafness hereditarily. While there is no estimate for Japan, Mitchell and Karchmer (2004) notes that 80% of children of Deaf parents in the US are hearing; one can expect a comparable ratio of Deaf parents with hearing children in Japan as the incidence of hereditary deafness in Japan as in the US is very small. The child of Deaf parents has the potential to learn sign language natively, and those who do may find themselves serving as interpreters for their parents in various public domains; however, there are also a significant number of hearing children of Deaf adults who do not learn how to sign, and the primary means of communication with their parents involve multiple channels of visual communication and mouthing of words (Rienzi 1990). In fact, Children of Deaf Adults (CODA) who do not fluently use sign language seem to greatly outnumber those who do. While Japan has no readily available formal studies of hearing JSL users, accounts of CODA youth such as those recounted by Shibuya (2009) commonly describe children who do not learn to sign, presenting such situations as the norm. As noted by Maruchi (2000) in his description of the typical experiences of CODA, sometimes parents concerned for the futures of their hearing children let other guardians raise them, or the parents raise their children but elect to use non-sign forms of communication with them for fear of interfering with their speech development. A child of a Deaf parent may initially learn to sign but reject the use of sign language for a time after being socialized with other hearing children, so that child may comprehend sign but not necessarily sign herself. A story from the *Asahi* news site (2009) reported on a junior high school student who received a prize in a national writing contest on human rights. The student related that she uses fingerspelling to communicate with her parents as she does not know sign language. This student's experience as a CODA shares similarities to the experiences of children affected by generational loss of their heritage languages. The asymmetry between the roles of the minority language, JSL, and the language used in business, education and political domains, Japanese, motivate the generational heritage language shift.

A number of researchers describe language shift, formalized by Fishman (1966) into distinct stages of generational language loss, that describes the lack of dissemination of the heritage language from parents to their children (Crystal 2000, p. 78; Nettle and Romaine 2000, p. 135). The ubiquity of attempts by primarily

monolingual parents to limit their child's exposure to the heritage language or a child's growing disinterest in her parents' language derives from a number of causes. Factors include, the desire of parents to provide more opportunities for their children by keeping the focus on the language of social achievement and economic power as described for Welsh by Nettle and Romaine (2000, p. 138), or a child's growing feeling of irrelevance and sometimes shame for the heritage language as she assimilates into the majority society (Crystal 2000, p. 80). Representative cases of intergenerational language loss include generations who suffered loss or non-transmission of Native American languages or a number of immigrant languages in the United States. Hinton and Hale (2001) provide an extensive survey of Native American languages suffering from heritage language loss currently undergoing revival, and Tse (2001) describes the mixture of negative and positive feelings some Chinese youth in the US have about their heritage languages.

While Deaf children of hearing parents are not technically classed as people affected by generational language shift, they suffer from language barriers motivated by the same prejudices that create language shift for the hearing children of Deaf parents. A Deaf child of hearing parents must rely on parents who may or may not seek appropriate information about sign language. Hearing parents who remain largely uninformed will for the benefit of their children seek options that will integrate their children in way that provides maximum exposure to the dominant language of social currency and access.

The lack of intergenerational dissemination of sign language does not seem to threaten the survival of JSL, as the Deaf crucially need to use the signed modality of communication. Nevertheless, there is an immediate, local effect on those who have to struggle in familial contexts were an accessible natural means of communication, sign language, is not available. A Deaf person at home—whether a dependent child or head of the household—thus has immersion in the hearing world. In the cases that the family members do not know or learn sign language, there will exist some level of separation or tension in the familial relationship centered on communication and the lack of potential to fully express oneself to others who inhabit the same household. The frequent lack of language dissemination from Deaf parents to their hearing children also means that there will rarely be instances of intergenerational sign transmission where there are no other Deaf people. As a result, for most Deaf people, JSL serves as a language used socially outside of the bounds of the home—in part this accounts for the need to establish strong bonds outside of the family with those who use JSL such as childhood schoolmates and longtime friends.

The *uchi-soto* "insider-outsider" contrast posited for Japanese social patterns by Nakane (1967) takes on a different tenor in the context of families that have members with varied levels of signing ability; for instance, a signing Deaf child of a non-signing hearing parent may have limited communication only through an idiolect and fail to have a close relationship due to the language barrier. In turn, this different

social contrast may result in unique patterns for how signers associate given politeness forms with other signers or in particular social contexts, so social groups such as former schoolmates act as the insiders who are potentially associated with forms appropriate for family members, while the language used with family members does not involve the use of JSL since in that context the Deaf use some form of home sign or mixed communication method that is not JSL.

2.1.3 The Deaf in Education

Deaf students in Japan are either integrated fully into a hearing school and that social context, or attend Deaf schools where they are taught by hearing teachers who generally have little training or experience with Deaf culture (Kimura 2001; Sasaki 2006). Japanese Deaf schools use the same curriculum as do other schools nationwide. Typically schools focus on Oral education, and a student's education may also include practice of cued speech—lip-reading aided with supplementary manual indexation—as noted for schools worldwide by Bettger (2000). The number of Deaf who do primary schooling in Deaf schools and those who opt for mainstreaming have a split with 50 to 70 percent of students mainstreamed (Nakamura 2006). Each of the prefectures or districts in Japan have at least one public Deaf school with the Ministry of Education, Culture, Sports, Science and Technology (2007) recording 102 schools for the deaf with 6518 students at all grade levels from preschool to high school. Due to the decreasing size of the Deaf population primarily due to better preventative care for young children that prevent hearing loss (Ichida et al. 2001), and the increased numbers of students who are mainstreamed, Deaf schools typically have very small populations. Normally the teachers are hearing teachers with only some portion of these instructors knowing sign language, so the primary means of instruction include writing, simultaneous-sign—a mixture of signing and speaking, or lip reading. Students sign among themselves and with teachers who can sign. Mainstreamed students rely mostly on lip reading, writing and notes from classmates (Kimura 1996; Kimura 2001; Okamoto 2001).

Typical narratives about Deaf schooling relate the tension between being mainstreamed and having access to better facilities and instruction at the cost of stronger socialization available in Deaf schools, which house Deaf peer groups based on a shared culture and system of communication (Okamoto 2001). Many authors view attendance in Deaf schools as a key to the formation of a healthy identity as a member of Deaf culture as some Deaf schools have recently been successful in fostering a sense of Deaf identity among their students through promotion of positive self-images, identification of notable Deaf achievers, and through demonstration of the utility and value of JSL (Okamoto 2001; Nakano 2001). Mainstreamed Deaf students typically do not learn sign until much later in life when they meet Deaf peers

through university or college, sign language groups or Deaf events. A large number of students will spend part of their time in Deaf schools and part of their time mainstreamed into other public schools (Okamoto 2001). Students entering university have only marginally better access in that the institution helps provide volunteer note-taking services and maybe some volunteer interpretation; however, as in secondary education, professional interpretation is rare to non-existent.

In the education system as in the home, the Deaf are confronted with the dominant hearing culture. Students have to negotiate an education system that does not fully meet their communicative needs. They continue to be ensconced in a hearing world where instructors expect them to comprehend speech. Most Deaf students find understanding speech a challenge, even those students with limited hearing or formerly with hearing, and those who can respond on some level to carefully enunciated speech. Whether in Deaf or hearing schools, spoken Japanese language communication persists as the dominant paradigm for education.

The history of Deaf schooling provides well-recognized illustrations of how social barriers and misconceptions about sign language and signers has lead to social practices that stunt the language development and education necessary for the Deaf. As Thomas Gallaudet notes in the January 1881 edition of the *American Annals of the Deaf*, Vol. 26 some early Deaf schools allowed signing, but after the Milan 1880 Conference the emphasis on the educational philosophy of Oralism became established as the norm in many countries (as cited in Gordon 1892). The Milan Convention of 1880 was The Second International Congress on Education of the Deaf organized by proponents of Oralism to promote the use of spoken language over sign language in schools throughout Europe and the US. The decision of the convention had a dramatic influence on Deaf education worldwide. All of the delegates except for one were hearing (Gallaudet 1881 cited by Gordon 1892). Reinforcement of the pedagogy of *Oralism,* the educational philosophy that schools should support Deaf education through speech rather than sign language, resulted in a profound impact on Deaf education worldwide.

A number of authors have described the global influence of the Milan 1880 Conference. In a number of countries, including Japan, whatever attempts at integrating or allowing the use of sign language in schools terminated in favor of the emphasis on Oralism. Furthermore, sign language became a forbidden form of communication in a significant number of educational contexts. Stewart and Akamatsu (1988) describe the development of early ASL schools starting with the establishment of the first school for the Deaf in the US in 1871 by Thomas Gallaudet and Laurent Clerk (p. 241). A network of schools populated with Deaf graduates from the earliest schools serving as instructors along with hearing teachers had grown by the 1860s. After that point proponents of Oralism given a boost from the Milan conference eventually led to the demise of sign language instruction in US schools from the 19th century onward. Branson and Miller (1998) describe a similar scenario

for Australian Deaf schools established on the US model in from 1860; however, post-Milan Oralism centered schools replaced those that incorporated sign language. Kyle and Woll (1981) describe a similar fate for BSL Deaf educational institutions. (1981) Shortly, after the establishment of the earliest school for the Deaf in Japan in Kyoto in 1878 (Yonekawa 1984), Oralism became the educational ideology of schooling. Deprived of education in an accessible language modality, students could no longer develop the social tools necessary to open up a range of life choices as they entered into adulthood.

There has been a predictable effect that had denied the Deaf further opportunities for upward social mobility. While institutional bias against the use of signing in educational institutions still exists, conditions have improved dramatically for students in terms of freedom to use sign language, even if current contexts may not provide the necessary infrastructure for the incorporation of sign language as the primary medium of instruction.

Deaf children in Japan generally confront major barriers in the form of access to a language modality that they can readily comprehend in their home lives, learning sign language only until much later in life. Compounding their difficulties is enrollment either in a mainstreamed school environment which prevents them from obtaining full access to the type of socialization they need, or in a Deaf school which provides the advantage of better socialization and better identity formation as Deaf individuals, but is hampered by the fact that instructors generally lack training in sign language or in instructing Deaf youth. Most Deaf students do not go on to higher education, and those who do still confront the same communicative issues that persistently dogged their prior educational experiences. Unequal educational opportunity affects their opportunities in later life considerably and frequently results in non- or under-employment.

2.1.4 Employment

If one's profession and salary represent prominent indicators of social status in Japan, then the Deaf population has historically remained in the lower social strata. As noted in Labov (2001 p. 60) social prestige highly correlates with one's level of income; low wage and underemployment situate most Deaf in the lower social strata. Typical professions for the Deaf fall under the classification of low wage blue-collar professions. The Ministry of Health, Labor and Welfare (2008) labor report on the employment of the Deaf indicates as of 2006 that this demographic had a 70% unemployment rate. Of those employed 22% were employed in factory or production work, 16% did technical or specialized work, and 15% did office work.[9] More than 60% of those surveyed made less than 31,000 USD year and less than 13% reported

[9] *7% were in agriculture/fishing/forestry and 3% employed in retail.*

making more than 42,000 USD annually; according to the Ministry of Internal Affairs and Communications (2006) the average salary of an employee in Japan for 2004 was approximately 48,500 USD annually.[10]

In terms of the work environment most Deaf employees have few Deaf colleagues, so communication emerges as one of the frequent challenges in the workplace as reflected in a survey conducted by The Japan Organization for Employment of the Elderly and Persons with Disabilities (JEED). The 2008 JEED report documented that approximately 24% of Deaf workers primarily had concerns about misunderstandings with co-workers, and roughly 19% of Deaf workers chose communication as the number one workplace issue.

The employment status of the Deaf population feeds into attitudes about the population and its capabilities, since low employment ensures low visibility to the hearing population outside the home; and in turn, the employment figures for the Deaf are negatively affected by lack of accommodation for their communicative needs in society at large.

2.2 The Social Reception of JSL

As §2.1 discusses, in Deaf Japanese people's primary contexts for social interaction––home, school or work—they find themselves surrounded by the dominant culture of speech. The language modality distinction produces a distance between the Deaf and hearing communities that result in a context similar to disglossia that often confines sign language use to informal group contexts such as the home or among peers. The resulting lack of familiarity with sign language in the hearing public at large allows for the reinforcement of misconceptions about sign language as an inferior form of communication to speech and produces a social currency asymmetry between the Deaf and hearing. §2.2 briefly discusses the social reception of the Japanese Deaf and their language.

2.2.1 Attitudes Towards JSL

The description of the contexts of home, education and work show that in formal, public domains, the Deaf often do not have the opportunity to interact in JSL. The Deaf typically use JSL to interact with peers or in home contexts where sign language serves as the primary mode of communication. JSL exists in a diglossic relationship with spoken and written Japanese to some degree. Ferguson (1959) coined the term

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[10] *The figures are actually in yen: 2,800,000 yen, 3,600,000 yen and 4,320,000 yen, respectively. A better measurement of income distribution is median income level; however the Ministry of Internal Affairs and Communications site does not report individual median income. The site provides the median household income, and based on the distribution of household incomes, one can estimate that about 40% of the employed in Japan are expected to make over the average income level.*

diglossia as a way to describe social situations where a particular language community uses two language varieties in complementary domains, typically with one language variety used in formal domains such as public speaking, education, employment, and the other variety used in relatively more informal contexts such as among close friends or in the home. The work of Fishman (1967) served to expand the scope of diglossia to include the use of not simply language varieties, but also different languages or dialects in some sort of social complementary distribution.

While signers tend to use JSL and spoken or written Japanese in separate social domains, unlike quintessential diglossic communities, as portrayed in the broader sense by Fishman (1967), JSL does not necessarily remain confined to familiar social contexts. Nevertheless, the modality contrast with speech creates an outcome similar to diglossia—a tendency for written or limited spoken Japanese serving as a means of communication in public contexts in contrast with sign language or an idiolect reserved for private, familiar domains. Signers do not necessarily restrict the use of JSL to informal environments, but due to a lack of access to sign language friendly environments in many public institutions, usage of JSL exclusively in informal contexts becomes the *defacto* norm. JSL exists in formal organization and social contexts such as conventions put on by Deaf organizations, and sign language dominated institutional contexts such as Deaf Association offices or workplace contexts with a significant number of Deaf employees. While JSL has the potential to support a wide variety of social contexts, for a significant part of the Deaf population daily use of sign language tends to be restricted to informal contexts with peers. The primary use of JSL in personal social contexts means that hearing people rarely have regular encounters with, and accordingly little understanding of, sign language.

Even within personal contexts, sign language still requires the use of register variation, as peer groups still encompass social divisions. For instance, as noted by Kimura (1996) in her discussion of Japanese Deaf school communities, due to the small sizes and wide range of grade levels of many of the Deaf school populations, commonly students will know each other across a wide range of grade levels, so a high school student could have familiars who study several grades below in elementary school. Post graduation, those who remain in the same community may still meet socially and their communicative behavior potentially will represent particular Japanese social norms of recognizing the relative difference in standing for *sempai* and *kohai* relationships, social distinctions between predecessors and familiars with less experience that may resemble mentor/protégé relationships. Such *sempai/kohai* relationships will also commonly exist in workplace contexts.

Kimura (2009) notes that signed language which conforms more closely to spoken Japanese word order, especially when used in combination with mouthing or speaking, receives a privileged position over JSL used by native signers, which fully exploits a natural visual-spatial grammar. Among Deaf and hearing people and in a variety of social contexts, spoken Japanese occupies a privileged position over

signing, so signing that maintains some resemblance to spoken language word order has a better public image and reception than JSL (Kimura 2009, 98). In essence, the status of spoken Japanese affects the currency of JSL to the extent that even in sign language crucial environments Japanese word order signing receives institutional preference over JSL. Deaf schools predominantly focus on Oralism pedagogically (Kimura 2001; Sasaki 2006), and in interpretation contexts institutions may prefer to dispatch interpreters who sign using Japanese word-order over interpreters who use fluent or even near-native JSL (Kimura 2007; Nakamura 2006).

The status of spoken Japanese word order sign over JSL reflects a similar prejudice found in many other sign languages contexts in which institutions privilege spoken word order over natural language signing order. Stokoe (1969) goes as far as to apply Ferguson's (1959) definition of disglossia to describe the privileging of English word order signing in formal contexts in contrast to ASL in informal contexts. Stokoe argues that many of the characteristics marking a disglossia apply to the ASL case with English word-order signing representing the high (H) language used in formal domains and institutions such as school and the workplace and ASL as the low (L) variant confined to informal or personal contexts such as the home. Stokoe applies Ferguson's diglossia designation despite the fact that ASL serves as a natural language of the Deaf while English order signing as described by Stokoe, which incorporates English loan features such as fingerspelled prepositions, does not serve as a natural language since features such as manually signed prepositions do not exist as part of the grammar of ASL. Extensive research in ASL shows that the visual grammar of a sign language has different grammatical demands than the speaking modality. Authors such as Kimura and Ichida (1995) make it clear that spoken Japanese word order signing does not constitute a natural language as JSL does. Although diglossia may not precisely describe the spoken word order signing versus natural sign language contrast, Stokoe's work introduces a useful frame for considering the way in which the public at large may view natural signing in contrast to spoken word order signing, as his work prefigures the language context described by Kimura (2007). Researchers of other sign languages have described similar institutional bias in favor of spoken word order signing over the natural signing of the Deaf. Hoffmann-Dilloway (2008) notes that the Deaf educational system of Nepal is populated with teachers who use sim-sign following the institutional ideology that Nepalese Sign Language is merely manually transmitted Nepalese (p. 199). Branson and Miller (1998) describe a similar educational context for Australian Deaf schools up until the 1990s. Branson and Miller (1998) additionally cover the situation in Bali where on national televised news broadcasts, an Indonesia sign language interpreter signs along with the telecast; however, the signer uses manually coded Indonesian instead of Indonesian sign language in part of an effort of the Indonesian government to create a standardized Indonesian sign language. As explained by Branson and Miller, "When asked about the signing on television, Deaf members of the village

laughed and indicated clearly that it was not only incomprehensible but weird in its lack of expression." (p. 20)

Some of the misunderstandings of JSL are related to its association with a group historically marginalized on the basis of a pathological model of deafness. The ethnic minority social context—reflecting disadvantages in employment, education and access—that affects the social currency of the Deaf, in turn, affects attitudes towards JSL. The prejudice that surrounds the Deaf and sign language presents formidable barriers to the wider social understanding and acceptance of sign language. Society pathologizes deafness—stigmatizing the hearing impaired, and this social stigmatization extends to attitudes about the language and subsequently results in a lack of support for sign language in educational and other social institutions. In terms of language research, sign language is either dismissed as an object unworthy of linguistic study or worse, modeled in cursory, naïve ways. Kimura (2007, p. 67) relates the circumstances of a JSL language book successfully published by a writer with little actual experience with the language. The author, after one year of studying JSL, wrote and published a book that sold successfully on the online bookseller, *Amazon*. Kimura notes that the author as well as the book publisher overlooked significant communicative elements of JSL such as non-manual signals because they held assumptions about sign being conveyed in a simple way through the hands and general facial expression—they did not understand the language as grammatically complex. The attitudes about the inadequacy or incompleteness of the users of the language in way became ascribed to the language. The naïve folk-notions and attitudes of the public towards JSL reflect the social circumstances surrounding the Deaf as a stigmatized minority community.

In the post-war period, the Japanese Federation of the Deaf had been gaining important rights through its activism and strategic organization (Nakamura 2006), including the right for Deaf to obtain drivers licenses and the repealing of laws that prevented the Deaf from working in certain fields that they could otherwise successfully enter independent of hearing ability.[11] The expansion of rights then opened up the way for Deaf to gain better social footing and eventually paved the way for the reception of the *Deaf Proclamation* (Kimura and Ichida 1995), a work that declared a shift in the conception of the Deaf from a group with a pathological condition to that of an underrepresented and marginalized minority with associated rights, especially the right to education in their natural language, Japanese Sign Language. Nakamura's (2006) ethnography of the Japanese Deaf covers the social activism of the Japan Federation of the Deaf (JFD) and related organizations in response to social barriers in employment and education. Her thesis centrally discusses how the JFD effectively implemented a strategy of constructing a unified Deaf community as Japanese citizenry that then petitioned, lobbied and participated

[11] *Many of these fields are in the medical profession. Only in the last few years have Deaf won the right to become pharmacists and medical technicians.*

with the government directly to foster change for the status and social welfare of the Deaf citizenry. Nakamura (2006) via her detailed discussion of Deaf activism clearly shows how the Deaf in Japan share characteristics with other ethnic minority groups.

2.2.2 Attitudes Towards Deaf Communication

Many non-experts believe, wrongly, that sign language serves as a universal language usable by all Deaf people, or that sign language has a potential unique from spoken language to readily become a universal language for all Deaf people. Sign language texts and a number of works such as Kimura & Ichida (1995) frequently respond to misconceptions about sign language as completely iconic or signing as an impoverished version of speaking. This examination of Deaf culture and attitudes towards sign language has some motivation in the response of people with little or no sign language experience who, upon learning that there exists many different sign languages, respond that it would be good to have just one universal sign language—in effect, implying that sign language has some unique potential to serve as a *lingua franca* in a way that spoken languages cannot. A number of writers such as Kimura (2009, p. 19) and Nakamura (2006, p. 11) have related regularly encountering people who believed in the potential ease of the development of a universal sign language.

Some naïve non-signers speculate that sign language lacks arbitrariness and have the intuition that sign language can only express concepts concretely. As many non-signers do not have a well-formulated hypothesis about sign language, they do not fully consider the implications of a literal, iconic sign language—which they imply through their question of potential universality. While a hearing person's sense about sign language as a universal communication medium may reflect his or her own experiential reality of the limitations of communicating in a visual modality, such a belief ultimately evokes pre-Stokoe era assumptions about the impoverished nature of sign in relation to spoken languages. Before the work of Stokoe generally people, Deaf or hearing, did not consider sign language as a real language, rather it was considered to be purely iconic, gestural and non-linguistic (Stokoe 1960). Some people question whether JSL or any sign language necessarily expresses the full range of meaning as spoken languages; however, such considerations are not grounded in actual knowledge about sign language but in preconceived notions about visual-kinesthetic language and what it means to be Deaf. Signers are not seen as using a form of communication on par with speakers by such people; despite the fact that linguists universally recognize sign languages as full-fledged languages. Attitudes toward JSL signers as a stigmatized minority population with a lower social status have an impact on attitudes toward their language. Lack of social achievement is not seen as due to social inequality, but rather due to a lack of potential from the stigmatized minority group.

Anecdotally, some JSL users, hearing and Deaf, describe sign language as more direct than speech (Suemori 1996; c.f. Hoza 2007 for ASL). Part of the feeling of directness may be a result of some transparent iconicity in sign language. Although sign languages primarily contain arbitrary sign-to-meaning relations, sign languages can sometimes exploit iconicity better than spoken language, via structures such as classifiers (Taub 2000). The use of deixis in a sign language might also make signing seem more "direct" than speaking. For instance, to refer to the second person, the signer can point in the direction of the interlocutor. Although the grammar of sign language deixis has complexity (Ichida 1994 for JSL; Liddell 2003 for ASL), physical reference to a referent described in a phrase might still lead one to misperceive and describe a sign language as more direct, and perhaps even more simplistic, than spoken language.

The impression of directness in JSL language representation gets extended to represent directness in the communication behaviors of Deaf signers as well, so the impression of JSL as iconic and direct, in turn becomes the characterization of the language users. Such objectification is commonly discussed in the sociolinguistic literature where some characterization of language users gets attributed to the language, for instance African-American Vernacular English (AAVE). Since African-Americans make up a stigmatized community in the US, AAVE gets perceived as an inferior dialect of English (Labov 1982, Rickford and Rickford 2000). The judgment of a particular dialect only reflects a socially derived prejudice as there exists no objective standard for the linguistic quality of a dialect. JSL users sometimes describe the Deaf as more direct in their interactions. Kimura (2007, p. 142) notes that a Deaf person who meets a friend after a long interval apart may have no problem in directly communicating an evaluation such as, "Have you put on weight?" Such an expression typically serves as an example in directness in making and evaluation that a Japanese speaker may not otherwise make; however, Kimura goes on to note that if a person actually looks as if he or he very noticeably gained weight, a signer would not make such a comment (Kimura 2007, p. 145). The inability to use the expression apparently referring to someone's clearly perceived weight gain, may indicate that in terms of the *discourse context* that the question is not actually so much a note about a weight change but a type of expression one may use under certain conditions after not meeting a familiar person after a significant period of time. The sense that the Deaf are more direct in this instance reflects a misconstrual of an expression based upon creating an equivalence with a spoken Japanese expression potentially carrying a different connotation.

The construction of 'the Deaf as direct type' reflects that what starts out as an observation about the language itself as direct, incorporates a point of view about the willingness of those in the Deaf community to speak their minds—in effect positing a language more direct than spoken Japanese with users more direct than 'typical' Japanese speakers. Some Japanese speakers learning sign language note that Deaf

teachers are direct in criticizing their sign language and will directly point out flaws or mistakes in the learner's signing. Deaf signers will note that spoken Japanese users tend to be more vague or indirect, with some Deaf joking that Deaf interaction resembles the interactions of Americans, the ultimate stereotyped representatives of directness in popular Japanese culture (Suemori 1996). Thus the comparison of the Deaf with Americans merely represents the comparison of one stereotype with another. In ASL as well, some hearers note that the Deaf are more direct, while the Deaf note that non-signers are more indirect (Hoza 2007). This 'direct/indirect' contrast noted in ASL and JSL fundamentally has roots in the association of a sign language with a stigmatized and disadvantaged community.

2.3 Language Contact: The Influence of Spoken and Written Japanese on JSL

A sign language contact context fosters an extensive bilingualism that supports heavy borrowing from the spoken and written contact languages; §2.3 fleshes out how language contact directly has an impact on the language structure of JSL. As described in §2.1.2, Deaf in the home, sign language distribution undergoes non-transmission or shift in two types of environments. In one case, the hearing parents of a Deaf child do not use sign language as a means of communication. As part of a heritage language loss context, hearing children of Deaf parents do not learn the language due to language stigmatization that blocks the desire for parents to pass on the language, or limits the child's receptivity towards the language. Another effect of JSL language status involves the influence of the spoken and written language on the development of JSL. While there exist shared elements in the visual culture shared between the Deaf and hearing that account for similarities in some communication avenues between speakers and the Deaf, covered later in §2.4, Japanese and JSL have shared linguistic elements due to the influence of the majority language on JSL via speech and writing.

Consistent with Haugen (1949, p. 279), Weinreich (1953, p. 3), and other seminal language contact literature, Thomason and Kaufman (1988) predict that language contact situations involving groups with unequal population sizes and social standing can result in extensive borrowing. Thomason and Kaufman (1988) posit that high *intensity of contact* supports heavy borrowing.

> The major factors that promote greater intensity of contact, or greater cultural pressure on borrowing-language speakers, are these: length of time—enough time for bilingualism to develop and for interference features to make their way into the borrowing language; many more source-language speakers than borrowing-language speakers; and either sociopolitical dominance of source-language speakers over borrowing–language speakers or intimate contact in mixed households and/or other social settings. In the latter situation, the source language

> is likely to contribute structural features to the effected language both through borrowing and through shift (p. 72).

JSL in relation to spoken and written Japanese, and in turn any sign language in relation to its surrounding spoken and written language(s), meets all of the criteria defined by Thomason and Kaufmann for language contact influence—including bilingualism, extensive contact, a large population size differential and the sociopolitical dominance of the source-language group. Social contact, population size and socio-political contrasts between the Deaf and hearing in Japan received discussion above in the previous sections; §2.3 discusses the influence of Deaf bilingualism and language contact on JSL.

The late introduction of sign language reproduces a type of language contact situation where a newly introduced language comes into contact with a pre-established language when immigrants migrate to a new language region (Thomason and Kaufman 1988, p. 35-57; Weinreich 1953, p. 106-109). Historically, the much younger JSL developed natively in Japan and emerged in 1878 with the establishment of the first Japanese Deaf school in Kyoto (Yonekawa 1984, p. 7). The introduction of a sign language into the spoken language community differs from the quintessential language contact paradigm in that a sign language emerges from the same social context as, and exists continually alongside spoken and written language. Similarly to other sign languages, JSL likely involves influence from various idiolects so emerges in a similar social context as pidgins (Thomason & Kaufman 1988, p.167, Weinreich 1953, p. 69), although with the abrupt mixing of users of different idiolects or homesigns rather than languages. The creation and identification of a distinct language community made possible by the establishment of a Deaf school brings into being a consciousness of signing as a communicative medium, even if socially considered sublingual at the time, that becomes overtly challenged by institutional forces and pressures in similar ways as other newly introduced contact languages. Signers of JSL as an emerging new language had continual contact with speakers in the home and, in addition, the school setting where educators emphasized the use of spoken Japanese and exposed them to literacy (Kimura 2001). In effect, the institutionally educated JSL population developed as bilingual users of JSL and Japanese in written and, even to some degree, spoken forms. Crucially, as discussed in the extensive literature covering bilingualism as a crucial to borrowing (Paul 1886 cited in Haugen 1950; Thomason & Kaufman 1988, p. 48; Weinreich 1953, p. 71), bilingual signers likely served as the conduits that introduced spoken or written Japanese features into JSL.

The otherwise ubiquitous term ‘bilingual’ differs somewhat in the Deaf context, which involves access to a language in a different modality. Since a Deaf community consists of individuals with different degrees of hearing, access to speech sounds will vary from none for the most profoundly deaf, to some very minimal level of access

for those with a degree of hearing (Kimura 2001). Nevertheless, those otherwise not visually impaired still have access, although much diminished, to visual speech cues via attention to articulatory actions visible outside the vocal tract, and many students in the Japanese educational system receive vigorous training in a variety of lip reading techniques with apparently mixed results (Kimura 2001). One other source of sound to word correspondences is literacy, as explained in the following paragraph. This population of Japanese signers, consisting of people with differing abilities of speech comprehension, communally has the potential to innovate sign language based on the Japanese speech signal to some degree.

Probably more significant is the impact of written Japanese on JSL. Many examples of borrowing from written into spoken language exist, such as the impact of English writing on Norwegian mentioned by Haugen (1949, p. 277), or Thomason and Kaufmann's (1988) examples of spoken Japanese from written Chinese, English from Latin, and Yiddish from Hebrew (p. 66). As there exists no particular physical barrier to writing visually for most signers, Japanese writing serves potentially as a rich source of borrowing for JSL. A ubiquitous, standardized convention widespread in Japanese printing for popular publications such as novels or magazines consists of having Sino-Japanese characters accompanied by a *kana* syllabary known as *furigana.* (Miller 1967, p. 134). While writing does not provide access to allophonic variation, it does expose readers to the conventional phonemic syllabary representations of the words. The aid of the Japanese syllabary in reading could greatly support borrowing from written Japanese for any literate Deaf person While authors such as Thomason and Kaufmann (1988) do not feel that primary access to another language through literacy constitutes 'bilingualism' (p. 66), some researchers such as Macnamara (1967) leave open the possibility of one's language of literacy serving as the second language adequate to connote someone as bilingual. Contemporary bilingual education movements in Sweden, Greece and the US label the use of sign as the mode of communication and development of literacy for Deaf students as bilingual (Foster et al. 2003). I find this broader definition of bilingualism helpful in understanding the linguistic situation of Deaf people who are literate in the written form of a majority spoken language, so I shall make use of this broader definition of bilingualism.

The influence of written and spoken Japanese on JSL may have its source in hearing people in positions of authority such as instructors in residential Deaf schools, or the dissemination by students with various idiolects that already incorporated spoken and written elements. Support for influence by educators include schooling situations where the use of the sign language of Deaf students becomes subordinated to signing that conforms to communicative social norms as understood by hearing instructors. Examples include the discouraging of certain types of name signs in Thai Sign Language (Nonaka 2007) or encouragement of the incorporation of spoken language syntactic or lexical elements in JSL (Kimura 2001). Support for the

latter influence include research on particular signing contexts such as the rural sign language context in India made up of signers who largely incorporate elements from the gestural and visual cultural inventory of the community (Jepson 1991). The idiolects may incorporate visual elements from common orthographic elements or share lexical-semantic relationships with the spoken language, as in the JSL examples covered further below. Likely some combination of the institutional authority and idiolect sources has driven the development of JSL; however, only further research on JSL etymology can disclose the details of the language's emergence and whether any particular feature primarily received influence from spoken or written language contact/bilingualism.

In addition to external factors such as intensity of contact, a significant number of researchers argue for the importance of internal factors in borrowing (Haugen 1950; Thomason and Kaufmann 1988, p. 54; Trudgill 1986, p. 37; Weinriech 1953, p. 63-67). Thomason and Kaufmann weigh most heavily the impact of typological distance as an internal factor in contact borrowing.

> In addition to these social factors, one linguistic factor seems to be relevant for predicting how much, and what kinds of, interference will occur in a borrowing situation: typological distance. As we observed in 3.2, typological distance does not appear to have an effect on the linguistic results of the most intense borrowing situations…but in slight to moderate borrowing, source-language features that fit well typologically with functionally analogous feature in the borrowing language tend to be borrowed first (p. 72).

Although linguists debate on the particulars of the relation between internal factors and borrowing, typological difference stands out in the JSL contact situation as it has contact with a language in a different modality. The modality contrast may seem to provide an insurmountable barrier to language contact influence in structural cases such as with spoken Japanese's use of morphosyntactic affixation in contrast to the relative lack of such concatenative morphology in JSL. Despite the huge typological contrast at the morphosyntactic level, the morphosyntactic structure of JSL does not prevent lexical and semantic borrowing from spoken and or written Japanese, as JSL indexes particular morphological and phonological spoken and written Japanese elements. Currently the literature does not provide clear evidence for sign language intermodality structural borrowing—for instance, Aronoff et al (2005, p. 308) in an examination of the morphology of Israeli Sign Language suggest that structural borrowing from the spoken language is not evident. Nevertheless the absence of the discovery of a distinct structural intermodality influence does not rule out the potential for such an influence; further research is needed in this area. As explained in §2.1 JSL has a somewhat diglossic relationship with Japanese as it has some restriction in terms of the broader social domains of usage in relation to hearer

society, so the influence of spoken Japanese on JSL is unsurprising, given the sociolinguistic pressures involved.

Examples of spoken and written language lexical influence on JSL

Since Japan provides universal education, the Deaf constitute a literate population with access to spoken and written Japanese as described above. This part of §2.3 describes two types of lexical language contact influence, orthographic mappings and morphemic calques, in addition to sound correspondence influences of spoken Japanese on JSL. This section reproduces part of the discussion from George (2010). Selections from the Yonekawa dictionary (1997) based on active usage by signers serves as the primary source for the examples described.

"Orthographic mappings" constitute signs isomorphic with Japanese orthography. These signs have one-to-one relationships with representations of words from the spoken or written lexicon. Fingerspelling represents the most common example across many sign languages as such borrowings have literal isomorphism with respect to the source language. For example in ASL, the word "bus" frequently occurs as a fingerspelled loan word, so signs which represent the letters, "B-U-S", are signed in succession to make the word. Each letter of the English alphabet has a sign representation in ASL, so there is a one-to-one correspondence between the representations of the orthography in the English language and ASL, although English and ASL are independent languages. JSL users rarely fingerspell in the regular lexicon but they often do so when explaining new terms or representing names. The use of a dactylic system composed of a syllabary illustrates the unambiguous relationship between JSL and Japanese orthography (Yonekawa 1984, p. 4); JSL has a sign that represents a phoneme for each character from the Japanese syllabary. The fact that JSL has a fingerspelled syllabary in contrast to ASL that has a fingerspelled alphabet shows the direct influence of the spoken languages on the representation of phonemic unit representations in sign languages. Another class of orthographic mappings consists of sign configurations isomorphic to Japanese characters. Signs such as *SHŌ* 小 'small' (picture 2.1), 日 *HI* 'sun', 田 *TA* 'rice paddy' or 中 *NAKA* 'center' have isomorphism with respect to their orthographic representations.[12] Due to the physiological limitations the hand this group represents a relatively small number of signs.

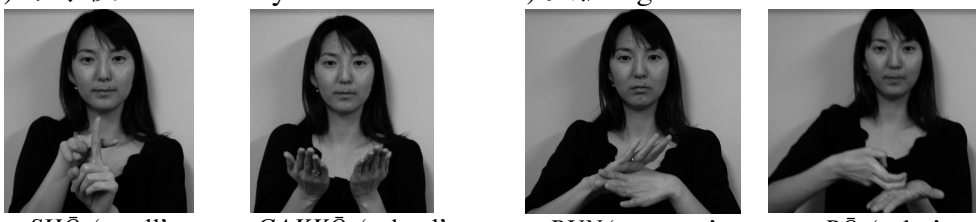
A large class of JSL nominals consists of morphemic calques. These nominals are derived from the spoken Japanese lexicon and consist of some combination of two or more metonymic signs, which index some feature of the referent, or orthographic mappings. In photo set (2.1a) below, *SHŌ GAKKŌ* 'elementary school' consists of

[12] The sign language literature conventionally represents signed lexical items in all capitalized letters. This work uses Japanese rather than English to represent signed words since the source Japanese representation associated with a given word has relevance to the discussion of the signs.

an orthographic mapping morpheme 'small' and a metonymic morpheme 'school.' In 'school' the hand configuration resembles that of holding an open book. *BUNPŌ* 'grammar' consists of two metonymic signs. The individual signs appear in other polymorphemic words derived from spoken or written Japanese. Place names and onomastic signs commonly appear as morphemic calques. For example, the name *TAKAOKA* which can refer to a person or place name consists of two signs, *TAKA+OKA*, the first sign a metonymic sign meaning 'high' followed by an orthographic mapping meaning 'hill'.

2.1 Morphemic calques

a) 小学校 'elementary school' b) 文法 'grammar'



SHŌ 'small' + *GAKKŌ* 'school' *BUN* 'sentence' + *PŌ* 'rules'

Since morphemic calques follow the morphology of a source Japanese word the segmentation of morphemic calques signs typically conform to Japanese morpheme boundaries. Signers would not typically produce divisions such as **TA+KA+OKA* consisting of three signs when the source word has only two morphemes. In the case of 'elementary school' one sign represents two morphemes; however, a word such as this does not violate the word boundary rule, which specifically involves not creating new boundaries. The creation of a new boundary would segment a morpheme as phonemic rather than a meaningful morphemic sign representation. A sign such as *GAKKŌ* 'elementary school' retains the meaning of the concatenated pair of morphemes in *gakkō* 'school' and results in a meaningful morphemic sign segment. Some lexical classes such as onomastic and speech play forms violate the word boundary rule with relatively more frequency than standard nominals (George 2010; Nonaka, forthcoming). Morphemic calques are typically reserved for nominal forms in JSL.

Speech play and onomastic formation shows how sound correspondences from spoken Japanese are applied by signers to productively create novel JSL expressions (George 2010; Kimura 1998; Nonaka, forthcoming). The class of homophone-derived nominals refers to signs playing on the sound similarity between two words in Japanese. A word typically unanalyzed gets a sort of backformation.

2.2 *Homophone-derived Onomastic forms*

a)	片町	*Kata+machi* ー＞ settle+street		肩町	*KATA+MACHI* shoulder+street	*Katamachi* Street name
b)	渡辺	*Wata+nabe* ー＞ cross + side/edge		鍋	*NABE* pot	*Watanabe* a name

The sign for the street name *KATAMACHI* literally reads as 'shoulder street' but as seen in the orthography, the sign does not represent the semantics of the name, rather it indexes the phonemic realization of the name only. There are two homophonous spoken Japanese morphemes, *kata* 'street' and *kata* 'shoulder', with two distinct Japanese characters, 片 'settle' and 肩 'shoulder'. The JSL sign for 肩 'shoulder' is used in place of the sign for settle 片 'settle'; the substitution is licensed by the spoken Japanese homophony between the two sign representations. The literal meaning of 片 *kata* 'settle' generally goes unanalyzed and the word *肩 kata* 'shoulder' has a representation in JSL, so fills in for the actual homophonic morpheme. The name *Watanabe* serves as another example with the second half of the name receiving a homophonic representation. There are two homophonous morphemes, *nabe* 'side/edge' and *nabe* 'pot', with distinct Japanese characters, 辺 'side/edge' and 鍋 'pot'. The JSL sign for 辺 'side/edge' is used in place of the sign for pot 鍋 'pot'. Since *Watanabe* exists as a very common Japanese name *NABE* has become the typical representation for it.

This class of nominals consists primarily of names and speech play. Since a homophone-derived nominal must have a pair of source morphophonemic representations, standard words in the general lexicon will rarely be derived in this manner. In addition, signers tend to find non-proper nouns derived in this fashion as humorous. Proper nouns grounded on homophony can probably enter the lexicon because they typically remain unanalyzed semantically. Consider English names such as 'Oliver,' or 'Smith,' they all have relatively transparent, although archaic, meanings that generally go unanalyzed during casual use. Since the semantics are bleached, the target proper noun in JSL is available to a homophonous substitution process that produces a valid word. In the case of meaningful words, the use of a sign with a different word meaning produces a marked effect—usually resulting in the humor of speech play. Such a word would eventually require an opaque relationship to its base etymology to remain in the standard lexicon.

Kimura (1998) gives a number of sign play examples and distinguishes between sign play that appeals to hearers in contrast to sign play that appeals to the sensibilities of native Deaf signers. Her examples of hearer sign play all involve a sound-sign correspondence, patterned along the lines of the *Watanabe* and *Katamachi* examples in chart 2.2 above. Kimura (1988) notes that authentic Deaf sign play

centers on pairs of signs that have the same or similar visual representation but differing meanings; however, a portion of her examples of authentic Deaf sign play contains sound-sign correspondences. One of her examples plays on the contrast between the partially homophonic/homonymic expressions 点滅 *TENMETSU* 'blinking light' and 点点点 *TEN-TEN-TEN* '…' representing an incomplete expression. The connection between the two phrases necessary for understanding the sign play relies upon either knowledge of the Japanese orthographical representations or the sound correspondences.

As discussed in the language contact literature discussed above, the asymmetrical affect of spoken and written Japanese on JSL has its origins in the unequal status and extensive exposure of signers to the surrounding language in a way that produces extensive bilingualism. The social currency of a group can affect the susceptibility of the group's language to influence from the majority language, even in the case of a contrasting modality. In the case of politeness, discourse strongly driven by the social context and relative status of interlocutors, it is expected that practices by the Deaf will reflect polite cultural practices by speakers despite the distinction in language modalities. Chapter Three provides further discussion of the relation between spoken Japanese and JSL politeness expressions that index the same discourse contexts.

2.4 Visual Communicative Culture

§2.1 illustrated the social intersection of Deaf and hearing culture through an overview of the social context of the Deaf community in primary social domains—the home, school and work. Deaf interaction with hearers results in a language contact context with a subsequent influence of spoken and written language on JSL. Another consequence of the cultural intersection of Deaf and hearing is that the community of signers and speakers also share access to a communicative medium via the visual-kinesic modality consisting of gestures, facial expressions, and other types of bodily actions (Birdwhistell 1970; Kendon 2004; McNeill 1992). Similarly to the way in which spoken and written Japanese provide a source of material for the development of a sign language or an idiolect, the visual-kinesic modality serves as a resource; however, in contrast to borrowed forms, the visual-kinesic communicative elements potentially exist as a native communicative code for the Deaf. Life as a minority in a majority speaking social context requires Deaf mastery of the shared visual code in order to support communication with hearing people.

A child is born into a world of conventionalized as well as spontaneous visual communicative cues. In the same way speakers transmit spoken language, speakers additionally communicate through visual-kinesic elements. In the case of the Deaf, visual codes independent of speech can serve as conventionalized inputs in the same way as for speakers; in contrast to speakers, visual codes accompanied by speech remain contingent and open to a wide range of interpretation by Deaf language users.

Kendon in his introduction describes the visual-kinesic communicative system or what he labels as *the domain of gesture*.

> Willingly or not, humans, when in co-presence, continuously inform one another about their intentions, interests, feelings and ideas by means of visible bodily action….
> …people may refer to something by pointing at it, they may employ the hands in complex actions organized to show what something looks like, to indicate its size or its shape, to suggest a form, object or process by which an abstract idea is illustrated, or they may show, through visible bodily actions, that they are asking a question, making a plea, proposing a hypothesis, doubting the word of another, denying something or indicating agreement about it, and many other things. There are also visible actions that can serve as alternatives to spoken words and socially shared vocabularies of so such actions are commonly established…. In other words, there is a wide range of ways in which visible bodily actions are employed in the accomplishment of expressions that, from a functional point of view, are similar to, or even the same as expressions in spoken language. At times they are used in conjunction with spoken expressions, at other times as complements, supplements, substitutes or as alternatives to them. These are the utterance uses of visible action and it is these uses that constitute the domain of 'gesture'…. *(*2004, p. 1-2)

A number of visual communicative behaviors comprise the visual-kinesic medium, so the visual code consists of an amalgamation of hand movements, facial expression and body postures that may be accompanied by speech or not. The scope of communication extends beyond speech; therefore, a Deaf language learner has a rich source of visual input subject to interpretation and reproduction in some purely visual-kinesic form.

Chapters Three and Four cover polite expression in JSL—expression that requires knowledge about typical constructions of societal relationships in a variety of domains. There is a lay-sense that either sign language lacks the capacity or need for the expression of levels of register (Kimura 2009, p. 31); however, the Deaf inhabit a Japanese visual culture, along with Japanese speakers, consisting of communicative gesture and visual cues necessary to express the relationship status between interlocutors, and this visual culture supports the development of JSL, the Deaf medium for the negotiation of a range of social contexts. Within the context of Japanese culture there exist cases where JSL signers evidence use of visual-kinesic forms also used by speakers of spoken Japanese.

2.4.1 The Speech Community

Hymes' notion of *speech community* provides a useful frame for understanding the immersion of the Deaf and hearing in a shared visual communicative culture. Hymes notes that the primary focus in early language contact work had been on bilingualism; however he calls for an investigation of more scope.

> Bilingual or bidialectal phenomena have been the main focus of the interest that has been shown. Yet bilingualism is not in itself an adequate basis for a model or theory of the interaction of language and social life. From the standpoint of such a model or theory, bilingualism is neither a unitary phenomenon nor autonomous…. A general theory of the interaction of language and social life must encompass the multiple relations between linguistic means and social meaning. The relations within a particular community or personal repertoire are an empirical problem, calling for a mode of description that is jointly ethnographic and linguistic. (1986 [1972], p. 38-39)

§2.3 discussed the conditions necessary for language contact to trigger borrowing or structural influence between languages; the examination included an overview of social contexts shared between the Deaf and the hearing. According to Hymes, researchers must undertake a specific examination of repertoires and personal networks in order to produce a theory capable of capturing the relationship between the community repertoires and social activity. Hymes defines the interaction of language and a community with the notion of a *speech community*.

> Speech is here taken as a surrogate for all forms of language, including writing, song and speech-derived whistling, drumming, horn calling, and the like. Speech community is a necessary, primary term in that it postulates the basis of description as a social, rather than a linguistic, entity. One starts with a social group and considers all the linguistic varieties present in it, rather than starting with any one variety…. Tentatively, a speech community is defined as a community sharing rules for the conduct and interpretation of speech, and rules for the interpretation of at least one linguistic variety…. In sum, one's speech community may be, effectively, a single locality or portion of it; one's language field will be delimited by one's repertoire of varieties; one's speech field by one's repertoire of patterns of speaking. One's speech network is the effective union of these last two. (1986 [1972], p. 54-55)

Hymes' definition of speech community encompasses a broad range of conventionalized communicative elements that make up a communicative community. Among the communicative codes available in a community are the visual communicative elements as described by Kendon (2004).

The visual-kinesic cultural indices of interest in §2.4 are those shared by both sign language users and non-sign language users occupying the same geographical locales—specifically forms intelligible to Deaf and hearing Japanese. McNeill (1992) defines a gesture classification system that includes two categories of immediate interest, 'emblems' and 'gesticulation'.[13] Both signers and non-signers use particular types of gestures, called emblems. Bowing as a greeting represents a well-known emblem in Japan—its use is widespread and completely conventionalized in all regions of Japan. Gesticulation or coverbal gesture serves as another visual-kinesic communication avenue accessible to signers to some degree and non-signers. Accompanying speech, typical gesticulation by Japanese speakers such as waving the hand while saying "no," described by authors such as Jungheim (2006) or Morris (1994), is available either as a type of emblem or gesture for the Deaf. Such culturally shared visual-kinesic communication indices bridge the language gap between Deaf and hearing people in any culture. A visual-kinesic cultural index could exist uniquely in a culture or appear across cultures, for instance, a bow. Bowing as greeting is not unique to Japanese culture; indeed, it is common throughout South-East Asia where specific characteristics of bowing may differ crossculturally. In any event, the specific concern in this work is that JSL has a sign that incorporates an emblematic bow that is clearly accessible to interlocutors in Japan via the visual-kinesic channels. Potentially, the incorporation of a bow exists in other sign languages immersed in cultures where bowing is conventionalized or prevalent.

2.4.2 Sign Language, Emblems and Coverbal Gesture

McNeill (1992, p. 37) coined the term *Kendon's continuum*, using parameters drawn from the work of Adam Kendon, to classify a range of visual-kinesic communication cues ranging from gesticulations that obligatorily accompany speech to full-blown sign languages with clearly identifiable language properties. [14]

2.3 Kendon's continuum[15]

	Gesticulation	**Emblems**	**Sign Language**
Speech	Obligatory	Optional	Absent
Linguistic properties	Absent	Some	Present
Conventional?	No	Partially	Fully
Semiotics	Global/Synthetic	Segmented/Synthetic	Segmented/Analytic
Primary users	Speakers	Speakers/Signers	Signers

[13] *The term* emblems *originates from Efron 1941.*
[14] *Originating in Kendon 1988.*
[15] *Another class describes "Pantomime" not included in this discussion.*

The chart above derived from McNeill (2005) presents the distinctions among the continuum of communicative visual modalities. McNeill's classes are defined by: the degree of accompaniment with speech; the presence of linguistic properties such as phonological form or combinatorial properties; the extent of social conventionalization; and the type semiotic properties—a global top-down mapping of meaning opposed to a segmented bottom up mapping of meaning, and a synthetic form which spans a range of meanings in an utterance in contrast to an analytic form, which accompanies a distinct semantic function. The final row consists of what is labeled as "primary users." Since gesticulation, defined as coverbal by McNeill, obligatorily accompanies speech, only speakers will gesticulate as opposed to signers who do not speak. In contrast, McNeill describes sign language as absent of speech, so signers would primarily use sign language as opposed to speakers.

McNeill's classification schema presents sound generalizations; however, more recent research on sign language allows for some refinement. For instance, a number of studies show that mouthing derived from speech can appear in sign languages, and such mouthing may epiphenomenally be accompanied by vocalization. Mouthing occurs in a number of sign languages such as Finnish and Israeli Sign Languages (Pimia 1990; Sandler 2003). Mouthing is sometimes used to disambiguate the meaning of a sign that has multiple meanings or, more commonly, for grammatical or discourse marking. Simultaneous signing involving sign accompanied by speech might serve as another counterexample to McNeill's typology. In regards to the obligatoriness of speech for gesticulation, it may be more accurate to say that gesticulation obligatorily serves as a secondary communicative channel that requires a primary communicative modality. So gesticulation could co-occur with speech or sign. Work such as Liddell and Metzger (1998) or Liddell (2003) identifies pointing references in the signing space as spatially deictic in contrast to authors such as Sandler (2006) who see such signs as indexed to abstract loci. In effect, Liddell's description of pointing in sign language potentially classes as gesticulations in McNeill's schema.

The most obvious category in regards to interpretability of sign by non-signers constitutes emblems, which would be readily available to any non-visually impaired individual. Since emblems exist as meaningful communicative tokens *independent of speech*, the Deaf can use *emblems* in the same ways and contexts as hearers. For instance when passing through a crowd either the Deaf or hearing may use the 'hand prow' emblem which consists of raising a flat hand near the head level with the fingers pointed up and the plane of the palm perpendicular to the plane of the chest (Morris 1994, p. 119). This gesture has an equivalence to 'excuse me' so signals that the user of the emblem will pass through, and bystanders can then provide more space for the person's passage. In an idealized sense of the definition as outlined by McNeill (2005), such *emblems* need not be learned through spoken language accompaniment as they appear in specific types of interaction contexts. Similarly to a

language expression, users learn the emblem through normal, everyday life experience in their actual social contexts. Emblems accompanied by optional speech may in some contexts acquire additional meanings for speakers not accessible to Deaf signers. Emblems exist as communicative features that second language learners must acquire in order to use fluently; Jungheim (2006) shows that second language learners of spoken Japanese could use or comprehend the Japanese *hand fan* emblem, marking refusal, to varying degrees; however, many of his study participants failed to interpret the kinesic cue successfully. Sighted Deaf and hearing people have equal access to emblematic forms, so both groups have an equally shared cultural communication system vis-à-vis emblems.

Speakers commonly gesticulate during speech and use emblems throughout various interaction contexts, so there exists a rich visual-kinesic communication system for speakers that Deaf signers share and access. Emblems which any sighted person can interpret when immersed in normal social contexts will be fully interpretable by the Deaf in contrast to *gesticulations* that typically accompany speech cues. Emblems as part of their normal function in the speech community act as isolated tokens that do not concatenate with other gesticulations or expressions. The same will hold true for Deaf users of emblems until some point when some version of an emblem is assimilated into a sign language or an idiolect as a lexical token that can then act as part of longer conventionalized language expressions. As gesticulations accompany speech, the Deaf will subject such forms to a broad range of interpretation.

2.4.3 Visual-Kinesic Forms as Comprehensible Language Input

Sign language and idiolect incorporation of visual-kinesic elements from the speech or communicative community calls attention the communicative salience and value such non-verbal communication forms have. While much more needs to be elucidated about the actual process of how the Deaf community selects, modifies or creates elements for communicative use, a number of researchers discuss how sign languages evidence influence from the community visual-kinesic repertoire. One could posit that part of the motivation for the use of active communicative visual forms is due to the fact that these make up some part of the most accessible, thus earliest learned communicative elements by Deaf children. Gumperz (1964, p. 137-138) in his discussion of *verbal repertoire*, defined as "the totality of linguistic forms regularly employed in the course of socially significant interaction," discusses the social restraints on selection.

> If the choice among them were completely a matter of individual freedom, the connotations of his message would be idiosyncratic to the speaker and this would result in misunderstanding. The power of selection is therefore limited by

> commonly agreed-on conventions which serve to categorize speech forms as informal, technical, vulgar, literary, humorous, etc. (p. 138)

Although Gumperz writes of various speech forms or genres, his discussion could just as well apply to a Deaf child's selection from the visual-kinesic forms available within the scope of her communicative experience—even when such an experience constitutes language acquisition in a world of hearing interlocutors. Some of the first communicative elements a learner would call attention to are those conventionalized communicative forms with uses recoverable from their respective contexts. Since the speech signal for the Deaf child would be impoverished, the gestures of surrounding interlocutors would serve as initial models for inputs. The most conventionalized visual-kinesic forms would provide the learner the best opportunities for acquisition.

Across various sign languages researchers have documented the derivation of signs from emblems used by speakers of the surrounding languages. Peng (1974) in his discussion of JSL kinship signs remarks that the signs for male and female derive from the emblems used by Japanese speakers with the same meaning—a hand made into a fist with the thumb up for "man" in contrast with the little finger up for "woman"; Shuman (1980) documents the sign language of a Mayan group in the community of Nohya that derives a number of signs from common emblems in the speaking community such as "fear," and "thank you;" Morford and Kegl (2000) note the incorporation into Nicaraguan Sign Language of a lexical sign meaning "small animals" based on a conventional emblem in the Nicaraguan community involving an L-handshape made to the side of the body with the fingertips pointed to the ground; Brennan (2005) discusses in detail semantic counterparts between British Sign Language (BSL) and spoken English such as a correspondence between repetitive coverbal gesticulation in English and iteration in the inflectional aspectual system of BSL. Non-grammaticalized versions of emblems remain part of a communication system that co-exists for signers and non-signers inhabiting the same community. Assimilated versions of emblems that maintain enough similarity to emblems actively used by signing and non-signing members of the same community provide potential cues for non-signer interpretations of sign language. Some examples of Japanese emblems assimilated into the JSL lexicon include: *sumimasen* 'excuse me' from the *handprow* emblem; *kane* 'money' from the hand ring emblem (Morris 1994, p. 123) similar to the 'F' sign in ASL; and *nusumu* 'to steal' derived from the forefinger hook (Morris 1994, p. 86) meaning 'thief'.

Besides the adaptation of emblems, the Deaf may also incorporate elements from speech-accompanied gesticulation. Goldin-Meadow et al. (1984) provide a detailed study of the development of idiolects in Deaf children of hearing parents. They note that the children in their study actively incorporated visual-kinesic elements from their communicative environs.

> …the gesture systems our deaf subjects developed were clearly not unaffected by their environments and, in fact, had quite obvious ties to those environments. The deaf children's environments provided them with the opportunity (available to hearing children as well) to see people around them pointing out objects, nodding their heads in agreement, and performing actions. The deaf children appeared to appropriate these, as well as other aspects of their environments, to use as elements in their own gesture systems—they used deictic points to indicate, head nods and shakes to modulate their meanings, and actions on the world to serve as the basis for their characterizing signs. Thus, the deaf children were, in a sense, taking their gestures from their environments. (p. 113)

Goldin-Meadow et al. (1984) describe child idiolects that incorporate a range of visual-kinesic elements including pointing and nodding gestures. Sign languages and idiolects characteristically incorporate deictic or pointing signs. Torigoe and Takaei (2002) in a study of the idiolect of two Deaf sisters in Okinawa detail how the sisters used pointing referentially and grammatically. Some of the functions of these deictics may have resembled the gesticulation of hearers, but others underwent grammaticalization. JSL grammaticalizes a *head shake* gesticulation which signals 'no' for Japanese speakers; signers can apply the resultant non-manual signal to mark negation.

The application of community visual-kinesic forms by the Deaf neither entails that all available forms undergo adaptation, nor that sign languages or idiolects are completely composed of a concatenation of these elements. Goldin-Meadow et al. note in their study of the acquisition of idiolect, "what the deaf children appeared able to do without environmental assistance was to combine these sign elements into structured and productive gesture strings. It is the propensity to communicate in a structured and productive fashion that the child himself appears to bring to the language-learning situation" (1984, p. 114). Goldin-Meadow et al's observations of the development of structural linguistic elements, such as syntax-like concatenation, mirror those by other researchers in studies of sign language development (Aronoff et al. 2005, Senghas and Coppola 2001). Nevertheless, the incorporation of visual-kinesic communicative elements serves as an important role in sign language and idiolect development.

§2.4 discussed how the interaction of the Deaf and hearing results in a shared visual communicative culture between both groups. The latter Chapters will show that this shared visual-kinesic modality accounts for some of the polite expression marking forms used by JSL users.

2.5 Conclusion

This chapter described ways in which the Japanese Deaf populace resembles culturally an ethnic minority characterized by a bilingualism/biculturalism that results in borrowing from the prestige language. As a minority group, the Deaf do not have equal access to social institutions with the hearing population. The social currency afforded by one's status as determined by income and education level dramatically affects the reception, dissemination and development of a language. Their status as a stigmatized minority group extends to misconceptions about their language JSL. Such misconceptions have historically led to viewing sign language as incomplete or lacking potential when compared with spoken Japanese. Even among those who know sign language there persist a number of folk conceptions of JSL and Deaf culture derived from lack of knowledge about Deaf language or culture. Social status as a minority language has implications for the influence of the communication system of speakers on the communication system of the Deaf, as seen by the impact of spoken and written Japanese language contact with JSL. JSL meets the primary conditions discussed in the literature for language contact induced change—bilingualism, extensive contact, a large population size differential and the sociopolitical dominance of the source-language group. Additionally, the shared visual-kinesic culture links the communicative systems of signers and speakers. The Deaf find themselves largely immersed in a hearing culture in most domains of their lives and must negotiate the communicative space of the hearing. In essence the Deaf act as bicultural and bilingual citizens constantly crossing the boundaries between the communal spaces of the Deaf and hearing.

CHAPTER 3
JAPANESE SIGNER AND SPEAKER POLITE EXPRESSION

As described in Chapter Two, The Deaf have an intersectional identity on the basis of identification as bicultural citizenry who participate as members of a larger mainstream society (§2.1); consequently, JSL reflects language contact influence from spoken and written Japanese (§2.3). The current chapter examines and compares polite communicative strategies available to Japanese signers and speakers. As might be predicted from the intersectional nature of Deaf identity, we will see that there are both similarities and contrasts between the strategies of the two groups. The modality distinction requires JSL to sometimes rely on differing structures from spoken Japanese to express politeness, namely, nonmanual forms—conventionalized linguistic components that do not involve manual signs, such as facial expression or body lean (§3.2.1). JSL and spoken Japanese have both related and independent forms of expression, and such forms may refer to similar or differing meaning constructions or interaction contexts. The inter-cultural status of the JSL community makes JSL a particularly fruitful domain for the examination of the interdependent relationship between language form and social action. An indexical framework, such as delineated by Ochs (1992) detailed in §3.3.3, that examines language form and context as separate components of a communicative system helps account for JSL politeness within the context of the majority language's influence.

Linguistic politeness is a particularly rich area for examining the intersection between Deaf and hearing communicative practice. Broadly described, polite communicative behavior refers to any means of facilitating personal interaction (Brown and Levinson 1987[1978], Watts 2003). §3.3.1 provides a detailed discussion of Brown and Levinson (1987[1978]) and the related politeness literature. §3.3.3 provides a specific characterization of polite expression as a social index open to interpretation depending on the interlocutors involved and the particular discourse context. Polite interaction involves not only a language user's choice of an appropriate expression in a particular situation, but also consideration and evaluation of the type of social relationship the language user has with a given interlocutor. An individual signer or speaker's style of expression reflects her constructed view of the society and immediate communicative context. For instance, a Japanese speaker can apply the suppletive form of a verb to produce a referent-controlled honorific form (Shibatani 1990), e.g., *meshiagaru* 'to eat (honorific)' for *taberu* 'to eat (plain)'. The choice among forms requires knowledge of the relevant lexicon and the ability to select the appropriate form for the desired effect on the listener based on the formulation of the referent. Politeness provides a linguistically grounded means to investigate the construction of social relation hierarchies.

JSL reflects the lexicon of spoken Japanese through loans and adaptations of similar concepts in different forms; however, there are also naturally major contrasts,

since JSL is an independent language, typologically quite different from Japanese. Additionally, the modality contrast limits structural similarity as spoken Japanese indexes polite expression through lexical selection and overt grammatical marking unavailable to JSL. In any event, JSL demonstrates the ability to index Japanese social hierarchies, although JSL and spoken Japanese have differing representations for polite expression. Despite claims for a special salience of politeness in Japanese culture due to the overt grammatical marking of politeness in spoken Japanese (Hill et al. 1986; Ide 1989; Matsumoto 1988), JSL, which lacks the same type of grammatical structures, can index politeness in similar social domains. JSL shows that linguistic form serves as an insufficient, although necessary, ground for discussing polite interaction among a given group of language users. JSL politeness challenges in a serious way the mapping of language to culture.

An examination of JSL and spoken Japanese politeness requires the separate consideration of language form and usage context in order to reconcile the fact that two languages may use different linguistic representations to index the same ground of social action. Linguistic politeness has been examined from a number of frameworks. Each particular approach focuses on different aspects of linguistic politeness and has trade-offs in terms of its analytic coverage. For instance, early approaches tend to provide underspecified analyses that weigh politeness based on crosslinguistic typologies of isolated expressions at the expense of considering the particulars of the situated discourse context (Brown and Levinson 1987[1978]; Leech 1983). Culturally grounded analyses delimit inter-language contrasts, at the expense of acknowledging distinctions within identified social groupings (Bravo 2008; Hill et al. 1986; Ide 1989; Mao 1994; Matsumoto 1988; Hernández-Flores 1999; Nwoye 1992; Gu 1990). The more recent trajectory of politeness research calls for the need to examine the use of polite language within the discourse context (Eelen 2001; Okamoto 1999; Watts 2003); emphasis falls on the negotiable ground of polite interaction and the significance of context in determining the interpretation of particular exchanges.

§3.1 and §3.2 consider JSL polite expression in light of its relationship with spoken and written Japanese. §3.3 argues for the consideration of polite expression as a system of social indices; this perspective is an important component of the analyses presented in this work. Chapter Four presents the results of experimental research on polite indices in JSL. While the discussion of the specific use of polite indices in context goes beyond the scope of this work, the identification of social indices in JSL serves as a necessary precursor for further research in JSL politeness related discourse.

3.1 Politeness in Japanese Sign in Contrast with Speech

Although signers and speakers use languages that share communicative elements to some extent as a result of language contact (§2.3), ultimately they use mutually unintelligible languages. The modality contrast entails distinctions in how users of the two languages grammatically and semantically construct expressions; and although JSL assimilates part of its lexicon from the shared visual-kinesic modality and borrows from the surrounding majority language, such elements typically undergo adaptation. Additionally, as the Deaf are a minority immersed in a hearing society, there exist experiences particularly salient to Deaf social contexts that potentially lead to contrastive language structures and communicative behaviors. Researchers have shown great interest in investigating the language of polite interaction in spoken Japanese (Fukada & Asato 2004; Fukushima 2004; Haugh 2008; Hill et al. 1986; Ide 1989; Long 2010; Matsumoto 1988; Ohashi 2008; Okamoto 1999; Pizziconi 2003). This work extends this investigation to JSL in order to investigate to what extent a language in a differing modality differs from or resembles its primary contact language. §3.1 illustrates contrasts between JSL and spoken Japanese through expressions associated with politeness. §3.1.1 covers similarities between Deaf and hearer communicative polite expression; §3.1.2 presents contrasts that necessarily arise due to the modality distinction; and §3.1.3 discusses a typological and a semantic contrast as illustrations of the range of distinctions between the two languages.

3.1.1 Shared Communicative Strategies

When considered in the broadest sense, polite communicative behavior includes any means of supporting personal interaction including conventionalized gesture and language (Brown and Levinson 1987[1978]; Watts 2003). While there exist few uses of the *exact* same communicative forms by signers and non-signers, a broad range of forms have close relationships due to language contact.

Emblems serve as the best examples of forms used natively in the same ways by both the Deaf and hearing. As discussed in §2.4.2, both groups have emblems such the *hand prow* or Japanese bow as part of their communicative inventories for particular interaction contexts. Additionally, both groups share conventionalized gestures. For instance, when giving or accepting an item in formal, public contexts such as a graduation commencement, a person uses both hands when giving or receiving a degree. Transferring an item to a person of a higher social standing typically requires two hands, such as when a student hands a report to an instructor. Receiving or giving an item with one hand reflects a relatively more casual gesture. Signers and hearers routinely interact in the visual-kinesic modality.

The shared visual-kinesic communicative modality provides a rich source of material for lexicalization or grammaticalization into JSL. The previously mentioned hand prow emblem likely represents the origin of the JSL lexicalized forms *ONEGAI* 'please' (A.1.3) and *SUMIMASEN* 'excuse me'.[16] The conventionalization of the two handed transfer of items has a reflection in the allomorphy of *mirror signs*—signs produced symmetrically with both hands using the same movement, location and handshape. The Yonekawa (1997) dictionary illustrates the JSL sign *MORAU* 'to receive' as represented with both hands. The morphology of JSL licenses the use of one hand instead of two for mirror signs; however, the single-handed *MORAU* results in a register contrast that results in a casual form (Yonekawa 1997). Perniss and Zeshan (2008, p. 16) present a contrast between two forms of second person reference in JSL. The more casual form involves pointing to an addressee with the index finger, while the relatively formal gesture requires that the signer direct a flat open hand with the palm upwards towards the addressee. The distinction between the two second-person forms may mirror a similar gestural contrast used by non-signing Japanese in a broad range of social contexts.

More commonly, JSL and spoken Japanese share lexicons with semantic similarities due to borrowing that results from the development of JSL in a speech dominated society. §2.3 describes JSL morphemic calques—nominals derived from the spoken Japanese lexicon that consist of a combination of two or more sign morphemes. Such calques can result in sign expressions derived from spoken Japanese. The standard expression used for initial meetings and request contexts, *yoroshiku onegaishimasu* literally translates, in terms of the base word forms, from the source language into JSL as *YOROSHIKU ONEGAI*, an expression made up of the JSL words *YOI* 'good' and *ONEGAI* 'please'. JSL and spoken Japanese involve the use of the expression in largely the same social contexts; in contrast, a language such as English has no equivalent expression, so it would variously translate as, 'nice to meet you,' or 'I appreciate your help,' or any other number of expressions depending on the context.

3.1.2 Obligatory Modality Contrasts

While JSL and spoken Japanese share a related lexicon to some degree, modality dependent contrasts place limits on the extent JSL can mirror spoken language structure. The spoken Japanese forms of the copula and pragmatic affixation of *–masu* represent two clear examples of an obligatory structural distinction in the expression of linguistic politeness between JSL and spoken Japanese. The Japanese literature refers to these as *teinei* 'polite forms', forms determined by the relative status between the addressee and the speaker.

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[16] *All references such as A.1.3 indicate pictures or charts located in the Appendices.*

The Japanese language is known for its rich system of grammaticalized pragmatic agglutination; in contrast JSL, like other sign languages that have been examined in the literature, lacks a similarly extensive system of affixation—in the sense of the concatenation of morphemes along the line of the autonomous segmental tier, made up of phones for speech and manual signs for sign language. This distinction between the processes of morphological affixation in spoken and sign languages accounts for the identification of the sign modality as containing relatively more simultaneity of structure (Brentari 2010, p. 14). The lack of a spoken language type of morphological affixation prevents JSL from developing direct representation for the polite system of grammaticalized marking in Japanese.

Shibatani (1990, p. 375) provides an example of an addressee-controlled use of the polite form with the sentence, 'Taro came'. In the example below *–ta* represents the plain form (3.1a), while *–mashita* represents the more polite *–masu* form (3.1b) of the past tense marker.

3.1 *Polite expression through use of –masu*

a.	太郎が来た。		b.	太郎がきました。	
	Tarō ga	*ki-ta.* (plain)		*Tarō ga*	*ki-mashita.* (formal)
	NOM	come-PAST		NOM	come-PAST

Although JSL has no structurally identical type of affix marking, it can rely upon other types of structures to produce similar types of register contrasts.

Lack of an overt copula in JSL represents another structural contrast between JSL and Japanese. Typologically JSL classifies as what Stassen (2008) defines as a zero copula language. In JSL, similarly to other sign languages, predication typically relies upon the parameter of movement, for instance, in classifier constructions (Brentari 2010, p. 12) and deictic verbal agreement structures (Brentari 2010, p. 14), so an overt copula would potentially represent a redundant predicate.

Authors such as Matsumoto (1988) Okamoto (1999) and Shibatani (1990) describe the variation in the forms of the copula as addressee-controlled polite forms. JSL lacks use of the copula so signers cannot create the same structural distinctions. Obligatory use of the copula underlies Matsumoto's assertion that Japanese speakers always remain sensitive to register. A speaker uttering even a basic phrase such as 'That's an apple,' must select the most appropriate level of speech.

3.2 *Polite expression through alternation of the copula*

林檎だ。	林檎です。	林檎でございます。
Ringo da.	*Ringo desu.*	*Ringo de gozaimasu.*
apple COPULA-PLAIN FORM	apple COPULA-FORMAL	apple COPULA-HONORIFIC

Prescriptively, the relative status of the interlocutors and the communicative setting determines the most appropriate addressee-controlled politeness form (Ide 1982).

Pragmatic morphological components of Japanese lead a number of researchers to identify Japanese as a "politeness language" in the sense that the language contains obligatory grammatical components indexing register. The notion of *Discernment* as developed by Hill et al. (1986) refers to the sensitivity of Japanese speakers to the relative status of interlocutors; this cultural sensitivity is understood to underlie both linguistic and non-linguistic interaction among Japanese speakers. §3.3 below will examine the work of more recent researchers such as Okamoto (1999) that challenge the claim that speakers necessarily follow the prescriptive usage of these pragmatically differentiated forms.

The lack of a pragmatic affixal morphology does not necessarily entail that JSL users cannot produce pragmatically similar types of politeness distinctions; however, the modality difference requires that JSL incorporate other types of structural devices to produce register contrasts, as further discussed in §3.2 below.

3.1.3 Modality-Independent Contrasts

While the modality distinction requires some contrasts between JSL and speech, other differences result from the separate developmental paths of the two languages. §3.1.3 illustrates a pair of distinctions between JSL and spoken Japanese, one along a non-structurally determined typological contrast and the other along semantic lines.

JSL likely contrasts with spoken Japanese politeness marking along typological lines in that Japanese contains both addressee-controlled polite or *teinei* forms, and referent-controlled politeness forms known as *keigo* 'honorifics' (Shibatani 1990), whereas JSL does not. JSL clearly evidences addressee politeness forms, but appears to lack referent-controlled politeness forms. A Japanese speaker has several ways to produce honorific or referent-controlled politeness forms. Shibatani (1990, p. 376) provides examples of referent-controlled honorifics with the phrase, 'The teacher laughed'.

3.3 *Referent-controlled subject honorifics*

a . *Sensei ga warat-ta* (plain)
Teacher NOM laugh-PAST
b. *Sensei ga o-warai ni nat-ta*. (honorific)
Teacher NOM HON-laugh ADV become-PAST
c. *Sensei ga warawa-re-ta.* (honorific)
Teacher NOM laugh-HON-PAST

One way of making a referent-controlled honorific is through use of the suppletive form of a verb. Another method is through the use of an indirect expression via circumlocution with use of a form that translates as someone's "becoming to do something" (3.3b). A speaker can also use the suffix *–rare*, which has homophony with the passive and potential suffixes (3.3c).

The referent-controlled forms operate independently of the use of addressee-controlled forms. The choice of honorific form canonically depends on the relative statuses of the speakers and conversational referents.

The use of referent-controlled honorifics represents a modality independent typological contrast in that JSL could potentially have such forms as no particular structural linguistic barrier exists. As mentioned above in §3.1.1, Perniss and Zeshan (2008) identify a polite form of the second person. The Perniss and Zeshan example involves reference to an addressee; however, if the alternative deictic forms were to contrast on the basis of the status of a third-person referent, then the formal sign would serve as a referent-controlled polite form in JSL.

JSL consists of a number of lexical items that do not have semantically equivalent words in Japanese. As described in §2.3 JSL initially arose and developed as an independent language with the establishment of the first Deaf school in Japan. Some signs such as *KAMAWANAI* 'do you mind…' (A.1.4b), for making polite requests in JSL, may not necessarily have a direct Japanese equivalent expression but appear in contexts where a speaker would otherwise use differing Japanese expressions. The independent development of markers of polite register in JSL reflects the emergence of the sign language separate from speech. Other expressions, such as *SUMIMASEN* may or may not have arisen as a result of semantic borrowing from Japanese. The sign *SUMIMASEN* 'excuse me' or 'I'm sorry' has a narrower semantic scope than its speech equivalent *sumimasen*. The Yonekawa dictionary (1997) defines the sign as both *sumimasen* and *gomen nasai* 'I'm sorry'; the translations perhaps reflect the association the Japanese and JSL words share via the hand prow emblem. Nozaki (2009, p. 81) notes that the signers only use *SUMIMASEN* in apology situations while in contrast the Japanese *sumimasen* has a wider range of use such as for prefacing requests, getting someone's attention, thanking, or softening an utterance. As the etymological origins of specific parts of the JSL lexicon do not have formal accounts, disambiguating various signs' independent development from the influence of Japanese speech or writing requires further elucidation in future research. Nevertheless, it is reasonable to posit a JSL lexicon consisting of an inventory consisting of a mix of loans that undergo semantic bleaching and new, emergent forms.

3.2 Register Marking In Sign Languages

Since I compare politeness in a signed language and its surrounding spoken majority language, the larger question of how sign languages represent politeness must be addressed.

An examination of a number of sign languages show that register, including polite register, frequently appears marked via nonmanuals. Nonmanuals, non-manual markers or non-manual signals (NMS) refer to the linguistically relevant elements of the sign signal not represented by the hands such as body posture, facial expression and use of the signing space (Baker and Padden 1978; Pfau and Quer 2010). Oftentimes, nonmanuals behave suprasegmentally with respect to the manual signing components in that a single nonmanuals feature can occur over a string of manual signs.

Sign language users also rely on lexical and discourse register markers to mark polite expression. As illustrated in §3.1.3, manual lexical signs, such as *KAMAWANAI* or *SUMIMASEN* can signal polite interaction in JSL. Sign languages can also rely upon discourse strategies as covered in the work of Hoza (2007), which discusses in detail discourse strategies used in ASL to mark polite interaction. §3.2.1 and §3.2.2 cover nonmanuals and the use of nonmanual register marking in sign languages, and §3.2.3 briefly covers lexical and discourse register marking strategies discussed in the sign language literature.

3.2.1 Nonmanuals

In one of the earliest discussions of nonmanuals Baker and Padden (1978) present an inventory of a number of nonmanual forms. Their work is significant as most sign language lexicography focuses on manual signs, despite the fact that much of the "prosodic" and pragmatic content of an expression is in the non-manual stream. In addition to the hands and arms, Baker and Padden (1978) note that nonmanuals—expressions involving the head, face, eyes, mouth, and body posture—conventionally mark important aspects of meaning. They further divide each channel into components; for instance, the face channel can contain the components of a raised brow or a depressed lower lip. They place emphasis on the importance of the pattern of co-occurring behaviors that serve a given function, since such simultaneous features produce combinatory meanings. Their inventory includes modifiers that seem to apply across sign languages much like particular features of prosody may typologically apply across spoken languages. Baker and Padden's inventory includes: a size modifier involving the signer looking up and retracting the lids to show that something is big; lengthy eye closure for emphasis; and changes in facial expressions marking constituent boundaries.

Starting with Liddell (1978) and Baker and Padden, Cokely and Baker-Shenk (1980), a number of authors such as Neidle et al. (2000), Wilbur (2000), Valli et al. (2005) and Hoza (2007) distinguish two classes of nonmanuals: grammatical nonmanuals consisting of grammatically relevant forms that mark specific syntactic categories, and emotional state nonmanuals made up of nonmanual adjectives and adverbs that can gradiently intensify the meaning of a given sign expression. Recently, Pfau and Quer (2010) in a typological discussion of nonmanuals in sign languages distinguish similarly between "linguistically significant" nonmanuals and "affective nonmanual" markers. Roughly defined, "linguistically significant" nonmanuals have syntactic functions such as marking questions or topicalization. "Affective nonmanuals" refer to characteristics such as facial expressions that express emotional states in the same way for speakers. Although they note that the distinctions between these categories are not always clear-cut, one of the key contrasts lies in the timing of nonmanuals relative to the manual signs they accompany. Pfau and Quer go on to discuss in great detail the range of grammatical and prosodic functions of nonmanuals across sign languages.

Specifically relevant to the comparison between suprasegmental segments in sign languages and spoken languages is the Wilcox, Rossini and Pizzuto (2010) discussion on sign language grammaticalization. Wilcox et al. detail the use of manner of movement and facial gestures in sign languages that fill the same functions as prosody and intonation in spoken languages. For instance Wilcox et al. refer to Friedman's (1977) observation that signers in the production of emphatic stress use larger, faster, and tenser signs with longer duration in contrast with signs without stress. Such suprasegmental cues in sign language parallel the use of intonation and prosody in speech. The autonomy-dependency (A/D) relation as outlined by Langacker (1987, p. 308) provides a way to conceptualize the sign language/speech comparison. In sign languages, the manual segment of the sign signal is autonomous in contrast with the feature of movement and nonmanual elements, which are parasitic on the manual sign. The elements that make up what Wilcox et al. class as intonational or prosodic presuppose the application of a manual sign for their manifestation. In the same way, non-segmental speech elements such as intonation, stress or tone depend upon the production of segmental content, or in other words, phones. Similarly as discussed for speech by authors such as Ervin-Tripp et al. (1990) and Stadler (2006) covered in §3.2.2.3, sign languages can depend upon these kinds of suprasegmental elements to mark register.

3.2.2 Previous Studies on Nonmanuals in Relation to Register

Studies examining politeness and register in different sign languages provide a guide to some of the salient nonmanuals features in the JSL politeness tokens from the study in Chapter Four. Previous studies have considered head position, head

movement, facial expression, signing rate and assimilation, and use of signing space in observations about sign language politeness and register in general. The findings in Chapter Four support the literature in that a number of nonmanuals features previously identified influence the judgment of consultants in the Pen Study detailed in §4.2, and mark important politeness distinctions in the productions of the JSL Discourse Completion Test (DCT) consultants, as covered in §4.3.

3.2.2.1 Facial Expression in ASL and JSL

The set of nonmanuals for both ASL and JSL include the application of facial expressions to intensify the politeness of certain utterances. The work of Roush (2007 [1999]) and Hoza (2007) investigate facial expressions marked for polite register. The Pen Study (§4.2) and JSL Discourse Completion Test (DCT) Study (§4.3), discussed in Chapter Four, found comparable results in elicited JSL data.

Hoza (2007), in an extensive study on politeness in ASL investigates the use of Brown and Levinson (1987 [1978]) style politeness strategies in making ASL requests and refusals in various social contexts. Hoza collects expressions via a Discourse Completion Test (DCT), which consisted of scenarios presented to seven native ASL signers and five English speakers. The study elicited requests and refusals for various scenarios such as requesting the busiest workday of the year off, or refusing to loan someone money. The elicitation results were then transcribed and examined.

Hoza (2007) finds evidence to support the presence of a number of nonmanual expressive contrasts used to mark politeness in ASL that originally were described in a study by Roush (2007 [1999]). Roush's study consists of an examination of only a few tokens extracted from video units from a course for learners of ASL, *Signing Naturally*. In contrast, the Hoza study investigates a larger variety of tokens to more rigorously verify Roush's conclusions. Roush identifies nonmanuals that "mitigate severe threats to face" including *polite pucker* and the *polite grimace*. Hoza confirms the Roush findings and adds two other markers, *tight lips* and the *polite grimace frown* to the Roush inventory.

3.4 Hoza's continuum of polite facial nonmanuals

Small face threat----------severe face threat
Polite pucker/tight lips---------polite grimace-----polite grimace frown

Hoza (2007) associates polite pucker and tight lips with small to moderate face threats. Hoza's consultants expressed the polite grimace, consisting of a tight smile with or without teeth, in expressions used to mitigate significant face threats. The polite grimace frown was used to confront what Hoza labeled as severe face threats

such as making a difficult request of a supervisor; it consists of a tight smile with accompanying frown with downward turn of the sides of the mouth.

The consultants from the Pen Study (§4.2) and JSL Discourse Completion Test (DCT) Study (§4.3) also used facial expressions resembling tight lips, the polite grimace and the polite grimace frown from the Hoza (2007) and Roush (2007 [1999]) studies. In the Pen Study, the degree of grimace affected consultant ratings in an apparently gradient fashion, so the study demonstrates that such expressions intensify the perception of politeness of a given request. The polite grimace frown is pictured in the Appendix as it appears in pen request phrase 15 (A1.5) and the polite grimace appears in pen request phrase 1 (A1.4a); the polite grimace frown is distinguished by the increased tension in the upper part of the face and a downward turn of the corners of the mouth. In the DCT study, the grimace frown appears with severe threats to face such as when the request imposition is large or the status of the interlocutor is higher than that of the signer.

3.2.2.2 Head Position and Movement in JSL

In JSL too, correlations between nonmanual signs and pragmatic functions of politeness have been noticed. Ichida (2005a; 2005b) categorizes various types of head movements and positions in JSL, especially in collocations with facial nonmanuals. Okabe et al. (2005) presents a study that conforms to some of the Ichida (2005a; 2005b) observations.

Head Position in JSL

Ichida (2005a; 2005b) discusses the semantics of head or chin position in JSL. The observations from Ichida (2005a; 2005b) largely rely on native signer judgments based on introspection. Ichida notes that chin position is instrumental in marking the relative status of the interlocutors. The location of the chin influences the overall head position and can signal a variety of linguistic cues.

The *chin-forward* position consists of a lowering and extension of the chin away from the body (A1.1).[17] Extending the chin to a forward position slightly lowers the head. Ichida labels the chin-forward in JSL as a nonmanual that marks a closer connection to the interlocutor and associates it with expressions containing propositional content. The *chin-back* position is in the opposite direction with the chin being drawn back towards the chest. The chin-back can similarly mark propositional content as the chin-forward, but chin-back additionally marks the creation of distance between the signer and interlocutor indicating reserve. Ichida posits that the chin-back position would occur in relatively more polite expression

[17] *All pictures are located in the Appendix*

contexts. The *chin-up* position involves the raising of the chin and head (A1.2). Ichida notes that the chin-up position has an association with commands in JSL and can also mark indifference. In contrast, the *chin-down* position marks consideration for the interlocutor or a more persuasive stance. In all cases Ichida refers to the semantics of the positions as general tendencies subject to shift in combination with other nonmanuals and the given language context (c.f. Baker and Padden 1978). The chin position labels in the Pen Study data set description in §4.2.3.1 are adopted from Ichida (2005b).

Okabe et al. (2005) in a study of politeness marking strategies in JSL present some conclusions consistent with Ichida (2005b). Okabe et al. (2005) examine conversations from six dyads of older (60+) and younger (30s) signers. The interactions were videotaped and then analyzed for politeness marking features with particular attention given to nonmanuals. A reservation about the Okabe et al. (2005) study is that Okabe et al. do not create same-age dyads in order to confirm that such pairs contrast with the mixed-age dyads. The lack of same-age dyads led Okabe et al. to elicit expressions from a signer who did not necessarily participate in the original study dyads. This signer produced elicited expressions targeted toward a similarly aged interlocutor. Okabe et al. contrasted these unmarked expressions with the polite expressions from the mixed-age dyads. Since the expressions identified as polite from the signer(s) who participated in the dyads were contrasted with unmarked responses from a different signer, signer variation rather than politeness marking may account for the outcomes discussed by Okabe et al. (2005). Ultimately, some of the Okabe et al. (2005) results maintain consistency with respect to Ichida (2005b) and the studies in Chapter Four, so receive treatment here in §3.2.

Okabe et al. (2005) observe that when the younger signers expressed disagreement, they would frequently use a chin-back position, typically accompanied by a *head hold* or pause in head movement. Okabe et al. (2005) note that the younger signers used the chin-back position in conversation with the older signers, so posit that the chin-back position marks a relatively more polite stance by signaling reserve. Their result is consistent with the Ichida (2005b) prediction that a chin-back position potentially marks a relatively more polite expression. Okabe et al. (2005) make a similar conclusion about the salience of the chin-forward position for signaling a polite stance since the younger JSL signers used the chin-forward position when directing WH-questions toward the older signers.

The JSL studies detailed in Chapter Four share some conclusions about the relationship between head position and polite register marking with Ichida (2005b) and Okabe et al. (2005). In the Pen Study described in §4.2, signing consultants rated requests incorporating a *chin-up* position as lower in formality, reflecting in part the semantics of indifference to the interlocutor as described by Ichida (2005b). Consistent with Okabe et al. (2005), the Pen Study analysis shows that consultants ranked request expressions marked with a chin-forward position as more polite.

While the Pen Study remained inconclusive in regard to other head positions, the Discourse Completion Test (DCT) study in §4.3 contained instances where signers used the chin-back and chin-forward positions to mark polite stances.

Head Movement in JSL

Ichida (2005b) categorizes various types of head movements in JSL. He focuses on the relation of head movement to semantics, question formation, phrase marking and backchanneling. The two head movements associated with politeness markers from the Chapter Four studies are the *head nod* and the *head hold.* Ichida (2005b) concludes that the *head nod*, or the lowering and raising of the head (A.1.3a-3b) tends to indicate assent, agreement or confirmation. In the *head hold*, as defined by Ichida (2005b), the signer holds the head in place for a slight duration along with a delay of the release of the sign the head movement co-occurs with. (A.1.4a-4b). Ichida (2005b) notes that the head hold appears with yes/no questions in JSL. Ichida posits that the association between head holds and yes/no questions softens a given request signaling to the interlocutor that it may be refused (personal communication).

Okabe et al. (2005) found that younger signers from the dyads would use head holds when expressing disagreement. Okabe et al. (2005) conclude that the use of the head holds reflected reserve, thus a polite stance on the part of the younger signers.

The JSL studies in Chapter Four find that the head hold frequently appears at the end of a request along with a chin-forward position. The head hold tends to occur with expressions rated as more polite by signers in the Pen Study (§4.2) and occurs frequently in the requests made by consultants in the DCT Study (§4.3).

3.2.2.3 Register Variation, Signing Space, and Signing Speed

A number of studies discuss register variation in signed languages, particularly American Sign Language (ASL). The discussion of register encompasses a broad range of discourse contexts. The literature most often contrasts signing in informal in opposition to signing in formal contexts. There are also a number of studies that examine formal presentation or academic signing in the public arena in contrast with signing in private contexts. Feature contrasts between formal and informal signing should be instrumental in the evaluation of a given expression as relatively polite or casual as expressions marking polite register typically have association with formal register.

Cokely and Baker-Shenk (1980) posit the existence of a distinct formal signing register used in formal contexts, especially lectures or business environments, that contrasts with an informal signing register in contexts where the social distance is small, such as for family members or friends at a party. The two registers are described as contrasting primarily in clarity and level of articulation. Along with

Liddell and Johnson (1989[1985]) they note that formal signing is more clearly articulated than informal signing while casual signing involves more deletions of the use of the non-dominant hand. Cokely and Baker-Shenk (1980) and Liddell and Johnson (1989[1985]) both note that in casual signing signs that might normally contact the forehead can contact at the cheek or in neutral space, so the signs become phonetically reduced in informal contexts. Liddell and Johnson (1989[1985]) also note more assimilation, with signs that otherwise have different handshapes becoming similar as the non-dominant hand assimilates to the shape of the dominant hand.

Studies by Zimmer (1989) and Ross and Berkowitz (2008) support the observation that in relatively more formal signing contexts signers more clearly articulate signs while using more assimilation in relatively more informal contexts. Zimmer (1989) compares video from a signer who uses ASL in three contrasting discourse contexts: a formal lecture in an academic setting, a television interview and an informal talk. Ross and Berkowitz (2008) compare videos of signers giving formal academic lectures with videos of signers giving presentations in relatively informal contexts. In both studies, the signs are produced more clearly and slowly in the formal contexts than in the informal contexts, supporting the need for less assimilation.

Zimmer (1989) and Ross and Berkowitz (2008) also both find a reduced use of expressive nonmanuals in the formal contexts. One contrast that Ross and Berkowitz expected to find that they did not in contrast to Zimmer was the use of a larger signing space. Ross and Berkowitz posited that the use of a larger signing space would add to the clarity of a sign, therefore increased signing space size would be one of the qualities of formal sign, consistent with the findings of Zimmer.

The work of Uyechi (1996) offers some insight into the failure of Ross and Berkowitz to find a register-dependent contrast in size of signing space in apparent contradiction to the findings of Zimmer. Klima et al. (1979) illustrate and delimit a circular space that extends in height from the top of the head to the waist, at elbow's width and that extends a comfortable forearm's length in front of the signer (Klima et al. 1979, p. 50). Uyechi refines and formalizes the notion of articulatory space as defined by Klima et al (1979). Uyechi (1996) notes that Klima et al. do not account for marked contrasts possible when signs extend beyond normal boundaries in marked discourse. As an example she describes the utterance of signers during a *Deaf President Now! Protest*: the signers extend their hands above their heads to articulate the sign PRESIDENT and outward and down low to express NOW essentially producing "loud" or very large, visible signs. Uyechi notes that the nature of discourse determines the appropriate size of signing space to use, keeping the signs otherwise proportionately the same—in the case of a protest, producing enormous signs visible from the largest distance possible is *apropos*. The size of signing space represents a visibility or "loudness" contrast, so it is likely that in the Zimmer cases,

the signer had to present to an audience in a larger presentation space for the formal context, an academic lecture, as opposed to the more confined spaces of the less formal contexts of a television set and a small informal talk setting. The Ross and Berkowitz signers probably presented in comparably sized lecture spaces. The analogy between signing space size and loudness of voice is an obvious analogical parallel between signed and spoken-language structure.

A number of studies on polite expression in speech find that the use of softer speech can mark a relatively more polite expression. A child language study by Ervin-Tripp et al. (1990) observed that children in the study reduced the volume of their voices to mark polite speech. The work of Stadler (2006), which investigates the influence of prosodic and non-verbal communicative features in marking disagreement in German and New Zealand English, finds that prosodic features such as increased speech rate and loudness of speaking have a negative effect on the perception of politeness of a disagreement statement. In light of the Uyechi (1996) observation that use of a smaller signing space parallels the use of a softer voice in speech, the relationship between signing space size and polite expression bears examination.

Okabe et al. (2005) in a study of JSL politeness find that younger signers used a relatively smaller signing space and reduced movement in headshakes when directing WH-questions toward older signers. Okabe et al. (2005) note that the decrease in the size of signing space, degree of movement and tenseness in signing, signal reserve on the part of the younger signers and concludes that these contrasts mark politeness.

Data from both the Pen and DCT studies of JSL in Chapter Four bears out the hypothesis that the use of a smaller signing space, as described by Okabe et al. (2005) and slower, more carefully articulated signing mark a relatively more polite sign expression, as discussed by Cokely and Baker-Shenk (1980), Liddell and Johnson (1989[1985]), Zimmer (1989) and Ross and Berkowitz (2008). Such phrases were rated as more polite in the Pen Study (§4.2), and in the DCT Study (§4.3) signs that were produced in contexts that typically demanded polite language involved relatively more careful signing in a smaller signing space.

3.2.2.4 Nonmanuals Conclusion

Nonmanuals mark important distinctions in the signing signal, and have an association with register in a number of sign languages. Past work on ASL and JSL shows that these languages rely to some degree on nonmanuals for distinguishing levels of polite register.

3.2.3 Lexical and Discourse Register Marking in Sign Languages

The literature on sign languages covers a number of lexical and discourse strategies used based on the relative status of the interlocutors. The work of Berkowitz (2008) and Zimmer (1989), discussed in §3.2.2.3, identified that the level of formality of a given context influenced lexical selection, including borrowing vis-à-vis fingerspelling. Both the Berkowitz and Zimmer studies indicate that in formal contexts signers apply more technical vocabulary and fingerspelling with less use of colloquial vocabulary than in informal contexts. As described in §3.1.1, the Yonekawa (1997) JSL dictionary lists a number of lexical items that have an association with polite speech such as *ONEGAI* 'please' (A.1.3) and *SUMIMASEN* 'excuse me'. The Yonekawa (1997) dictionary also notes that the single-handed allomorphs of some mirror signs such as *MORAU* mark a register contrast that results in a casual form. Perniss and Zeshan (2008, 16) present a contrast between two forms of second person reference in JSL, as covered in §3.1.1.

Hoza (2007) and Okabe et al. (2005) observe the application of discourse politeness strategies in ASL and JSL respectively. The Hoza (2007) DCT Study, described in §3.2.2.1, found various face mitigating discourse strategies used by ASL signers. The discourse strategies identified by Hoza (2007) conform to the Brown and Levinson (1987 [1978]) schema developed from a crosslinguistic investigation on polite register in speech. For instance in request statements, Hoza (2007) found that the ASL signers used discourse strategies such as conventional indirectness, hedges, apologies, giving reasons or promises (Hoza 2007, p. 64). Okabe et al. (2005) in the study of conversational dyads of older and younger JSL signers, covered in §3.2.2.2, note that the younger JSL signers applied a number of discourse strategies that signaled accommodation or reserve in relation to older signers. Okabe et al. (2005) observe that the younger signers frequently backchannel to give feedback, trail off or drop the ends of interrogatives and constantly monitor the interlocutor gaze to monitor response.

The studies in Chapter Four produce some results consistent with the sign language literature on the use of polite lexical and discourse strategies. The JSL DCT Study (§4.2) found, similarly to Hoza (2007) for ASL, that signers producing high imposition request phrases would use Brown and Levinson (1987 [1978]) style politeness discourse strategies such as excuses, hedges and promises. Consistent with the prior coverage on lexical salience to polite expression, the JSL Pen Study (§4.2) shows that consultants judged request phrases using politeness marking lexical items such as *ONEGAI* 'please' as more polite than request expressions without such words.

Since the JSL discourse strategies of Okabe et al. (2005) centered on feedback in response to the signing of an interlocutor in ongoing conversation, the Chapter Four JSL studies, which focused specifically on request expressions in isolation instead of

ongoing conversation, do not allow me to draw conclusions about the JSL discourse context as described by Okabe et al. (2005).

3.3 Politeness, Relationality and Social Indexation

In §3.3 I argued for the examination of polite expression via a social indexical analytical framework as used by Ochs (1992), and in §3.1 I considered forms of polite expression independent of discourse context in order to examine the types of polite language forms used by JSL in contrast with spoken Japanese. Since polite language marking acts as a type of social index, as described by Ochs (1992), a broader understanding of a given polite language form requires consideration of its particular range of function in varied contexts as argued by authors such as Eelen (2001), Okamoto (1999), and Watts (2003). As noted by these authors, the ideological notions of language users formed from their background experiences are crucial in determining whether any particular contextualized exchange constitutes polite expression.

The development of the politeness literature parallels to some extent the development of the literature on gender-indexed language as described by Ochs (1992). The early pragmatic politeness literature (Lakoff 1973; Leech 1983) begins with classifications designed to evaluate politeness via formulaic application of Gricean maxims, while the most recent developments in the politeness literature (Eelen 2001; Okamoto 1999; Watts 2003) focus on the examination of polite language within discourse contexts. While there is no full consensus in the literature on the best way to define polite linguistic interaction, the general trend has been towards examination of politeness in relation to specific contexts.

Ochs (1992) discusses how the research on gender moved from the description of the distributional patterns of isolated forms to functional strategic based accounts, and argues for the need to produce socially mediated explications of gendered language.

> I will argue that the relationship between language and gender is not a simple straightforward mapping of linguistic form to social meaning of gender. Rather the relation of language to gender is constituted and mediated by the relation of language to stances, social acts, social activities, and other social constructs (Ochs 1992, p. 336-337).

Ochs (1992) delineates a mapping of language form to social action or affect to expectations and norms in regards to language users. For instance, rather than claim that the sentence final particles *ze* and *wa* directly index masculine and feminine Japanese speech, it is more accurate to note that such markers index affective stances. Ochs notes that *ze* coarsely intensifies an utterance while *wa* connotes a gentle affect; these affective stances in turn correlate with relational social constructions of men

and women. Ochs convincingly demonstrates the need for examinations of specified expressive forms interpreted socially in order to produce indirect indexical accounts. Similarly the politeness literature at large has moved from formal typologies of polite expression to relatively more socially grounded accounts that rely on context to evaluate polite discourse.

§3.3.1 provides a brief overview of what Watts (2003, p. 58-69) labels as pragmatic conflict-avoidance accounts of politeness, with special attention to the work of Brown and Levinson. This early work informs subsequent coverage of politeness in the literature. §3.3.2 examines culturally grounded accounts of politeness, with particular focus on Matsumoto's account of Japanese politeness (1988), to argue that cultural accounts of politeness rely too much upon cultural generalizations and etymological explications of language form. §3.3.3 argues for an account of polite expression as social indexation. A number of illustrations of language use in context show that the use of politeness is analogous to gendered language as described by Ochs (1992). The connection from a given expression, to affective stance, to a person's idealized construction of social interaction better represents polite interaction than accounts that directly connect usage to social norms.

3.3.1 Pragmatic Politeness Accounts

Watts (2003) gives an outline of politeness theory with an initial focus on what he defines as pragmatic politeness theory, which refers to a number of attempts at codifying politeness since the Gricean-centered work of Lakoff (1973). Fraser (1990) and Watts (2003) note that such theories have in common the aim to describe polite language as used in the service of maintaining smooth social interaction and avoidance of conflict. Key works that make up this class of politeness research include Lakoff (1973), Brown and Levinson (1987 [1978]), Fraser and Nolan (1981), Leech (1983), Blum and Kulka (1989) and Watts (1989). In the early politeness literature, the term "politeness" captures a broad range of linguistic phenomena including folk notions of politeness tied to behavior; fixed phrases and lexical items such as, "Could you…." or "please" that typify polite or well-mannered speech; or indirect phrases such as "It's cold in here," in order to signal to someone to close a window. These early works contributed crucially to the current framing of the politeness literature around the pragmatic nature of politeness, to empirically grounded politeness research, and to the construction of comparative frameworks.

While the pragmatic politeness literature has motivated and guided subsequent research, as noted by a number of authors such as Fraser (1990) and Watts (2003), undoubtedly the most influential and cited work on Politeness is Brown and Levinson (1987[1978]).[18] B&L undertake a comparative examination of politeness in several

[18] *Henceforth abbreviated as B&L.*

languages in order to develop a cross-linguistically applicable theory of politeness. B&L produce a typology of expressive strategies used to produce polite statements and posit a global motivation for politeness phenomena based on social *face*. Despite numerous critiques of B&L, their framework is remarkably specific and testable, and remains extremely—indeed pervasively—influential. It thus remains an important factor in framing most subsequent work on politeness. A significant body of research has applied the framework to language-specific data to test the universal validity of B&L with some success, followed by recommended amendments (Chodorowska-Pilch 2008; Felix-Brasdefer 2006; Fernández 2008; Kadt 1998; Mursy and Wilson; Ruzickova 2007; Yu 2003).

B&L sketch out an elaborate and detailed system for the examination of politeness crosslinguistically.

> The foremost aim is simply to describe and account for what is in the light of current theory a most remarkable phenomenon. This is the extraordinary parallelism in the linguistic minutiae of the utterances with which persons choose to express themselves in quite unrelated languages and cultures. The convergence is remarkable because, on the face of it, the usages are irrational: the convergence is in the particular divergences from some highly rational maximally efficient mode of communication (for example, outlined by Grice 1967, 1975). We isolate a motive—politeness, very broadly and specially defined—and then claim, paradoxically enough, that the only satisfactory explanatory scheme will include a heavy dash of rationalism. (B&L 1987 [1978], p. 55)

In short, B&L aim to account for apparently irrational, inefficient language practice that uses superfluous content. For instance, the expression, "Turn off the lights," is a maximally clear, efficient request compared to, "Turn off the lights please," or "Would you mind turning out the lights dear?" or "I can't sleep—it's *so* bright in here!" B&L frame politeness phenomena as language typically associated with creating and maintaining smooth or cordial social interactions.

In order to motivate the use of polite expression B&L denote the notion of "face" derived from Goffman (1967[1955]).

> We attempt to account for some systematic aspects of language usage by constructing, tongue in cheek, a Model Person. All our Model Person (MP) consists in is a willful fluent speaker of a natural language, further endowed with two special properties—rationality and face. …By 'face' we mean something quite specific again: our MP is endowed with two particular wants—roughly, the want to be unimpeded and the want to be approved of in certain respects. (B&L 1987 [1978], p. 58)

They go on to define "negative face" as the "want to be unimpeded" and "positive face" as "the want to be approved of". They go on to discuss Face Threatening Acts (FTA) to positive face and negative face that trigger Politeness responses. Central to B&L's basic theory of Politeness is the formulation of the elements that make-up a polite interaction. They provide a formulation of the weight of a given Face Threatening Act as:

3.5 $W_x=D(S,H)+P(H,S)+R_x$ (B&L 1987, p. 76).

W_x represents the total face-threatening weight of a given interaction; *D* indexes the social distance between the interlocutors—Speaker (*S*) and Hearer (*H*); *P* marks the power level or social level contrast between the interlocutors; and R_x refers to the level of imposition of the given expression. B&L go on to elaborate a typology of expressions and strategies that class as varying degrees of positive or negative face saving strategies. Although the other previously mentioned theories of politeness may suggest different underlying motivations for politeness other than face, they share with B&L the incorporation of the status of the speaker relative to the hearer—whether in terms of social power or distance—and the significance of the impositional weight of an interaction.

Subsequent analysts have raised a number of questions that are not yet dealt with by a B&L framework. The analysis above assumes the centrality of the social distance and rank of the interlocutors independent of their specific histories or experiences. The level of the imposition may require familiarity with the social and interaction context. For B&L, the particulars remain left open for fleshing out depending on the given cultural context.

> …for the purposes of cross-cultural comparison developed here, we consider that our framework provides a primary descriptive format within which, or in contrast to which, such differences can be described (B&L 1987, p. 15).

B&L respond specifically to authors who challenge the model as framing a perspective biased towards Western culture. B&L emphasize the need to provide an underspecified framework with universal applicability that supports comparison of politeness across languages. B&L explicitly does not do the work of extensive cultural analysis of politeness phenomena.

The results of the JSL Pen Study in Chapter Four are in conformity with the expectations of the B&L framework, at least to a certain degree. The Deaf respondents generally matched request expressions to interlocutors according to status. For instance, consultants largely associated a scenario that involved a request for a pen from a doctor with the most polite expression, marked by a smaller signing space, slower signing and use of the polite-grimace frown described in §3.2.2.1. B&L

provide a good preliminary account for the prescriptive selection of register in request expressions. The JSL Pen Study does not examine the actual use of polite expressions in actual discourse contexts, so in terms of the larger applicability of B&L, the study is inconclusive. Other work on politeness, such as Okamoto (1999), suggests that B&L fails to account for polite language use in real interaction contexts.

Critiques voiced by a number of authors in the literature on politeness (Eelen 2001; Fraser 1990; Kasper 1990; Okamoto 1999; Watts 2003) are that B&L fails to account for the full range of variability in polite language use, depending on real interaction contexts, frame politeness from a socially normative viewpoint that suggests the notion of inherently polite expression, and motivate politeness through a Western-centric notion of face grounded only in strategic conflict avoidance of face-threatening interaction. The literature also aims a number of these criticisms at earlier politeness theories, particularly the examination of discourse outside of context. Nevertheless, these earlier frameworks inform the basis of subsequent theories that either incorporate elements of these earlier analyses or actively distinguish themselves from the early pragmatic literature by examining polite interaction in specified cultural or discourse contexts. The following sections will examine two of the oppositions to B&L: the emphasis on Western-centric notions of politeness; and the failure to account for situational variability due to decontextualization of polite expression from the discourse context.

3.3.2 Culturally-Centered Politeness and Relationality

A number of culturally centered politeness studies emerged in response to the B&L claim of the universal applicability of their conception of face (Bravo 2008; Gu 1990; Hill et al. 1986; Ide 1989; Mao 1994; Matsumoto 1988; Hernández-Flores 1999; Nwoye 1992). Such authors note that the construction of a universal psychological motivation on the basis of face grounded in conflict avoidance inadequately characterizes polite interaction in particular cultures; however, many of these authors construct face around geo-politically bounded social norms, reproducing on a smaller scale the B&L construction of an overly generalized notion of *face*. Eelen (2001) similarly points out that cultural discussion for a number of authors often refers to geopolitical, language or ethnically constrained groupings and the culturalists use "commonsense social ideology" to produce their theoretical constructs (162). For instance, the connection between Gu's (1990) ideological representation of Chinese society relies upon what he terms middle class norms, and introspective analyses associated with these norms. Additionally, politeness analyses dependent on construction around a single holistic set of norms by necessity ignore minority language users such as Deaf populations. Holistic accounts of culture primarily are relational (Nakano-Glenn 2004, p. 13), or depend on the construction of social characteristics in a comparative fashion with other group categories. For instance, the

identification of Japanese culture as group-oriented is set in contrast with what has been historically identified as the West. Such holistic portrayals typically emerge from received historical discourses for nation-state identity formation, rather than any empirically examined sociological or ethnographical study. Works such as Okamoto (1999) demonstrate the problematic nature of culturally centered politeness accounts that assume singular cultural norms.

Of specific interest to this study is the construction of Japanese social norms. Hill et al. (1986) and Matsumoto (1988) serve as good representatives of Japanese culture centered politeness examinations as they are among the most frequently cited works in relation to culturally relativistic face. In response to B&L, Hill et al. (1986) and Matsumoto (1988) provide alternative accounts grounded in Japanese culture analyses to explain politeness in spoken Japanese. The approaches contrast in that Hill et al. base their results on the outcome of a study on polite expression, whereas Matsumoto relies on explication of grammatical polite structure based upon prescriptive usage.

The Hill et al. (1986) study aims to determine to what degree Japanese and American English speakers produce polite utterance judgments motivated by "discernment" as opposed to "volition". Hill et al. derives discernment from *wakimae,* "the almost automatic observation of socially-agreed-upon rules…of both verbal and non-verbal behavior." Discernment refers to automatic social indexation via polite expression in contrast to "volitional" or strategic politeness that operates strategically according to a particular goal the speaker intends to achieve. Hill et al. provide an empirical investigation that compares two groups of language users based on consultant ratings of various request phrases. They find that both their Japanese and American consultants tended to map polite request expressions to various scenarios in accordance to the relative status levels of interlocutors. Their results do not present a striking difference in the use of discernment between the two groups; however, Hill et al. conclude that Japanese speakers apply discernment more often than American speakers due to a subtle distinction in the distribution of responses between the two consultant groups. The work of Okamoto (1999) covered in §3.3.3 argues for a very different view of polite language usage in Japanese and shows that speakers apply the use of polite forms in a variety of ways. The Okamoto (1999) study supports the conclusion that the distributional differences found by Hill et al. are not due to a difference in the application of discernment between Japanese and English speakers.

Matsumoto (1988) calls attention to norms of Japanese culture and grammaticalized Japanese polite structure to support the claim that Japanese grammar requires the use of discernment and constant awareness of social status for Japanese speakers in contrast to other language users. Matsumoto's work represents popular views of Japanese society as voiced in linguistic work such as Fukada and Asato (2004), Fukushima (2004), and Iwasaki (1997), all which presuppose a collectivist, non-individualist Japanese society. The Japanese cultural construction of Matsumoto

(1988) will receive detailed treatment below to show that appellations for the Japanese people such as a "group-oriented" or "hierarchical" society, in a special sense relative to other societies, do not empirically characterize Japanese culture, but merely represent received notions of oppositional reference grounded in social identity construction.

3.3.2.1 Orientalist Face

As Matsumoto (1988) is one of the most cited and influential references in regards to the cultural challenge of the notion of "face" as defined by B&L, her work will be discussed in detail here to show that the discourse on "Japanese culture" by Matsumoto is fundamentally relational (Nakano-Glenn 2004). To support claims for the unique character of Japanese culture, Matsumoto (1988) builds arguments that reference literature grounded in Japanese relational identity construction and does not provide evidence from empirically designed sociological or ethnographic studies. Consequently, Matsumoto's (1988) cultural relativistic account fails to provide appropriate evidence to argue against B&L's notion of face. An appropriate social frame for the relationship between the Deaf and hearing requires recognition of Japanese cultural heterogeneity as argued for by Befu (2001), Dale (1986), and Mouer and Sugimoto (1986).

The examination of Japanese cultural discourse acts as a necessary background to the discussion of politeness, which crucially relies upon a consideration of emic notions of social conduct. In respect to Japan, a pervasively influential body of work on Japanese culture and thought, known as *Nihonjinron* (Befu 2001; Dale 1986; Mouer and Sugimoto 1986) colors and undergirds a number of Japanese politeness analyses either directly or indirectly in the linguistics literature. The *Nihonjinron* canon voices attitudes about Japan clearly influenced by European conceptualizations of the West in contrast with the East, as discussed by Said (1979), and Meiji era Japanese literature promoting particular formations of national identity. Although *Nihonjinron* has been visited in other linguistic works such as Hasegawa and Hirose (2005), and Pizziconi (2003), this work will contribute through the introduction of a relational analysis.

3.3.2.2 Matsumoto's Evidence for a Japanese/Western Social Contrast

Matsumoto (1988) sees B&L's fixed notion of face as contrary to Japanese social practice. Matsumoto argues that while positive or negative face may provide suitable coverage for Western-style volitional politeness, B&L's face does not account for Japanese face, which is driven by the relational structure of social status and supports participation in what she deems a collective society.

> What is most alien to Japanese culture is the notion of face, as attributed to the model person, is the concept of negative face wants as the desire to be unimpeded in one's action. Postulating as one of the two aspects of the Model Person, 'face', the desire to be unimpeded, presupposes that the basic unit of society is the individual. With such an assumption, however, it is almost impossible to understand behavior in the Japanese culture. A Japanese generally must understand where s/he stands in relation to other members of the group or society, and must acknowledge his/her dependence on the others. *Acknowledgement and maintenance of the relative position of others, rather than preservation of an individual's proper territory, governs all social interaction.* (Matsumoto 1988, p. 405) (Italics added.)

Matsumoto (1988, p. 405-07) describes Japanese society, in contrast to the West, as: vertical, or hierarchical, as opposed to horizontal; made up of dependent, not independent citizens; and collective in contrast to individualistic. Matsumoto (1988) relies upon two poles to support her argument for the uniqueness of Japanese face, one is Japanese culture or society and the other is the "particular" structure of the Japanese language.

Pizziconi (2003) provides a close reading of Matsumoto (1988) in order to dispute Matsumoto's arguments against B&L based on of the structure of Japanese society. In her response to the Pizziconi (2003) critique, Matsumoto (2003) defends her arguments in regards to the applicability of B&L to Japanese; however Matsumoto declares *mea culpa* in regards to her characterization of Japanese culture.

> Pizziconi's article leaves me with the impression that she views my papers as advocating certain simplistic Japanese stereotypes—e.g., that Japanese are group-oriented and expected to conform to the norms of the rigid and stratified society, that individual will is suppressed in favor of group harmony, etc….I also, to continue this mea culpa, cited generalizations about Japanese society from Japanese anthropologists, psychologists and sociologists. Prudence would say that I should have used terms less freighted with associations and should have hedged my citations with disclaimers *that I was employing generalizations about Japanese society simply to reveal inadequacies of the even broader generalizations* in the work of Brown and Levinson. (Matsumoto 2003, p. 1519) (Italics added.)

Interestingly, Matsumoto (1988) relies upon a strategy of generalizing about Japanese culture to undermine generalizing about all cultures. The Matsumoto (2003) *mea culpa* can be readily understood once one realizes that all of the references that support her characterization of Japanese society emphasize the special uniqueness of Japanese culture and society in the tradition of *Nihonjinron*. Matsumoto (1988) refers to the work of the sociologist Nakane (1967; 1970; 1972), the psychologist Doi

(1971; 1973) and the anthropologist Sugiyama Lebra (1976).[19] As discussed extensively by Mouer and Sugimoto (1986) and Dale (1986), none of this work relies upon empirical ethnological or sociological methodologies to support their conclusions. For instance, Nakane (1970) is based largely on Nakane's own introspective, anecdotal observations of Japanese society at the time.

> It may appear to some that my statements in this book are in some respects exaggerated or over-generalized; such critics might raise objections based on the observations that they themselves happen to have made. Others might object that my examples are not backed by precise or detailed data. Certainly this book does not cover the entire range of social phenomena in Japanese life, nor does it pretend to offer accurate data relevant to a particular community. I have used wide-ranging suggestive evidence as material to illustrate the crucial aspects of Japanese life, for the understanding of the structural core of Japanese society rather as an artist uses his colors. (Nakane 1970, p. vii-viii)

Similarly, the works of Doi and Lebra rely primarily upon highly anecdotal, introspective accounts of Japanese society to support claims of Japanese uniqueness. Doi's (1973) work largely relies on particular explications of Japanese words to demonstrate their uniqueness to Japanese culture. His theory about the psychology of the Japanese people derives from his analysis of the word *amae* 'coaxing'. The fundamental basis of the Doi (1973) explication of *amae* relies upon an explicitly declared connection between language and culture.

> It was this that led me to make *amae* the central focus of my studies. In doing so, I was seeking to use the concept as a methodology in ascertaining the true nature of various types of psychopathology, but at the same time I became convinced that the world of meaning centering around that concept represented the true essence of the Japanese psychology.
>
> This latter conclusion is based on the premise that national character must be reflected in the national language. Thinking to find out what the experts had to say on this subject, I read a work by the linguist Edward Sapir (Language 1949). I was somewhat disappointed to find my premise clearly rejected. But specialist though Sapir was, I was already too taken with my concept of *amae* to submit to him meekly. Applying the principles of the methods I used constantly as a psychiatrist, I reasoned in the following fashion. Clinical psychiatry is based on the assumption that it is possible to get to know a patient's mental state via the words that he uses. If this assumption is correct in the case of an individual, surely it should also be true of a nation that speaks one uniform language. Surely it

[19] *Nakane (1970) is the translation of Nakane (1967). Doi (1973) is the translation of Doi (1971).*

> should be possible to discuss the psychological characteristics of a people in terms of the language it speaks. (Doi 1973, p. 65-66)

Doi's other claims about Japanese society crucially hinge upon a number of ad hoc explications of Japanese words in isolation. Dale (1986, p. 61-68) provides a detailed discussion of the etymological contradictions present in Doi's word analyses. Ironically, since Matsumoto (1988) cites Doi's views on society to support her linguistic analysis, Matsumoto creates a tautology that links Doi's linguistic evidence to Matsumoto's linguistic conclusions.

Lebra (1976) explicitly declares the goal of presenting a unique Japanese society at the outset. She writes, "Universally applicable concepts and theories derived from social science will be freely imposed in order to locate Japan uniquely in a universal map." Lebra relies upon linguistic relativistic accounts with frequent references to Doi, such as her account of reciprocity and *on* (Lebra 1976, p. 90-105). Lebra largely uses selective and isolated evidence to generalize about Japanese behavior and psychology and fails to provide evidence that other societies can be systematically contrasted with Japanese society by any independent criteria (Dale 1986, p. 33-34).

3.3.2.3 *Nihonjinron*

Examination of the tradition of Nakane, Doi and Lebra illuminates the meaning of the Matsumoto (2003) *mea culpa*. As discussed in Befu (2001), Dale (1986), Hasegawa and Hirose (2005), and Mouer and Sugimoto (1986), the Nakane, Doi and Lebra canon is not based on empirical evidence. This makes it initially surprising that Matsumoto would refer to such theorists to produce her analysis of Japanese politeness is raised. But the reason becomes apparent when her work is contextualized in light of the popularity and spread of a genre of literature known as *Nihonjinron*. Befu (2001) defines *Nihonjinron*.

> This reservoir of knowledge on characteristics of Japanese culture, people, society, and history is often glossed as *Nihonbunkaron, Nihonjinron*, *Nihon shakairon*, and *Nihonron*. Literally, these terms refer respectively to propositions about Japanese culture, Japanese people, Japanese society, and Japan itself…. Like other popular terms used in everyday conversation, these are vague and nebulous in meaning, even given to ambiguity. The whole genre can be regarded as one dealing with Japan's identity, attempting to establish Japan's uniqueness and to differentiate Japan from other cultures. In this book we shall use the term *Nihonjinron* because of its relative prevalence in English parlance, even though in Japanese, *Nihon bunkaron* is the most popular term. (Befu 2001, p. 2).

The *Nihonjinron* literature typically presupposes that Japanese people make up a

homogenous group with a homogenous culture (Befu 2001, p. 68; Mouer and Sugimoto 1986, p. 21-22), and that there is a coterminous relationship that links geography, race, culture and language (Befu 2001, p. 71). Nihonjinron is greatly influenced by early Western characterizations of the East and West during the mid-19th century (Kuwayama 2009, p. 44). Popular *Nihonjinron* tenets include: the inextricable relationship between the physical ecology of Japan and the cultural life (Befu 2001, p. 17; Dale 1986, p. 41); Japanese collective culture or groupism in contrast to Western individualism (Befu 2001, p. 20, Mouer and Sugimoto, 1986, p. 406); the Japanese emphasis on hierarchy and dependence (Befu 2001, p. 22); an intimate connection between the Japanese language and worldview (Befu 2001, p. 34; Mouer and Sugimoto 1986, p. 133-36); the Japanese sensitivity to social structure (Befu 2001, p. 37; Mouer and Sugimoto, 1986, p. 406); the preference of harmony over logic and the status of Japanese as an 'illogical' language (Befu 2001, p. 37; Dale 1986, p. 100); and the special abilities of non-verbal communication that Japanese people possess (Befu 2001, p. 38; Dale 1986, p. 101-02).

Matsumoto relies upon two authors directly identified within the genre of Nihonjinron, Nakane and Doi (Befu, 2001, p. 7), so it is evident why Pizziconi (2003) and other readers can describe Matsumoto's characterizations of Japanese society "as advocating simplistic Japanese stereotypes" as Matsumoto (2003) notes. Nihonjinron writers largely support their explications of the Japanese character through a process of accumulating selective or received anecdotes on Japanese society as a whole (Mouer and Sugimoto 1986, p. 32 & 99-100) to support particular constructions of Japanese identity (Befu 2001, p. 5). The specific claims of Matsumoto (1988) and their *Nihonjinron* connections include: a vertical society (p. 405) as discussed in Nakane (1972); a dependency based society (p. 406) as explicated in Doi (1973); and a culture with little emphasis on individuality (p. 406-407) as claimed in both Lebra (1976) and Nakane (1972). As cited above, Matsumoto (1988) unambiguously states that the governance of all social interaction in Japan solely relies upon relative positions of status and, as a result, clearly echoes the characterization of Japanese society framed by the bulk of widely circulated and read *Nihonjinron* authors.

Nihonjinron Influences

The basic tenets of Matsumoto's characterization of Japanese society as groupist and dependent, based on the works of Nakane, Doi and Lebra, exist as historically established notions of Japanese identity as formulated by a number of *Nihonjinron* authors influenced by the European literature on social identity. The historical roots demonstrate that early social constructions of Japan are not grounded in the empirical investigation of societies, but rather a product of the relational framing of 'self' and 'other' in the construction of polarizing identities.

The ideas behind *Nihonjinron* have a long and resilient history. A number of the

notions about Japanese were influenced by Meiji era (1868-1912) Japanese writers influenced by European intellectual thought on 'the East' in contrast to 'the West.' While there is not necessarily a single trajectory or lineage for the connections between Western thought on the East and early *Nihonjinron* thought, a number of historical relationships have been established by various scholars on Japan.

One of the key historical events that led to Japan's relational frame of Japan in contrast to the Europe was the invasion of Commodore Perry in 1853. This event defined the shift in the discourse on identity in Japan (Befu 2001, p. 125). The recognition of the technology gap between Japan and Europe led to the study and adaptation from European technological and intellectual institutions, ushering in an era of European thought on the positionality of the 'West' in relationship to the 'East'. Such a literary influence led to a type of internalization of Orientalist portrayals of the West (Befu 2001, p. 127). With the rise of Japanese nationalism up through the 1930s partly due to its colonizing successes in other parts of Asia, Japan increasingly began to articulate the superiority of the Japanese with respect to the West (Befu 2001, p. 133). When seen alongside the dialectic of the West on the East, parallels are evident in the Japanese self-conception; these early emic conceptions of Japan reflect a type of reclamation of European intellectual East/West contrasts (Dale 1986, p. 46).

Kawakami Hajime, one of the earliest influences to the Nihonjiron canon, penned an essay *Nihon dokutoku no kokkashugi* 'The Statism Unique to Japan' (1911) in which he contrasts the Japanese collective identity with the state in opposition to Western individualism (Dale 1986, p. 209). Kawakami explains that the Japanese serve exclusively the cause of national growth, and this service represents a unique Japanese quality, the absolute connection between private identity and the state (Dale 1986, p. 210-211). Kawakami with his European influenced education (Bernstein 2000, p. 71-74) connects European late 19th and early 20th century intellectual thought on the East and Japan.

Extremely influential to the *Nihonjinron* connection between ecology and cultural life is Watsuji Tetsuro's *Fudo* 'Climate' first published in 1935 (Befu 2001, p. 17; Dale 1986, p. 41; Mouer and Sugimoto 1986, p. 42), which is reprinted annually and one of the most cited texts in the Nihonjinron literature (Befu 2001, p. 17); for example, Lebra (1975) cites his social philosophy to support her own. Watsuji derives from the ecology the unique characteristics of Japan, including familial structure, national character, ethos, and aesthetics (Befu 2001, p. 18). For instance, as cited by Befu (2001, p. 18), Watsuji writes that the humidity and heat of Japan led to an open style of housing that reduced privacy in Japan, and additionally led to the denial of individual rights while promoting collectivity. Watsuji's work includes no systemic research to test his hypotheses (Mouer and Sugimoto 1986, p. 32), rather, he writes in the literary tradition of a preceding body of work on Japanese culture and identity. Dale (1986, p. 41) notes that Watsuji expands on the seminal work of Shiga Shigetaka's *Nihon Fukeiron* (1894). Watsuji and Shiga were also influenced by

European authors such as Montesquieu and Herder, who related societies and cultures to geographic conditions (Dale 1986, p. 42). Watsuji reconstitutes geographically derived contrasts to frame a violent, nomadic-pastoral, slave-holding West against a peaceful, communal, agrarian Japan.

This body of *Nihonjinron* work reflects diverse influences from European sociological thought. Some examples from Dale (1986, p. 44) include an egalitarian West in contrast with a hierarchical East as borrowed from Alexis de Tocqueville's *Democracy in America*, and the distinction between *Gesellschaft* 'Society' and *Gemeinschaft* 'Community' represented by feature contrasts between feudal and industrial societies as delineated by Ferdinand Tönnies (1887). Ultimately, the *Nihonjiron* literature contrasts Japan with monolithic constructions of the West (Dale 1986, p. 44; Mouer and Sugimoto 1986, p. 59), and by the period of Japan's rapid modernization from the 60s onwards, a number of these characterizations ossified as part of popular conceptualization of Japan (Mouer and Sugimoto 1986, p. 54-63).

3.3.2.4 Nihonjinron As Relational Discourse

The Japanese vs. Western frame is relational, positioned in such a way that Japan and the West gain meaning vis-à-vis each other, similarly to the formation of race and gender categories as delineated by Nakano-Glenn (2004, p. 13). The contrast operates on the deployment of "symbols, language, and images" (Nakano-Glenn 2004, p. 12) to construct a particular formulation of Japan, primarily around contrast between feudal and industrial economies as described in a range of works such as Tocqueville and Tönnies. The *Nihonjinron* literature constructs oppositional contrasts to create a distinct identity of Japan national identity. As Nakano-Glenn (2004, 13) notes, such a frame must be hierarchical and privilege certain terms over others as such oppositional categorizations are imposed upon a complex reality; dominant categories define the 'norm' while other categories are 'problematic'. For instance, the *Nihonjinron* literature frames Japan as culturally homogenous; however, as discussed by Befu (2001, p. 68-70) Dale (1986, p. 47-50), Maher and Macdonald (1995, p. 9-11), Mouer and Sugimoto (1986, p. 114-15), the assumption of homogeneity must happen at the expense of ignoring various types of social diversity such as ethnicity or social class. As a result, a claim of homogeneity must privilege whatever grouping at the time represents 'authentic' Japanese citizenry. The model of homogeneity inevitably puts, for instance, Japanese people of Korean heritage, or minority language users such as the Deaf, in a subordinated class not seen in the same light as a 'pure' Japanese citizen. In the same way, a claim of groupism is predicated upon the subordination and downplay of Japan's history of conflict and individual initiative as discussed in detail by Mouer and Sugimoto (1986, p. 106-114 & p. 191-210). Matsumoto (1988) in subscribing to a non-individualist conception of the Japanese people inherently relies on a characterization that privileges group oriented evidence

over any counterevidence that supports a point of view that presents Japanese people as individuals.

Categorizations are interdependent and "systemically related" (Nakano-Glenn 2004, p. 13-14). An identification of 'authenticity' in Japanese identity must be set in relief against a non-Japanese population. A nation-state identity of homogeneity is offset against other nation-states framed as heterogeneous. Such constructions reveal "linked identities" (Nakano-Glenn 2004, p. 14) in that they presuppose a relationship between the categorized groups set in opposition. The conceptualizations of Japan in relief against either China or the West show how writers define Japan against a historically relevant "other". Japan's development as a state crucially relied at various times upon China, Europe and the US, so Japanese writers often articulated Japan's identity in relation to these regions. As seen by the shift in Japan's focus over time, it is apparent that such dichotomies are not fixed, as noted by Nakano Glenn (2004, p. 13), but shift to form various contrasts over different domains or eras.

Once such general categories are established, symbols and material relations can be deployed to produce particular social constructions (Nakano-Glenn 2004, p. 14). As evidenced in the *Nihonjinron* literature, there are particular features of Japanese culture, especially geography and language, which are interpreted and deployed as framing a particular type of Japanese way of thinking. Geographical situatedness as an island nation is used to account for Japan's peaceful, agrarian state and cultural homogeneity (Befu 2001, p. 17; Dale 1986, p. 41; Mouer and Sugimoto 1986, p. 42), despite the fact that Japan has had a history of internal military conflict similar to other industrialized states (Mouer and Sugimoto 1986, p. 106-114) and comprises a population with diverse origins (Dale 1986, p. 47-50; Mouer and Sugimoto 1986, p. 191-210). Nevertheless, the distinctions between the geography of Japan and China or the West are used as a basis for the constructions of particular types of Japanese identities.

Consideration of the construction of Japanese identity through the lens of relationality problematizes the monolithic characterizations of Japan. The viewpoints are not empirically evident or given, but represent a particular epistemological frame that positions the Japan in a larger schema.

Nakano-Glenn (2004) in her discussion of the relationality of race and gender concludes:

> If race and gender are socially constructed, they must arise at specific moments under particular circumstances and will change as these circumstances change. One can examine how gender and race differences arise, change over time, and vary across social and geographic locations and institutional domains. Race and gender are not predetermined but are the product of men's and women's actions in specific historical contexts. To understand race and gender we must examine not only how dominant groups and institutions attempt to impose particular

> meanings but also how subordinate groups contest dominant conceptions and construct alternative meanings (p. 17).

The same can be said for the characterizations of Japan by the dominant *Nihonjinron* literature. Japan's self-identity shifts vis-à-vis historical conditions and state imperatives. Additionally, as noted in Mouer and Sugimoto (1986, p. 64-83), although dominant, the *Nihonjinron* viewpoints are not the only ones represented in the Japanese literature. There are other emic conceptions of Japan, which oppose the dominant *Nihonjinron* frame, but carry validity as well.

3.3.2.5 Face and Identity Construction

If identity is relational in character, then rather than represent measurable facts of culture, identity construction presents a particular frame of reference of a group at the expense of a more complete understanding of complexity and difference. While categorizations serve as useful tools, empirically ungrounded generalizations may produce invalid conclusions or detract from different or larger trends.

In the context of the B&L notion of face, the frame of relationality explains why some work on Japanese politeness such as Ishiyama (2009) subscribe to B&L while others do not. Contrasting views of Japanese culture reflect the very nature of the relational stance, as opposed to empirical fact, reflected in the *Nihonjinron* construction of Japanese culture.

The social construction of Japanese face as described by Matsumoto (1988) depends upon a relational construction that operates by framing a contrast with non-Japanese people. Her social arguments produce a fixed notion of Japanese identity although Japanese people reflect a variety of attitudes and viewpoints. As Matsumoto's claim that Japanese lack individuality needs more empirical support to argue effectively against B&L's notion of face. Similarly other works that produce particular types of hegemonic cultural identities, such as Gu (1990) for China, require examination to determine if such construals are primarily relational constructions with little empirical weight, or if they have supporting evidence.

3.3.2.6 JSL as counterevidence to Matsumoto's Linguistic Evidence

The other major component of the Matsumoto (1988) argument is the structure of the Japanese language. As her linguistic argument for the constitution of Japanese face is interwoven with her social analysis, she ends up making stronger claims for the interdependence of grammar and social structure than she can effectively support. Additionally, a language such as JSL shows that her account, which knits language and culture together in the tradition of the *Nihonjinron* authors, completely fails in light of the emergence of another natively developed language that does not exhibit

the same language structures as spoken Japanese. As discussed in §2.3 and §3.1, JSL developed natively in Japan as a language regularly in contact with spoken and written Japanese, so the majority language has meaningfully influenced the development of sign language. As discussed in §2.1, the Deaf live with regular immersion in hearing communities, so the full range of distinctions between JSL and the majority language cannot simply be accounted for due to cultural difference. JSL can represent social relationships in Japanese contexts, independently of the direct use of spoken or written Japanese.

Matsumoto notes that Japanese is the language most known for its elaborate politeness system since its speakers always have to call attention to and make decisions about their speech register. Part of the Japanese politeness system is grammaticalized and becomes an obligatory part of any phrase that a Japanese speaker utters. As noted in §3.1.2, a simple phrase such as "That's an apple," has multiple register variations available for selection.

3.5 *Polite expression through alternation of the copula*

林檎だ。	林檎です。	林檎でございます。
Ringo da.	*Ringo desu.*	*Ringo de gozaimasu.*
apple COPULA-PLAIN FORM	apple COPULA FORMAL	apple COPULA-HONORIFIC

The speaker must choose from among different registers of the copula to form an addressee-controlled form. Japanese also uses referent-controlled forms as described above in §3.1.3.

Matsumoto (1988) attributes the emergence of an elaborate system of Japanese politeness to Japanese culture. She ascribes to Japanese culture the value of acknowledging group dynamics and interdependence through the recognition of relative societal rank. When a person shows deference due to another, he or she acknowledges that the addressee is in a position that licenses the provision of support, while the person of higher rank in a given social context becomes open to obligations from the other interlocutor. Matsumoto goes on to make a direct association between language form and social practice and goes as far to suggest that the language form can provide a full reflection of a given cultural practice.

> Under the alternative approach of leaving the constituents of face as a variable, features that influence politeness, and that otherwise appear arbitrary, can be explained. For example, the sensitivity of the Japanese to debts, whether goods or favors received, is scarcely surprising in light of the important role in Japan given to the preservation of the relative rankings of members in society. Similarly, *the fact that Indian languages do not have as elaborate a system of honorifics as Japanese may well be a reflection of the very different social structure and the*

> *emphasis in Japan on recognition of ranking*. (Matsumoto 1988, p. 421) (Italics added.)

Matsumoto (1988) directly equates language form and language practice by overtly using the distinction between the politeness systems of Japanese and languages used in India to derive a difference in politeness norms. If Matsumoto's logic held, then the lack of the same type of overt honorific morphological marking on the autonomous segment tier in JSL would act as a reflection of a different social structure for Deaf Japanese in relation to hearing Japanese.[20] Such a conclusion would require a wholesale discount of any relationship between Deaf and hearing cultures, and clearly misrepresent the effects of extensive language contact. As seen in the examples of polite language usage in spoken Japanese and JSL in §3.1, the relation between language form and use has far more complexity; JSL has a radically different structure than spoken Japanese, but can index some of the same interaction contexts in the same way. In order to truly understand contrasts between polite language use between signers and speakers, language use and discourse context both require consideration. The same point applies to any crosslinguistic comparison of polite language use.

As discussed in §3.2.2, JSL relies heavily on the use of nonmanuals for producing polite register distinctions. While the JSL politeness system does not map systematically and fully onto spoken Japanese, as evidenced by the apparent lack of referent-controlled honorific forms, nonmanuals provide a suprasegmental way of indexing social relations in a similar way morphological forms mark register in the majority language. Since JSL shows that suprasegmentals can do the work of social indexation in lieu of overt morphological marking on the autonomous segmental tier, it provides evidence that languages can rely on both the dependent segmental tiers and autonomous tier to mark polite register. For instance, as shown in an Ervin-Tripp et al. (1990) child study on control acts and the Wichmann (2004) study on the use of "please", English speakers use dependent or suprasegmental elements such as intonation or voice loudness contrasts to mark politeness register distinctions. Essentially, the examination of segmental morphology alone by Matsumoto (1988), independent of suprasegmental elements such as intonation, indicates that her comparison of Japanese with other languages, which relies only on overt morphological marking, is incomplete as the suprasegmental elements serve as a salient part of the social indexation signal.

Matsumoto (1988, p. 409) additionally supports her linguistic argument by explicating what she labels "relation acknowledging" devices or formulaic expressions such as *yoroshiku onegaishimasu* 'nice to meet you'. Matsumoto appeals to the etymology of such expressions to represent underlyingly the mental state of the

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[20] *See §3.2.1 for the discussion of the autonomy-dependency relation for segments.*

speaker, so *yoroshiku onegaishimasu*, which could literally translate as "please take care of me", contradicts B&L's notion of negative face as the phrase requires the speaker to actually create an imposition on the speaker. Her claim seems too strong without additional evidence on how speakers interpret such expressions in a variety of contexts. JSL also detracts from Matsumoto's claim as JSL does not always reproduce the same relation acknowledging devices from spoken Japanese. For example, as discussed in §3.1.3, *SUMIMASEN* 'excuse me' or 'I'm sorry' has a different distributional usage than *sumimasen* in speech. If speakers had the same conception of formulaic expressions, JSL should consistently reflect the semantics of the most common phrases due to the extensive degree of language contact and the deep cultural significance of such expressions.

The use of polite forms in Japanese as described by Matsumoto is primarily prescriptive. Hasegawa and Hirose (2005) and Okamoto (1999) note that most Japanese speakers do not use highly elaborated and prescriptive honorifics naturally in speech and typically learn such forms later on in life when employed in white-collar professions or through advanced schooling. Miller (1967, p. 283) refers to a study undertaken by the National Institute for the Study of Japanese in the early 50s that notes social class served as a major factor in the application of the complete system of Japanese polite expression. The societal emphasis placed on the use of honorific forms in Japan probably does not reflect a person's sensitivity to social debt, rather the forms exist as ossified remains of systems of register grammaticalized over time. Matsumoto (1988) makes a salient point about the need for speakers to call attention to polite language marking in Japanese; however, she fails to see that her point potentially applies to a wider range of languages. Even for English, no particular register suits all occasions. Ervin-Tripp et al. (1990) found that American English speaking children selected communicative register based on the perceived interlocutor social status. Garfinkel (1964) presents an example of an extreme mismatch between the usage of polite language and social context through the example of American English speakers using polite out-group language in a familial setting.

The Matsumoto case is instructive in that a meaningful number of commonly cited analyses of politeness grounded in culture appear to replicate the same fallacies (Gu 1990; Mao 1994; Nwoye 1992). While it remains to be seen if in fact these particular cultural characterizations are relational in character as in the Japanese case, it is crucial to consider carefully the source of any cultural evidence, especially grounded along the polemics of East/West or individualistic/collective contrasts.

3.3.3 Indexing Politeness

Polite expression involves use of indirect indices to connect a given utterance via a related social stance to an intended framing of the language user, addressee(s) and/or

referent(s). Ideology serves a role in that the idealized linguistic norms of the language user influence the selection of the interaction register (Eelen 2001; Okamoto 1999). Polite language fundamentally comprises social indices available for manipulation to suit the ends of the interlocutors. An indexical account of politeness provides a means to examine polite social indices and their interpretations within interaction contexts. A number of authors emphasize the need to examine extended discourse to show how polite expression interpretation depends upon the particular social context and interlocutors' own ideologies of politeness (Eelen 2001; Okamoto 1999; Watts 2003).

As any linguistic form indexes the user's construal of a situation, any particular usage may contribute to some particular degree of politeness by indexing the right social relations in that context. The prior examples from §3.2.2.3 related to signing space size in JSL and ASL demonstrate how a "volume" difference may simply mark emphasis as in the Uyechi (1996) Deaf protest description, or reflect a polite stance as in the Okabe et al. (2005) conversational dyads. Ochs (1992) in her discussion of gendered expression describes the relationship between language and gender as, "non-exclusive" and "constitutive" (Ochs 1992, p. 340); the same notions apply to polite language marking. *Non-exclusive* means that a particular expression when used as a social index will not be reserved exclusively for one type of social relation, and that particular stretch of language additionally performs other linguistic functions. *Constitutive* refers to the indirect association between a particular language form and its socially construed meaning.

In JSL and spoken Japanese, polite marking is often *non-exclusive* in that interlocutors may use language according to prescriptive norms or not; additionally, polite forms do not typically serve a single linguistic function, but have other associated uses. Okamoto's (1999) description of Japanese polite language usage is non-exclusive. Okamoto notes that the selection of honorific or polite forms involves a tension between the addressee status and the social distance of the relationship, as a result, varying distributions of polite forms emerge such that different interlocutors apply contrasting forms in the same interaction contexts. Japanese polite forms are also non-exclusive in that such forms may index other types of meanings. A speaker may produce a referent-controlled honorific form through the use of an indirect expression with the application of the suffix *–rare* (Shibatani 1990). The affix *–rare* can simply form the passive; however, the use of *–rare* can produce polite affect as it indirectly refers to the individual in question. As discussed in §3.2.2.3, in JSL, manipulation of the signing space size can simply serve as a means for a signer to create discourse contrasts, or to mark a relatively more passive stance that indirectly makes a request more polite.

Polite forms in JSL or spoken Japanese can be *constitutive* in that such forms indirectly index polite communicative interaction. The prior example of the affixation of *–rare* demonstrates that indirectness reflects a type of reserve, and this reserve can

reflect polite consideration for the referent. Similarly, a speaker may signal politeness or consideration by non-direct reference to the interlocutor, so ellipsis of the second-person subject reflects a similar type of function as the use of *–rare*.

Okamoto (1999) covers in detail the varied uses of polite forms by Japanese speakers to show the difficulty of neatly classifying actual polite language usage due to the contextually grounded nature of discourse.

The Praxis of Polite Japanese Communication

Okamoto (1999) concludes through an analysis of Japanese conversations concludes that speakers produce polite expression depending on the situational context and type of discourse effect they desire; additionally, a speaker may use polite expression to project a particular self-image. Her work responds to authors who wish to claim a special salience for politeness in Japanese culture based on overt morphological marking of polite language (Hill et al. 1986; Ide 1989; Matsumoto 1988). Japanese speakers use polite expressions in a variety of ways that do not necessarily adhere to prescriptive norms of polite language usage. The use of polite expression in practice for Japanese does not evidence a special relevance for the salience of politeness in Japanese culture relative to other cultures. Only through explicit examination of language use in context can robust conclusions be drawn about interaction ideologies in practice.

Using conversational data, Okamoto shows varied uses of polite language forms. She illustrates reciprocal uses of polite forms between interlocutors of different status and non-reciprocal uses of honorifics between speakers in terms of signaling relationship distance. Okamoto finds that speakers may mix the use of polite and casual expressions with the same interlocutor in the same conversation. She notes that such variation in actual speech cannot be accounted for outside the discourse context. Okamoto points out that in actual conversation the distinction between polite expression motivated by discernment as opposed to volition becomes blurred. Discernment or the automatic use of the socially appropriate politeness form requires uniform adherence to social norms by all participants; however, Okamoto (1999) finds that Japanese speakers vary in the types of selections they select.

> In sum, the choice of honorific and non-honorific expressions is to be seen as a speech-style strategy based on a speaker's consideration of multiple social aspects of a given context (e.g. status difference, intimacy, gender, genre, setting, speech-act type) as well as on the speaker's beliefs and attitudes concerning honorific uses. Based on their perception of multiple social aspects of the context, actors employ the linguistic expressions they consider most appropriate for a given situation. (Okamoto, p. 60)

A person's ideology, or belief about language use, closely relates to one's application of honorifics, or polite expression, in practice. Okamoto observes that Japanese speakers express a variety of viewpoints about the use of honorific forms. Her observation closely aligns with Eelen (2001) in that a model of polite language use framed in terms of a joint cultural or group ideology provides an impoverished view of real-world interaction. An analysis of politeness must account for multiple viewpoints within the same language using community.

Okamoto (1999) notes that polite expression indexes particular social stances tied to dominant ideologies, and interlocutors manipulate such indices. She goes on to describe how the use of polite forms may also reflect class status or have an association with particular gendered norms, such as the belief that women should speak more politely than men.

> In addition to the relational aspects of the context, honorifics may also be linked to the speaker's own identity; that is, speaking formally and/or deferentially may be used to implicate certain attributes of the speaker's identity. (Okamoto, p. 59)

Okamoto's observation suggests that the choice of polite indexed expression goes beyond the consideration of the interlocutor, imposition and speech context as described by a framework such as presented by B&L, to reflect the stance projected by the language user. Polite register indirectly indexes status or gender as tied to hegemonic conceptualizations.

The examples from Okamoto (1999) do in fact show that speakers often make polite register choices that represent the application of prescriptive rules. For instance, in the conversational dyad between the instructor and student as recounted by Okamoto, the student tends to apply polite forms such as the copula *des* when addressing the instructor. At times, however, the student mitigates the distance through the use of exclamatory words, and soliloquy—self-directed expressions—accompanied with the casual form of the copula *da*. While speakers do adhere to speech norms to some degree, the usage of polite indices remains open to innovation and non-canonical usage.

Bourdieu's *habitus* provide a way to frame the distribution of social indices in actual discourse. *Habitus* serves as a heuristic for conceptualizing how a social actor works within the frame of routine, habitual social practices. Bourdieu defines *habitus* as:

> …systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles of the generation and structuring of practices and representations which can be objectively 'regulated' and 'regular' without in any way being the product of obedience to rules, objectively adapted to their goals without presupposing a conscious aiming at

> ends or an express mastery of the operations necessary to attain them and, being all this, collectively orchestrated without being the product of the orchestrating action of a conduction. (Bourdieu, 1977, p. 72)

In effect, social actors behave according to accustomed patterns and routines but at the same time can diverge from their typified routines or habits. Individual actors develop as products of their social space but do not necessarily continue to move in lockstep to their social conditioning. Bourdieu builds a conception around the contradictions of actors who unconsciously immerse themselves in routine, yet who somehow still maintain the freedom to act in novel ways. Framed in light of communicative practices, such as the use of polite social indices, although language practices ossify over time, there remains space for users to express themselves in routine or novel ways. A number of researchers across disciplines have incorporated the concept of *habitus* into a variety of frameworks, including linguistically related work (Hanks 1996; Michael 2008; Ochs 1992; Watts 2003).

My JSL Studies, described in Chapter 4, are in some respects consistent with the conclusions of Okamoto (1999) on the situational and individual relevance to the production of polite expression. The results of the JSL Pen Study (§4.2) and JSL Discourse Completion Test (DCT) Study (§4.3) discussed in Chapter Four show that consultant judgments and productions are consistent in terms of mapping JSL expressions marked for politeness with interlocutors of a higher status. Nevertheless, as detailed in §4.3.4, the JSL DCT demonstrates that consultants did not exceptionlessly map the most polite expressions to the highest status interlocutors in the circumstances of greatest imposition; they demonstrated some variation in the judgment of request scenarios. Additionally, as noted in §4.3.4, the JSL DCT signers exhibited variation in their application of the JSL politeness marking features. There is a high degree of intersubjective agreement in assessments of comparative degrees of politeness of different expressions; however, the choice of specific politeness features could vary. For instance, all signers had a request for a loan from a coworker among their most polite requests despite the fact that some consultants relied more on discourse strategies while others relied more on nonmanual markers of politeness.

Okamoto provides a response to the claims of authors such as Matsumoto (1988) or Hill et al. (1986) who present a claim for the special salience of politeness to Japanese speakers due to the overt morphologically marked forms of polite expression available. While language form does reflect social interaction norms to some extent, linguistic form alone is an insufficient basis for the consideration of how interlocutors apply language in practice and determining the ideological notions that form the basis of their language selection.

3.4 Conclusion

Observing language in actual use shows that there is a distinction between prescriptive rules of language, especially as shaped by ideology, and the actual distribution of uses in practice. While investigations of the typology of polite utterances or language from a cultural ideological perspective may provide important insights about polite language use, politeness forms require examination in various discourse contexts in order to produce an adequate evaluation of how interlocutors apply and evaluate such forms.

The JSL politeness system reflects a shared culture of visual practice and language usage between the Deaf and hearing in that JSL incorporates shared Japanese visual communicative indices and borrows from spoken and written Japanese as a part of its linguistic encoding of politeness. Although the separate development of signer and speaker communicative codes entails distinctions in polite language form and use, the interrelationship between their languages complicates the consideration of politeness from the standpoint of culture or language form.

In the following chapter I will examine specific forms that serve as polite social indices in JSL. As JSL is an understudied language, little literature exists on politeness in JSL as examined even at a rudimentary level. Identifying possible social indices in JSL serves as a necessary precursor to the observation of politeness in JSL extended discourse.

CHAPTER 4
JAPANESE SIGN LANGUAGE (JSL) POLITENESS STUDIES

4.0 Introduction

This research opens with the question of how signers express politeness linguistically in JSL. The question is motivated in part by the existence of JSL alongside a spoken language that makes pervasive use of overt morphological marking of politeness as discussed in §3.1.2. Although JSL and spoken Japanese oftentimes share the same social space, the modality difference restricts the ability of signing interlocutors to express politeness in the same way as speakers. Two politeness studies, Hill et al. (1986) and Hoza (2007) served as models for experiments designed to investigate the opening question.

Chapter Four details the experiments and analyses of the results of the JSL Pen Study and the JSL DCT study. §4.1 discusses the motivations and methods for the Pen Study and DCT; §4.2 covers the Pen Study; §4.3 examines the DCT and results; and §4.4 presents the conclusions about JSL politeness marking forms based on the results from both studies.

4.1 Motivation and Methods for the Pen Study and DCT

The Pen Study

The Pen Study, based on Hill et al. (1986), compares the use of polite request expressions in American English and Japanese. It generates results based on the parameters of social distance and relative power levels of the interlocutors while controlling for the level of imposition, as proposed by Brown and Levinson 1987[1978] covered in §3.3.1. The primary aim is to provide a description of features that mark politeness in JSL since there is no in-depth published description of JSL politeness, and very little material is available on register and politeness in sign languages in general. The second aim is to consider to what extent signers and non-signers share the same politeness system.

In the Pen Study, 20 Deaf JSL signers and 15 non-signers completed a three-part survey, which is pictured in Appendix A2. In part one, consultants rate 20 requests for borrowing a pen (all signed by a native signer) at differing levels of politeness register; in part two, the consultants rate 20 interaction scenarios; and in part three, they match pen requests from part one with scenarios from part two of the study. The responses of the consultants were then processed via a database and the results were analyzed and used to identify politeness marking features in JSL, using the methods described in detail in §4.2.

As discussed extensively in §2.4, Japanese signers and non-signers share a cultural code in the visual-kinesic modality, and JSL contains some signs derived from this shared code; some subset of these signs can maintain enough transparency such that non-signers can intuit their meanings. The initial results of the Pen Study described in §4.2.2.1 show that JSL signers and Japanese-speaking non-signers share similar judgments for a number of the pen phrase tokens. The current investigation will determine what specific features serve as meaningful cues to non-signers and hypothesize to what extent such cues come from the shared visual-kinesic communicative repertoire of Japanese signers and non-signers.

The Discourse Completion Test (DCT)

The second study is a Discourse Completion Test (DCT) (Blum-Kulka et al. 1989) based on Hoza's (2007) study of politeness in American Sign Language (ASL). In the DCT study, five native or near-native JSL signers, each watched a video of a native JSL signer depicting a scenario.[21] For example, the first prompt was, 'Your pen is sitting very near your supervisor. If you wanted it passed to you, what would you say?' Next, each consultant signed a request based on the situational context depicted. All of the consultants' request phrases were transcribed and then analyzed using the politeness features generated by the JSL Pen Study analysis.

The prompts for the DCT consist of workplace scenarios; this study presents polite request contrasts primarily based on the relative power status of the interlocutors and the level of imposition of the particular request given. The DCT provides an examination of JSL politeness with a focus on request imposition and reveals areas of signer variation. In contrast, the Pen Study focuses on the examination of more intersubjectively shared polite expression. The DCT study serves as a check on the conclusions of the Pen Study in order to form a stronger investigation of JSL politeness or register marking.

The Pen Study in Comparison with the DCT

The two studies were chosen since they serve as complementary elicitation tasks—the Hill et al. (1986) study focuses on the reception and judgment of various JSL polite expressions, while the Hoza (2007) study centers on the types of expressions native JSL signers may produce in contexts involving requests. The original studies of Hill et al. (1986) and Hoza (2007) have more extensive coverage than the studies presented here; however, a primary focus on the initial stages of both studies provides adequate data for the investigation of politeness features in JSL required for the purposes of this work.

[21] *All 20 scenarios appear in chart 4.23 in §4.3, which discusses the DCT study in detail.*

Below is a chart contrasting the studies by Hill et al. (1986) and Hoza (2007); each method offers particular strengths in the examination of JSL politeness.

4.1 Comparison of methodologies from Hill et al. (1986) and Hoza (2007)

JSL Pen Study (Hill et al. 1986)	**JSL DCT Study (Hoza 2007)**
Reception study	**Production study**
Large number of consultants (35)	Small number of consultants (5)
Primarily quantitative	Primarily qualitative
Cross-comparison of expressions possible	Cross-comparison of expressions difficult
Expressions from only a single signer	Expressions from several signers
Only a single request expression	Multiple request expressions

The JSL Pen Study was designed to easily involve a large number of respondents, so it depends on an anonymous, noninvasive ratings survey that can be completed anywhere with computer access. Considering that the potential pool of signing consultants was very small, due to a small population size and limited access to the community, I successfully collected a relatively large number of consultant judgments and could apply quantitative measures. While the study only uses one concrete communicative goal, a request for a pen from a single native signer, it has the advantage of being controlled on the metrics of expression type and signer so allows for a comparison of expressions that teases out features important to marking JSL politeness register. This study can determine if there are features that pattern in a consistent way for marking politeness—especially features discussed in the literature for JSL, other sign languages, and spoken language correlates, all which are discussed in §3.2.

Another benefit of the design of the JSL Pen Study is that non-signers can also complete the survey. While the initial hypothesis was that non-signers would serve as a control group that would produce responses that patterned randomly, it was immediately clear that their judgments were not random, as indicated by the initial comparison of results described in §4.2.2.1, the linear regression with respect to rate of signing covered under §4.2.3.3, and the multiple regression analysis discussed in §4.2.4.

The most significant disadvantage of the JSL Pen Study design is that only a single signer determined and produced the prompt expressions. To deal with the possibility of the use of idiosyncratic expressions, consultants rating the expressions could choose to label any given expression as unsuitable, although in practically every case consultants deemed the expressions acceptable. The DCT study also provides a means to see if other native signers would produce expressions consistent with those of the signer who produced the Pen Study prompts.

The Hoza (2007) Discourse Completion Test (DCT) for ASL serves as the model for the JSL DCT Study. As described by Blum-Kulka et al. (1989), a DCT captures contextualized responses in order to tease out consultant intuitions about the use of particular language forms in specific contexts. A DCT involves the creation of a scenario followed by elicitation of role-played responses in order to evoke the most natural responses possible. The JSL DCT Study involves responses to six scenarios involving requests to various interlocutors. This methodology allows for various native signers to produce a broad range of polite requests. The DCT complements the Pen Study in that the consultants, free of the narrowness of the range of expression for the Pen Study, sometimes produced expressions with different features than those appearing in the Pen Study expressions. The DCT study also allows for a closer inspection of signer variation. The DCT answers the question of whether JSL signers, similarly to ASL signers, use a variety of discourse strategies to make requests as found by Hoza (2007) in his ASL DCT, described in §3.2.2.1. The time- and resource-intensive nature of the JSL DCT meant that only a small number of consultants could complete the study, so the experiment does not provide enough data for quantitative analysis.

Both studies involve elicitation. While natural language data is desirable, it is difficult to capture or record naturally occurring data due to issues of privacy, the technical difficulty of filming signing subjects and the lack of reliability or accuracy of reported data. While elicited data may lack some level of authenticity, elicitation is still a more efficient method of collecting large amounts of relevant data, and is ideal for initial investigations such as those in this chapter. Data from elicitation studies also allows systematic investigation of particular aspects of language use - this data should help us to form hypotheses that can eventually be tested against observations of usage in natural language contexts.

4.2 The Pen Study

The Pen Study primarily aims to determine the particular features that signal register contrasts salient to JSL users, as JSL signers demonstrate the ability to produce sharp politeness register contrasts. During a presentation to a Deaf and hearing audience in Tochigi Prefecture, two video clips were shown. In the first clip, a signer makes a simple request for a pen, which received a high politeness rating from consultants[22] in the Pen Study; the second video clip also had a pen request expression, but the phrase had a low politeness rating. The audience immediately reacted to the second clip, partly due to the fact that it contained an interesting repetition of the sign "to borrow", and partly due to the contrast with the initial clip. Several audience members pointed out that one could only address a sibling or friend with the request

[22] *Based on the parameters of 'careful' vs. 'inhibited as explained in the study description in §4.2.1.*

from the second clip, whereas a majority considered the initial, relatively polite, expression appropriate for almost anyone. Most viewers, whether fluent in JSL or not, identified a huge contrast between the expressions. The Pen Study identifies the features salient to signer judgments of the social register or politeness level of request phrases, such as those influencing the reactions of the Tochigi audience.

The JSL Pen Study is based on the Hill et al. (1986) survey comparing English-speaking and Japanese-speaking college students' evaluations of request expressions with contrasting politeness levels. In the first part of the JSL study, each consultant watched 20 short videos in which a native signer makes a request for a pen in various ways. [23] The consultants rated the politeness level of each pen request expression. Parts two and three of the study presented social contexts; the consultants evaluated each context and then matched the expressions to various scenarios. §4.2.1 covers the procedure for the entire Pen Study; §4.2.2 to §4.2.5 cover the results of part one of the Pen Study, which focuses on polite request features; and results from parts two and three of the Pen Study that present interlocutors with scenarios receive a brief discussion in §4.2.6.

Although the Pen Study consists of three parts, my discussion will center primarily on part one of the study. Part one consists of the consultants' direct responses to specific request phrases; therefore, this data received detailed analysis in order to identify salient politeness cues in both a qualitative and quantitative fashion. Parts two and three of the Pen Study primary serve as a way to reflect upon and test the identification of politeness features identified via the extensive analysis of the data from part one of the pen survey. The discussion of the results of part one of the Pen Study centers on a Feature Chart (chart 4.5) that schematizes each pen phrase. The Feature Chart supports: comparisons among phrases ranked separately by signers and non-signers; comparisons between the phrase rankings of the signer and non-signer groups; and the examination of the distribution of features referenced in this chapter and detailed in §3.2.

§4.2.1 describes the experimental procedure and consultant profile. §4.2.2 introduces the Feature Chart (4.5) presenting a schematic of all the identified politeness features and describes how to interpret the chart. The continuing sections present various interpretations of the data from part one of the Pen Study: §4.2.3 examines politeness features independently; §4.2.4 presents an independent quantitative analysis via multiple regression; and §4.2.5 describes the creation of a Harmonic Grammar (Legendre, Miyata & Smolensky 1990a, 1990b, 1990c) with weighted constraints, which later is applied to the data from the DCT in §4.3. §4.2.6 briefly covers the pen phrases in relationship to the interlocutors the consultants

[23] *The term "native signer" will be used to refer to signers who began their acquisition of sign language from birth onwards.*

matched with the pen request expressions in part three of the study. The final section, §4.2.7 discusses the final conclusions about the Pen Study outcomes.

4.2.1 Procedure

Creation of the surveys

The Pen Study consists of three parts: part one surveys consultants' ratings for 20 pen request expressions (Appendix A2.1); part two surveys consultants' ratings for 20 different interaction scenarios (Appendix A2.2); and part three requires consultants to match request expressions from part one to scenarios from part two (Appendix A2.3). The Pen Study surveys were designed as database driven graphical user interfaces; all survey screen shots appear in section A2 of the Appendix.

In order to generate the experimental stimuli for part one of the JSL Pen Study, the experiment was discussed with a Deaf native signer who received a list of the Hill et al. (1986) Japanese and English pen request expressions and scenarios. The signer referred to the list of scenarios and the various Japanese and English expressions in order to generate different JSL expressions for requesting a pen. The signer did not produce one to one interpretations but referred to the given English and Japanese material to get an idea of the range of expressions and possible contexts for creation of the tokens for the study. At a later meeting date, the signer was videoed and the video was used to create a survey using all 20 tokens produced by the signer.[24] All phrases produced by the signer were transcribed and annotated in ELAN. An illustration of pen request phrase 12 appears below.

4.2 Pen Request Phrase 12

PLEASE beckons PEN BORROW DO.YOU.MIND

Excuse me, do you mind if I borrow your/that pen?

I shall use the label *phrase* or *expression* to refer to a single pen request token as produced by the signer pictured above. Each phrase literally translates as a request for

[24] *The tokens were not randomized. While there was no obvious patterning in the data due to non-randomization, presentation order is a lurking variable. Phrase references match the presentation order, e.g. "phrase 3" refers to the third token presented.*

a pen; the contrasts lie in the register distinctions among the phrases. Each phrase is represented by a single row in the Feature Chart (4.5), which only denotes the politeness features relevant to this study. The transcripts produced via the ELAN-*Language Archiving Technology* in Appendix A8 document for all 20 phrases each segmental tier such as manual sign, head position or mouth shape. Additionally, the Manual Signs for Pen Request Phrase Chart (4.11) transcribes the manual signs produced for each phrase. The Appendix provides a visual glossary (A1) of all the manual signs and nonmanuals relevant to this study.

The second part of the Pen Study makes use of scenarios inspired by the Hill et al. (1986) study. Each scenario presents an interlocutor in a particular setting, for instance "your mother in the home." All scenarios used for the study appear in the screen shot pictured in the Appendix (A2.3). The final part of the survey combines the material from parts one and two and appears in the Appendix (A2.3).

Survey completion procedure

In part one of the study, consultants watched the pen request clips and could view them as many times as desired.[25] For each request, the consultant would rate the expression from one to five, with a rating of one meaning that the expression could be used when a person is the "least inhibited" in their expression, and the rating of five used when a person is "most careful" in their expression. The rating designations come from the original Hill et al. (1986) study and refer to the range from the least polite expressions (rated one) to the most polite ones (rated five).[26] The consultants could also choose "NA" for expressions that they judged as unusable; expressions assigned "NA" received a rating score of 0. Each set of consultant ratings were converted into z-scores so that the rankings represent the relative weight given to each token by the study consultants. The z-scores normalize the ratings contrasts across consultants; so for instance, if there were an extreme case in which a consultant ranked all expressions five, then all such tokens would receive z-score ratings of zero since impressionistically no expression was more or less different in register than others for that given consultant. The use of z-scores allows for better comparison among all respondents and between signer and non-signer respondents and, in addition, provides a better distribution for the statistical evaluation necessary to evaluating the distribution and relative weight of the features affecting the politeness rating of a given expression.

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[25] *See Appendix A2 for screen shots of survey*

[26] *The Hill et al. study attempted to prevent consultants from making judgments directly on the basis of politeness, rather the focus was on what they termed as Perceived Distance (Hill et al. 1986; 352). The JSL version of the Pen Study uses the same prompts in order to stay consistent with the procedure of the original study whenever possible.*

Parts two and three of the Pen Study presented social contexts. Part two of the Pen Study presented scenarios with various interlocutors. As in part one, each consultant had to rate each scenario from one to five indicating contexts in which the consultant would feel the least or most inhibited in his or her behavior. Part three presented each pen phrase along with the list of scenarios. The consultants had to match scenarios with each given pen phrase. Each expression could be matched with as many scenarios as deemed appropriate.[27]

The Consultants

20 JSL signers and 15 non-sign language users completed the survey. All signers identified as Deaf with five of those identified as native signers. The tables below summarize the consultant profile data. Appendix A3 lists profile summaries for each consultant.

4.3 (a) Consultant Profile Summary

All Consultants	n	sex		age					occupation	
	n	f	m	19	20s	30s	40s	50s	job	student
Signers (Ro)	20	12	8	0	2	8	8	2	18	2
Non-signers (Cho)	15	12	3	2	11	2	0	0	0	15

4.3 (b) Deaf Consultant Profile Summary

		sex		age				JSL exp/yrs		JSL acquisition start by…					
Signers	n	f	m	20s	30s	40s	50s	10+	20+	0	1	5	el	hs	20s
Native	5	3	2	0	2	2	1	5	5	5	-	-	-		-
Fluent	15	9	6	2	6	6	1	15	10	0	2	5	3	4	1

Both signer and non-signer groups represent convenience samples with the signers accessed through acquaintances of the researcher and the non-signers primarily consisting of technical college students. Most of the signers are office workers living in Tokyo in their 30s and 40s, while the non-signers consist primarily of female students in their 20s. As a result of the population bias, age and gender exist as lurking variables in the data comparison between the signers and non-signers.[28]

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[27] *The method here contrasts with Hill et al. in which consultants would consider a particular scenario and then match one or more phrases with each scenario. The Hill et al. approach was impractical for this study since all request expressions consisted of JSL videos. Mapping scenarios to expressions would have required an unwieldy number of repetitions of the videos, so the request videos appeared individually, and consultants selected appropriate scenarios. See the prompt screen in Appendix A2.3.*

[28] *Due to limited time and resources the data collection resulted in a representational skew. Although gender and age are lurking variables, the examination of the data in the following sections demonstrates that the differences*

The signers have varied JSL acquisition experiences. Most have used JSL as their primary means of communication for over twenty years, and over half of the non-native signers started using JSL by the time they entered elementary (el) school.

4.2.2 Feature Chart Description of Data Set

Feature Chart 4.5 sets out consultant rankings of phrases, allowing comparison (1) between any two phrases' politeness rankings by signers and non-signers and (2) between the two consultant groups' politeness rankings of the same phrases. It also gives an overall picture of the distribution of the features referenced in this chapter, across the relevant data set. The Feature Chart is the schematic of all the pen request phrase politeness features with ratings averages for both signer and non-signer groups. The chart allows for a comparison of all the contrasting features and establishes the basis for the determination of features indexing polite register. Meaningfully contrastive features from the transcripts were primarily identified on the basis of the literature as described below. Features that tended to appear in top ranked phrases when comparing *all* of the ELAN transcripts, pictured in Appendix A8, were considered to be relevant to marking register. This section describes the ratings averages (§4.2.2.1), the Feature Chart (§4.2.2.2) with three pen request examples (§4.2.2.3), and how to read the numerical values (§4.2.2.4) in order to interpret the Feature Chart (4.5).

How the Feature Chart was created

The primary means of identifying relevant features in the Feature Chart involved first transcribing the manual and non-manual signs in as much detail as possible using ELAN-*Language Archiving Technology*. Since the phrases contained very similar lexical and manual sign content, particular attention was given to nonmanuals, the linguistically relevant elements of the sign signal not represented by the hands such as body posture, facial expression and use of the signing space (Baker and Padden 1978, Pfau and Quer 2010).

Separately for the signer and non-signer groups, the complete ELAN transcripts of all twenty phrases, pictured in Appendix A8, were ordered based on the ranking averages discussed in §4.2.2.1 below. The transcriptions were then compared to look for segmental patterning that corresponded with the average consultant politeness rating of each phrase. Features that tended to appear systemically in the top ranked phrases were then included in the Feature Chart.

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in knowledge of JSL between signers and non-signers can account for ratings differences between the two groups. In any event, the signer data as stand-alone data still provides sufficient evidence for politeness cues recognized by JSL users.

The elements transcribed and examined include: manual signs; facial expression, including mouthing and eye gaze; chin position; head movement; rate of signing; size of signing space; and any apparent discourse elements. As related in §3.2.1, the careful transcription of nonmanuals represents standard practice in sign linguistics as illustrated by the work of authors such as Liddell (1978), Baker and Padden (1978), Cokely and Baker-Shenk (1980), Neidle et al. (2000), Wilbur (2000), Valli et al. (2005) and Hoza (2007). Additionally, attention was given to features as covered in the literature on register in sign language in §3.2.2.

A recapitulation of the relevant literature

Nonmanual register marking has the most relevance to the Pen Study, as the contrasts among the pen phrases primarily lie in the nonmanuals applied rather than the literal lexical content of the expressions. Nonmanuals relevant to the Pen Study received detailed attention in §3.2.2, which delineated register and politeness-marking features as described in the literature on sign languages; a brief recap follows. Hoza (2007) and Roush (2007 [1999]) identify a number of facial expressions in ASL that serve to mitigate face threats of varying degrees. His classifications include *Polite pucker/tight lips* for small face threats, in contrast to *polite grimace and polite grimace frown* for larger face threats. Ichida (2005a; 2005b) discusses how head/chin position in JSL can mark the relative status of the interlocutors, and categorizes the semantic contributions of various types of head movement. Further work on JSL polite expression by Okabe et al. (2005) finds that some of the Ichida (2005a, 2005b) categories, specifically the *chin-back* and *chin-forward* positions, and a *head hold*, or pause in head movement, mark polite register in their study of dyads of older and younger signers. In descriptions of register contrasts, Cokely and Baker-Shenk (1980) and Liddell and Johnson (1989[1985]) note that ASL users articulate more clearly and with less assimilation when signing in formal contexts than in casual contexts. Zimmer (1989) and Berkowitz (2008) support the earlier conclusions of Cokely and Baker-Shenk (1980) and Liddell and Johnson (1989[1985]), and additionally note that signs appeared to be signed more slowly in formal contexts. Zimmer (1989) concluded that a larger signing space corresponded with formal contexts; however, in contrast, Berkowitz (2008) did not find the expected correspondence between signing space size and register. In contrast Okabe et al. (2005) found that signers marking polite expression used a relatively smaller signing space and reduced head movement.

As further discussed in §3.2.3, the literature on sign languages also covers a number of lexical and discourse strategies used to mark polite expression. Hoza (2007) concludes that various face mitigating discourse strategies as discussed by Brown and Levinson (1987 [1978]) functioned similarly in ASL. Berkowitz (2008) and Zimmer (1989) noted that the level of formality of a given context influenced

lexical selection, including forms borrowed from the dominant spoken language, e.g. fingerspelled forms. Okabe et al. (2005) found that younger signers applied a number of discourse strategies to accommodate older signers. Okabe et al. (2005) observe that the younger signers frequently backchannel to give feedback, trail off or drop the ends of interrogatives and constantly monitor the interlocutor's gaze to monitor response.

4.2.2.1 Average Ratings of the Pen Requests

The average phrase rating (Non-signer Avg/Signer Avg columns) is the average of each set of consultant ratings for the pen phrases. There were statistically significant differences between the ratings of signing and non-signing consultant groups for slightly over a third of the pen phrases.

Chart 4.4 below summarizes the rating averages for each phrase.[29] (The phrases with black *p diff* columns have the statistically significant signer/non-signer ratings contrasts.)

4.4 Phrase Ratings Summary w/ statistically significant contrasts in black

Ph#	p diff	(Cho) Non-signer Avg	SD	Avg z	SD	(Ro) Signer Avg	SD	Avg z	SD
1	.0507	3.00	1.13	0.45	0.88	4.05	0.89	1.01	0.66
2	.2105	1.93	0.80	-0.37	0.63	2.45	0.83	-0.11	0.56
3	.0657	1.07	0.26	-0.97	0.15	1.65	0.88	-0.72	0.55
4	.9727	3.20	0.94	0.61	0.69	3.55	0.76	0.62	0.45
5	.6694	1.20	0.56	-0.84	0.43	1.35	0.75	-0.77	0.62
6	.4479	1.60	0.91	-0.57	0.59	1.50	0.61	-0.71	0.40
7	.0124	3.87	0.99	1.11	0.63	3.30	1.34	0.49	0.75
8	.3140	3.47	0.99	0.80	0.57	3.45	1.23	0.59	0.65
9	.0068	2.87	0.83	0.35	0.48	3.90	0.97	0.85	0.54
10	.5776	1.20	0.68	-0.86	0.43	1.25	0.44	-0.94	0.34
11	.0029	2.40	0.74	0.05	0.48	3.45	1.19	0.66	0.64
12	.1659	3.53	0.99	0.87	0.69	4.35	0.81	1.16	0.46
13	.1179	1.27	0.70	-0.81	0.43	1.10	0.31	-1.01	0.25
14	.6279	1.00	0.00	-1.03	0.19	1.05	0.39	-1.07	0.26
15	.4096	4.40	0.74	1.56	0.56	4.60	0.60	1.42	0.43
16	.0592	3.07	1.03	0.54	0.65	2.90	0.85	0.13	0.59
17	.0382	2.33	0.90	-0.01	0.58	1.90	1.07	-0.46	0.66
18	.1184	3.73	0.70	1.06	0.50	3.85	0.88	0.79	0.49
19	.4808	1.13	0.52	-0.92	0.31	1.30	0.73	-0.83	0.43
20	.4052	1.00	0.00	-1.03	0.19	1.00	0.32	-1.09	0.27

[29] *See Appendix A4 for Histograms, Boxplots and Quantile plots of phrase ratings. All statistical calculations and plots were produced using the software R. 'Cho' represents the non-signers and 'Ro' represents the signers.*

Averages and standard deviations (SD) for the raw ratings (Non-signer Avg/Signer Avg columns) and standardized ratings (Avg z columns) both appear. [30] The more a standardized average (Avg Z) is above zero, the more the consultants feel that the given phrase is a "more careful" or polite expression than the average expression. The more a standardized average is below zero, the more consultants feel that the given phrase is "less inhibited" or lower in politeness than the average expression. The "p-diff" column contains two-tailed t-test p-scores that measure the difference between the signer and non-signer standardized rating averages.[31] For example, phrase one has a p-diff of .0507, so the ratings given by the non-signers and the signers represent two distinct sets of responses with a statistically significant ratings contrast.[32] Comparing signers and non-signers, seven of the twenty ratings averages have a $p<.10$ indicating that for about a little over a third of the phrase rating averages the differences between signer and non-signer responses are significant statistically. [33] Ten of the averages have large p-scores of $p>.20$, showing great overlap between the response sets of both the signers and non-signers.

Phrase rankings indexed with politeness feature descriptions were then arranged by rank from highest to lowest standardized averages for the signer and non-signer groups to produce the Feature Chart (4.5) on the following page.

4.2.2.2 The Feature Chart

The Feature Chart (4.5) lists the phrases in ranked order indexed with sign features from the Pen Study. The creation of the chart was covered in §4.2.2 above. Each row represents a single pen request phrase based on the ELAN transcript. For example, the schematization of the politeness features of phrase 12 in the chart represents the following pen request:

PLEASE[head nod] beckons PEN BORROW DO.YOU.MIND[head hold]
O[N] K[N]
Excuse me, do you mind if I borrow your/that pen?

---

[30] *The standardized averages (Avg z) are based on z-scores: A consultant z-score=(Individual rating–Avg of consultant ratings)/sd of consultant ratings. The standardized scores tend to lower the sd among consultants' ratings as differences in subjective weights are minimized.*

[31] *Histograms and Q-Q plots were checked for suitability for use of normal curve tests. Most histograms had some skew; however, most plots had Q-Q correlations of >.90. Those with Q-Q cor <.90 were: non-signer (cho) 13 (.78), 6 (.88), 5 (.82) and signer (ro) 14 (.89), 20 (.81), and 5 (.88).*

[32] *Comparison of the boxplots in Appendix A4 allows intuitive impressions of how different the ratings averages are for the two groups—the less overlap between ranges, the less similarity the samples have. With a p=.05 if the distribution for the signer and non-signer responses were actually the same, only about one in twenty times would one expect other samples to produce an average rating for phrase one that is the same for both signer and non-signer respondents.*

[33] *A relatively high p is used in order to minimize Type II errors since this is an initial study of JSL politeness.*

4.5 The Feature Chart: Phrases in ranked order indexed with Features

NON-SIGNERS											SIGNERS								
Econ	**E**	**KN**	**ON**	**#N**	**N#**	**T**	**S**	**H**	**Phrase #**	***Rk***	**Phrase #**	**H**	**S**	**T**	**N#**	**#N**	**ON**	**KN**	**E**	**Econ**
	Eg		O	#N	N#| 55	C	F	15 (1.56) .05	*1*	15 (1.42) .05	F	C	55	N#	#N	O		Eg	
		K	O	#N	N#	38	C	F	7 (1.11) .38	*2*	12 (1.16) .23	F	C	64	N#	#N	O	K		○
○	E		O	#N	N#	52	C	F	18 (1.06) .25	*3*	1 (1.01) .24	F	C	63	N#		O	K	E	○
○		K	O	#N	N#	64	C	F	12 (0.87) .36	*4*	9 (0.85) .37	F	C	40	N#		O	K		
○			O	#N	N#	48	C	F	8 (0.80) .21	*5*	18 (0.79) .19	F	C	52	N#	#N	O		E	○
○		K	O	#N	N#	43	C	F	4 (0.61) .41	*6*	11 (0.66) .43	F	C	50	N#			K		○
			O	#N	N#	43	C	F	16 (0.54) .38	*7*	4 (0.62) .43	F	C	43	N#	#N	O	K		○
○	E	K	O		N#	63	C	F	1 (0.45) .37	*8*	8 (0.59) .32	F	C	48	N#	#N	O			○
		K	O		N#	40	C	F	9 (0.35) .06	*9*	7 (0.49) .07	F	C	38	N#	#N	O	K		
○		K			N#	50	C	F	11 (0.05) .37	*10*	16 (0.13) .09	F	C	43	N#	#N	O			
○			O		N#	40	P	F	17 (-0.01) .08	*11*	2 (-0.11) .04	F	C	30			O	K		
		K	O			30	C	F	2 (-0.37) .21	*12*	17 (-0.46) .09	F	P	40	N#		O			○
						30	P		6 (-0.57) .08	*13*	6 (-0.71) .47		P	30						
						38	P	U	13 (-0.81) .39	*14*	**3** (-0.72) .41		P	23						
						26	P		5 (-0.84) .43	*15*	5 (-0.77) .32		P	26						
○						24	P	U	10 (-0.86) .30	*16*	19 (-0.83) .23		P	40						
						40	P		19 (-0.92) .30	*17*	10 (-0.94) .24	U	P	24						○
						23	P		3 (-0.97) .17	*18*	13 (-1.01) .27	U	P	38						
Ø						28	P		14 (-1.03)	*19*	14 (-1.07) .35		P	28						Ø
Ø						40	P		20 (-1.03)	*20*	20 (-1.09)		P	40						Ø

15 (1.56) .05=Phrase# (AVG) p-score
T=word rate in 100ths of sec
N=head movement
O=*ONEGAI* 'please'
Ø = "pen" + non-standard sign

H= head pos F=chin forward/U=chin up
N#=N co-occurs w/ final sign in utterance
K=*KAMAIMASEN* 'Do you mind…'
Salient features in gray

S=sign space C= centered/P=peripheral
#N=N co-occurs w/ 1st sign
E=Facial NMS Econ=Economy
Eg=Grimace Frown Facial NMS

The sign for "please" (O) co-occurs with a head nod (N) and the phrase final sign for "do you mind" (K) co-occurs with a head hold (N). These features, O, K, #N and N#, appear in four columns representing phrase 12 in the Feature Chart (4.5). F indicates that the signer has his head in a chin-forward position, and C means that he centers his signing rather than pushing signs out to the periphery of the signing space. As further illustration, three pen request phrases appear in detail with pictures after the Feature Chart.

4.2.2.3 Three Pen Request Phrases[34]

Illustrations from the pen request videos appear in this section. Each phrase below corresponds to a row in the Feature Chart (4.5) above.

The schematization of the politeness features of phrase 12 in 4.6 below represents a pen request that both signers and non-signers ranked high in terms of polite register.

4.6 Phrase 12 with features [F C 64 N# #N O K] (non 0.87/signers 1.16 p>.10)

PLEASE (O) [head nod] (N)	beckons	PEN	BORROW	DO.YOU.MIND (K) [head hold] (N)

Excuse me, do you mind if I borrow your/that pen?

The sign for PLEASE (O) co-occurs with a head nod (#N), and the phrase final sign DO.YOU.MIND (K) co-occurs with a head hold (N#).[35] These features appear in four columns representing phrase 12 in the Feature Chart (3)—the columns (O), (K), (N#), and (#N). The symbol (F) indicates that the signer has his head in a chin-forward position (Ichida 2005b), and (C) means that he centers his signing within the boundary formed by his chest rather than pushing signs out to the periphery of the signing space. The number (T=64) represents the signing rate (T) measured as the amount of time to initiate and form a manual sign in hundredths of a second. In this expression, the signer averages about one and a half signs a second, a relatively slow rate.

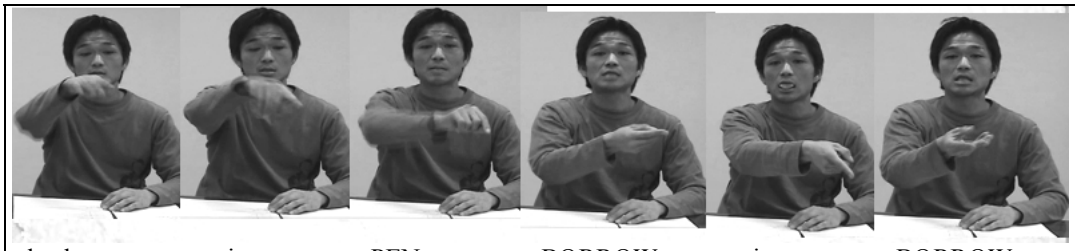
The second example shows stills from phrase 5, an expression rated low in terms

[34] *The feature economy (Econ) will not be covered until §4.2.3.7.*

[35] *(N) marks both head nods and head holds as described by Ichida (2005b) discussed in §3.2.2.2. The sign PLEASE (O) typically occurs with a head nod and the sign DO.YOU.MIND (K) typically collocates with a head hold.*

of polite register by both non-signers and signers.

4.7 Phrase 5 with features [P 26] (non -.84/signers -.77 p>.10)



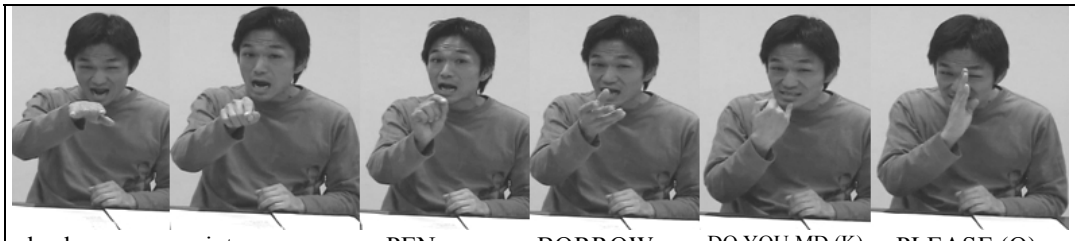
beckons points PEN BORROW points BORROW+rep

Hey. Gimmie that pen.

Phrase 5 has far less politeness feature marking than phrase 12 above. The signer maintains a neutral chin position and does not use any lexical polite forms such as PLEASE (O) or DO.YOU.MIND (K). The used signing space is wider as his arm fully extends into the space in front of him and beyond shoulders' width. He signs about four signs a second (T=26), a much faster rate than in the previous expression. The final sign BORROW gets repeated a number of times.

Phrase 1 receives contrastive rating averages with the signers rating the phrase high and non-signers rating it somewhat low.

4.8 Phrase 1 with features [F C 63 N# O K E] (non 0.45/signers 1.01 p<.10)



beckons points PEN BORROW DO.YOU.MD (K) [head hold] (N) PLEASE (O) [hh] (N)

Excuse me. Do you mind if I borrow your/that pen?

Phrase 1 contains many of the same politeness markers as phrase 12. The signer puts his head in a forward position (F) and keeps the signing centralized (C). The rate of signing is the same as in phrase 12 at about one and a half words a second (T=63). This phrase includes the lexical signs PLEASE (O) and DO.YOU.MIND (K) and both co-occur with a head hold (N). The final word 'please' (O) involves a lower positioning of the head and occurs with a head hold representing a phrase ending final

nod (N#). The signer's face also evidences a polite grimace (E).[36]

4.2.2.4 How to Read the Feature Chart

Ranking the phrases serves as a way to observe what manual and nonmanual sign elements percolate to the top in order to identify features relevant to marking politeness. The clustering of features in the chart and the largest gaps in rankings between consecutively ranked features provides a way to gauge the relative salience of a given feature. This section details how to interpret the presentation of the data in the chart.

The center column displays the rank numbers. The central columns to the left and right of the rank numbers order the pen request phrases based on the average ratings given by the study consultants; each phrase number has the average rating in parentheses to the right. For instance, phrases 15, 12 and 1 received the highest average signer ratings, 1.42, 1.16 and 1.01, while phrases 15, 7, and 18 had the highest average non-signer ratings, 1.56, 1.11 and 1.06. As previously mentioned, the outer columns mark features associated with the pen phrase tokens. For the signers and non-signers alike, the top 12 tokens incorporate a forward chin position, while the final 8 tokens do not. Via the signer O_N column, it can be observed that the top 14 ranked signer tokens, with the exception of the 6th ranked phrase 11, all contain the sign translated as *onegai* 'please' (O) accompanied with a head nod or hold.

The underlined numbers label pairs of rankings with p-scores from one-tailed matched pairs t-tests so allow comparison between the differences of consecutive rankings. For example, the non-signers' 11th ranked phrase 17 has a p-score of .08 next to it. The p-score indicates that for the t-test with the alternative hypothesis, "the average rank of phrase 17 is greater than the average rank of phrase 2" that $p<.10$, therefore the rank ordering between the two phrases has statistical significance. The largest gaps between average ranks are divided with either a single line for $p<.10$ or a multiple line for $p<.05$.

The *clustered* or consecutively ranked features and largest *ranking gaps* serve as the primary points of interest for this study since they represent the most robust patterns and statistically salient politeness rank orderings. For example, consider the (N#) column for the non-signer group. The top ranked 11 phrases contain a final nod (N#), and no phrases ranked lower contain a final nod (N#). One could write a rule such as, "Any phrase with a final nod (N#) outranks any phrase without a final nod (N#) for non-signers." In short, a final nod (N#) serves as a salient politeness marking feature for non-signers.

The *ranking gap* adds additional support to the claim that (N#) marks a recognized non-signer politeness feature. The 11th ranked phrase 17 has a p-value of

[36] *E in the chart represents the polite grimace. Phrase 15 has a polite grimace frown represented with (Eg).*

.08 next to it; also, a single line separates the two phrases in the chart. These indicators mean that the matched pair t-test value for the 11th ranked phrase 17 and the 12th ranked phrase 2 is $p<.10$ and represents a statistically significant difference between the ranking averages of phrases 17 and 2; as a result, the rank ordering of phrases 17 and 2 phrases two will likely maintain the same ordering in repeated population sampling. A fixed ordering between phrases 17 and 2 establishes a statistically significant *ranking gap* boundary between all non-signer phrases with and without a phrase final nod (N#).

The combination of the *ranking cluster* and the *ranking gap* means that one should call attention to the feature (N#) for non-signers. In the same way the forward chin position (F) for signers consists of a single ranking cluster with a statistically significant ranking gap boundary, so (F) will serve as a salient politeness marking feature for signers.

Observing the chart, in most cases there are not always complete clusters or ranking gaps at clearly meaningful positions, as a result, the interpretation of the chart requires more extensive discussion. §4.2.3 below will discuss each politeness feature in detail based on readings of the Feature Chart. Ultimately the identification of politeness features will require an analysis of the interactions among features since considering them individually will only provide a partial understanding of the relative salience of each feature. The identified features subsequently appear in holistic analyses—a formal quantitative analysis via multiple regression in §4.2.4 and a relatively more qualitative analysis using a Harmonic Grammar (Legendre, Miyata & Smolensky 1990a, 1990b, 1990c) in §4.2.5.

4.2.3 The 11 Politeness Features and Salience to Signer and Non-signer Groups

This section covers each politeness feature independently in order to explain the rationale behind the feature selections and compares the salience of each feature for signer and non-signer groups. This introduction summarizes the conclusions of the detailed discussion of each feature that follows. Each section starting from §4.2.3.1 will begin with a subsection (*Identification)* that covers the basis of selection of a given feature, followed by a second subsection (*Signer and Non-signer)* comparing the results between signers and non-signers in regards to attention to features for politeness marking.

Introduction to the Identification of Features Marking Polite Register

One goal of this study is to see what types of language cues mark register for JSL users. The 11 relevant features for evaluation of the pen phrase response data appear in the Feature Chart (4.5) along with schematics of the phrases, and in the *Cluster Chart* (4.9) below: chin position (H)—forward (F) and up (U); use of signing space

(S)— central (C) and peripheral (P);[37] word rate (T); head movement (N)—phrase final (N#) and phrase initial (#N); two lexical forms (O, K); facial NMS (E); and Economy (Econ). A satisfactory account of JSL register in the Pen Study requires explanations for the *ranking clusters* and the large *ranking gaps* based on the feature cues in the pen phrases.

The Feature Chart (4.5) provides a representation of all the phrases in ranked order to see if particular features pattern with respect to polite register in a meaningful way.[38] The features were selected based on relevance to marking polite register. As discussed at the top of §4.2.2, Initially all the phrases were transcribed, especially with attention to features mentioned in the literature as discussed in §3.2. Identification of features in the transcript, appearance of possible politeness cues in the literature, and the distribution of features in relation to the rankings of the pen phrases in the complete ELAN transcripts, pictured in Appendix A8, determined what features would appear in the chart.[39] Features that accumulate at the top half of the Feature Chart generally were deemed to be cues that positively affected politeness in contrast to features that appeared primarily in the lower half of the chart or did not cluster. Time was the only feature treated as gradient for this study; other features did not have enough consistently measured data points needed for treatment as gradient.[40]

Chart 4.9 below displays in shorthand all of the feature distributions and their salience to signers and non-signers based on ranking clusters and ranking gaps.

4.9 Cluster chart—List of all features and salience to signers and non-signers

Feature	H(F)	H(U)	S	T	N#	#N	O	K	E	Econ	Ø
Section #	*4.2.3.1*	*4.2.3.1*	*4.2.3.2*	*4.2.3.3*	*4.2.3.4*	*4.2.3.4*	*4.2.3.5*	*4.2.3.5*	*4.2.3.6*	*4.2.3.7*	*4.2.3.8*
Signers	●	◎	●	⊙	◎	○	◎	○	○	○	◎
Non-signers	◎		◎	⊙	●	◎	◎		○		◎

● ranking cluster & p<.10 ranking gap[41] ◎ ranking cluster w/ 1 or 0 breaks
○ ranking "cluster" w/ more than 1 break ⊙ gradient feature

[37] *Use of signing space (S) is a binary feature, on or off, so only represents one feature.*
[38] *See the Appendix A8 for the complete* ELAN *transcripts of all twenty tokens.*
[39] *Examples of elements not included: lexical items that do not contribute to enhancing the polite register as defined by their typical semantics as described by works such as (Yonekawa 1997); apparent borderline distinctions such as the difference between the head nod types discussed by Ichida (2005b); marked facial expressions that are not discussed in the literature; and independent position of the eyebrows.*
[40] *For instance use of signing space (S) and facial expression (E) potentially act as gradient features, but the experimental design does not allow for the precise measurements needed to consistently treat them as gradient features for all tokens in the same way as time (T). The gradient nature of (E) is only reflected in the label 'Eg' for the 'polite grimace frown' as described by Hoza (2007). In addition, O_N includes weak head movements in phrases 6 and 3 which are gradient but did not pattern in a way to form supportable conclusions; the weak head movements are not included in this study.*
[41] *See explanation of ranking gaps and ranking clusters in §4.2.2.4.*

The following subsection introduces this chart to sum up the comparison of the signer and non-signer responses to the politeness marking features.

Cluster Chart Comparison of Signer and Non-Signer Responses to Feature Cues

The Cluster Chart (4.9) captures all of the generalizations from the Feature Chart necessary to compare signer and non-signer responses to the politeness marking cues. While 8 of the 11 features appear salient for both groups, the degree of attention given to each feature differs for each group.

The patterning of the symbols from the most salient feature to the least salient feature is represented by: ●>◎>○>*blank*. For instance, the distribution of the use of signing space (S) represented in the Cluster Chart (4.9) shows that both groups responded to this cue, but signers had a stronger response than non-signers. The black circle (●) for signers marks the presence of a ranking cluster bounded by a statistically relevant ranking gap of $p<.05$ for centralized (C) signing. In short, no phrase without (-C) outranks the phrase with the feature (+C) for signers, and with continued samplings the outcome would not likely change. As for non-signers, the ranking cluster has a single break, represented by the double-circle (◎), and a statistically significant ranking gap boundary is not clearly established. Features clustering with one or no break (◎) are considered more salient than features that cluster with two or more breaks (○).[42] Features absent a symbol are deemed lacking supporting evidence for consideration as a salient feature and receive detailed treatment in the sections below.

The Cluster Chart (4.9) shows that signers and non-signers responded similarly to four features: time (T), the use of 'please' (O), facial expression (E) and the use of a non-standard request sign (Ø). Average word length time (T) had some correlation with the phrase rankings with 56~64% of the variance accounted for in a linear model account for signers and non-signers. The sign for 'please' (O) has relevance for signers since it serves as a canonical polite lexeme; for non-signers the sign resembles a common emblem in Japan, the hand-prow. For both groups, the highest ranked single phrase and lowest ranked pair of expressions were the same. Both groups responded to the highly marked *polite grimace frown* (Eg) in phrase 15. The expression may signal awareness on the part of the requester that he produces an imposition via his request. The lowest ranked phrases 14 and 20 both contained non-standard request signs (Ø) that signers and non-signers may have identified as casual request gestures.

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[42] *Features that cluster with no breaks would be considered more salient than features with one break; however, the analysis is not overly affected by this contrast, so one break versus no break is not distinguished until the creation of the Harmonic Grammar in §4.2.5, which shows cross-feature comparisons between phrases, and signers & non-signers. c.f. chart (4.15).*

The Cluster Chart (4.9) exhibits three features affecting signer but not non-signer rankings: the chin-up position (U); the sign for 'do you mind…' (K); and economy (Econ). All of these features require familiarity with JSL or the JSL lexicon to read. As a result, non-signers ignored these features and focused their attention on other types of cues in the pen request expressions.

The Cluster Chart (4.9) displays four features salient for both non-signers and signers, but to different degrees: the chin-forward position (F); use of signing space (S); phrase final head movement (N#); and phrase initial head movement (#N). The chin-forward (F) and use of signing space (S) had more salience for the signers than the non-signers. This chin position (H) and the centralization (H) of signing tend to correlate with the use of head movement (N) and signing rate (T), so it may be the conflation of all the features that influence the non-signers. Signers' recognition of these as language cues may lead them to call more attention to these features than non-signers. Head movements at the ends of phrases (N#, #N) have a greater influence on non-signer than signer ratings. Non-signers may happen to attend to these cues since they are readily discernable and bear some resemblance to the emblematic Japanese bow.

A detailed discussion of the signer and non-signer data along feature lines and based on the ranking clusters and ranking gaps follows.

4.2.3.1 Chin Position H (F,U)

Identification of H

The feature chin position (H) refers to the chin-forward (F), and chin-up (U) positions as covered by Ichida (2005b) and Okabe et al. (2005), as detailed in §3.2.2.2. In the Feature Chart the features of chin-forward (F) and chin-down (U) cluster. (F) clusters at the top for signers and non-signers while the pair of expressions containing (U) cluster together low in the signer portion of the Feature Chart.

Two head positions (H) as described by Ichida (2005b) are represented by (F) and (U).[43] (F) labels the *chin-forward* position (A1.1).[44] The chin is slightly jutted out pulling the head into a forward, slightly lowered position with eyes faced ahead; forward shoulder lean sometimes accompanies this position. The forward position remains held throughout most of an utterance but may increase or decrease in degree. (U) indexes the *chin-up* position (A1.2) in which the chin is up pulling the head up and back slightly. This position is usually more pronounced at the beginning of phrase. Otherwise unmarked head positions are neutral.

The forward head position (F) appears to serve as a politeness marker for both signers and non-signers as phrases with this feature rate at the top of scale of

[43] *Ichida 2005b discussed in§3.2.2.2.*
[44] *All signs referenced appear in section A1 of the Appendix.*

politeness ranking. Ichida (2005b) predicts a chin-down position to mark a polite expression; however, he does not account for the forward head position to act as politeness marking. Since the head forward position also involves lowering of the head, there may be some association with humility for this position. Ichida (2005b) associates the chin-up position (U) with commands, so an association between a less polite expression and a phrase including (U) as noted for the signers in the lower part of the chart is consistent with Ichida's description.

Signer and Non-signer H (F,U)

Signers key in on the chin position distinction more than the non-signers. For the signers, the phrases with the forward chin (F) form an unbroken ranking cluster bounded by a statistically significant ranking gap. Pen requests absent of the chin-forward position rank with lower than average scores, all below zero, so the forward lean serves as a necessary, although not sufficient condition, for an expression to receive a high politeness rating. The chin-up (U) position appears to significantly lower the politeness rating of an expression as judged by signers. Since the chin-up position has an association with commands in JSL (Ichida 2005b), it is reasonable to consider that the chin-up position meaningfully influences the perception consultants have about the given expressions. Relative to non-signers the chin position has a more marked effect on the signers' evaluation of the pen expressions.

Non-signers appear to respond to phrases with the chin-forward (F) cue as they rank all such expressions above those without, and all expressions without chin-forward (F) have average negative scores; however their cluster lacks a statistically significant ranking gap, so this feature is considered more salient for the signers. Non-signers did not show a strong response to the expressions incorporating chin-up (U) as their rankings do not cluster or end up near the bottom of the chart.

Notably, every occurrence of a chin-forward position (F) for both groups also includes some type of head nod (N). For both groups the influence of the chin-forward position (F) cannot readily be disambiguated from the influence of the head movement (N).

The forward chin feature (F) leads to higher register ratings by both signer and non-signers while chin-up (U) tends to lower the register ratings by signers. The forward chin position likely influences the signer ratings and probably the non-signer ratings. The chin-up (U) position apparently influences signer ratings, but there exists a lack of sufficient evidence to conclude that the chin-up position influences the non-signers. Chart (4.9) above reflects these conclusions with the signer's exceptionless cluster and large ranking gap that provides evidence for the stronger salience of the (F) feature for the signers relative to the non-signers.

4.2.3.2 Signing Space (S)

Identification of S

Zimmer (1989) posits that the use of a larger signing space in ASL would correlate with a more formal register but as mentioned in §3.2.2.3, Ross and Berkowitz (2008) did not find evidence for this association. Okabe et al. (2005) found that a smaller signing space in JSL corresponded with more polite expression. This study examines signing space size to see if it correlates with polite register.

Phrases with signing centralized in the signing space form a ranking cluster at the top of the Feature Chart (4.5) for both signers and non-signers indicating that use of signing space may serve as a salient politeness marking feature for both groups.

The gesture space system from McNeill (1992, 378) forms the basis for the signing space terminology for this study. The meaning of peripheral space for the purposes of this study includes signs that require the signer to extend his arm and produce signs beyond the typical forward signing space. (C) refers to expressions that the signer maintains in the center of the signing space (A1.8a-c) while (P) refers to phrases that extend into peripheral space (A1.9a-c). (C) also includes refers to phrases that generally remain centered in one part of the signing space, but which has some signs that move into peripheral space.

Considering signing space along with word length time gives a better impression of the level of assimilation of signs in a given phrase since signs produced in a centered space do not require as much time to produce as signs extending to the periphery; for instance, phrases 9 and 17 both have a T of 40, but since phrase 19 is centered and phrase 17 is produced at the periphery, phrase 17 will contain signs with more sudden stops, faster movements and more assimilation since the hands have to travel a further distance. The possible association of increased assimilation with use of a larger signing space adds further support for signing space acting as a relevant feature, as increased assimilation has an association with more casual signing in the work of Liddell and Johnson (1989[1985]) and Cokely and Baker-Shenk (1980) discussed in the previous chapter under §3.2.2.3.

Signer and Non-signer S

The use of signing space influences the ratings of the signers and, to a lesser degree, the non-signers. Phrases with signs centered in a signing space near the chest of the signer as opposed to in the periphery had higher politeness ratings for both signers and non-signers. Without exception signers rated phrases signed primarily in the periphery lower than phrases in more centered signing space. The signing space ranking cluster for the signers has a ranking gap of $p<.10$ so lends further support for

the salience of this feature for signers. Non-signers' centralized phrases form a large ranking cluster with a single break.

4.2.3.3 Word Rate (T)[45]

Identification of T

As discussed in §3.2.2.3 a number of researchers (Liddell and Johnson (1989[1985]), Cokely and Baker-Shenk (1980), Zimmer (1989), Ross and Berkowitz (2008)) note that signing in casual register has an association with more assimilation and faster signing in contrast to more formal signing with less assimilation and more careful signing. A linear regression analysis of the average signing time for each word against phrase ratings was made to see what the effect of rate of signing, thus assimilation, [46] would have on respondents rating of the pen request phrases.

Signer and Non-signer T

Word rate significantly correlates with phrase rankings for both signers and non-singers. A linear regression shows that word rate accounts for 63% of the ratings variance for signers and 56% of the ratings variance for the non-signers.

In the Feature Chart (4.5) the T column charts the average length of time in hundredths of seconds to sign each word in the given request phrase. Phrase time length was measured from the start of movement into the first sign until the end of the movement of the last sign. Holds, as described by Liddell and Johnson (1989[1985]), of more than 0.5 seconds were subtracted from each phrase time length. Finally, the total phrase time was divided by the number of manual signs in the phrase to determine an average word rate. The plots of the average manual sign rate against phrase ratings shows that the average ratings of signers and non-signers have a statistically significant correlation with the average length of time that a word is expressed in a phrase, with faster signed words correlating with lower ratings. [47] Signers had an r^2 of 0.635 ($p<.001$), and non-signers 0.5557 ($p<.001$), accounting for about 64% and 56% respectively of the variance in a linear model account independent of other variables.

Looking at the general trend of word speed shows that the phrases with the slowest signing rates, such as 15, 12 and 1, rank near the top of the Feature Chart while expressions with the faster signing rates, such as 14 and 10, rank near the

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[45] *Graphs of the relationship between average rankings and word duration along with residual data can be found in section A.5 of the Appendix.*

[46] *With the assumption that words signed faster assimilate more than words signed slowly.*

[47] *Graphs of the relationship between average rankings and word duration along with residual data can be found in section A.5 of the Appendix.*

bottom. Word rate potentially could account for more variance than shown by the values in column (T) as the use of signing space is not accounted for by the word rate analysis. Although some phrases have the same word rates, they still may reflect different rates since signs produced at the periphery may appear faster since they travel a further distance than centralized signs.

4.2.3.4 Head Movement (N)

All head movements are co-located with signs; however this section looks at the head movements independent of signs and head movement types to discuss generalizations about the data in this category.

Identification of N

(N) refers to two types of head movements as described by Ichida (2005b), *head nod* (*hn*) and *head hold* (*hh*), both described in §3.2.2.2. The head movement feature (N) is included in the Feature Chart (4.5) since some form of head movement appears in all of the most highly ranked phrases in the comparison of all the ELAN transcripts (Appendix A8) of both the signer and non-signer groups. The two types of movements are not distinguished since they do not form any readily discernable patterns independently.

Head nod (A1.3, a-b) refers to the lowering and immediate raising of the head; this movement always pairs with a manual sign. The head nod primarily accompanies the sign for *ONEGAI* 'please' (O) but also accompanies the signs for *SUMIMASEN* 'excuse me' and 'ok.' Head hold (A1.4a-b) labels a head movement (N) in which the chin is jutted out and then held or frozen in position before release and return to the prior head position. The head hold co-occurs with manual signs, primarily *KAMAIMASEN* 'Do you mind…?' (K) and 'please' (O).

(N#) labels a head movement appearing with a manual sign at the end of a pen request, and (#N) marks a head movement with a sign at the beginning of a request. Although not specifically noted in the literature, these features appear in the most highly rated phrases for both groups and cluster at the top of the Feature Chart (4.5).

Signer and Non-signer N

Both groups attend to head movement (N) but it seems to act as a more salient cue for non-signers than signers as determined by the ranking clusters and gaps. Phrase final head movement (N#) shows special relevance for non-signers.

The non-signers responses show the greatest influence from head movement (N), the head nod and head hold movements, in their phrase ratings. Feature chart (4.5) shows that for phrases with a head movements, those with a nod or hold at the

beginning and end of a phrase (#N, N#) rank the highest, followed by phrases with a head movement at the end (N#), then those with head movements anywhere else in the phrase (O+N, K+N).

The ranking gap following the (N#) cluster lends further support to the salience of phrase final (N#) for non-signers. The Feature Chart (4.5) shows a statistically significant ranking gap of $p<.10$, previously discussed in §4.2.2.4, between 11th ranked phrase 17 (+N#) and 12th ranked phrase 2 (-N#) for the non-signers. The ranking cluster of phrase final nods (N#) sits at the boundary of the ranking gap between the cluster and all phrases not including the feature (N#). Since there is not a large ranking gap following the phrase initial (#N) cluster, it appears that the phrase final (N#) cue is more salient for the non-signers than (#N). Chart 4.9 reflects these conclusions.

Head movement (N) serves as a very salient cue for non-signers perhaps due to the fact that the movement (A1.3a-b) has a resemblance to the bowing emblem in Japanese. Contrasts between the bowing gesture and these JSL head movements include direction of gaze and degree of forward lean. In the JSL movement signers maintain eye contact, while in the bowing gesture interlocutors often break eye contact, and the average bowing gesture involves more shoulder forward lean than the JSL head movement. Despite these contrasts, when looking for a cue to use to judge the level of carefulness or formality of an expression the non-signers appear to give attention to head movement, especially at the edges of the pen phrases.

Signers' ratings cluster the phrases with head movements (N) at the top of the Feature Chart (4.5), so evidence the influence of head movement on non-signer evaluations of politeness. Unlike the non-signers, phrase initial head movement (#N) rankings do not completely cluster together and provides evidence that in some contexts signers favor other cues over phrase initial head movement in their judgment of politeness.

For signers, phrase final head movement (N#) clusters but contains a break, phrase 17 (+N#) outranked by phrase 2 (-N#), that requires a separate account. Without accounting for the break Feature Chart 4.5 does not readily disambiguate what type of gap boundary the phrase final (N#) cluster may have.

4.2.3.5 Lexical Markers (O, K) + Head Movement (N)

The lexical markers of register overlap with the head movements, so they are more readily evaluated as lexical and head movement pairs; since all appearances of (O) and (K) accompany a head movement, (N) also appears in the header along with the (O) or (K) in the Feature Chart (4.5). The previous section evaluated the impact of head movement independent of its co-located sign, while this section covers observations based on the ranking distribution of the phrases containing the lexical signs (O) and (K).

Identification of O +N and K +N

The manual signs *ONEGAISHIMASU* 'please' (O) (A1.3a) and *KAMAIMASEN* 'do you mind…' (K) (A1.4b) are standard lexemes in JSL found in dictionaries such as Yonekawa (1997). Phrases with these signs cluster in the top half of the signer ratings in the Feature Chart (4.5) and belong to the lexicon of JSL, so they are included in the Feature Chart.

Ichida (2005b) describes two types of head movements *head nod* (*hn*) and *head hold* (*hh*), discussed in §3.2.2.2. The different sign and head movement combinations were examined for relevant influence on the phrase rankings. Typically the sign *onegai* "please" (O) accompanies a head nod and *kamaimasen* "Do you mind…" (K) co-occurs with a head hold; however, consideration of the type of nod in the distribution of the phrase rankings did not yield any discernable patterns, so this section will class both head movements together as (N).

Signer and Non-Signer O+N and K+N

The examination of the polite sign 'please' (O) shows influence on the rankings of singers and non-signers. Non-signers' phrase rankings produce an (O) ranking cluster that potentially supports the claim that non-signers key in on (O), either motivated by its resemblance to a common Japanese gesture, the hand prow, or due to the accompanying head movement (N). Signers' recognize the sign as reflected in the ranking cluster of phrases with (O) at the top of the ratings chart. Signers tend to rate expressions containing 'do you mind…' (K) higher than those without; however, there are a number of gaps in the (K) cluster that need a further account.

The signers' 'please' (O) appears in a large ranking cluster from the highest ranked phrase to the 14th ranked phrase with the exception of a break at the 6th ranked phrase 11. The presence of (K) in phrase 11 may account for the break.

The signer 'do you mind…' (K) ranking cluster sits near the top of the ranking list but has a number of breaks. The following discussion in the next section on the combination of particular facial expressions (E) with (K) may account for the first two breaks of phrases 15 and 18; the final breaks at phrases 18 and 16 do not as readily have an account. Signers use "do you mind…" (K) as a sign to mark polite expression in JSL, so focusing on the exceptions where expressions with (K) do not rank as high as expected is justified. Understanding the use of this sign requires an examination of the complementary distribution of some of the features, discussed in §4.2.5.

For non-signers, the presence of 'please' (O) in a phrase seems to positively affect their rating of the phrase as polite. The use of the sign 'please' along with a head movement has influence as evidenced by the clustering of 'please' (O) for their top ranked phrases. The sign for 'please' (O) resembles a recognized emblem used in

Japan to excuse oneself when passing through a throng or otherwise inconveniencing nearby individuals when passing by, as discussed in §2.4.2, so the sign potentially carries this meaning association for the non-signers.

The phrases with the expression 'do you mind…' (K) do not cluster among the top ranked phrases for the non-signers as much as they do for the signers. It appears, that the head movement accompanying (K) may have more influence on non-signer judgments than the manual sign itself. There is no particular reason to justify considering (K) a salient feature for the non-signer judgments.

4.2.3.6 Facial Expression (E)

Identification of E

Facial expression (E) refers to one of two polite register markers described by Hoza (2007) and Roush (2007 [1999]), the *polite grimace frown* (Eg) and the *polite grimace* (E), as discussed in §3.2.2.1. In phrase 15 the signer makes a large grimace by narrowing his eyes, tensing his facial features, and downturning the corners of his mouth (A1.5); in tokens 1 and 18 he makes lesser versions of the grimace (A1.4a). Both signer and non-signer groups ranked the phrase with the polite grimace frown as most polite along with a statistically significant ranking gap, and phrases with the polite grimace ranked relatively high for signers.

Signer and Non-signer E

In phrase 15, the top ranked token for both groups, the signer makes the polite grimace frown (Hoza 2007) throughout the sign (A1.5) and his expression has a strong positive effect on the politeness rating. Both groups have a ranking gap of p=.05 between this token and their second ranked tokens, showing a relatively significant difference in the ratings averages between the top ranked token and the others. The facial expression is the primary feature contrast between token 15 and the second ranked tokens of signers and non-signers.

The impact of the polite grimace for signers and non-signers is not so clear since the facial expression feature does not form a ranking cluster. Only through comparison with the distribution of other features can the relative salience of facial expression (E) be determined.

For the signer group the (K) ranking cluster breaks described in §4.2.3.5 may be accounted for by facial expression. Phrase 15 without (K) has the polite grimace frown, and phrase 18 has the polite grimace, so the facial expressions may affect those expressions in lieu of the inclusion of the manual sign 'do you mind…' (K).

4.2.3.7 Economy (Econ)

Identification of Economy

Okabe et al. (2005) notes that the younger signers used a number of discourse strategies that demonstrated a high degree of accommodation to older signers, as discussed in §3.2.3.

This section examines how a signer's lack of extraneous expression may reflect conversational reserve. *Economy* will designate the use of the minimal language necessary to form a request. The minimal structure to make a well-formed request for a pen would consist of: signaling the attention of the interlocutor (beckon); a deictic gesture (pointing) to indicate the specific referent; the referent (PEN); and the request predicate (BORROW). An economical phrase optionally includes words such as 'please' (O) or 'do you mind' (K) since these expressions only serve to mark polite register. An economic expression can resemble the phrase schematized below.

4.10 beckon point PEN BORROW
beckon pt ペン 借りる

The chart below (4.11) schematizes all of the signed words from the twenty pen phrases. The gray phrases conform to the *economy* constraint. Borderline expressions that violate the constraint are phrase 9, which ends with an *OK* gesture, and phrases 14 and 20, which redundantly repeat the request.

4.11 Manual Signs for Pen Request Phrase

Ph#	Pen Request Phrase										
15	O	1p	PEN	DESIRE	1p	THERE	BRW	O			
12	O	beckon	PEN	BRW	K						
1	beckon	pt	PEN	BRW	K	O					
9	beckon	pt	PEN	BRW	O	K	ok				
18	EXCUSE. ME	pt	PEN	BRW	O						
11		pt	PEN	BRW	K						
4	O	pt	PEN	BRW	K	pt					
8	O	pt	PEN	BRW	O						
7	O	pt	PEN	1p	WRITE	DESIRE	1p	pt	BRW	K	ok
16	O	THERE	PEN	HOLD	BRW	O					
2	beckon	pt	PEN	BRW	K	ok	O	BRW	O	ok	
17		beckon	PEN	BRW	O						
6	beckon	pt	PEN	BRW	O	pt	DESIRE	1p	pt		
3	beckon	pt	PEN	BRW	O	pt	BRW	O	pt		
5	beckon	pt	PEN	BRW	pt	BRW	BRW	BRW	BRW		
19		beckon	PEN	HOLD	pt	BRW					
10	beckon	pt	PEN	BRW	pt						
13	beckon	pt	PEN	HOLD	pt	COME	BRW	*Repetition*			
14		beckon	PEN	GIVE	PEN	GIVE					
20			PEN	COME	PEN	COME					

Expressions conforming to *economy* cluster high in the Feature Chart (4.5), so this feature was included as one of the characteristics marking polite request expression.

Signer and Non-signer Economy

Economy (Econ) appears to positively affect the politeness ratings of the signers but have little influence on the ratings of the non-signers. In the signers' portion of the Feature Chart (4.5), phrases with this feature cluster near the top. Phrases 17 and 10 conform to economy but receive low rankings; this result may signal that the features of signing space (S) and chin position (H) receive more consideration than economy from signers. Phrase 17 has signs produced in the periphery and phrase 10 contains a chin-up position, so both phrases have cues that signal a less polite register. While the ranking cluster for economy has a number of breaks for the signers, it appears that the breaks can receive satisfactory accounts.

Non-signers do not appear to attend to economy (Econ). The economy feature appears as small, non-continuous clusters for non-signers. The patterning of other features relative to the cluster gaps cannot be used to account for the gaps in the ranking of phrases conforming to Econ. Non-signers rank phrase 7, which contains the largest number of manual signs, second. The non-signers may possibly interpret this long phrase as a very polite phrase, corresponding to the fact that longer expressions in Japanese typically have a correspondence to higher register. The fact that the signers give the same phrase a much lower rating may be accounted for due to economy.

4.2.3.8 Non-standard Request Sign Ø

Identification of Ø

Signers and non-signers had the same two lowest ranked phrases, so these phrases were examined and found to contain non-standard request signs.

Ø marks the use of a non-standard sign to denote "borrow" (A1.7a-b). In phrase 14 the signer holds his hand out in what appears to be a request gesture rather than a sign. In phrase 20 the signer uses a sign or gesture denoting 'come.' In both cases, the signer either uses modified signs or gestures rather than the standard request word 'borrow.' In these expressions the signer only makes the manual sign for 'pen' and a very transparent request sign or gesture.

Signer and Non-signer Ø

Both groups rated phrases 14 and 20 containing the non-standard sign (Ø) the lowest, so the sign marks a salient cue for both groups. Signers may have recognized (Ø) as a gesture, or a very casual or non-standard sign. Non-signers may have simply identified the instances of (Ø) as casual request gestures.

4.2.3.9 Conclusions About JSL Politeness Marking Features

The Pen Study primarily aims to identify specific politeness marking features in JSL as no readily accessible, linguistic literature exists on this topic. The secondary aim involves understanding why non-signers exhibit similar judgments as signers for the Pen Study tokens.

Specific Politeness Marking Features in JSL

JSL signers rely upon nonmanuals, the lexicon and discourse strategies to mark politeness. §4.2.3 describes in detail 11 features salient to signer judgments of the register of the pen phrase tokens. The 11 relevant features for evaluation of the pen phrase response data are: chin position (H)—forward (F) and up (U); use of signing space (S)— central (C) and peripheral (P);[48] word rate (T); head movement (N)—phrase final (N#) and phrase initial (#N); two lexical forms (O, K); facial nonmanuals (E); Economy (Econ); and non-standard signs (Ø). The findings of the Pen Study tend to remain consistent with the expectations of the literature on register marking in sign language discussed in §3.2.2. Additionally, a subset of the politeness marking features—size of signing space, word rate, and facial nonmanuals—have salience for register and/or discourse affect in both ASL and JSL so may serve as features suitable for typological investigations of register across sign languages.

Nonmanuals

The JSL tokens rely on a large number of nonmanuals or dependent suprasegmental elements delineated in §3.2.2 including: chin position (Ichida 2005a; 2005b; Okabe et al. 2005); signing space size (Berkowitz 2008; Okabe et al. 2005; Zimmer 1989); signing rate, which the literature also characterizes as careful articulation and assimilation reduction (Berkowitz 2008; Cokely and Baker-Shenk 1980; Liddell and Johnson 1989[1985]; Zimmer 1989); head movement (Ichida 2005b; Okabe et al. 2005); and facial expression (Hoza, 2007; Roush 2007 [1999]).

[48] *Use of signing space (S) is a binary feature, on or off, so only represents one feature.*

Of the relevant nonmanual politeness marking features, the relationship between register and signing rate or articulation (Berkowitz 2008; Cokely and Baker-Shenk 1980; Liddell and Johnson 1989[1985]; Zimmer 1989) along with facial expression (Hoza, 2007; Roush 2007 [1999]) remain consistent with the conclusions found by the ASL research as outlined in §3.2.2. Slowed signing, which results in clear articulation and reduced assimilation, was found by consultants to be more polite or of higher register in comparison to faster signing with increased assimilation. The nonmanual *polite grimace* and *polite grimace frown* from Hoza (2007) appear in the JSL Pen Study data and positively affect politeness ratings in both ASL in the Hoza (1997) study and JSL in the Pen Study. Through the identification of cues salient to register similarly for ASL and JSL, the Pen Study demonstrates that signing rate and facial nonmanuals can serve as typologically relevant features for the investigation of politeness and register in other sign languages.

Signing space size (Berkowitz 2008; Okabe et al. 2005; Zimmer 1989), serves as a salient politeness marking nonmanual. The JSL Pen Study predicts that the use of a smaller signing space results in relatively more polite or higher register signing. The Pen Study results do not conform to the expectations of Berkowitz and Zimmer; however the Pen Study does support the findings of Okabe et al. (2005) who concluded that a relatively smaller signing space had association with polite expression. As discussed in §3.2.2.3, Zimmer (1989) concludes that a larger signing space for ASL corresponds with a relatively higher register, while the Berkowitz (2008) study remains inconclusive about the salience of signing space. Uyechi (1996) establishes an association with larger signing space and the desire to increase the visibility or "loudness" of a sign. The Uyechi study accounts for the Zimmer (1989) finding, which involved the production of signs for a large audience. The signer for the Pen Study tokens produced expressions for individual interlocutors who had to be close enough to relinquish a pen; therefore, the variation in the signing space boundaries were unlikely due to the influence of distance from a given interlocutor. All of the tokens fundamentally were controlled for the Uyechi (1996) loudness contrast in a way the Zimmer (1989) study was not. Signing space size can be associated with "volume" and register in the same way reduction of voice volume can mark more polite speech (Ervin-Tripp et al. 1990). As discussed in the coverage of Ochs (1990) in §3.3.3, polite language marking is typically *non-exclusive* in that a particular social index will perform other linguistic or communicative functions, such as in the case of the adjustment of signing space size for JSL. Since signing space size can mark relative "volume" for ASL and JSL, as JSL signers use larger signing spaces when signing for large audiences, and JSL signing space size has salience to register as a *non-exclusive* social index, signing space size can serve as a salient typological feature for the investigation of register marking across sign languages.

While the other nonmanual elements, chin position (Ichida 2005a; 2005b; Okabe et al. 2005) and head movement (Ichida 2005b; Okabe et al. 2005), serve as salient

politeness marking nonmanuals, the Pen Study results do not entirely conform to the expectations of Ichida (2005b), and Okabe et al. (2005), described in detail in §3.2.2.2. The JSL Pen Study findings on the use of chin position and head movement do not completely conform to any specific predictions of Ichida (2005a), or Ichida (2005b); however, the general discussions by Ichida (2005a) and Ichida (2005b) of the semantic influence of chin position and head movement provides an avenue for explicating the politeness marking effects of these nonmanual elements. The JSL study finds that the *chin-forward* position and/or the use of head movement at the beginning and/or end of a phrase positively affect the politeness level of a JSL expression. The salience of chin-forward for politeness is consistent with the Okabe et al. (2005) conclusions. The *chin-up* position negatively affected the politeness rating of a JSL expression in the Pen Study. The only specific prediction by Ichida with regards to register is that the *chin-back* position would mark a relatively more polite stance. Okabe et al. (2005) found in their study that the chin-back position marked polite expression. As the *chin-back* position does not appear in the pen request phrase set, the Pen Study remains inconclusive with regards to the Ichida (2005b) prediction and Okabe et al. (2005) result. As mentioned in §3.2.2.2, the association between less polite expressions and the *chin-up* position is consistent with the semantics of the *chin-up* position as marking indifference, as outlined by Ichida (2005b). Additionally, the semantics of head movement as described by Ichida generally support the result that the use of *head nods* and *head holds* positively affects the politeness rating of an expression. Okabe et al. (2005) also found a positive association between head holds and polite expression. A new element introduced by the Pen Study to the Ichida (2005b) and Okabe et al. (2005) head movement discussion is positional salience. The signers attended to head movements that occurred at the bookends of any given phrase; head movements that did not occur at the beginning or end of a request did not pattern in any significant way. Future research is necessary to elucidate the salience of head movement and register marking in JSL in more detail.

Lexical and Discourse Strategies

The JSL pen phrases also marked politeness via lexical and discourse elements as discussed in §3.2.3. The consultants in their rankings attended to the polite lexical forms *ONEGAI* 'please" (O) and *KAMAIMASEN* 'do you mind…' (K), referred to in the Yonekawa (1997) dictionary. When the signer used a non-canonical sign (Ø) instead of the typical request sign 'borrow' the given polite expressions had significantly lower ratings; the Ross and Berkowitz (2008) observation that ASL signers distinguish uses of colloquial and formal lexicons anticipates the salience of lexical selection to register in the JSL study. Sensitivity to the interlocutor in form of

accomodation, as discussed by Okabe et al. (2005), represented in this study as an *Economy* constraint, described in §4.2.3.7, also influenced signer ratings.

Why Non-Signers Sometimes Exhibit Similar Judgments as Signers

Non-signers sometimes demonstrated the ability to share politeness judgments as signers in the Pen Study. The ability of the naïve non-signers to discriminate among the expressions is partly attributable to the fact that they had been informed that all the expressions consisted of requests for a pen, and the signer used short expressions containing metonymic signs and a number of suprasegmental cues potentially adapted from the shared visual-kinesic modality of signers and non-signers. As discussed in §4.1, the non-signers originally served as a control group, so the hypothesis that non-sign language users would not respond to the JSL politeness cues was not borne out. The current investigation relates to why non-signers could sometimes intuit similar interpretations to JSL users.

Signers responded to all 11 of the politeness cues while non-signers responded to all except three, chin position up (U), *KAMAIMASEN* 'do you mind…' (K), and economy (Econ). The Cluster Chart (4.12) reappearing below shows that although both groups responded to many of the same politeness cues, they did so to a different degree for most of the features. Non-signers failed to attend to any visual-kinesic cues exclusive of the signer inventory.

4.12 Cluster chart with non-signer cues

Feature	H(F)	H(U)	S	T	N#	#N	O	K	E	Econ	Ø
Section #	*4.2.3.1*	*4.2.3.1*	*4.2.3.2*	*4.2.3.3*	*4.2.3.4*	*4.2.3.4*	*4.2.3.5*	*4.2.3.5*	*4.2.3.6*	*4.2.3.7*	*4.2.3.8*
Signers	●	◎	●	⊙	◎	○	◎	○	○	○	◎
Non-signers	◎		◎	⊙	●	◎	◎		○		◎
Non-signer cues	*?*		*freq code*	*speech corr.*	*bow*	*bow*	*hand prow*		*freq code*		*gesture*

● ranking cluster & p<.10 ranking gap[49] ◎ ranking cluster w/ 1 or 0 breaks

○ ranking "cluster" w/ more than 1 break ⊙ gradient feature

Visual-kinesic expression

A generalization that may account for many of the similarities and contrasts in the signer versus non-signer judgments is that signers responded to the politeness marking features as recognized language cues while non-signers responded to familiar visual-kinesic emblems or gestures, which maintain transparency despite alternations the segments undergo for incorporation into JSL. A number of the non-signer cues share some resemblance with conventionalized Japanese gestures as

[49] *See explanation of ranking gaps and ranking clusters in §4.2.2.4.*

covered in §2.4.2 and §2.4.3. As presented in the chart (4.12) above, non-signers may associate the head movements (N) with the bow emblem and the sign for 'please' (O) with the hand prow emblem. As covered in §2.4.3, signs derived from emblems may retain enough recognition for relatively accurate interpretation by non-signers—such an association may account for the non-signer responses to (N) and (O). Non-signers may have also strongly responded to (N) and (O) as they typically appeared as cues at the beginning and/or end of a given expression; such positional salience reflects the use of the bow gesture, which, when applied, typically marks the beginning or end of an interaction for Japanese speakers. The two non-standard signs labeled as (Ø) used in lieu of the JSL sign for 'borrow' resemble gestures more than signs, so non-signers may have simply recognized them as abrupt or casual gestures. Although these sign features resemble Japanese emblems, further investigation is needed to determine the actual etymology of the signs in question.

The remaining cues signing space size (S), signing rate (T), facial nonmanuals (E) and the head forward (F) cues may also reflect adaptations from speech accompanied gesticulation (McNeill 1992) as discussed in §2.4.2; however, the lack of extensive research on gestures accompanying Japanese speech makes such a claim speculative. Future research is necessary to elucidate the specific connections between speaker gesture and JSL users language and gesture.

Signing rate and signing space size

JSL has prosodic parallels to speech that may influence non-signer judgments of JSL. Register marking signing space size (S) and signing rate (T) have speech analogies, as initially discussed in §3.2.2.3. Signing space size can be associated with "volume" and register in the same way reduction of voice volume can mark more polite speech. The work of Ervin-Trip et al. (1990) found that reduction of voice volume marks more polite speech for children speakers of American English. Just as the use of a wider signing space and faster signing marks a JSL expression as less polite, the work of Stadler (2006) finds that increased loudness and faster rates of speech have a negative impact on the perception of politeness of disagreement statements for German speakers and New Zealand English speakers. If the same generalizations hold true for spoken Japanese, the non-signers may intuitively transfer their Japanese speech judgments to JSL.

The 'frequency code' and typological salience

Three JSL cues, signing space size (S), signing rate (T), facial nonmanuals (E), appear to be salient register marking visual-kinesic elements for Japanese non-signers and, additionally, salient register markers in ASL. One possible account for the

appearance of JSL elements that appear to have some level of crosslinguistic interpretation is the *frequency code* (Ohala 1994).

Ohala (1994) discusses why some facial expressions and shared semantics of prosodic features such as pitch possibly have a relation to evolutionary development. Ohala (1994) uses data from phonetic studies coupled with ethological principles to discuss how a lower fundamental frequency (F_0) or pitch vocalization signals a larger sized body in contrast to a higher F_0 vocalization which indicates a small body. Ohala explains that across species, animals vocalize using a lower F_0 when threatening and use higher F_0 vocalizations when submissive since the use of such vocalizations is grounded in the sound to size association. Ohala dubs the sound to size association the 'frequency code.' Ohala also suggests that the 'frequency code' may account for the smile as a non-threatening facial display in contrast to what he calls the 'o-face' used with threat signals. The smile has an association with a higher F_0 in contrast to the 'o-face' that appears to correlate with a lower F_0. These traits inherited by humans eventually became ritualized and remain salient communicative markers across languages.

Ohala's (1994) 'frequency code' may explain why JSL eventually adapted centralization in the signing space (S), a slower signing rate (T), and the polite facial nonmanuals (E) in order to mark politeness. Use of a smaller signing space may signal a non-threatening act display and in turn have an association with a more polite register. A slower rate of signing or speech may mark a relatively less aggressive stance. As for the facial expression, the frequency code accounts for some crosslinguistically marked facial expressions, so perhaps the polite grimace frown as a mark of imposition could receive some similar account.

The JSL cues, signing space size (S), signing rate (T), and facial nonmanuals (E), require further examination across sign languages to determine if they serve as typologically salient register marking features.

Considering the features individually provides an understanding of the relative salience of each feature but a quantitative account for the interaction of features could serve as a check on the Feature Chart analysis. The next sections examine the cumulative effect of the features for signer and non-signer judgments of the politeness of the pen request expressions—a formal quantitative analysis via multiple regression in §4.2.4 and a quantitative comparison of feature weights via a Harmonic Grammar (Legendre, Miyata & Smolensky 1990a, 1990b, 1990c) in §4.2.5.

4.2.4 A Multiple Regression Analysis of the Features[50]

§4.2.4 provides the results of a multiple regression analysis of the data from the Feature Chart (4.5). The Multiple regression analysis serves as an independent,

[50] *All calculations and plots done in the statistical software package R.*

quantitative check of the conclusions of the Pen Study. The multiple regression analysis accounts for the interaction of all the politeness marking features, so contrasts with the feature analysis of §4.2.3, which generally treats all of the features as independent. The statistical analysis also lessens the risk of interpretational bias, relative to the Feature Chart analysis of §4.2.3.

The pen request study lends itself to a multiple regression analysis since the data set consists of a dependent variable—the phrase average ranking, and a number of independent predictor variables—politeness marking features related by virtue of appearance in a shared pen request. Multiple regression analyses are generated for both the signer and non-signer data.

§4.2.3 considers the salience to signers and non-signers of each of the politeness marking features: chin position (H)—forward (F) and up (U); use of signing space (S)— central (C) and peripheral (P); word rate (T); head movement (N)—phrase final (N#) and phrase initial (#N); two lexical forms (O, K); facial NMS (E); and Economy (Econ). Although §4.2.3 generally treats these features independently, gaps in ranking clusters lead to some accounts based on the complementary distribution of other features.

Selection of features

The multiple regression only includes the politeness features that significantly overlap in the Feature Chart, so the features (U) and (Ø) do not appear in the regression. Omission of some of the features helps to reduce the standard error since reducing the number of predictors increases the degrees of freedom. Since the primary concern centers on the interaction of features, the elimination of these two features does not significantly affect the analysis. The polite grimace frown (Eg) has a particularly marked effect on the consultant rankings, so the polite grimace frown (Eg) and the polite grimace (E) appear as independent predictors. All of the features, except for word rate (T), represent Booleans and have assigned values of one or zero– – one if the feature appears in a phrase, or zero if the feature does not appear in a given phrase. Use of signing space (S) centralized has a value of one and zero if peripheral.

Conditions for the multiple regression

For both signer and non-signer data sets, a number of plots were generated to test the suitability of the multiple regression analysis.[51] The plots generally support the assumptions of the variables as normal and independent. Since the dependent variables are all Boolean with the exception of time (T), the scatterplots for non-time

[51] *Plots of the residuals are in section A5.3 of the Appendix.*

variables line up vertically and have slopes of 1 at x=0 or x=1. The scatterplot for time (T) is linear. The scatterplot of residuals against predicted values has a skewed spread since most of the predictors are Booleans; however, there is otherwise no strong patterning of the residual plots so they have a suitable distribution. The normal probability plot of the residuals against predicted values is fairly straight. The multiple regression analysis will be presented with reservations due to the large number of binary variables.

Outcomes

The results of the R multiple regression model appear below.[52]

4.13 (a) Signer Data

Coefficients:				
	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	-0.92696	0.26147	-3.545	0.00626 **
RoReg$F	-1.17360	0.61702	-1.902	0.08960 .
RoReg$S	1.26565	0.40911	3.094	0.01285 *
RoReg$T	0.11073	0.80723	0.137	0.89391
RoReg$Nf	0.81565	0.28899	2.822	0.01997 *
RoReg$Ni	-0.20689	0.23180	-0.893	0.39534
RoReg$O	0.42421	0.31391	1.351	0.20957
RoReg$K	0.26749	0.18494	1.446	0.18198
RoReg$Eg	1.16105	0.29190	3.978	0.00322 **
RoReg$E	0.04468	0.23393	0.191	0.85278
RoReg$Econ	0.35641	0.20899	1.705	0.12230

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				
Residual standard error: 0.2048 on 9 degrees of freedom				
Multiple R-squared: 0.9729, Adjusted R-squared: 0.9428				
F-statistic: 32.3 on 10 and 9 DF, p-value: 7.724e-06				

4.13 (b) Non-signer data

Coefficients:				
	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	-1.36910	0.48330	-2.833	0.0196 *
ChoReg$F	0.61175	1.14048	0.536	0.6047
ChoReg$S	-0.16676	0.75619	-0.221	0.8304
ChoReg$T	1.17382	1.49206	0.787	0.4517
ChoReg$Nf	0.50324	0.53416	0.942	0.3707
ChoReg$Ni	0.69603	0.42845	1.625	0.1387
ChoReg$O	0.04629	0.58023	0.080	0.9382
ChoReg$K	0.15567	0.34183	0.455	0.6596
ChoReg$Eg	0.59294	0.53954	1.099	0.3003
ChoReg$E	0.30049	0.43239	0.695	0.5046
ChoReg$Econ	-0.27171	0.38628	-0.703	0.4996

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1				
Residual standard error: 0.3785 on 9 degrees of freedo				
Multiple R-squared: 0.922, Adjusted R-squared: 0.8354				
F-statistic: 10.65 on 10 and 9 DF, p-value: 0.0007529				

Signer Results

The F-statistic is large enough to support the validity of the model for signers. The R^2 for the regression is .9428, so the variables in the model account for about 94% of the variation in the ranking averages for signers. The regression indicates that the following variables are unlikely to have zero coefficients: use of signing space (S), $p<.05$; phrase final head movement (N# or Nf), $p<.05$; and the polite grimace frown, $p<.01$. The presence of primarily Boolean variables produces coefficients with a relatively large standard error, so the coefficient estimates may lack precision.

[52] *The full multiple regression tables with residuals appear in A5.4 of the Appendix.*

Non-signer Results

The F-statistic is large enough to accept the validity of the model for non-signers. The R^2 for the regression is .8354, so the variables in the model account for about 84% of the variation in the ranking averages for non-signers. None of the individual coefficients are statistically significant enough to declare their values as not zero.

Comments

There is a very high interaction between the predictors in the multiple regression models. While both models support the conclusion that the features significantly account for the variance in ranking values, the models do not clarify the specific relationship of each feature to the ranking averages. A difference between the signer and non-signer models is that for the non-signers, no features stand out as predictors. For the signers, three features signing space (S), phrase final head movement (N#) and the polite grimace frown (Eg) are shown to have a high likelihood of serving as predictors in the estimation of ranking averages.

Comparison with Cluster Chart

Looking at the most statistically relevant coefficients for the signers in relation to the most salient features from the Cluster Chart yields some overlap.

4.14 Cluster Chart & signer coefficients

Feature	H(F)	H(U)	S	T	N#	#N	O	K	E(Eg)	Econ	Ø
Section #	*4.2.3.1*	*4.2.3.1*	*4.2.3.2*	*4.2.3.3*	*4.2.3.4*	*4.2.3.4*	*4.2.3.5*	*4.2.3.5*	*4.2.3.6*	*4.2.3.7*	*4.2.3.8*
Signers	●	◎	●	⊙	◎	○	◎	○	●	○	◎
			p<.05		p<.05				p<.01		
Non-signers	◎		◎	⊙	●	◎	◎		●		◎

The strongest predictors from the multiple regression correspond with three out of five of the most relevant features from the Cluster Chart.[53] Even though the regression analysis does not disambiguate the influence of individual features, the regression model appears to confirm that the use of the Feature Chart to determine the relevance of the individual constraints forms a sound basis for analysis of the features.

[53] *Eg as a standalone feature makes up an unbroken cluster with a ranking gap of p<.05. The features H(U) and Ø are not part of the multiple regression. The significance of time (T) was confirmed in a single regression model discussed in §4.2.3.3. In the multiple regression model, when other predictors are accounted for the effect of time is subsumed.*

Conclusions

This independent analysis by multiple regression model supports the conclusions from §4.2.3 that the features of chin position (H)—forward (F); use of signing space (S); word rate (T); head movement (N)—phrase final (N#) and phrase initial (#N); two lexical forms (O, K); facial NMS (E); and Economy (Econ) as a whole can account for the consultants' ranking of the pen request expressions of the study.[54] The model also appears to indicate that the identified features serve as more robust cues for the signers than the non-signers since the signer features account for more of the variation in the multiple regression model.

Signing rate (T) fails to stand out as a predictor for either group despite the fact that the independent linear analysis from §4.2.2.3 shows that signing (T) rate is a significant predictor for both groups, which accounts for 64% and 56% of the variance for signers and non-signers respectively. The results of the two statistical analyses show that the coefficient of time (T) takes into account some of the other predictors. So for example, an increase in signing space size (S) has some correlation with increased signing speed (T). Such a result comes as no surprise as a signer making a polite expression likely will use multiple politeness features, and thus create regular feature overlaps that result in such feature correlations.

4.2.5 Two Harmonic Grammars

§4.2.5 describes an implementation of a Harmonic Grammar (Legendre, Miyata & Smolensky 1990a, 1990b, 1990c) via linear programming (Pater, Potts & Bhatt 2006; Potts et al., 2007) to provide a systemic way of measuring the cross-phrase and cross-feature interactions from the Pen Study. This Harmonic Grammar will be implemented in §4.3.3 so the results from the Pen Study can directly be applied to the independent, unrelated data set of the Discourse Completion Test (DCT) study described in detail in §4.3. The implementation of the Harmonic grammar in §4.3.3 demonstrates the utility of the creation of a theoretical model in that the specific conclusions of a single study, in this case the Pen Study that uncovers politeness features in JSL, can be applied generally to *any* independent data set involving the use of the JSL politeness features. For the JSL users, the Harmonic grammar creates a quantitative analysis of signer judgments based on the relative weight given to each politeness marking feature. For non-signers, the model reflects the intuitions of naïve respondents who base their judgments on their experience with the visual-kinesic medium and any potential correlations to their own speech experience, as discussed in §4.2.3.9.

[54] *The fact that the data set primarily consists of Boolean variables needs to be kept in consideration.*

Section §4.2.3 describes in detail the politeness marking features from the Pen Study and their salience to signers and non-signers. The Cluster Chart reproduced below reflects the conclusions of section §4.2.3.9. In many areas both groups display similar responses to the politeness cues as a subset of the features have similarity to visual-kinesic cues shared by signers and non-signers. In other cases the judgments of the two groups differ by some degree. The Cluster Chart (4.15) determines the relative salience of features by representing the patterning of independent features in the Feature Chart (4.5), which is discussed in detail in §4.2.2.4.

4.15 Cluster Chart

Feature	H(F)	H(U)	S	T	N#	#N	O	K	E	Econ	Ø
Section #	*4.2.3.1*	*4.2.3.1*	*4.2.3.2*	*4.2.3.3*	*4.2.3.4*	*4.2.3.4*	*4.2.3.5*	*4.2.3.5*	*4.2.3.6*	*4.2.3.7*	*4.2.3.8*
Signers	●	◎	●	⊙	◎.	○	◎.	○	○	○	◎
Non-signers	◎		◎.	⊙	●	◎	◎.		○		◎

● ranking cluster & p<.10 ranking gap ◎ ranking cluster w/ 0 breaks ◎. ranking cluster w/ 1 break
○ ranking "cluster" w/ more than 1 break ⊙ gradient feature salience: ●>◎> ◎.>○>*blank*

The distribution of the features across phrases in the Feature Chart (4.5) demonstrates that some features have more salience than others for each consultant group. The distribution of features patterns in a relatively consistent way, with higher ranked politeness expressions including more of the politeness features and the lower ranked expressions not exhibiting as many of the politeness features. In effect, the higher ranked requests are more marked for politeness than the lower ranked expressions. The relation of markedness to rank has inconsistencies in that simply counting the number of features in each phrase yields different phrase rankings between the signer and non-signers groups even though the groups rate the exact same phrases. As previously mentioned, the relative salience of each feature differs for each response group, so the influence of each feature for each group must be measured to yield an appropriate account of feature salience.

A system that weds the Feature Chart to the Cluster Chart would provide a more comprehensive account of the politeness marking data. While the Cluster Chart (4.15) shows the contrastive relevance of politeness features, it does not display the feature interaction across phrases. The Feature Chart (4.5) shows the interaction of features across phrases but does not exhibit the relative contrast in feature weights. Additionally, construction of a system of feature interaction that allows for generalization of the conclusions of the Pen Study to *any* phrase in JSL would allow the application of insights from the Pen Study to a larger range of data.

Optimality Theory (OT) (Prince and Smolensky 2004 [1993]) serves as a good heuristic for dealing with feature interactions in a markedness hierarchy. This section will use a linear programming implementation of a type of Optimality Theory model–

–a Harmonic Grammar (Legendre, Miyata & Smolensky 1990a, 1990b, 1990c; Pater, Potts & Bhatt 2006; Potts et al, 2007), to quantitatively measure the cumulative effect of the Pen Study features and adopt a model for assessing the politeness level of any given JSL expression.

4.2.5.1 Modeling with a Harmonic Grammar

Harmonic Grammar Definition

A Harmonic Grammar is a constraint or feature system made up of weights (Pater, Potts & Bhatt 2006; Legendre, Miyata & Smolensky 1990a, 1990b, 1990c). The grammar consists of an input, weighted constraints or features and candidate outputs. The output with the most "harmony" emerges as the winning candidate. For the purposes of this work's implementation, a higher output represents a more polite candidate so the tableau consists of well-formedness features that produce a stronger candidate.

4.16 A Harmonic Grammar Tableau

Weights	1	2	5	*Harmony*
Input	$Feature_A$	$Feature_B$	$Feature_C$	
$Output_x$	4	0	0	**4**
$Output_y$	1	1	0	**3**
$Output_z$ *Winner!*	0	0	1	**5**

In the example, the $Output_z$ has the highest harmony score since it contains one appearance of the most heavily weighted $Feature_C$. The harmony score consists of the weight of $Feature_C$ (5) multiplied by the number of instances of the feature (1), therefore the harmony score equals 5. Although $Output_y$ and $Output_x$ each has more feature appearances, the low feature weights do not provide a high enough harmony score for these candidates to outrank the winner. All potential outputs fundamentally conform to JSL grammatical rules.

As typical in Optimality Theory (OT) a feature system consisting of ranked constraints or markedness features could be used; however, the use of weighted features has a number of advantages for the politeness data in that: a weighted feature does not consist of violations as a ranked account does so conforms more to the intuitions of a politeness marking account; gradient features such as time (T) or (E)/(Eg) receive a straightforward interpretation with weight; and this complex interaction with a large number of features weighted across an input cascade can be more readily handled by a Harmonic Grammar which produces a larger range of grammars than ranked OT. Pater, Potts & Bhatt (2006) provides a more elaborate comparison of Harmonic Grammar and ranked OT.

Components of the Pen Study Harmonic Grammars

In the following applications of the Harmonic Grammar theory the components making up the grammars consist of: the input that represents a schema of all possible politeness features available to the signer; an output that represents a phrase consisting of a number of politeness features; and the weighted Pen Study features of chin position (H)—forward (F) and up (U), use of signing space (S), word rate (T), head movement (N)—phrase final (N#) and phrase initial (#N), two lexical forms (O, K), facial NMS (Eg,E), Economy (Econ), and non-standard signs (Ø). A higher harmony score represents a greater politeness weight, and a signer must use a politeness phrase of the appropriate weight in a given social context. A signer, with the schema or menu of all politeness markers available as input, creates an output expression using his or her judgment of a particular social context.

The Cluster Chart Harmonic Grammar

Generating the Harmonic Grammar tableaux simply consists of creating a text file of the inputs, outputs and features, putting the file into the Potts et al (2007) software *OT Help*, and interpreting the results generated by the software, which finds the best combination of weights to account for all the winning outputs.[55] Harmonic Grammar outputs for this study appear in Appendix A6. In order to illustrate the implementation of a Harmonic Grammar, this section will first present a Harmonic Grammar based on the Cluster Chart hierarchy.

4.17 (a) Weighted & Ordered Cluster Chart Features Signers

Feature	H(F)	S	Eg	N#	O	#N	K	E	Econ	T	U	Ø
Section #	*4.2.3.1*	*4.2.3.2*		*4.2.3.4*	*4.2.3.5*	*4.2.3.4*	*4.2.3.5*	*4.2.3.6*	*4.2.3.7*	*4.2.3.3*	*4.2.3.1*	*4.2.3.8*
Signers	●	●	●	◎.	◎.	○	○	○	○	⊙	◎	◎
	4	4	4	2	2	1	1	1	1	T/10	-3	-3

4.17 (a) Weighted & Ordered Cluster Chart Features Non-Signers

Feature	N#	Eg	#N	H(F)	S	O	E	K	Econ	T	U	Ø
Section #	*4.2.3.4*		*4.2.3.4*	*4.2.3.1*	*4.2.3.2*	*4.2.3.5*	*4.2.3.6*	*4.2.3.5*	*4.2.3.7*	*4.2.3.3*	*4.2.3.1*	*4.2.3.8*
Non-signers	●	●	◎	◎	◎.	◎.	○			⊙		◎
	4	4	3	3	2	2	1	0	0	T/10	0	-3

[55] *See Becker and Pater (2007) on how to make an OT Help File.*

The features in the Cluster Chart, reproduced above, receive weighted values based on their relative level in the hierarchy of features. The salience of each level of feature from greatest to the least weight is measured by ●>◎> ◎.>○>*blank*. For each level in the hierarchy, a feature is assigned the smallest whole number value necessary to distinguish it from a feature on a different tier. (U) and (Ø) negatively affect the politeness rating, so they have negative values. The value for time (T), represented in Feature Chart (4.5), is divided by 10, so the weight range of time remains scaled relative to the weights of the other features. The feature hierarchy is ordered from most to the least salient additive politeness marking feature for each consultant group in charts 4.17 (a) and (b).

The values generated from the Cluster Charts (4.17) finally go into a new version of the Feature Chart (4.18) below.[56] The new Feature Chart now combines all elements of the section §4.2.3 discussion into a single, integrated Harmonic Grammar account.

4.18 Cluster Chart Harmonic Grammar

Non-	C	E	K	O	#N	N#	S	H	T/10	Ph#	*Rk*	Ph#	T/10	H	S	N#	#N	O	K	E	C	Signer
23.5		4		2	3	4	2	3	5.5	**15**	***1***	**15**	5.5	4	4	2	1	2		4		**22.5**
17.8			0	2	3	4	2	3	3.8	**7**	***2***	**12**	6.4	4	4	2	1	2	1		1	**21.4**
20.2	0	1		2	3	4	2	3	5.2	**18**	***3***	**1**	6.3	4	4	2		2	1	1	1	**21.3**
20.4	0		0	2	3	4	2	3	6.4	**12**	***4***	**9**	4	4	4	2		2	1			**17**
18.8	0			2	3	4	2	3	4.8	**8**	***5***	**18**	5.2	4	4	2	1	2		1	1	**20.2**
18.3	0		0	2	3	4	2	3	4.3	**4**	***6***	**11**	5	4	4	2			1		1	**17**
18.3				2	3	4	2	3	4.3	**16**	***7***	**4**	4.3	4	4	2	1	2	1		1	**19.3**
18.3	0	1	0	2		4	2	3	6.3	**1**	***8***	**8**	4.8	4	4	2	1	2			1	**18.8**
15			0	2		4	2	3	4	**9**	***9***	**7**	3.8	4	4	2	1	2	1			**17.8**
14	0		0			4	2	3	5	**11**	***10***	**16**	4.3	4	4	2	1	2				**17.3**
13	0			2		4	0	3	4	**17**	***11***	**2**	3	4	4			2	1			**14**
10			0	2			2	3	3	**2**	***12***	**17**	4	4	0	2		2			1	**13**
3							0		3	**6**	***13***	**6**	3		0							**3**
3.8							0	0	3.8	**13**	***14***	**3**	2.3		0							**2.3**
2.6							0		2.6	**5**	***15***	**5**	2.6		0							**2.6**
2.4								0	2.4	**10**	***16***	**19**	4									**4**
4									4	**19**	***17***	**10**	2.4	-3							1	**.4**
2.3									2.3	**3**	***18***	**13**	3.8	-3								**.8**
-0.2	-3								2.8	**14**	***19***	**14**	2.8								-3	**-0.2**
1	-3								4	**20**	***20***	**20**	4								-3	**1**

C=Economy C=-3= Ø=unconventional sign
K= *KAMAIMASEN* 'Do you mind...'
O= O=*ONEGAI* 'please'
H=4=chin-forward H=-3=chin-up T=word rate

E=4=Eg, polite grimace frown E=1=E, polite grimace
#N= phrase initial nod N#=phrase final nod
S=Centralized signing space

Considering the harmony scores, in the leftmost column for non-signers and the rightmost column for signers, the resultant grammar does not quite account for all the

[56] *There is no independent weight row. Since there is only a single occurrence of each feature, the phrase rows contain the weight values directly.*

pen phrases. 6 of the 20 signer phrases and 5 of the 20 non-signer phrases do not fit the account. This grammar has a three-way tie for non-signer phrases 4, 16 and 1.[57]

The OT Help Harmonic Grammar[58]

The *OT Help* generated Harmonic grammar (4.19) appears below. The *OT Help* constraint weighing improves upon the Cluster Chart grammar account by adding non-signer phrase 12 and signer phrases 6 and 13 to account for 80% of the consultant rankings.[59]

4.19 The OT Help *Harmonic Grammar*

Non-	C	E	K	O	#N	N#	S	H	T/10*4	Ph	*Rk*	Ph	T/10*5	H	S	N#	#N	O	K	E	C	Signer
57.4		7.6		6	17.8	1	2	1	22	**15**	***1***	**15**	27.5	1	11.5	1	1.5	1		17		**60.5**
44			1	6	17.8	1	2	1	15.2	**7**	***2***	**12**	32	1	11.5	1	1.5	1	3.5		8	**59.5**
56.4	1	6.8		6	17.8	1	2	1	20.8	**18**	***3***	**1**	31.5	1	11.5	1		1	3.5	1	8	**58.5**
55.4	1		1	6	17.8	1	2	1	25.6	**12**	***4***	**9**	20	1	4.5	1		1	3.5			**38**
48	1			6	17.8	1	2	1	19.2	**8**	***5***	**18**	26	1	11.5	1	1.5	1		1	8	**51**
47	1		1	6	17.8	1	2	1	17.2	**4**	***6***	**11**	25	1	11.5	1			3.5		8	**50**
45				6	17.8	1	2	1	17.2	**16**	***7***	**4**	21.5	1	11.5	1	1.5	1	3.5		8	**49**
44	1	6.8	1	6		1	2	1	25.2	**1**	***8***	**8**	24	1	11.5	1	1.5	1			8	**48**
27			1	6		1	2	1	16	**9**	***9***	**7**	19	1	11.5	1	1.5	1	3.5			**38.5**
26	1		1			1	2	1	20	**11**	***10***	**16**	21.5	1	11.5	1	1.5	1				**37.5**
25	1			6		1	0	1	16	**17**	***11***	**2**	15	1	11.5			1	3.5			**32**
22			1	6			2	1	12	**2**	***12***	**17**	20	1	0	1		1			8	**31**
12							0		12	**6**	***13***	**6**	15		0							**15**
14.2							0	-1	15.2	**13**	***14***	**3**	11.5		0							**11.5**
10.4							0		10.4	**5**	***15***	**5**	13		0							**13**
9.6	1						0	-1	9.6	**10**	***16***	**19**	20		0							**20**
16							0		16	**19**	***17***	**10**	12	-9.5	0						8	**10.5**
9.2							0		9.2	**3**	***18***	**13**	19	-9.5	0							**9.5**
9.1	-2.1						0		11.2	**14**	***19***	**14**	14		0						-5.5	**8.5**
13.9	-2.1						0		16	**20**	***20***	**20**	20		0						-5.5	**14.5**

C=Economy C=-2.1/-5.5= Ø=unconventional sign
K= *KAMAIMASEN* 'Do you mind...'
O= O=*ONEGAI* 'please'
H=1=chin-forward H=-1/-9.5=chin-up

E=7.6/17=Eg, polite grimace frown E=6.8/1=E, polite grimace
#N= phrase initial nod N#=phrase final nod
S=Centralized signing space
T=word rate

[57] *A tie is not necessarily an undesirable result as such an outcome may reflect a tendency for variation—which does exist in the consultant data set. See Boersma and Hayes (2001 [1999]) and Anttila (1997) for discussions of variation in OT. Due to the complexity of this model, this study could not replicate variation via Pratt as discussed in Boersma and Hayes 2001[1991].*

[58] *All Harmonic Grammar outputs in Appendix A6—Pen Study section 1: Harmonic Grammar Tableaux.*

[59] *In contrast to the Cluster Chart grammar, the OT Help algorithm insures that higher ranked outputs or phrases exceptionlessly outscore lower ranked outputs; therefore, OT Help does not produce ties. OT Help does not produce zero weight features as in the Cluster Chart grammar. The phrases not accounted for by the OT Help grammar (∴ non-signer 7, 13 & signer 9, 5, 19, 20) were added to the chart post-processing, so not part of the original software data set input. The non-signer 14th to 20th ranked expressions were done by hand using the initial OT Help values for the 1st to 13th ranked phrases.*

4.2.5.2 A Discussion of the Outcomes of the Harmonic Grammars

The grammars quantitatively define the relative influence of each constraint by expressing the features as harmonic values. Both Harmonic Grammars can provide representative feature weight assignments for any JSL expression.[60]

The grammars create weighted feature accounts that can reproduce most of the phrase rankings as judged by consultants. The Cluster Chart grammar relies upon particular interpretations of the data set, while the *OT Help* (OTH) Harmonic Grammar generates weights solely based on the patterning of the features across phrases. Comparison of the weights generated by both grammars in charts 4.20 (a) and (b) below show that the OTH Harmonic Grammar reorders the rank hierarchy generated by the Cluster Chart account. This contrast in weight assignment allows for the inclusion of extra phrases for both signer and non-signer accounts. The OTH grammar gives a slightly better account as it incorporates more of the pen phrase data.

In terms of the relative salience of individual features to signers and non-signers, both grammars usually produce similar contrasts. For example, both the CC and the OTH grammars find phrase initial head movement (#N) a much more salient cue for non-signers than signers. In four cases the OTH grammar produces significant signer/non-signer pair contrasts with the CC grammar: H(F) is ranked equally low for both groups instead of slightly higher for signers; the phrase final head movement (N#) is ranked higher for signers rather than non-signers; and facial expression (E) and 'please' (O) is ranked significantly higher for non-signers.

4.20 (a) Signers: Cluster Chart (CC) & OT Help *(OTH) Harmonic Grammars*

Feature	H(F)	S	Eg	N#	O	#N	K	E	Econ	T	U	Ø
Section #	*4.2.3.1*	*4.2.3.2*		*4.2.3.4*	*4.2.3.5*	*4.2.3.4*	*4.2.3.5*	*4.2.3.6*	*4.2.3.7*	*4.2.3.3*	*4.2.3.1*	*4.2.3.8*
Signers	●	●	●	◎.	◎.	○	○	○	○	⊙	◎	◎
CC	4	4	4	2	2	1	1	1	1	T/10	-3	-3
OTH	1	11.5	17	1	1	1.5	3.5	1	8	5	-9.5	-5.5

4.20 (b) Non-signers: Cluster Chart (CC) & OT Help *(OTH) Harmonic Grammars*

Feature	N#	Eg	#N	H(F)	S	O	E	K	Econ	T	U	Ø
Section #	*4.2.3.4*		*4.2.3.4*	*4.2.3.1*	*4.2.3.2*	*4.2.3.5*	*4.2.3.6*	*4.2.3.5*	*4.2.3.7*	*4.2.3.3*	*4.2.3.1*	*4.2.3.8*
Non-signers	●	●	◎	◎	◎.	◎.	○			⊙		◎
CC	4	4	3	3	2	2	1	0	0	T/10	0	-3
OTH	1	7.6	17.8	1	2	6	6.8	1	1	4	-1	-2.1

[60] *§4.3 on the Discourse Completion Test (DCT) will compare expressions using values from the Harmonic Grammars.*

The Harmonic Grammars can provide precise measures of phrase ranking contrasts and the relative influence of individual features. For example, a common lexical politeness marker for signers 'do you mind…' (K) appears in a broad range of ranked phrases. Looking at the values in chart (4.19) accounts for the appearance of (K) in high and mid-ranked phrases. In the phrases 12 and 1 (K) co-occurs with a large number of politeness marking features and adds to heavier cumulative weights of 59.5 and 58.5 in contrast to the cumulative scores of 50 and 49 in the lower ranked phrases of 11 and 4 that include (K). In another example, signer 6th ranked phrase 11 outranks a phrase with more politeness marking, the 7th ranked phrase 4. Time (T) serves as the decisive feature for phrase 11 as the time weight advantage of +3.5 outweighs the cumulative influene of (#N +1.5) and (O +1) in phrase 4.

Harmonic Grammar Conclusion

The Harmonic Grammar acts as a tool that allows quantitative discussion the politeness features and their relative salience for any given JSL polite expression. For the JSL users, the Harmonic grammar creates a quantitative analysis of signer judgments, and for non-signers, the model reflects the intuitions of naïve respondents who base their judgments on their experience with the visual-kinesic medium. The OTH Harmonic Grammar will be applied to data from the DCT study in §4.3 to see if the generalizations from the Pen Study can successfully account for the distribution of politeness features in phrases unrelated to the Pen Study expressions.

4.2.6 The Pen Study Part III[61]—The JSL Politeness Matrix

§4.2.6 covers part III of the Pen Study, which demonstrates that JSL signers use a shared system of polite register. This part of the study also gives phrases from the Pen Study concrete associations with actual social scenarios, an important step in determining the contextual relevance of a polite expression.

Part three of the Pen Study presented each pen phrase along with the list of scenarios. The consultants had to match scenarios with each given pen phrase. Each expression could be matched with as many scenarios as deemed appropriate. The prompt page for part three of the Pen Study appears in Appendix A.2.3.

Besides the ways of making polite expression, this study investigates what types of expressions JSL signers use towards what types of interlocutors—not just what they sign, but to whom they sign it to. Section III of the Pen Study presents scenarios populated with people of contrasting social distances in various social scenarios. The

[61] *The prompt pages for sections two and three of the Pen Study are in Appendix sections A.2.2. and A.2.3. Non-signers did not complete all sections of the Pen Study, so §4.2.6 exclusively applies to the signer group. See §4.2.1 for discussion of complete Pen Study procedure. Part two of the Pen Study presented scenarios with various interlocutors for the consultants to rate.*

consultants match specific expressions with scenarios rather than rely upon an abstract measure of politeness via a rating as in the first two parts of the study. The associations signers make between expressions and scenarios provides a concrete description of conditions under which particular expressions may be used. As mentioned in the introduction to §4.2, when an audience of signers saw contrasting expressions from the Pen Study, they responded with whom one might direct an expression to, rather than deeming an expression as particularly polite or casual. Relating request phrases to social contexts triggers more natural responses than rating expressions in the abstract.

Due to the complex interaction of social distance, in-group/out-group distinctions, and social status, an expression that merely has a rating may not necessarily have an obvious match to a given scenario; the discussion of politeness markers on social indices in §3.3.3 based on the work of Okamoto (1999) anticipates variation. For instance, one may consider a co-worker equal in status and part of the in-group, but since the co-worker is typically encountered in a formal environment one could arguably use either a relatively more polite or casual expression towards a co-worker. Part III of the Pen Study aims to disambiguate some of the actual application of the pen expressions via signer judgments.

4.2.6.1 Description of the Politeness Matrix

This section discusses the matrix of mappings of pen phrases to situational contexts by the signers in the Pen Study. In abstract, the Cluster Chart (4.9) and the Harmonic Grammars (4.18, 4.19) illustrate the relative salience of each politeness feature for the signer and non-signer groups. The question of how the ranks translate into concrete terms in relation to actual interlocutors for Pen Study consultants remains open with only ranking values. Chart 4.21 below gives the matrix of signer responses to section III of the Pen Study mapping expressions to specific scenarios with defined interlocutors. The complete scenario descriptions appear on the prompt page for the Pen Study part III, in Appendix A.2.3.

4.21 Politeness Matrix of phrases to scenario responses (Pen Study Part III)

Scenario#			4	7	15	12	9	19	8	11	16	3	17	2	18	1	5	6	14	10	13	20	
Ph#	**Avg**	**AvgZ**																					
15	4.6	1.42	10	6	9	4	11	8	6	4	4	9	6	4	4	3	5	3	5	4	6	3	1
12	4.35	1.16	12	13	7	7	10	10	10	9	9	9	8	8	6	6	5	2	2	2	3	2	0
1	4.05	1.01	8	6	6	7	8	8	11	7	7	13	6	6	6	4	7	4	3	2	4	2	0
9	3.9	0.85	9	3	8	10	5	6	9	10	5	12	8	6	4	4	7	3	3	4	2	3	0
18	3.85	0.79	7	7	9	5	9	9	11	9	12	11	9	7	8	5	8	5	4	5	7	4	1
11	3.45	0.66	3	5	3	4	6	5	8	2	9	11	9	10	8	5	11	5	3	6	6	5	1
4	3.55	0.62	7	3	4	6	7	8	5	6	5	10	7	8	5	6	4	1	5	4	4	3	0
8	3.45	0.59	9	8	9	6	7	10	12	7	10	9	6	7	7	2	7	1	1	2	2	3	0
7	3.3	0.49	3	4	8	5	3	7	8	6	8	9	8	6	5	5	8	2	3	5	6	5	1
16	2.9	0.13	3	1	5	5	1	4	8	4	9	12	6	6	7	5	9	2	3	4	4	3	2
2	2.45	-0.11	0	0	0	1	0	1	0	0	1	11	4	1	3	2	8	5	6	8	10	7	0
17	1.9	-0.46	1	0	0	0	1	3	0	1	1	7	6	3	6	2	4	4	5	6	12	6	1
6	1.5	-0.71	0	1	1	0	0	1	0	0	0	7	1	1	0	0	2	9	12	11	15	10	1
3	1.65	-0.72	0	0	0	0	1	2	0	0	0	5	1	1	2	1	4	6	11	9	11	11	2
5	1.35	-0.77	1	0	0	0	0	1	0	0	0	3	0	0	0	0	0	9	12	9	11	13	2
19	1.3	-0.83	1	1	1	0	1	1	0	2	0	3	0	0	0	0	3	8	12	9	13	14	3
10	1.25	-0.94	0	0	0	0	0	1	0	1	1	2	0	0	0	0	1	7	11	10	12	12	4
13	1.1	-1.01	0	0	0	0	0	1	0	0	0	4	0	0	0	1	1	9	14	10	15	14	2
14	1.05	-1.07	0	1	0	0	1	2	1	0	0	1	0	0	0	0	0	9	10	8	12	12	4
20	1	-1.09	2	0	1	0	0	1	0	0	0	2	0	0	0	0	1	5	8	7	11	13	4
Phrase Rt Avg			0.8	0.8	0.7	0.8	0.8	0.6	0.8	0.7	0.7	0.4	0.6	0.7	0.6	0.6	0.4	-0.4	-0.4	-0.3	-0.4	-0.5	
			supervisor	doctor	police officer	neatly dressed	professor	secretary	postal worker	landlord	dept store clerk	coworker	young prof	small shop	freq coffee wait	stranger jeans	classmate	mother	partner	older sibling	friend	younger sibling	none
Sc Rate Avg			4	3.9	3.9	3.6	3.55	3.5	3.4	3.4	3.3	2.95	2.9	2.85	2.75	2.65	2.2	2	1.65	1.6	1.5	1.4	

Matches between each phrase and scenario (color coded distributions): $m \geq 10$ | $5 < m < 10$ | $m \leq 5$

Ph# = Phrase number Avg = Phrase average rating AvgZ= Avg reexpressed as a z-score (Part I)
Scenario# = Scenario number (Part II)
Phrase Rt Avg[62] = Average z-score of phrases matched with the given scenario (Part III) **Boxed #s**
Sc Rate Avg = The average rating given by consultants for each scenario (Part II)

How to read the politeness matrix

The chart gives the total number of matches (m) between each pen phrase and scenario. For instance, the first row, first column contains 10, so it indicates that ten different consultants matched phrase 15 to the scenario involving the supervisor. The grid is color-coded to show the patterning of responses. For instance, the black cells each label 10 or more matches between a phrase and scenario. Each scenario is described with the name of the interlocutor, plus the average raw rating for the scenario (Sc Rate Avg). For example, the scenario with the postal worker received an average rating of 3.4. Moving further down the right of the chart, it can be seen that as the rating averages for each scenario gets lower, matches with pen phrases lower

[62] *The Phrase Rt Avg (Phrase Rating Average) value is calculated by multiplying the average z rating by the number of matches received for each column, totaling the multiples and then dividing by the total number of matches for the given scenario.*

in politeness ranking become more numerous as matches to phrases with high politeness rankings lessen.

The Phrase rating average (Phrase Rt Avg) reflects the politeness value of a scenario relative to the pen rating averages; it gives the average score of all the ratings given for the scenario. The resulting total provides a value for each scenario based on the phrase rank value. Fore example, the co-worker average is 0.4. This number was calculated by multiplying the phrase 15 average z-score (1.42) by the number of matches (9), adding the phrase 12 average (1.16) multiplied by its number of matches (9), and so on until all the phrase ranking matches for the co-worker scenario were added up. Finally, the total was divided by the number of matches in the co-worker column and generated the average of 0.4.

Each scenario column contains a boxed number. This marks the average z-score row that best represents the phrase rating average. The co-worker box is on the .13 average z-score row since the co-worker scenario phrase rating average (0.4) is greater than .13, but less than the next box up (.49). Looking at the pattern of boxes across scenarios show how consistent the scenarios are mapped to phrases based on the relative ranking of the scenarios and rankings. Most map consistently, as the pattern of boxes generally decreases as they go further towards the right side of the matrix. The biggest discrepancies are for *the secretary, the co-worker* and *the small shop clerk*. The secretary and co-worker scenarios are mapped with relatively lower ranked expressions while the small shop clerk is mapped with relatively higher ranked expressions than predicted by their independent rankings from parts one and two of the study.

4.2.6.2 Conclusions from the Politeness Matrix

The result of Pen Study part III shows that JSL signers use the politeness marking cues to distinguish register, and the appropriate level of register must map to the social context. For instance, the chart patterning shows that while it is uncommon to direct the most polite expressions towards those who make up part of one's in-group, it is much more uncommon to use terms appropriate for familiars with people of higher social status or greater social distance.[63] Independent of consideration of the ratings, the mapping of scenarios to phrases evidence a politeness register effect in that particular types of expressions have a tendency to be identified as appropriate for particular interlocutors in certain scenarios. The fact that there are expressions considered appropriate almost exclusively for familiars rather than out-group members (such as the five lowest ranked phrases), and expressions more suited for out-groups members or in formal contexts demonstrates that classes of phrases fit

[63] *This outcome is comparable with the Hill et al. (1986) Pen Study result in that they also indicated that a large range of register was more open for use with familiars.*

into a particular types of use categories. In this study, the phrase category for in-group members tends to be made up of expressions with fewer of the politeness marking features discussed in §4.2.3 to §4.2.5, while expressions associated with out-group members have more feature marking. The politeness matrix shows the adding of more politeness features into an expression is not always better.

The concrete mapping between phrases and scenarios provides a guide to the appropriate uses of the pen phrase features. For instance referencing both the politeness matrix (4.21) and the Feature Chart (4.5), shows that expressions absent one of the two lexical politeness markers 'please' (O) or 'do you mind…' (K) which appear in the top 12 ranked phrases significantly decreases the likelihood that a signer would consider the expression appropriate for use with people of a greater social rank or in a relatively formal environment. The politeness matrix supplements the Pen Study by providing contextual applications of the pen request expressions lacking in part one of the study.

The contextualized expressions define how to interpret analytical tools such as a Harmonic Grammar in relation to politeness. Weight of politeness marking should map to the social weight of a given context. Higher weighted politeness phrases cannot automatically be considered as well-formed without an embedded social context.

4.2.7 Conclusions from the Pen Study

§4.2 presented the experimental results of the Pen Study showing that JSL signers use a number of feature cues in sign language to produce polite expressions. In addition, this study shows that non-signers can sometimes share the same intuitions as signers about JSL politeness marking due to signs resemblance to elements form the shared visual-kinesic communication system used by JSL and spoken Japanese users.

The data analysis began with a discussion in §4.2.2 of a Feature Chart (4.5) consisting of schematics of all the pen request expressions from the study. The Feature Chart supportd the identification and comparison of a number of contrasting features indexing polite register in JSL. These features formed the basis of a Cluster Chart (4.9), detailed in §4.2.3 and reproduced below, which not only catalogued 11 politeness marking features from JSL, but also presented the gradient contrast between signer and non-signer responses to the sundry politeness marking cues in JSL. While JSL users responded to the cues as grammatical parts of a politeness marking system, non-signers differentiated levels of politeness register based on their understanding of JSL politeness cues emerging from their understanding of the visual-kinesic communicative system shared with signers.

4.22 Reproduction of Cluster chart (4.9)

Feature	H(F)	H(U)	S	T	N#	#N	O	K	E	Econ	Ø
Section #	*4.2.3.1*	*4.2.3.1*	*4.2.3.2*	*4.2.3.3*	*4.2.3.4*	*4.2.3.4*	*4.2.3.5*	*4.2.3.5*	*4.2.3.6*	*4.2.3.7*	*4.2.3.8*
Signers	●	◎	●	⦿	◎	○	◎	○	○	○	◎
Non-signers	◎		◎	⦿	●	◎	◎		○		◎

● ranking cluster & p<.10 ranking gap[64] ◎ ranking cluster w/ 1 or 0 breaks
○ ranking "cluster" w/ more than 1 break ⦿ gradient feature

As detailed in §4.2.3.9 the 11 relevant features for evaluation of the pen phrase response data are: chin position (H)—forward (F) and up (U); use of signing space (S)— central (C) and peripheral (P); word rate (T); head movement (N)—phrase final (N#) and phrase initial (#N); two lexical forms (O, K); facial NMS (E); Economy (Econ); and non-standard signs (Ø). Signers responded to all of the politeness cues while non-signers responded to all except chin position up (U), *KAMAIMASEN* 'do you mind...,' (K) and economy (Econ).

The Cluster Chart analyses from §4.2.3 received confirmation from a multiple regression analysis in §4.2.4. The multiple regression showed that the Cluster Chart politeness features used as predictors could successfully account for over 80% of the variance in non-signer average ratings and over 90% of the variance in signer average ratings. The Harmonic Grammar produced by linear programming with the politeness features from the Cluster Chart as inputs successfully generated a weighted feature grammar that could generate 80% of the phrase rankings by both signers and non-signers, thus providing an account of the salience of politeness features that can be generalized to examine other JSL expressions.

§4.2.6 covers the third part of the Pen Study in which signers map the Pen Study expressions to specific social scenarios; this part of the study modeled how signers map polite expressions to concrete social contexts. The understanding of application of the features in context show that the use of a polite expression involves not only producing an expression with the appropriate cues, but also selecting the right level of register based on the requirements of the social context.

§4.3 will discuss the results of the Discourse Completion Test (DCT) study. The DCT study will examine polite expression production by native signers and be used to test some of the conclusions emerging from the Pen Study.

4.3 The Discourse Completion Test (DCT)

Besides ways of producing polite expression, this study investigates what expressions JSL signers use towards what interlocutors—not just what they sign, but to whom

[64] *See explanation of ranking gaps and ranking clusters in section §4.2.2.4.*

they sign. The DCT prompts present scenarios populated with people of contrasting social distances in a workplace environment—a subordinate, a co-worker and a supervisor. The consultants map specific expressions towards individuals rather than relying on an abstract measure of politeness via a rating. As discussed in §4.2.6, production has significance since ratings of expressions alone, as in the initial part of the Pen Study in §4.2, cannot clearly indicate how an expression may actually apply in a real social context. This understanding is especially significant in dealing with the interaction of social distance, the in-group/out-group distinction, and social status. For instance, a subordinate has a lower status in an organization so could be addressed with a lower register expression; but since one's subordinate likely classes as an out-group member, to whom one would direct a very polite expression, there is the question of what type of phrase someone would use to make a request of a subordinate. In contrast, a request made to one's supervisor—both an out-group member and ranking superior—could be anticipated to be very polite.

The second study is based on the Hoza (2007) Discourse Completion Test (DCT) investigating requests and refusals in ASL. In this study, consultants watched a description of a particular scenario and then signed a request based on the situational context depicted. The DCT examination complements the Pen Study in that the DCT centers on the level of imposition of a given request, and examines individual signer production in contrast to the composite judgment of consultants who interpret an expression as in the Pen Study. The DCT study serves as a qualitative counterpart to the Pen Study and makes inquiry into what individual signers do. The aim of a DCT is to capture contextualized responses in order to tease out consultant intuitions about the use of particular language forms in specific contexts (Blum-Kulka et al 1989).

The Hoza style discourse study stands in marked contrast to many previous studies of sign discourse, such as Cokely and Baker-Shenk (1980), Zimmer (1989), Roush (1999) and Ross and Berkowitz (2008) discussed in §3.2.2.3, which make observations about signing register or politeness variation based unprompted videotaped material; with non-elicited signing they could not test specific types of requests with clearly defined social contexts. Hoza (2007) provides a range of comparable discourse contexts to systemically measure how signers express politeness.

The hypothesis of this study is that signers will exhibit politeness register contrasts when responding to scenarios involving interlocutors at different social status levels for requests of different levels of imposition. Politeness features will pattern as in higher register expressions from the Pen Study in encounters with interlocutors of a higher status and in discourse contexts involving higher levels of imposition. Since consultants will produce requests for a wider variety of contexts than the signer of the Pen Study prompts, the DCT signers should produce other cues indexing register that did not appear in the Pen Study.

§4.3.1 describes the experimental procedure and consultant profile. §4.3.2 describes the data set. §4.3.3 will discuss the politeness register of the consultant responses using the *OT Help* Harmonic Grammar from §4.2.5.1. §4.3.4 briefly discusses politeness marking discourse strategies, and §4.3.5 sums up the outcomes of the DCT.

4.3.1 Procedure

Hoza's original six request scenarios were taken and translated into Japanese with modifications to create culturally appropriate contexts. Native speakers assisted in the revisions of the Japanese translation, which was then used in a trial DCT survey in written Japanese. Based on the results of the trial survey the prompts received further editing. A native JSL signer interpreted the prompts into JSL using the final Japanese translation. The Japanese version of the request prompts appears below in chart 4.23.

4.23 The JSL DCT Request scenarios

1	自分のペンが上司のそばにあります。それを取ってもらいたい場合、なんと言えばよいですか。 Your pen is sitting very near your supervisor. If you wanted it passed to you, what would you say?
2	上司に一年で一番忙しい正月前に休みを欲しいと言いたい場合、何と言えばよいですか。 If you wanted to ask your supervisor for time off shortly before the New Year's holiday, the busiest time of the year, what would you say?
3	休憩中、部屋に同僚と2人しかいない時に、何か書こうと思い立ちます。その場合、同僚からペンを借りるには何と言えばよいですか。 Sitting together in a break room with a coworker you just remember that you need to write something down. If you wanted to ask your coworker to let you borrow a pen, what would you say?
4	同僚と2人で休憩しています。あなたは同僚に次の給料日まで一万円を借りたいのですが、その場合、借りるには何と言えばよいですか。 You are sitting together in a break room with a coworker. If you wanted to ask your coworker to let you borrow 10,000 yen until payday, what would you say?
5	部下に頭客になりそうな人にはじめて電話をしてくれと頼む場合なんと言えばよいですか。 If you wanted to ask an employee to make an initial call to a potential new customer, what would you say?
6	部下に当初一ヶ月で完成させればよいと願んだ企画が、急遽2週間で終わらせる必要ができた場合、何と言えばよいですか。 You recently gave an employee a big project and said s/he had one month to finish it. Now you meet to ask for completion in 2 weeks instead. What would you say to your employee?

Hoza's scenarios were suitable as he sets them in a generic office setting, which is culturally appropriate for Japan. The use of his scenarios also leaves open the option of comparing the JSL DCT results with Hoza's. Hoza tested the power levels of the

interlocutors and level of request impositions via a survey. Deaf and hearing Japanese were conferred with to confirm that the revised prompts seemed natural and represented the intended power and imposition levels based on Hoza's observations.

The scenario prompts elicit requests aimed towards three different classes interlocutors each with a different social status relative to the consultant. Each interlocutor stands in for a high, equal or low level of power represented respectively by a supervisor, coworker and employee. Requests consist of two types, easy requests with low levels of imposition and difficult requests with high levels of imposition. The odd numbered scenarios represent low level imposition requests, while the even numbered scenarios represent high imposition requests.

Five Deaf JSL signers watched the video prompts and signed requests while being videotaped. Transcriptions of the consultant videos were made for analysis. The ELAN transcriptions appear in Appendix A8. The transcripts were then analyzed by the identification of politeness features that were found and described in the Pen Study in §4.2. The assumption is that signers in the DCT study will use politeness features from the Pen Study. On the basis of this assumption, the Harmonic Grammars in §4.2.5 were applied in the analysis of the DCT study data.

The Consultants

Five JSL signers completed the DCT. All signers identified as Deaf with four of those signers being native signers with Deaf parents. The table below summarizes the consultant profile data. All individual consultant profiles appear in Appendix A3.

4.24 Consultant Profile Summary

consultant	sex	age	Deaf Parents?	Birthplace	occupation
18	m	40s	N (JSL age 1~)	Kanagawa	JSL Instructor
17	f	30s	Y	Shizuoka	JSL Instructor
21	f	40s	Y	Yamaguchi	JSL Instructor
22	f	50s	Y	Hiroshima	JSL Instructor
70	f	30s	Y	Tokyo	JSL Instructor/Actor

As in the Pen Study, the group represents a convenience sample since access to native JSL signers is very limited. Since all are native or near-native signers, they potentially present the most natural polite response judgments available.

4.3.2 Description Of The Data Set

The DCT Feature Chart

The DCT Feature Chart (4.25) presents features from the DCT transcriptions. The details of the feature representation in this chart are fundamentally identical to the features from the Feature Chart (4.5) described in detail in §4.2.2. Each feature was identified on the basis of its appearance in the Pen Study described in detail in §4.2.3. The DCT Feature chart (4.25) incorporates the feature weights of the Harmonic Grammars discussed in detail in §4.2.5.1.

4.25 DCT Feature Chart[65]

CID Req	H F1 [4]	S C11.5 [4]	T /10*5 [/10]	#N 1.5 [1]	N# 1 [2]	O 1 [2]	K 3.5 [1]	Eg 17 [4]	Econ 8 [1]	OTH	*[CC]*
18-1	F	C	54	#N	N#	O	K		○	38.3	*20.4*
18-2		P	62	#N	N#	O	K			19.4	*13.2*
18-3		P	48		N#	O	K		○	23.1	*10.8*
18-4	F	P	48		N#	O	K	Eg		33.1	*17.8*
18-5		P	48	#N	N#	O	K			17.6	*10.8*
18-6	F	P	51		N#	O	K			16.7	*14.1*
17-1	F	P	32	#N	N#		K			13.4	*11.2*
17-2	B	C	43		N#	O	K	Eg		42.6	*21.3*
17-3		P	25		*N#*	O				7	*6.5*
17-4		C	30		N#	O	K	Eg		40	*16*
17-5		P	23		N#	O				6.6	*6.3*
17-6		P	42		N#		K			12.9	*7.2*
21-1	F	P	54	#N	N#		K		○	25.8	*14.4*
21-2	F	P/C	70	#N	N#	O				30	*20*
21-3	F	P	43	#N	N#		K		○	22.6	*13.3*
21-4	F	P	62	#N	N#		K	Eg		35.4	*18.2*
21-5		P	42		N#		K			12.9	*7.2*
21-6		P	54		N#	O				12.8	*9.4*

CID Req	H F1 [4]	S C11.5 [4]	T /10*5 [/10]	#N 1.5 [1]	N# 1 [2]	O 1 [2]	K 3.5 [1]	Eg 17 [4]	Econ 8 [1]	OTH	*[CC]*
22-1	F	C	54	#N	N#	O			○	34.7	*19.4*
22-2	F	P	51		N#					12.2	*11.1*
22-3	F	P	45		N#	O			○	20	*13.5*
22-4	-	-	-	-	-	-	-	-	-	NA	*NA*
22-5		P	39		N#	O				9.8	*7.9*
22-6		P	42		N#	O				10.4	*8.2*
70-1	F	C	44	#N	N#	O		Eg	○	49.8	*22.4*
70-2	F	C	49	#N	N#	O		Eg		42.8	*21.9*
70-3		P	38	#N	N#	O			○	19.1	*9.8*
70-4	F	P/C	51	#N	N#	O		Eg		43.2	*21.1*
70-5	F	P	48		N#	O				12.6	*12.8*
70-6	B	P	43		N#	O				11.6	*12.3*

Request to Supervisor
Request to coworker
Request to employee

N=head nod/hold N#=N co-occurs w/ final sign in utterance #N=N co-occurs w/ 1st sign
O=*onegai* "please" K=*kamaimasen* "Do you mind…" E=polite grimace (frown)
H= head pos F=chin-forward U=up B=back S=sign space C= centered P=peripheral T=sign duration in 100ths of secs

The first column identifies each response by Consultant ID number (CID) and request number (Req) that corresponds to the prompts 4.23 above. As in the Pen Study Feature Chart (4.5), each consultant phrase is represented with features. The only new feature is *chin-back* (B). The chin-back position is one of the chin positions described by Ichida (2005b).[66] Ichida notes that the chin-back position can mark distance or reserve, so this chin position can serve as a politeness marking feature. All of the facial NMS (E) represent *polite grimace frowns* (Hoza 2007). Expressions

[65] *The fourth phrase of consultant 22, 4-22, was unavailable due to technical error. The chin-back (B) feature was assigned the same weight as the chin-forward (F) feature for the purpose of the Harmonic Grammar treatments.*
[66] *See §3.2.2.4, §4.2.31, and §4.2.3.9 for discussion of chin position.*

for requests with higher levels of imposition are generally longer with explanations, excuses, or promises. The chart highlights politeness features from the request portions of the phrases.

4.26 Signer Cluster Chart (CC) & OT Help *(OTH) 4.20(a) Harmonic Grammars*

Feature	H(F)	S	Eg	N#	O	#N	K	E	Econ	T	U	Ø
Section #	*4.2.3.1*	*4.2.3.2*		*4.2.3.4*	*4.2.3.5*	*4.2.3.4*	*4.2.3.5*	*4.2.3.6*	*4.2.3.7*	*4.2.3.3*	*4.2.3.1*	*4.2.3.8*
Signers	●	●	●	◎.	◎.	○	○	○	○	⊙	◎	◎
CC	4	4	4	2	2	1	1	1	1	T/10	-3	-3
OTH	1	11.5	17	1	1	1.5	3.5	1	8	5	-9.5	-5.5

In §4.2.5 a Harmonic Grammar was created to evaluate the relative salience of the various features to politeness rankings of JSL expressions. The grammar assigns weight values to each of the features in order to produce a harmonic score reflecting the relative politeness weight of each phrase. The OTH and CC grammar chart is reproduced above (4.26). The Harmonic Grammar weights appear on the top row of the chart 4.25 along with the features. The feature weight total for each phrase appears in the rightmost columns labeled OTH and CC for each phrase. Only the OTH grammar will receive discussion since the CC grammar phrase weight contrasts are fairly similar.

A number of generalizations can be made about the request phrases made by the consultants. Signers show variation with regards to their application of the politeness features; for instance, the pen phrase request phrases 1 and 3 for signer 17 have a much lower harmony scores than the pen request expressions of the other signers. Such contrasts mean that signers' politeness expressions are relative; therefore, evaluation of each signers' requests should be in terms of individual signer contrasts across phrases rather than raw phrase politeness weights independent of consideration of who signs a given phrase.

All of the features from the Pen Study appear except for the features that negatively affect the politeness weight of an utterance, chin-up (U) and non-standard signs (Ø), discussed in detail in §4.2.3.1 and §4.2.3.8 respectively. This outcome is consistent with the fact that each scenario represents the workplace—a formal environment where people tend to use relatively more polite forms of expression.

4.3.3 The Harmonic Grammar outcomes for the DCT

The chart below (4.27) presents the feature weight totals for each of the consultant phrases for comparison. The odd numbered phrases are the lower imposition requests and the even numbered phrases the high imposition requests from chart 4.23. Each

column of phrases indexes the supervisor, coworker and subordinate interlocutors respectively.

4.27 Politeness feature weight totals for each phrase

Signer 18			**Signer 17**			**Signer 21**			**Signer 22**			**Signer 70**		
Ph1	Ph3	Ph5	Ph1	Ph3	Ph5	Ph1	Ph3	Ph5	Ph1	Ph3	Ph5	Ph1	Ph3	Ph5
38.3	23.1	17.6	13.4	7	6.6	24.8	22.6	12.9	**34.7**	20	9.8	**49.8**	19.1	12.6
Ph2	Ph4	Ph6	Ph2	Ph4	Ph6	Ph2	Ph4	Ph6	Ph2	Ph4	Ph6	Ph2	Ph4	Ph6
19.4	33.1	16.7	42.6	40	12.9	30	35.4	12.8	**12.2**	NA	10.4	**42.8**	43.2	11.6

First considering the request phrases 5 and 6 directed towards subordinates, all signers consistently produce phrases with the lowest politeness weights for this group; however, with the exception of signer 17, on the basis of the Harmonic Grammar features, none of the consultants significantly mark a contrast in politeness between the request to contact a new client (phrase 5) or the sudden changing of a deadline (phrase 6). The lack of contrast between the low and high imposition request may be due to the perception of the role of an employee, one who accepts work direction from the employer, so an imposition may not be readily produced for a work related request.

In the case of the requests towards a coworker (phrases 3 and 4), all of the consultants produce request phrases with marked contrasts in politeness feature marking.[67] A request to borrow money from someone who may not have a close social relationship seems to trigger the use of the polite grimace frown (Eg), which may mark the level of imposition of the request for a loan. The contrast in politeness weight between the low and high imposition requests to a coworker falls within the expectations that a more difficult request requires a more polite expression.

The most puzzling outcome for the Harmonic Grammar account is the politeness weight contrast for requests of low and high imposition to a supervisor (phrases 1 and 2). For most of the consultants (18, 22, 70) it appears that requesting a pen acts as a bigger imposition than asking for the busiest day of the year off. Only signer 17 produces a significant contrast based on polite feature weight between the low imposition request for a pen and high imposition request for a sudden holiday. One explanation is that the request for a day off is not seen as an imposition since it is an employee's right to make a request. In contrast, it may be very unusual to make a request for your employer to pass a pen; consultant 70 indicated that she would never make a request for her boss to pass her a pen—she would simply move in a position to pick it up herself. A better explanation for this unusual contrast is that there may be other factors influencing the politeness level of a given request.

[67] *The fourth phrase of consultant 22, 4-22, was unavailable due to technical error.*

4.3.4 Politeness Marking Discourse Features

In the discussion of the DCT data set via the Harmonic Grammar, it appears that the politeness features do not account for all necessary politeness marking contrasts; discourse features also play a role in creating polite register contrasts. As briefly mentioned earlier, the high imposition request phrases frequently not only include a request expression, but also discourse strategies such as explanations, excuses, or promises. Brown and Levinson (1987[1978]) discuss a broad range of such strategies in the context of mitigating face threats. Hoza (2007, 63-105) enumerates a number of the Brown and Levinson strategies used by ASL signers when making requests of various levels of imposition. The Pen Study also includes a politeness discourse feature, Economy (Econ), based on the observation that younger JSL signers in a study by Okabe et al. (2005) to would show deference to older interlocutors as discussed in §3.2.2.2.

The translations of the consultants' requests for time off during the busiest time of the year appear below.

4.28 Phrase 2—Discourse Strategies for High Imposition Requests to a Supervisor

Strategy	CID	Consultant Response[68]
	18-2	*(Beckons.) I would like to apply for my vacation time, please.*
Reason (Excuse)	17-2	*I know it's really busy but I need to be at home. If possible, I would like to take a holiday, please.*
Hedge	21-2	*(Beckons.) Excuse me. I would like to take off work from just before to after the New Year's holiday period. I know everyone is busy but can you approve my request if it is possible?*
Reason (Excuse) Apology	22-2	*(Beckons.) The busiest month is coming up, and I would normally be here, but I need to be home. My mother has been sick over the past month and I really need to be with her. I'm sorry for the inconvenience.*
Apology Promise	70-2	*(Beckons.) I'm really sorry, this is a really busy time but I suddenly need to be at home. Please let me take the holiday off. I will work hard when I return.*

Five of the six signers use polite request strategies as identified by Hoza (2007) for ASL. Most notable is the response of signer 22 who uses few of the Harmonic Grammar politeness marking features, but creates the most specific excuse, a sick mother, for taking a holiday during a busy work period. The request of consultant 18 has a low politeness weight and does not incorporate polite discourse features. He seems to interpret the prompt differently as he simply makes the request from the perspective that it is his right to apply for vacation time. As with the feature Economy (Econ), other discourse features could potentially be incorporated into a larger

[68] *The translations represent the closest natural English translations. They do not necessarily indicate the use of particular grammatical features in the original JSL phrases. E.g. conditionals in the English translation do not signal the presence of conditionals in the JSL source expression.*

Harmonic Grammar account to make up for the lack of weight in the high imposition request phrases of some of the consultants. Discourse plays an important role in the creation of a polite expression.

4.3.5 DCT Data Set Conclusions

The feature set provided by the Pen Study seems to provide broad coverage for the examination of significant politeness contrasts in the DCT phrases used by signers towards interlocutors of different levels of power and with requests incorporating various levels of imposition; however, the feature set alone could not account for all the signer productions. The examination of politeness discourse strategies adds greatly to the account on politeness marking in JSL.

4.4 Conclusions From The Two Studies

The Pen Study and DCT successfully identify politeness strategies as used by JSL signers. As detailed in §4.2.3.9, the Pen Study – identifies features of JSL politeness marking; JSL signers rely upon nonmanuals, the lexicon and discourse strategies to mark politeness. §4.2.3 describes in detail 11 features salient to signer judgments of the register of the pen phrase tokens. The findings of the Pen Study remain consistent with the expectations of the literature on register marking in sign language discussed in §3.2.2.

Although the results of the Pen Study indicate that non-signers can display intuitions about a sign language expression, ultimately signers and non-signer reactions to JSL are different (§4.2.3.9). First, there are no cues such that non-signers responded to that signers did not. Signers attended to a finer range of visual kinesic cues than the non-signers since JSL represents a language for the signers in contrast to the non-signers. The non-signers relied on impoverished interpretations of the sign signal based on their intuitions likely based on their experience with gesture and speech. Indeed, some speech correlates detailed in §4.2.3.9, such as rate of signing, allowed the non-signers to interpret the expressions in some respects similarly to signers. For cues that both groups attended to, they typically responded to different degrees. The word rate linear regression (§4.2.3.3), multiple regression (§4.2.4) and feature analysis (§4.2.2) clearly show that the degree of response differed between the two groups. JSL consists of visual-kinesic artifacts for non-signers, while for signers the JSL outputs meet well-formedness conditions for identification as linguistically salient features consisting of autonomous segments and dependent, nonmanual segments.

As detailed in §4.2.3.9, the similar attention given to signing rate and the polite grimace in ASL and JSL by the respective signers of each language suggests that these features may have typological salience for other sign languages. This study

warrants further investigation of such politeness marking features in other sign languages.

The DCT (§4.3) confirms the use by JSL signers in a free elicitation task of the politeness features identified in the Pen Study (§4.2). The suggested weights of the politeness features as determined by the Harmonic Grammar (§4.2.5) generally remained consistent with signer applications in response to prompted scenarios. The signers additionally used discourse strategies (§4.3.4) to mitigate face threats in request contexts. The results of the JSL DCT remain consistent with the conclusions of the Hoza DCT (2007) in relation to the salience of discourse strategies available to ASL sign language users, as Japanese signers similarly apply a range of discourse strategies. The limited discourse nature of the Pen Study tokens prevented extensive display of the more elaborate discourse strategies that emerged from the DCT. As mentioned in §3.3.1, the responses of the consultants in the DCT generally remained consistent with Brown and Levinson (1987[1978]) type predictions, which indicate that language users will take into consideration social distance, rank and weight of utterance in order to select appropriate politeness marking strategies; however individual signers exhibited variation in selection from the politeness repertoire and mirrored contrasts as anticipated in the Okamoto (1999) discussion of Japanese, described in §3.3.3.

CHAPTER 5
CONCLUSION

This work explores the outcome of language contact between JSL and Japanese speech and demonstrates that the two languages consist of a number of shared and contrasting communicative indices, as outlined in §2.3 and §3.1. Shared indices may result from: the emergence of language form and meaning relations from shared social contexts, such as the *o-hanami* example in Chapter One or polite expression examples from §3.1.1; links via borrowing from spoken or written Japanese as covered in §2.3; and/or identity between Japanese community visual-kinesic tokens and sign expression, examined in §2.4 and §3.1.1. These sources of JSL and Japanese speech relations are not mutually exclusive, so an example such as the use of the *hand prow* emblem described in §2.4.2 has connection to a shared visual-kinesic form and application in shared social contexts. Ultimately, the overlapping of the indexical relations produces two distinct languages that mediate related social ground.

This study examines structural characteristics pertaining to signaling politeness in JSL and Japanese speech. The elaborate system of overt encoding of polite expression in Japanese speech is commonly conceived of as indicating and reinforcing the special significance of polite behavior or practice in Japanese society. Nevertheless, sign language users as members of an overlapping society use a different language, which either marks politeness contrastively or fails to signify certain aspects of politeness signaled by spoken Japanese. The contrast between the two languages demonstrates that language cannot serve as the sole arbiter for the examination of social values or norms. Language must receive consideration in light of actual social practice. Additionally, the reliance of JSL on dependent segments, or nonmanuals, to mark polite expression indicates that any linguistic analysis of politeness is impoverished as long as such kinds of dependent segments do not receive consideration along with autonomous segments.

Since JSL and spoken Japanese represent, in a sense, two languages sharing one society, they represent a novel language contact context in which two languages segregate primarily via language modality rather than physical geography, as in the case of spoken contact languages. Contact signed and spoken language pairs can uniquely tease apart the relation between language use and social context as a sign language is cultivated in a closely related society or ground of material relations of a preexisting spoken language.

A Shared Cultural Context

Chapter Two frames the Deaf social context as a prerequisite to the comparison of JSL and spoken Japanese and shows that sign language represents the emergence of a

new language alongside a preexisting language within a single culture. Chapter Two calls attention to characteristics that frame distinctions between the Japanese Deaf and hearing communities and relates how Deaf Japanese inhabit a society saturated in the language-context relations of the hearing culture. This extensive contact results in unequal influence of Japanese speech and writing on JSL. JSL tokens additionally emerge from the shared visual-kinesthetic modality. The chapter involves a twofold aim: to show that the Japanese Deaf community is not a community isolated from the hearing community so has language structural contrasts not simply attributable to culture; and illustrate that the Japanese Deaf community shares identity with other minority language communities, therefore it follows that issues framing minority language contact apply to sign languages.

The framing of Deaf identity is prerequisite to the discussion of the relationship between JSL and spoken Japanese in Chapter Three. At first glance there appears to be two separate communities hearing and Deaf; although there are distinctions, ultimately they share the same social spaces, such as the home, school or work. In such a language contact context, the distinctions between JSL and spoken Japanese cannot be simply attributed to cultural distinctions, as Deaf Japanese life is fully integrated with hearing life. Relationships between JSL and Japanese speech do not simply emerge from the exposure of the Deaf to Japanese speaking and writing, rather, a number of the language relationships essentially emerge via shared social contexts. Such contexts mediate some of the independent emergence of JSL and spoken JSL to create related language output independent of contact borrowing. The shared social contexts additionally require the sharing of a visual-kinesic communicative system that is accessible to all non-visually impaired Deaf and hearing people alike. The visual communicative system does not simply act as the proprietary domain of speakers but remains accessible equally to both Deaf and hearing, although the interpretation of such visual cues may contrast between the communities; for instance, gesture accompanied speech as interpreted by the Deaf requires a reading independent of the specific speech content. The sign language social context of JSL can be extended for consideration for other similar sign/spoken language contact communities.

The Deaf community is not a community isolated from the hearing community. What makes JSL or other sign languages that share a similar social context unique from spoken language contact contexts is that a sign language emerges and develops alongside a preexisting language; essentially a sign/speech language contact environment offers two for one—*two languages*, one spoken and one signed, but *one culture*. The languages are separated by modality rather than geography. Users of sign idiolects when brought together to form a community, such as in a Deaf school, begin to develop a pidgin based on those idiolects, and the pidgin eventually develops into the language of a particular signing community. The user of an idiolect has

membership in a community with a preexisting, partially accessible spoken language therefore develops a communicative system grounded in the lifestyle and social context of that spoken language using community. Essentially the idiolect user shares the same culture of the surrounding language users but a different avenue of communication. The social context remains stable for *both* the preexisting spoken language and newly introduced sign language. Although sign idiolect users institutionally brought into contact transfer to a different physical locale, they share related, albeit physically distant, communities that likely required regular preexisting contact. For instance, when the Kyoto Deaf school was established, Deaf students came from surrounding areas comprised of communities that existed for a significant period of time with regular, frequent interaction of their peoples and under the jurisdiction of a shared government body. Spoken language contact communities inevitably require the introduction of a language from one neighboring community to another language community without prior extensive contact between the pair of communities. As a result, a newly introduced spoken language likely has grounding in a community with a significant range of social characteristics independent of the preexisting language. The sign language/spoken language contact scenario essentially involves the introduction and emergence of a new language in the same social context as some preexisting spoken language.

The Deaf community has a minority language identity in that the social life conditions of the Deaf parallel the life conditions of minority communities as represented by population size and social currency as determined by level of education and social economic status. An examination of the Deaf community using the frame of language contact illustrates that Japanese Deaf share characteristics with minority language users in general. JSL in relation to spoken and written Japanese, and in turn any sign language in relation to its surrounding spoken and written language(s), meets the criteria defined by Thomason and Kaufmann for language contact influence—including bilingualism, extensive contact, a large population size differential and the sociopolitical dominance of the source-language group. As a result of such an identity, particular perceptions about JSL as a minority language exist and impact the reception and development of JSL. The larger literature on language contact informs in some ways the development of JSL in light of the preexistence of spoken and written Japanese. One can expect such characteristics to be shared by sign languages with similar social contexts involving spoken languages such as ASL or ISL.[69]

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[69] *One may expect contrasts for relatively isolated small communities with speech and sign such as Martha's Vineyard SL or the Thai sign community of Ban Khor described by Nonaka (2009).*

Two Polite Languages

Although JSL and spoken Japanese share the same social milieu, they act as two independent languages. Chapter Three: establishes with specificity the relationship between JSL and spoken Japanese polite interaction; presents a deconstructionist analysis that challenges linguistic explications that equivocate language and culture; and frames the politeness literature for consideration in light of the study of JSL politeness. The relationship between two independent languages emerging from a shared culture, in this case JSL and Japanese speech, provides telling evidence about the complex relationship between language form and the nature of the social context in which the language is used. The JSL/spoken Japanese contrast additionally informs the debate on the relationship of language and culture as well as the discussion on the nature of politeness theory.

As particular forms in JSL and spoken Japanese have a shared social basis in their emergence there must exist related motivations for interlocutors' social behavior and language production. As shown for polite register marking in Chapter Three, although the social foundation shared by the Deaf and hearing may not entail exact equivalence between related sign and speech forms, users share habitual use of particular tokens in many of the same social contexts. The specific language in use by JSL and Japanese communicators differ, so the languages do not always call attention to the same cultural indices, and as a result, different politeness systems emerge from the same social context, as delineated in §3.1. The result of two differing languages sharing socially driven indices derived from the same cultural space has implications for how specific language form can be used to interpret cultural viewpoints, as in the Matsumoto case covered in §3.3.2.

Chapter Three undertakes a comparison and contrast of polite expression in JSL and spoken Japanese. Chapter Two establishes the fact that signers and speakers essentially share one community, and gives a preliminary characterization of the outcomes of language contact between JSL and spoken and written Japanese. Chapter Three narrows the examination to polite language, which involves an overt marriage of language output in response to social interaction context. Chapter Two establishes the point that JSL and spoken Japanese share the same social interaction contexts while Chapter Three goes on to illustrate specific relationships between JSL and spoken Japanese. As previously mentioned, contrasts cannot be readily accounted for by a simple claim of separate Deaf and hearing cultures as the relationship between the Deaf and hearing requires the understanding of a particular type of minority language contact context involving two languages with shared cultural foundations fundamentally separated by modality rather than geography.

Similarities between signed and spoken Japanese are rooted in emergence from shared social contexts and JSL origins in the Japanese visual-kinesic modality. The

discussion on the similarities anticipates somewhat the result of the Pen Study in Chapter Four which examines responses of signers and non-signers to stimuli consisting of the signing of a request with different levels of polite register; the non-signers had intuitions about the relative politeness of the signed expressions that bore some correspondence with the signer's recognition of particular sign language politeness cues. Relationships between JSL and the visual-kinesic modality show that some of the politeness cues of JSL can still bear some meaning for non-signers. Additionally contrasts were shown between spoken Japanese and JSL: some obligatory, such as register laden affixation of autonomous segments in spoken Japanese not available to JSL; and some non-obligatory, such as the lack of particular classes of polite expression in JSL in contrast to spoken Japanese. The contrasting language structures entail that JSL develop an independent means for polite expression. Some of those expressive forms share some typological relationship to the expression of politeness in other sign languages such as ASL.

The relationship between JSL and spoken Japanese shows that ultimately language form has a complex relationship to social context; as a result, the use of language form primarily to make inferences about the make-up of a society, as done by work such as Matsumoto (1988), represents an impoverished cross-cultural analytic strategy. While the section on Matsumoto's cultural analysis appears to take a departure from the specific characterization of JSL, it remains consistent with the central aim to show that language cannot solely stand in for culture, and supports the emphasis on the nature of the signed/spoken Japanese contact relationship of two languages that emerge from one society. The literature influenced by a body of work known as *Nihonjinron* represents widespread beliefs about Japanese society and culture with little direct empirical support from even ethnographic, sociological or anthropological literature. Frequently cited works on Japanese culture from authors such as Nakane (1970) or Doi (1973) consist of little to no empirical support. It is necessary to establish that the source of Japanese cultural description largely emerges from a literature on identity. Claims from such literature may have some grounding; however, they serve as inadequate standalone resources for the explication of cultural contrasts. Despite the fact that a number of authors call attention to the problematic nature of Japanese social descriptions by such *Nihonjinon* influenced work, the proliferation of non-empirical Japanese cultural characterization persists. The deconstruction vis-à-vis a particular argument, i.e. Matsumoto (1988), serves as the most precise way to characterize the overgeneralization of Japanese social attributes in the formal academic literature. By extension, other works that similarly apply overgeneralized cultural analyses unsupported by empirical literature require similar scrutiny. "Japanese culture" typically refers to the relational frame constructed throughout the Meiji era identity literature, which culminated during post-war Japan.

The final section of Chapter Three shows the general trend in the politeness

literature towards the examination of polite language in context. Such an examination is well suited to the consideration of JSL considering its particular relationship to Japanese speech since both languages can index the same social contexts. Only through the consideration of social context can the connection between sign and speech be reconciled despite the use of contrasting modalities.

Polite Expression in JSL

Given the backdrop formed by Chapters Two and Three, Chapter Four examines two studies meant to tease out features used to mark politeness in JSL. The two JSL studies related in Chapter Four provide concrete experimental results that support prior researchers observations about particular aspects of register marking in sign languages, discussed in §3.2. The DCT study from §4.3 demonstrates that although JSL users may apply the same politeness marking indices, variation in response exists. Such a result confirms the observations of Okamoto (1999), covered in §3.3.3, in that an interlocutor will apply social indices based on the desired stance and judgment of the nature of the communicative context. The DCT outcomes support the need to examine extended discourse to see how interlocutors manipulate polite expression in particular social contexts as discussed by authors such as Eelen (2001), Okamoto (1999) and Watts (2003). Future studies will need to elucidate how JSL signers apply politeness marking features within actual discourse contexts and to what extent particular features have typological salience across different sign languages.

Another significant finding in Chapter Four is that signers and non-signers have closely shared communicative practices evolving from their shared social context. While it has been understood that signers have access to non-signer communicative practice from the oral-aural modality, the examination of non-signers' ability to access information from the sign modality due to shared visual-kinesic communicative practice has not received as much consideration. Although JSL is structurally different spoken Japanese, shared visual-kinesic practices appear to occasionally provide non-signers intuitions about some sign features. Chapter Four ties back to the consideration of the relationship between hearing and Deaf communicative cultures.

Conclusion

The examination of the language of the Japanese signing community set in relief against spoken Japanese greatly supports the illustration of language and its relationship to social context. Looking at JSL forces our attention onto the distinction between language form and social context; this disrupts and challenges a number of

commonly held notions about language in a very radical way. The complex coexistence of JSL and spoken Japanese demonstrates linguistic relationships can be grounded in media traditionally considered non-lingual, such as gesture or shared situational contexts. JSL upturns normal considerations for language contact phenomena—JSL and spoken Japanese have separation via modality, not geography. The sign/spoken language relationship reveals a different frame for the consideration of language contact. Sign/spoken contact calls attention to the incorporation and spread of gesture and opens new avenues for the investigation of structural borrowing. JSL challenges purely linguistically relativistic readings on culture. JSL encodes Japanese polite interactive behavior as well as spoken Japanese, a language which contains far more overtly autonomous grammaticalized discourse marking segments than JSL. The distinctions between the two languages illustrate the problematic nature of positing a direct relationship between the degree of overt polite expression in Japanese speech and relative degree of politeness in Japanese society. The JSL/speech contact context significantly enriches the investigation of signed and spoken Japanese and their application in varied social contexts. This study contributes to the greater understanding of politeness and visual-communicative culture shared between language modalities.

REFERENCES

Anttila, A. (1997). Deriving variation from grammar: A study of Finnish genitives. *Variation, Change, and Phonological Theory*. F. Hinskens, R. van Hout and L. Wetzels. Amsterdam, John Benjamins: Rutgers Optimality Archive ROA-63, http://ruccs.rutgers.edu/roa.html.

Aronoff, M., I. Meir, et al. (2005). "The paradox of sign language morphology." *Language* 81(2).

Asahi news site (2009). "Thoughts about my non-hearing father and mother." Asahi.com <聞こえぬ父母へ１６００字の思い>, http://mytown.asahi.com/wakayama/news.php?k_id=31000000912050001.

Baker, C. and C. A. Padden (1978). Focusing on the Nonmanual Components of Sign Language. *Understanding Language Through Sign Language Research*. P. Siple. New York, Academic Press: 27-57.

Becker, M. and J. Pater (2007). OT Help User Guide.

Befu, H. (2001). *The Hegemony of Homogeneity*. Melbourne, Trans Pacific Press.

Bernstein, G. L. (2000 [1976]). *Japanese Marxist: a portrait of Kawakami Hajime, 1879-1946*. Cambridge, Harvard University Press.

Bettger, J. G. (2000). Viewing Deaf children in a new way: Implications of Bellugi and Klima's research for education. *The signs of language revisited: an anthology to honor Ursula Bellugi and Edward Klima*. K. Emmorey and H. Lane. New Jersey, Lawrence Erlbaum Associates: 323-331.

Birdwhistell, R. L. (1970). *Kinesics and Context: Essays on Body Motion Communication*, University of Pennsylvania Press.

Blum-Kulka, S., J. House, et al. (1989). Investigating Cross-Cultural Pragmatics: An Introductory Overview. *Cross-Cultural Pragmatics: Requests and Apologies*. S. Blum-Kulka, J. House and G. Kasper. Norwood, NJ, Ablex Publishing Corporation: 1-34.

Boersma, P. and B. Hayes (2001 [1999]). "Empirical Tests of the Gradual Learning Algorithm." *Linguistic Inquiry* 32: 45-86. [ROA-348] Variation in OT via Pratt Interface.

Bourdieu, P. (1977). *Outline of a Theory of Practice*, Cambridge Univ. Press.

Branson, J. and D. Miller (1998). "Nationalism and the linguistic rights of Deaf communities: Linguistic imperialism and the recognition and development of sign languages." *Journal of Sociolinguistics* 2(1): 3-34.

Bravo, D. (2008). "The Implications of Studying Politeness in Spanish Speaking Contexts." *Pragmatics* 18(4): 577-603.

Brennan, M. (2005). "Conjoining Word and Image in British Sign Language (BSL): An Exploration of Metaphorical Signs in BSL." *Sign Language Studies* 5(3): 360-382.

Brentari, D. (2010). Introduction. *Sign Languages*. D. Brentari, Cambridge: 1-16.

Brown, P. and S. Levinson (1987). *Politeness: some universals in language usage*. Cambridge [Cambridgeshire]; New York, Cambridge University Press.

Chodorowska-Pilch, M. (2008). "Veras in Peninsular Spanish as a grammaticalized discourse marker invoking positive and negative politeness." *Journal of Pragmatics* 40: 1357-1372.

Cokely, D. and C. L. Baker-Shenk (1980). *American sign language: a student text*. Silver Spring, Md., T.J. Publishers.

Council of Europe (1992). The European Charter for Regional or Minority Languages (ECRML) treaty (CETS 148), http://assembly.coe.int/Main.asp?link=/Documents/AdoptedText/ta93/EREC1201.htm.

Council of Europe (1993). Recommendation 1201 additional protocol on the rights of national minorities to the European Convention on Human Rights, http://assembly.coe.int/Main.asp?link=/Documents/AdoptedText/ta93/EREC1201.htm.

Crenshaw, K. W. (1989). "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics." *The University of Chicago Legal Forum*: 139-167.

Crenshaw, K. W. (1991). "Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color." *Stanford Law Review* 43(6): 1241-1299.

Crystal, D. (2000). *Language Death*, Cambridge University Press.

Dale, P. (1986). *The Myth of Japanese Uniqueness*. NY, St. Martin's Press.

Doi, T. (1971). *「甘え」の構造*. Tokyo, Koobundoo.

Doi, T. (1973). *The Anatomy of Dependence*. Tokyo, Kodansha International.

Eelen, G. (2001). *A Critique of Politeness Theories*. Manchester, St. Jerome Publishing.

Ervin-Tripp, S., J. Guo, et al. (1990). "Politeness and Persuasion in Children's Control Acts." *Journal of Pragmatics* 14: 307-331.

Felix-Brasdefer, C. (2006). "Linguistic politeness in Mexico: Refusal strategies among male speakers of Mexican Spanish." *Journal of Pragmatics* 38: 2158-2187.

Ferguson, C. A. (1959). "Diglossia." *Word* 15: 325-340.

Fernández, J. C. (2008). "Conversational Silence and Face in Two Sociocultural Contexts." *Pragmatics* 18(4): 707-728.

Fishman, J. (1966). *Language loyalty in the United States; the maintenance and perpetuation of non-English mother tongues by American ethnic and religious groups*. The Hague, Mouton.

Fishman, J. (1967). "Bilingualism with and without diglossia; Diglossia with and without bilingualism." *Journal of Social Issues* 23(2): 29-38.

Foster, S., P. Mudgett-Decaro, et al. (2003). "Cross-cultural definitions of inclusion for deaf students: a comparative analysis." *Deafness and Education International* 5(1): 1-19.

Fraser, B. and W. Nolen (1981). "The association of deference with linguistic form." *International Journal of the Sociology of Language* 27: 93-109.

Friedman, L., Ed. (1977). *On the other hand: new perspectives on American Sign Language*. NY, Academic Press.

Fukada, A. and N. Asato (2004). "Universal politeness theory: application to the use of Japanese honorifics." *Journal of Pragmatics* 36: 1991-2002.

Fukushima, S. (2004). "Evaluation of politeness: The case of attentiveness." *Multilingua* 23: 365-387.

Garfinkel, H. (1964). "Studies of the Routine Grounds of Everyday Activities." *Social Problems* 11(3): 225-250.

George, J. (2010). *'Speech Play' in Japanese Sign Language (JSL)*. Symposium About Language and Society (SALSA) XVIII, University of Texas, Austin, Department of Linguistics.

Goffman, E. (1967 [1955]). On Face-Work: an analysis of ritual elements in social interaction. *Interaction Ritual: Essays on face to face behavior by Erving Goffman*. NY, Pantheon Books: 5-45.

Goldin-Meadow, S., C. Mylander, et al. (1984). Gestural Communication in Deaf Children: The Effects and Noneffects of Parental Input on Early Language Development. *Monographs of the Society for Research in Child Development*, Society for Research in Child Development, University of Michigan. 49: 3-4.

Gordon, J. C. (1892). *Notes and observations upon the education of the deaf, with a revised index to Education of deaf children*. Washington, D. C., Volta bureau.

Gu, Y. (1990). "Politeness Phenomena in Modern Chinese." *Journal of Pragmatics* 14(2): 237-257.

Gumperz, J. J. (1964). "Linguistic and Social Interaction in Two Communities." *American Anthropologist, New Series* 66(6): 137-153.

Hanks, W. F. (1996). *Language & communicative practices*. Boulder, Westview Press.

Hasegawa, Y. and Y. Hirose (2005). "What the Japanese Language Tells Us about the Alleged Japanese Relational Self." *Australian Journal of Linguistics* 25: 219-251.

Haugen, E. (1949). "The Problems of Bilingualism." *Lingua* 2(3): 271-290.

Haugen, E. (1950). "The Analysis of Linguistic Borrowing." *Language* 26(2): 210-231.

Haugh, M. (2008). "Utterance-final conjunctive particles and implicature in Japanese conversation." *Pragmatics* 18(3): 425-451.

Hernández-Flores, N. (1999). "Politeness ideology in Spanish colloquial conversation: The case of advice." *Pragmatics* 9(1): 37-49.

Hill, B., S. Ide, et al. (1986). "Universals of Linguistic Politeness: Quantitative Evidence from Japanese and American English." *Journal of Pragmatics*: 347-371.

Hinton, L. and K. Hale, Eds. (2001). *The Green Book of Language Revitalization in Practice*, Academic Press.

Hoffmann-Dilloway (2008). "Metasemiotic Regimentation in the Standardization of Nepali Sign Language." *Journal of Linguistic Anthropology* 18(2): 192-213.

Hoza, J. (2007). *It's not what you sign, it's how you sign it: politeness in American Sign Language*. Washington D.C., Gallaudet University Press.

Hymes, D. (1986 [1972]). *Models of the Interaction of Language and Social Life*, Wiley-Blackwell.

Ichida, Y. (1994). "JSL Grammar and Lexicon." *Nihon Gogaku* 13(2): 25-35 <市田泰弘,「日本手話の文法と語彙」『日本語学』, 明治書院>.

Ichida, Y. (2005a). "Sign Linguistics Series (8): Head position and mouth shape--Japanese Sign Language grammar (4). [Perception verbs, reason verbs, NMS adverbs.]." *Gekkan Gengo* 34(8): 92-99 <市田泰弘、手話の言語学（8） 頭の位置と口型―日本手話の文法（4）「知覚・思考動詞と非手指副詞」、月刊言語>.

Ichida, Y. (2005b). "Sign Linguistics Series (9): Head movement, head position and facial expression--Japanese Sign Language grammar (5). [Sentence type and subordinate clauses.]." *Gekkan Gengo* 34(9): 94-101 <市田泰弘、手話の言語学（9）頭の動き・位置と顔の表情―日本手話の文法（5）「文タイプと従属節」、月刊言語>.

Ichida, Y., Y. Nanba, et al. (2001). "An Estimate of the Number of Native JSL Signers." *Proceedings of the 27th Annual Conference of the Japanese Association of Sign Linguistics*: 42-45 <市田泰弘・難波友加・伏原桃子・三宅三枝子・吉井美樹、「日本手話母語話者人口推計の試み」『日本手話学会第27回大会予稿集』、日本手話学会>.

Ide, S. (1982). "Japanese sociolinguistics: Politeness and women's language." *Lingua* 57: 357-85.

Ide, S. (1989). "Formal forms and discernment: Two neglected aspects of universals of linguistic politeness." *Multilingua* 8(2-3): 223-248.

Inglehart, R. F. and M. Woodward (1967). "Language Conflicts and Political Community." *Comparative Studies in Society and History* 10(1): 27-45.

Ishiyama, O. (2009). "Discussion note on Matsumoto regarding Japanese verbs of

giving and receiving." *Journal of Pragmatics*: 1061-1065.

Iwasaki, S. (1997). "The Northridge earthquake conversations: The floor structure and the 'loop' sequence in Japanese conversation." *Journal of Pragmatics* 28: 661-693.

Japan Organization for Employment of the Elderly and Persons with Disabilities (JEED) (2008). Section 2: Maintaining the Long Term Employment of Deaf Staff. T. M. f. I. Living. 9: 26-35. <高齢•障害者雇用支援機構、第二章：聴覚障害社員の長期職場定着のために>.

Jepson, J. (1991). "Urban and Rural Sign Language in India." *Language in Society* 20(1): 37-57.

Jungheim, N. O. (2006). "Learner and native speaker perspectives on a culturally-specific Japanese refusal gesture." *International Review of Applied Linguistics in Language Teaching* 44: 125-143.

Kadt, E. d. (1998). "The concept of face and its applicability to the Zulu language." *Journal of Pragmatics* 29: 173-191.

Kanazawa, T., Ed. (2001). *Deaf Education Deconstructed*, Akashi Shoten <金澤貴之、聾教育の脱構築、明石書店>.

Kasper, G. (1990). "Linguistic politeness: current research issues." *Journal of Pragmatics* 14: 193-218.

Kendon, A. (1988). How gestures can become like words. *Crosscultural perspectives in nonverbal communication*. F. Poyatos. Toronto, Hogrefe: 131-141.

Kendon, A. (2004). *Gesture: Visible action as utterance*, Cambridge University Press.

Kimura, H. (1996). "A Deaf Ethnography." *Gendai Shisou* 24(Special Edition on Deaf Culture): 200-211 <木村晴美、ろうの民族誌,現代思想第２４巻、4月臨時増刊「ろう文化」総特集 青土社>.

Kimura, H. (1998). "Sign Language Humor." *Gekkan Gengo* 27(4): 72-77 <木村晴美、「手話で表されるユーモア」、月刊言語、大修館書店>.

Kimura, H. (2001). The Reality of Deaf Schools. *Deaf Education Deconstructed*. T. Kanazawa, Akaishi Shoten: 279-320 <木村晴美、ろう学校のリアリティ、金澤貴之編著、聾教育の脱構築、明石書店>.

Kimura, H. (2007). *Japanese Sign Language and Deaf Culture: Deaf People are Strangers*. Tokyo, Seikatsu Shoin <木村晴美、日本手話とろう文化：ろう者はストレンジャー、生活書院>.

Kimura, H. (2009). *Deaf World: Japanese Sign Language and Deaf Culture*. Tokyo, Seikatsu Shoin <木村晴美、ろう者の世界：日本手話とろう文化、生活書院>.

Kimura, H. and Y. Ichida (1995). "The Deaf Proclamation—The Deaf as a Language Minority." *Gendai Shisou* 23(3): 354-362 <木村晴美・市田泰弘,「ろう文化宣言ー言語的少数者としてのろう者ー」,現代思想第23巻第3号, 青土社>.

Kitagawa, E. (2004). Orange Days. *Orange Days*. J. Shouno, H. Doi and N. Imai. Japan, TBS.

Klima, E. S. and U. Bellugi (1979). *The signs of language*. Cambridge, Mass., Harvard University Press.

Kuwayama (2009). Japan's emic conceptions. *The Cambridge Companion to Modern Japanese Culture*. Y. Sugimoto. Cambridge: 38-55.

Kyle, J. and B. Woll (1981). "British Sign Language." *Special Education: Forward Trends* 8(1): 19-23.

Labov, W. (1982). "Objectivity and Commitment in Linguistic Science: The Case of the Black English Trial in Ann Arbor." *Language in Society* 11(2): 165-201.

Labov, W. (1986). On the Mechanism of Linguistic Change. *Directions in Sociolinguistics: The Ethnography of Communication*. J. J. Gumperz and D. Hymes. Oxford, Basil Blackwell: 512-538.

Labov, W. (2001). *Principles of Linguistic Change, Vol 2: Social Factors*. Oxford, Blackwell.

Lakoff, R. (1973). *The logic of politeness: or minding your p's and q's*. Papers from the Ninth Regional Meeting of hte Chicago Linguistic Society, Chicago, Chicago Linguistic Society.

Lane, H., R. Hoffmeister, et al. (1996). *A Journey into the Deaf-World*. San Diego, DawnSignPress.

Langacker, R. W. (1987). *Foundations of Cognitive Grammar, Vol. 1: Theoretical Prerequisites*. Stanford, Stanford University Press.

Lebra, T. S. (1976). *Japanese Patterns of Behavior*, University of Hawaii Press.

Leech, G. (1983). *Principles of Pragmatics*. London, Longman.

Legendre, G., Y. Miyata, et al. (1990a). "Harmonic Grammar – a formal multi-level connectionist theory of linguistic wellformedness: An application." *In Proceedings of the Twelfth Annual Conference of the Cognitive Science Society*: 884-891. http://ics.colorado.edu/techpubs/.

Legendre, G., Y. Miyata, et al. (1990b). "Harmonic Grammar – a formal multi-level connectionist theory of linguistic wellformedness: Theoretical foundations." *In Proceedings of the Twelfth Annual Conference of the Cognitive Science Society*: 388-395. http://ics.colorado.edu/techpubs/.

Legendre, G., Y. Miyata, et al. (1990c). Can Connectionism Contribute to Syntax? Harmonic Grammar, with an application. http://ics.colorado.edu/techpubs/pdf/90-12.pdf.

Liddell, S. K. (1978). Nonmanual Signals and Relative Clauses in American Sign Language. *Understanding language through sign language research*. P. A. Siple. New York, Academic Press: 59-90.

Liddell, S. K. (2003). *Grammar, Gesture, and Meaning in American Sign Language*, Cambridge University Press.

Liddell, S. K. and R. E. Johnson (1989 [1985]). "American Sign Language: Phonological base." *Sign Language Studies* 64: 197-277.

Liddell, S. K. and M. Metzger (1998). "Gesture in sign language discourse." *Journal of Pragmatics* 30: 657-697.

Long, C. (2010). "Apology in Japanese gratitude situations: The negotiation of interlocutor role-relations." *Journal of Pragmatics* 42: 1060-1075.

Macnamara, J. (1967). "The bilingual's linguistic performance—A psychological overview." *Journal of Social Issues* 23(2): 58-77.

Maher, J. C. and G. Macdonald (1995). Introduction. *Diversity in Japanese Culture and Language*. J. C. Maher and G. Macdonald. London, Kegan Paul International: 3-23.

Mao, L. R. (1994). "Beyond politeness theory: "face" visited and renewed." *Journal of Pragmatics* 21(5): 451-86.

Maruchi, N. (2000). "CODA, the Minority Between the Deaf and the Hearing." *Gekkan Gengo* 29(7): 88-95 <丸地伸代、「ろう者と聴者の間で―CODAという名のマイノリティ」『月刊言語』、大修館書店>.

Matsumoto, Y. (1988). "Reexamination of the universality of face: Politeness phenomena in Japanese." *Journal of Pragmatics* 12: 403-26.

Matsumoto, Y. (2003). "Reply to Pizziconi." *Journal of Pragmatics* 35: 1515-1521.

McCall, L. (2005). "The Complexity of Intersectionality." *Signs: Journal of Women in Culture and Society* 30(3): 1771-1800.

McNeill, D. (1992). *Hand and mind: what gestures reveal about thought*. Chicago, University of Chicago Press.

McNeill, D. (2005). *Gesture and thought*. Chicago, University of Chicago Press.

Michael, L. (2008). Nanti Evidental Practice: Language, knowledge, and social action in an Amazonian society. *Anthropology*. Austin, University of Texas. PhD.

Mikos, K., C. Smith, et al. *Signing Naturally*, Dawn Sign Press.

Miller, R. A. (1967). *The Japanese Language*, The Univesity of Chicago Press.

Ministry of Education Culture Sports Science and Technology (2007). Special Education Schools Report, *http://www.mext.go.jp/b menu/shingi/chousa/ shotou/054/shiryo/08081901/002.htm*.

Ministry of Health Labor and Welfare (2008). March 2008 Ministry report from Information Center, Japanese Society for Rehabilitation of Persons with Disabilities (JSRPD), http://www.dinf.ne.jp/doc/japanese/resource/handicap/ H18 actual condition survey/index.html.

Ministry of Internal Affairs and Communications (2006). Income and Expenditures in Workers' Households, Statistics Bureau, Director-General for Policy Planning and Statistical Research and Training Institute. http://www.stat.go.jp/ english/data/zensho/2004/hutari/gaiyo14.htm.

Mitchell, R. E. and M. A. Karchmer (2004). "Chasing the Mythical Ten Percent: Parental Hearing Status of Deaf and Hard of Hearing Students in the United States." *Sign Language Studies* 4(2): 138-163.

Morford, J. P. and J. Kegl (2000). How input shapes the form of language. *Language and Gesture*. D. McNeill. Cambridge; New York, Cambridge University

Press: 358-387.

Morris, D. (1994). *Bodytalk: a world guide to gestures*. London, Cape.

Mouer, R. and Y. Sugimoto (1986). *Images of Japanese Society: A Study in the Social Construction of Reality*. NY, KPI.

Mursy, A. A. and J. Wilson (2001). "Towards a definition of Egyptian complimenting." *Multilingua* 20(2): 133-154.

Nakamura, K. (2006). *Deaf in Japan: Signing and the Politics of Identity*. New York, Cornell University Press.

Nakane, C. (1967). *タテ社会の人間関係：単一社会の理論 [Personal relations in a vertical society: A theory of a homogeneous society]*. Tokyo, Kodansha.

Nakane, C. (1970). *Japanese Society*. Suffolk, Richard Clay (The Chaucer Press) Ltd.

Nakano, S. (2001). The Reality of Integration. *Deaf Education Deconstructred*. T. Kanazawa, Akashi Shoten: 321-340. <中野聡子 インテグレーションのリアリティ 聾教育の脱構 築 金澤貴之編著 明石書店>.

Nakano-Glenn, E. (2004). *Unequal Freedom: How Race and Gender Shaped American Citizenship and Labor*. Cambridge, Harvard University Press.

Neidle, C., J. Kegl, et al. (2000). *The syntax of American Sign Language. Functional Categories and hierarchical structure*. Cambridge, MA, MIT Press.

Neidle, C. J. (2000). *The syntax of American Sign Language: functional categories and hierarchical structure*. Cambridge, Ma., MIT Press.

Nettle, D. and S. Romaine (2000). *Vanishing voices: the extinction of the world's languages*, Oxford University Press.

Nonaka, A. (Forthcoming). "Name Signs in Japanese Sign Language: An 'Indexical' Onomastic System." *Sign Language Studies*.

Nonaka, A. (2007). Understanding (Im)Politeness and Onomastics in Thai Sign Language: Managing Deaf-hearing Sociolinguistic Conflict in the Classroom, UCLA Department of Anthropology.

Nonaka, A. (2009). "Estimating size, scope, and membership of the speech/sign communities of undocumented indigenous/village sign languages: The Ban Khor case study." *Language and Communication* 29: 210-229.

Nozaki, E., Ed. (2009). *Deaf People and Hearing People's Misunderstandings*. Osaka, Seikosha <野崎 栄美子 (監修)、ろう者のトリセツ聴者のトリセツ—ろう者と聴者の言葉のズレ、星湖舎 、大阪>.

Nwoye, O. (1992). "Linguistic politeness and socio-cultural variations of the notion of face." *Journal of Pragmatics* 18(4): 309-328.

Ochs, E. (1992). Indexing Gender. *Rethinking Context: Language as an Interactive Phenomenon*. A. Duranti and C. Goodwin, Cambridge University Press: 335-358.

Ohala, J. (1994). The Frequency Code Underlies the Sound-Symbolic Use of Voice Pitch. *Sound Symbolism*. L. Hinton, J. Nichols and J. Ohala. Cambridge, Cambridge University Press: 325-47.

Ohashi, J. (2008). "Linguistic rituas for thanking in Japanese: Balancing obligations." *Journal of Pragmatics* 40: 2150-2174.

Okabe, H., A. Maehara, et al. (2005). Polite expression in Japanese Sign Language (JSL)—A Focus on NMS (Thesis presentation in JSL). *Sign Language Interpretation Department*. Tokorozawa, Saitama Prefecture, National Rehabilitation Center for Persons with Disabilities (NRCPD) Technical College <岡部晴子、前原明日香、増田涼子、日本手話における敬意表現についてーNMSを中心にー、国立障害者リハビリテーションセンター手話通訳学科>.

Okamoto, M. (2001). Integration, Ryu no Ko Academy, then Deaf School: The education of a hearing mother of a Deaf child. *Deaf Education Deconstructed*. T. Kanazawa, Akashi Shoten: <岡本みどり。インテグレーション、龍の子学園、そしてろう学校 金澤貴之 編著 聾教育の脱構築 明石書店>.

Okamoto, S. (1999). "Situated politeness: manipulating honorific and non-honorific expressions in Japanese conversations." *Pragmatics: quarterly publication of the International Pragmatics Association* 8(2): 51-74.

Osawa, Y. and A. Yonaiyama (1999). I Love You. Japan, Shin Nippon Films Co. Ltd.: 111 mins.

Pater, J., C. Potts, et al. (2006). Harmonic Grammar with Linear Programming, MS, University of Massachusetts Amherst. [ROA-872].

Paul, H. (1886). *Prinzipien der Sprachgeschichte*. Tübingen, Niemeyer.

Peng, F. (1974). "Kinship signs in Japanese Sign Language." *Sign Language Studies* 5: 31-47.

Perniss, P. and U. Zeshan (2008). Possessive and existential constructions: Introduction and overview. *Possessive and existential constructions in sign languages*. U. Zeshan and P. Perniss. Nijmegen, Ishara Press: 1-31.

Pfau, R. and J. Quer (2010). Nonmanuals: their grammatical and prosodic roles. *Sign Languages*. D. Brentari, Cambridge: 381-402.

Pizziconi, B. (2003). "Re-examining politeness, face and the Japanese language." *Journal of Pragmatics* (35): 1471-1506.

Potts, C., M. Becker, et al. (2007). HaLP: Harmonic Grammar with Linear Programming, Version 2, http://web.linguist.umass.edu/~halp/.

Prince, A. and P. Smolensky (1993). Optimality Theory: Constraint Interaction in Generative Grammar. Rutgers University and University of Colorado Boulder. [ROA-537].

Rawlings, B. W. and C. J. Jensema (1977). Two Studies of the Families of Hearing Impared Children., Gallaudet College Office of Demographic Studies. Series R, No.5.

Rickford, J. R. and R. J. Rickford (2000). *Spoken Soul*. NY, John Wiley and Sons Inc.

Rienzi, B. M. (1990). "Influences and Adaptability in Families with Deaf Parents and Hearing Children." *American Annals of the Deaf* 135: 402-408.

Ross, L. L. and M. C. Berkowitz (2008). *Academic ASL: It Looks Like English, But It Isn't*. Teh PEPNet 2008 Conference: Putting the Pieces Together, Columbus, OH.

Roush, D. (2007[1999]). Indirectness Strategies in American Sign Language Requests and Refusals: Deconstructing the Deaf-as-direct Stereotype. *Translation, Sociolinguistic, and Consumer Issues in Interpreting*. M. Metzger and E. Fleetwood. Washington, D.C., Gallaudet University Press: 103-158.

Ruzickova, E. (2007). "Strong and mild requestive hints and positive-face redress in Cuban Spanish." *Journal of Pragmatics* 39: 1170-1202.

Said, E. W. (1979). *Orientalism*. New York, Vintage Books.

Sandler, W. (2003). On the complementarity of signed and spoken languages. *Language Competence Across Populations: Towards a Definition of SLI*. Y. Levy and J. Schaeffer. Mahwah, NJ, Lawrence Erlbaum Assoc.: 383-409.

Sandler, W. (2006). *Sign language and linguistic universals*. Cambridge, UK; New York, Cambridge University Press.

Sasaki, N. (2006). The language development and education of Deaf children: From the standpoint of language education. *Deaf Education Will Change!* I. Kojima. Tokyo, Akaishi Shoten: <佐々木倫子、ろう児の言語発達と教育ー言語教育の観点から、小嶋勇監修 、ろう教育が変わる!明石書店>.

Senghas, A. and M. Coppola (2001). "Children creating language: how Nicaraguan sign language acquired a spatial grammar." *Psychological Science* 12(4): 323-328.

Shibatani, M. (1990). *The Languages of Japan*. Cambridge, MA, Cambridge University Press.

Shibuya, T. (2009). *The CODA World: Sign Language Culture and Speaking Culture*. Tokyo, Igaku Shoin <澁谷 智子 コーダの世界:手話の文化と声の文化 医学書院>.

Shuman, M. K. (1980). "The sound of Silence in Nohya: A preliminary account of sign language use by the Deaf in a Maya community in Yucatan, Mexico." *Language Sciences* 2(1).

Stadler, S. A. (2006). Multimodal (Im)politeness: The Verbal, Prosodic and Non-Verbal Realization of Disagreement in German and New Zealand English, The University of Auckland and Universitat Hamburg. PhD.

Stewart, D. A. and C. T. Akamatsu (1988). "The Coming of Age of American Sign Language." *Anthropology and Education Quarterly* 19(3): 235-252.

Stokoe, W. (1960). *Sign language structure: An outline of the visual communication systems of the American deaf*, Buffalo: Department of Anthropology and Linguistics, University of Buffalo.

Stokoe, W. (1969). "Sign Language Diglossia." *Studies in Linguistics* 21: 27-41.

Suemori, A. (1996). "The Tragedy of Deaf Culture." *Gendai Shisou* 24 (Special Edition on Deaf Culture): 58-63 <末森明夫、日本ろう文化の悲劇,現代思想第２４巻、4月臨時増刊「ろう文化」総特集 青土社>.

Tatsui, Y. (1995). Hoshi no Kinka. Japan.

Taub, S. (2001). *Language from the Body: Iconicity and Metaphor in American Sign Language*, Cambridge University Press.

Thomason, S. G. and T. Kaufman (1988). *Language Contact, Creolization, and Genetic Linguistics*, UC Berkeley Press.

Torigoe, T. and W. Takei (2002). "A Descriptive Analysis of Pointing and Oral Movements ina Home Sign System." *Sign Language Studies* 2(3): 281-295.

Trudgill, P. (1986). *Dialects in Contact*. Oxford, Basil Blackwell.

Tse, L. (2001). *Why Don't They Learn English: Separating Fact from Fallacy in the US Language Debate*, Teachers College Press, Columbia University.

Uyechi, L. A. N. (1996). *The Geometry of Visual Phonology*, Center for the Study of Language and Information.

Valli, C., C. Lucas, et al. (2005). *Linguistics of American Sign Language: an introduction*. Washington, D.C., Clerc Books.

Watts, R. J. (2003). *Politeness*, Cambridge.

Weinreich, U. (1953). *Languages in Contact, Findings and Problems*. The Hague, Mouton.

Wichmann, A. (2004). "The intonation of *Please*-requests: a corpus-based study." *Journal of Pragmatics* 36: 1521-1549.

Wilbur, R. B. (2000). Phonological and prosodic layering of nonmanuals in American Sign Language. *The signs of language revisited: an anthology to honor Ursula Bellugi and Edward Klima*. K. Emmorey and H. Lane. MahWah, NJ, Lawrence Erlbaum Associates: 87-114.

Wilcox, S., P. Rossini, et al. (2010). Grammmaticalization in sign languages. *Sign Languages*. D. Brentari, Cambridge: 332-354.

Yonekawa, A. (1984). *Japanese Sign Language Descriptive Linguistic Research*. Tokyo, Meiji Shoin. < 米川明人、手話言語の記述的研究、明治書院>.

Yonekawa, A., Ed. (1997). *Japanese-Japanese Sign Language Dictionary-Japanese Sign Language Research Center Edition*, Japanese Federation of the Deaf Foundation <米川明人、日本語手話辞典ー日本手話研究所編、財団法人

全日本ろうあ連盟>.

Yu, M. (2003). "On the universality of face: evidence from Chinese compliment response behavior." *Journal of Pragmatics* 35: 1679-1710.

Zimmer, J. (1989). Toward a description of register variation in American Sign Language. *The Sociolinguistics of the Deaf Community*. C. Lucas. San Diego, Academic Press: 253-272.

APPENDICES

A1. GLOSSARY OF SIGNS

1- Chin-forward (F) [ph1]

2- Chin-up (U) *borrow* [ph13]

3(a)-head nod (hn) lowered *please* (O) [ph12]

3(b)-head nod (hn) raised

4(a)-Before head hold (hh) *borrow* [ph1]

4(b)-head hold (hh) *Do you mind…* (K)

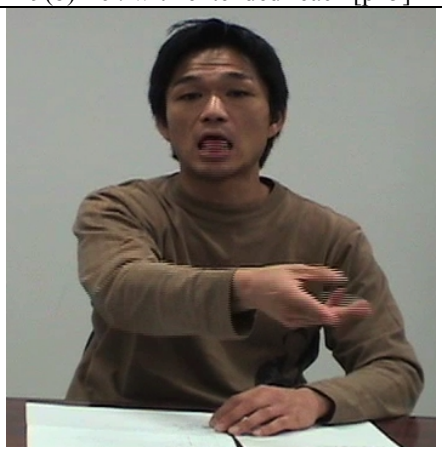
5-Expressive grimace [ph15]

6-Expressive oo, brows raised [ph17]

7(a)-Pen [ph14]

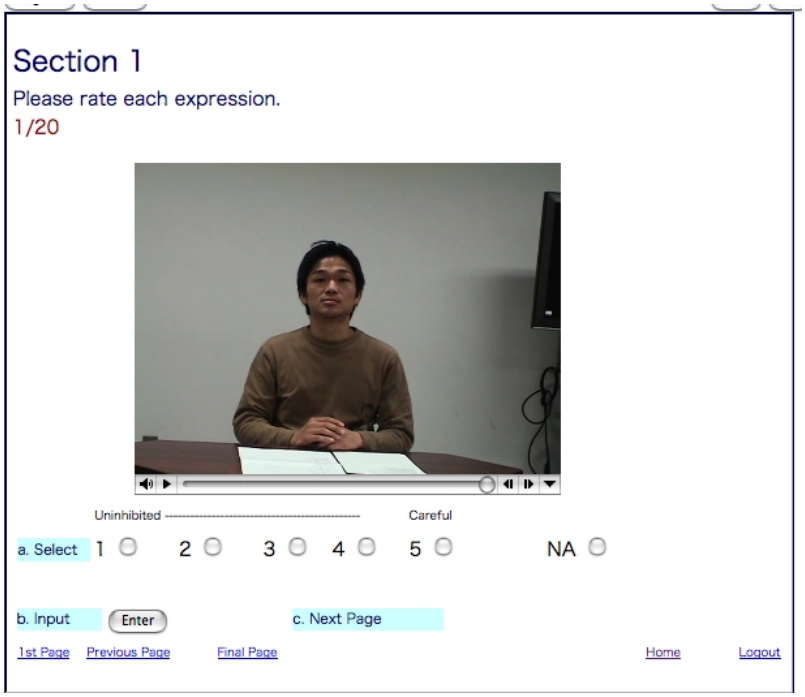
7(b)-Give [ph14]

Central vs Peripheral Signing

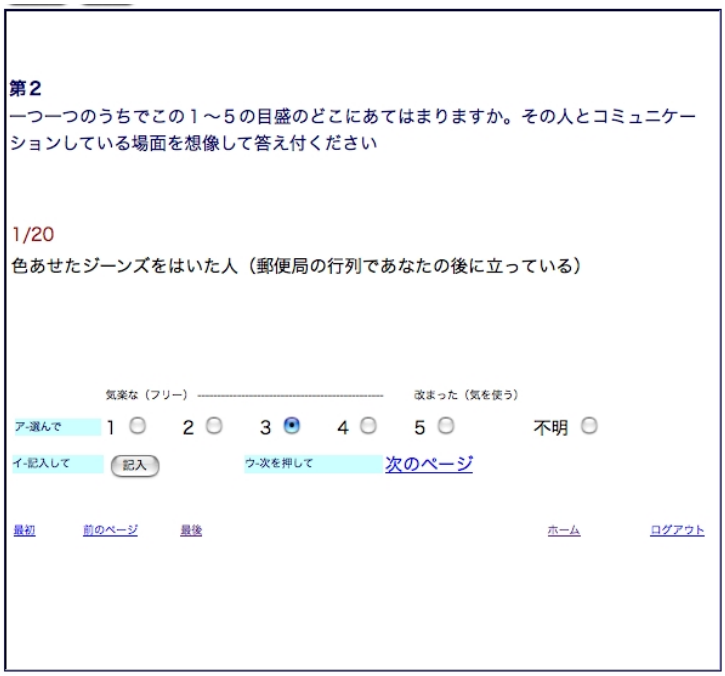
 8(a)-Beckoning centered at chin level [ph1]	 9(a)-Beckoning extends to face level [ph5]
 8(b)-*Pen* centered at normal reach [ph1]	 9(b)-*Pen* with extended reach [ph5]
 8(c)-*Borrow* centered [ph1]	 9(c)-*Borrow* extended beyond torso [ph5]

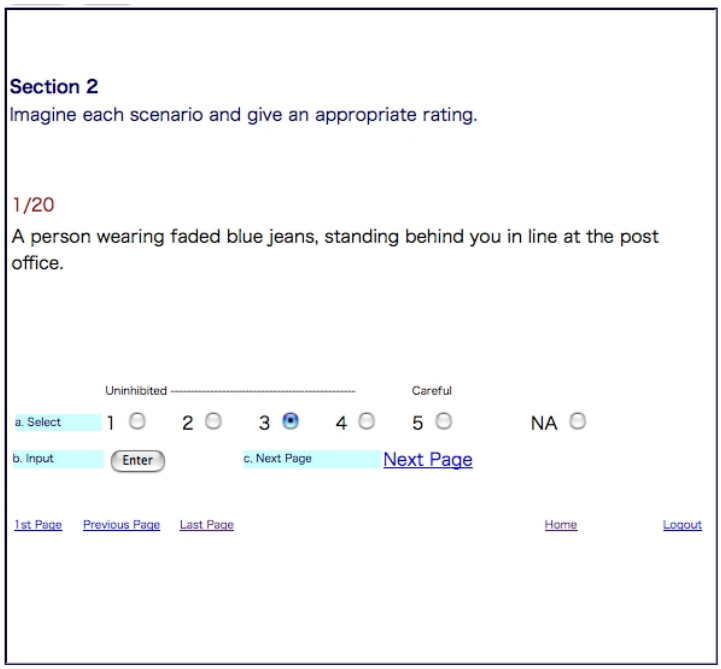
A2. PEN STUDY SCREEN PROMPTS

1. Section 1 of the Pen Study



2. Section 2 of the Pen Study





3. Section 3 of the Pen Study

第３

下には表現のビデオ一つ一つが出ています。票の右の欄に書いてある人々からペンを借りる場面を想像して下さい。ペンは机の上や、シャツのポケットなどに見えています。その中から、それぞれの表現に対してあなたが最も使いそうな場面を選んで下さい。普段使われないと思う表現があれば、「不明」を選んで下さい。

1/20

1/20

最初　前のページ　最後　ホーム　ログアウト

ア-自由にいくつか選んで

- [ ] 色あせたジーンズをはいた人（郵便局の行列であなたの後に立っている）
- [ ] よく行く小売店の店員
- [x] 職場先の仲間
- [ ] 職場先の上司
- [ ] 顔見知りの学生（授業前の教室で）
- [ ] 母親（家で話をしてる時）
- [ ] 医者（診察室で）
- [x] 郵便局の窓口の人
- [ ] 指導教授（あるいはよく接する教授）（研究室で）
- [ ] 兄／姉（家で話をしている時）
- [ ] 下宿やアパートの大家さん（家賃を払う時）
- [ ] きちんとした服装の中年の見知らぬ人（郵便局の行列であなたの後に立っている）
- [ ] 親友（あなたの部屋で話をしている）
- [ ] あなたの彼や旦那／彼女や妻（あなたの部屋で話をしている）
- [x] 警察（交通違反で捕まった時）
- [x] 大きなデパートの店員
- [ ] 顔見知りの若い大学の先生（図書館のロビーで）
- [ ] よく行く喫茶店のウエイター／ウエイトレス
- [x] 研究室の助手または秘書（教授の都合をきく時）
- [ ] 弟／妹（家で話をしている時）
- [ ] 不明（不明が選べるの場合、他の答えを選ばないで下さい）

イ-記入して　記入　ウ-次を押して　次のページ

Section 3

You will see several videos below. The list on the right side of the page describes various scenarios involving a request for a pen. Imagine that the pen is somewhere visible like on a desk or in the person's pocket. For each expression, select the appropriate scenario(s). If you feel that the expression is not appropriate for any situation, select 'NA.'

1/20

1/20

1st Page　Previous Page　Last Page　Home　Logout

a. Select any number of answers

- [ ] A person wearing faded blue jeans, standing behind you in line at the post office.
- [ ] A clerk in a small store at which you shop regularly.
- [x] A person who works with you at your job.
- [ ] Your workplace supervisor at work.
- [ ] An acquaintance in a class you attend, while you are waiting for class to begin.
- [ ] Your mother with whom you are talking to at home.
- [ ] A doctor in her/his office after an examination.
- [x] A clerk in a post office.
- [ ] A professor who is your academic advisor, in his/her office.
- [ ] Your older sister/brother with whom you are talking to at home.
- [ ] Your landlady/landlord presenting a lease for renewal.
- [ ] A middle-aged, well-dressed stranger standing in line behind you at the post office.
- [ ] A friend talking to you at your home.
- [ ] Your 'meaningful other' (spouse, lover, etc), talking to you at home.
- [x] A police officer issuing you a ticket for a traffic violation.
- [x] A clerk in a large department store.
- [ ] A young professor with whom you have a small class, who is sitting with you in the library.
- [ ] A waiter/waitress at a restaurant you go to often.
- [x] Your department secretary giving you an appointment with a professor.
- [ ] Your younger sister/brother with whom you are talking to at home.
- [ ] NA (If you select 'NA', then this should be the only answer you choose.)

b. Input　Enter　c. Next Page　Next Page

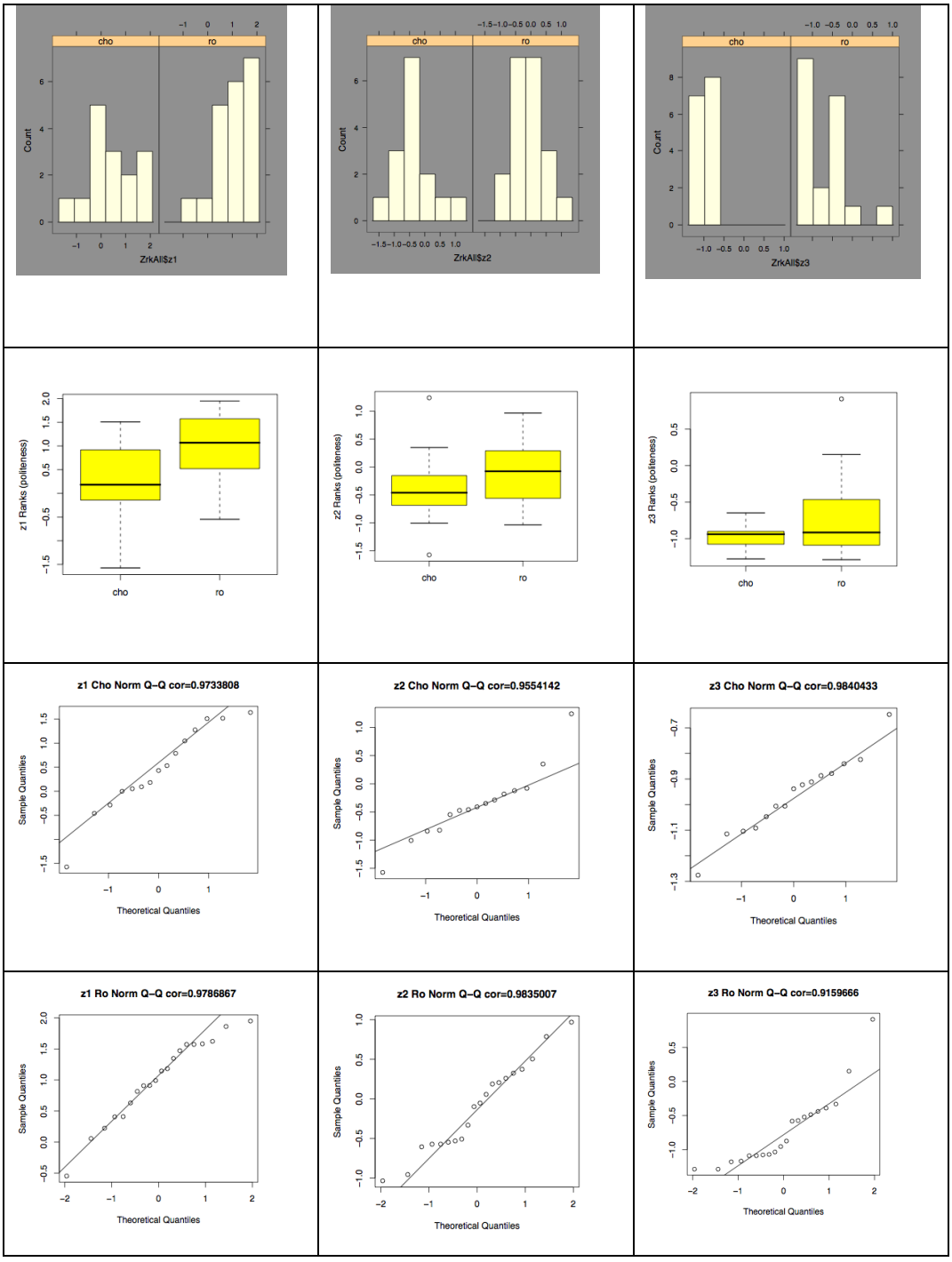
A3. CONSULTANT PROFILES

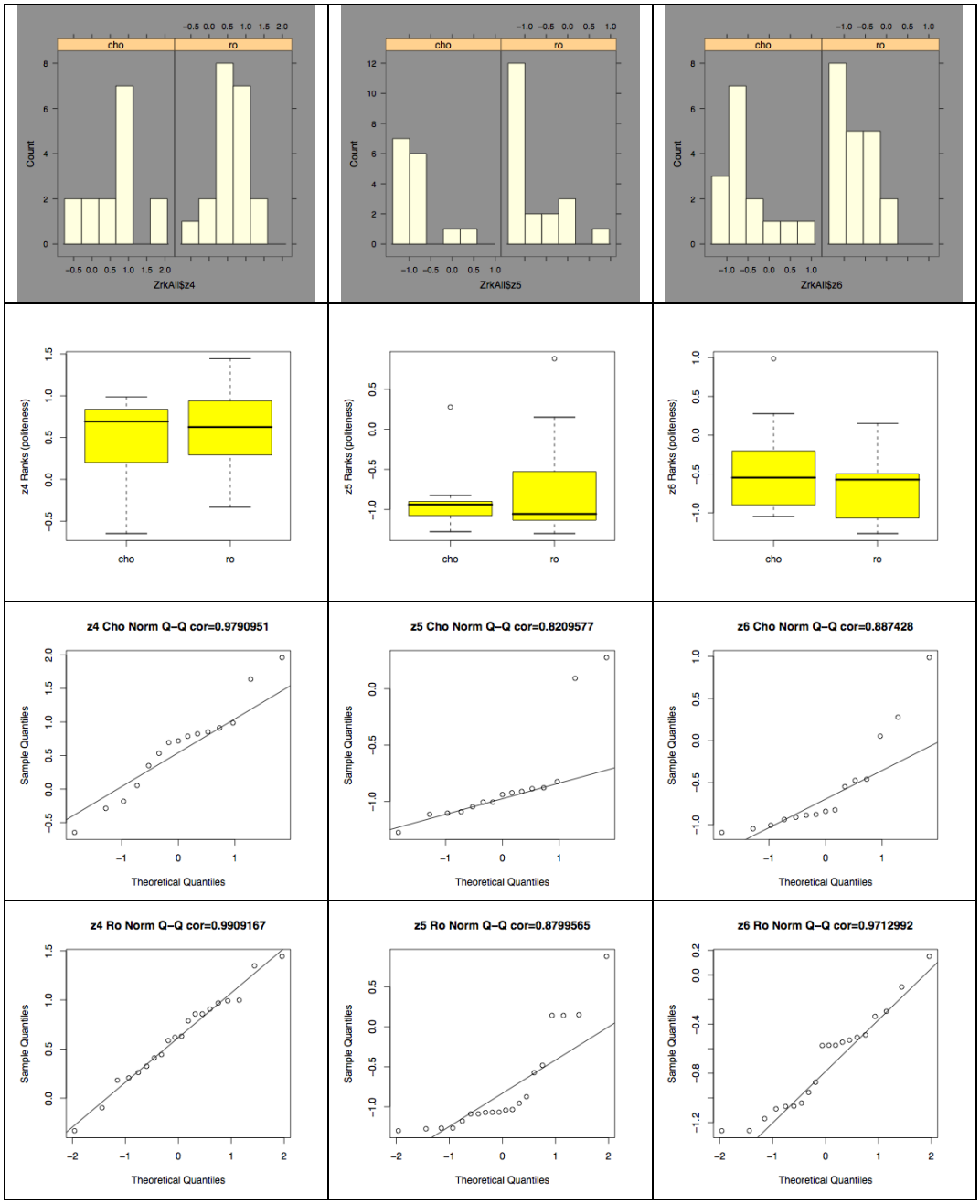
ConID	home	age	job	sex	ro	mro	fro	shuwa
14	Kanagawa	40	JSL Instructor	m	ro	mro	fro	family
17	Shizuoka	30	JSL Instructor	f	ro	mro	fro	family
21	Yamaguchi	40	JSL Instructor	f	ro	mro	fro	family
22	Hiroshima	50	JSL Instructor	f	ro	mro	fro	family
52	Tokyo	30	Office	m	ro	mro	fro	family
11	Ishikawa	30	Office	m	ro	mcho	fcho	4~
18	Tokyo	40	JSL Instructor	m	ro	mcho	fcho	1~
24	Tochigi	50	JSL Instructor	f	ro	mcho	fcho	elem school
26	Tokyo	30	Office	f	ro	mcho	fcho	20s
30	Tokyo	30	university student	f	ro	mcho	fcho	hs
32	Chiba	30	CAD	f	ro	mcho	fcho	jrhs
33	Ibaraki	40	JSL Instructor	f	ro	mcho	fcho	preschool
34	Hokkaido	30	JSL Instructor	f	ro	mcho	fcho	9~
45	Kanagawa	40	Self-employed	m	ro	mcho	fcho	1~
46	Tokyo	20	student	m	ro	mcho	fcho	jrhs
47	Tokyo	40	JLS Instructor	f	ro	mcho	fcho	preschool
49	Miyagi	40	Office	f	ro	mcho	fcho	elem school
50	Tokyo	40	Technician	m	ro	mcho	fcho	13~
51	Tokyo	30	Programmer	m	ro	mcho	fcho	4~
53	Ibaraki	20	Office	f	ro	mcho	fcho	3~
16	Kobe	20	student	f	cho	mcho	fcho	none
20	Tokyo	30	researcher	m	cho	mcho	fcho	none
25	Chiba	19	student	f	cho	mcho	fcho	none
27	Saitama	30	student	f	cho	mcho	fcho	none
28	Okinawa	20	student	f	cho	mcho	fcho	none
29	Gunma	20	student	m	cho	mcho	fcho	none
35	Tokyo	20	student	f	cho	mcho	fcho	none
36	tokyo	20	student	f	cho	mcho	fcho	none
37	Hokkaido	20	student	f	cho	mcho	fcho	a little
38	Nagano	19	student	f	cho	mcho	fcho	none
39	Yamanashi	20	student	f	cho	mcho	fcho	none
58	Tokyo	20	student	f	cho	mcho	fcho	none
59	Tokyo	20	dancer	m	cho	mcho	fcho	none
60	Tokyo	20	student	f	cho	mcho	fcho	none
48	Tokyo	20	student	f	cho	mcho	fcho	none
DCT only								
70	Tokyo	30	Actor/JSL Instructor	f	ro	mro	fro	family

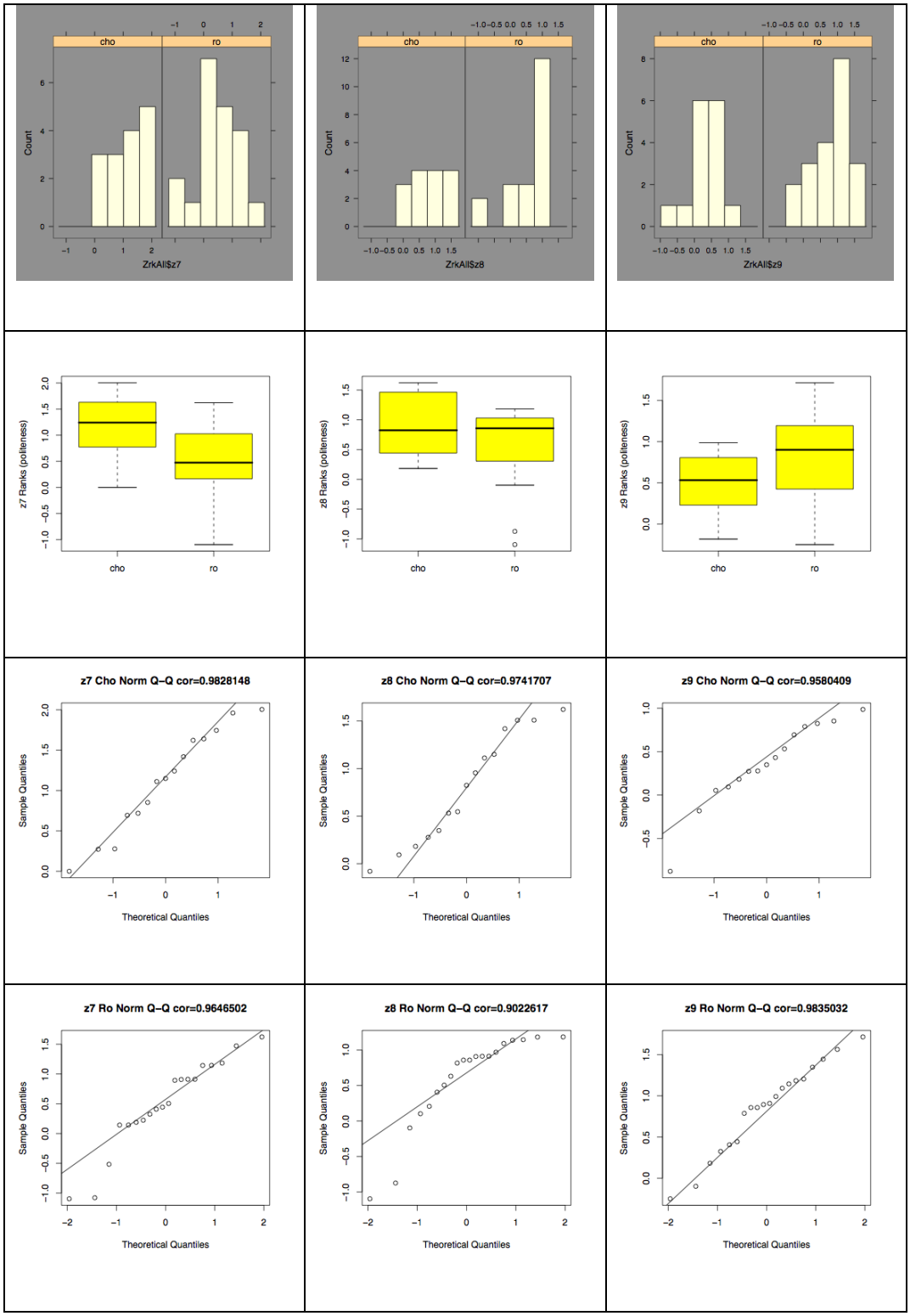
ro = Deaf mro = mother Deaf fro = father Deaf shuwa = start of sign language acquisition

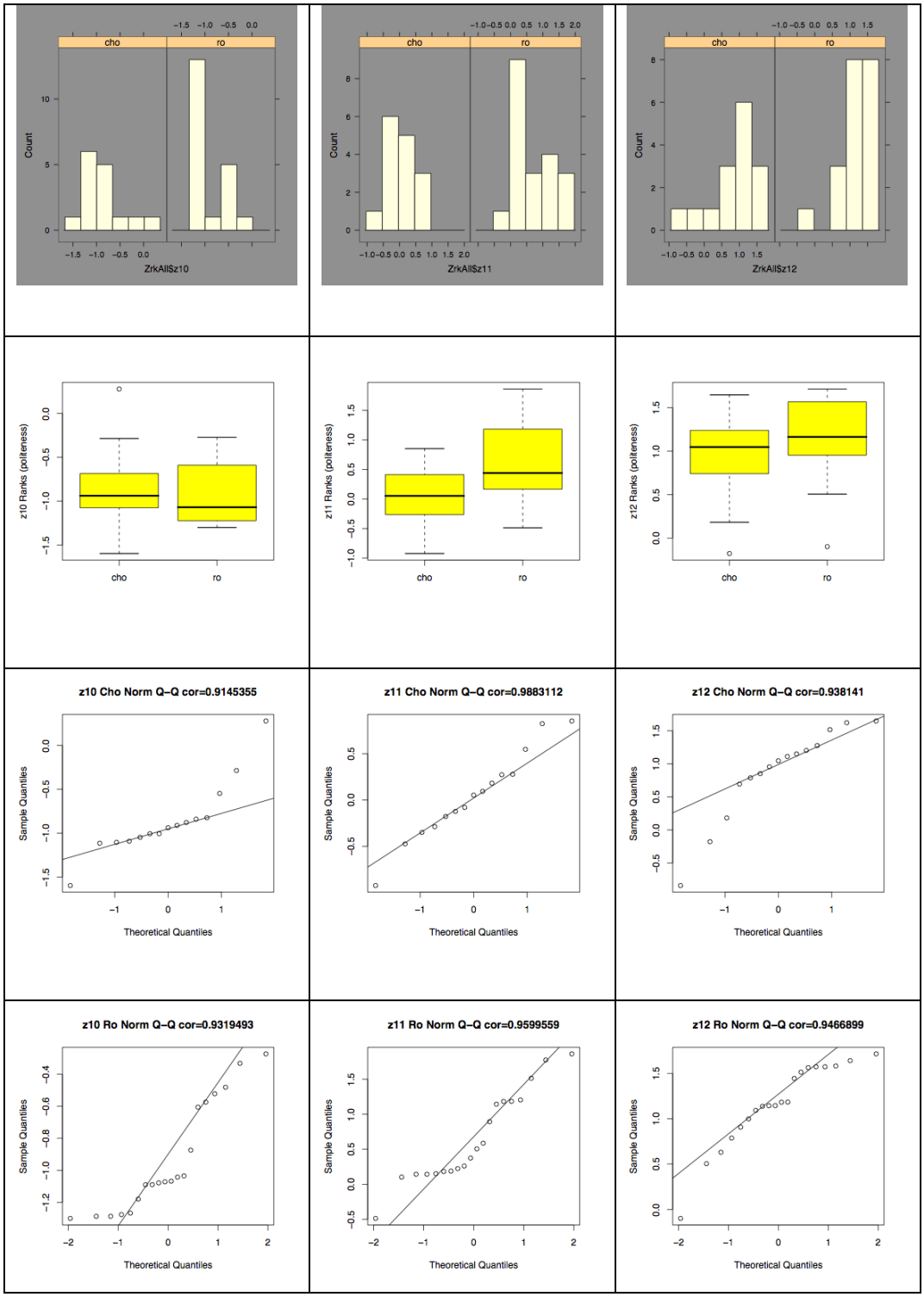
A4. PEN STUDY SECTION 1: PLOTS OF RESPONSE DATA

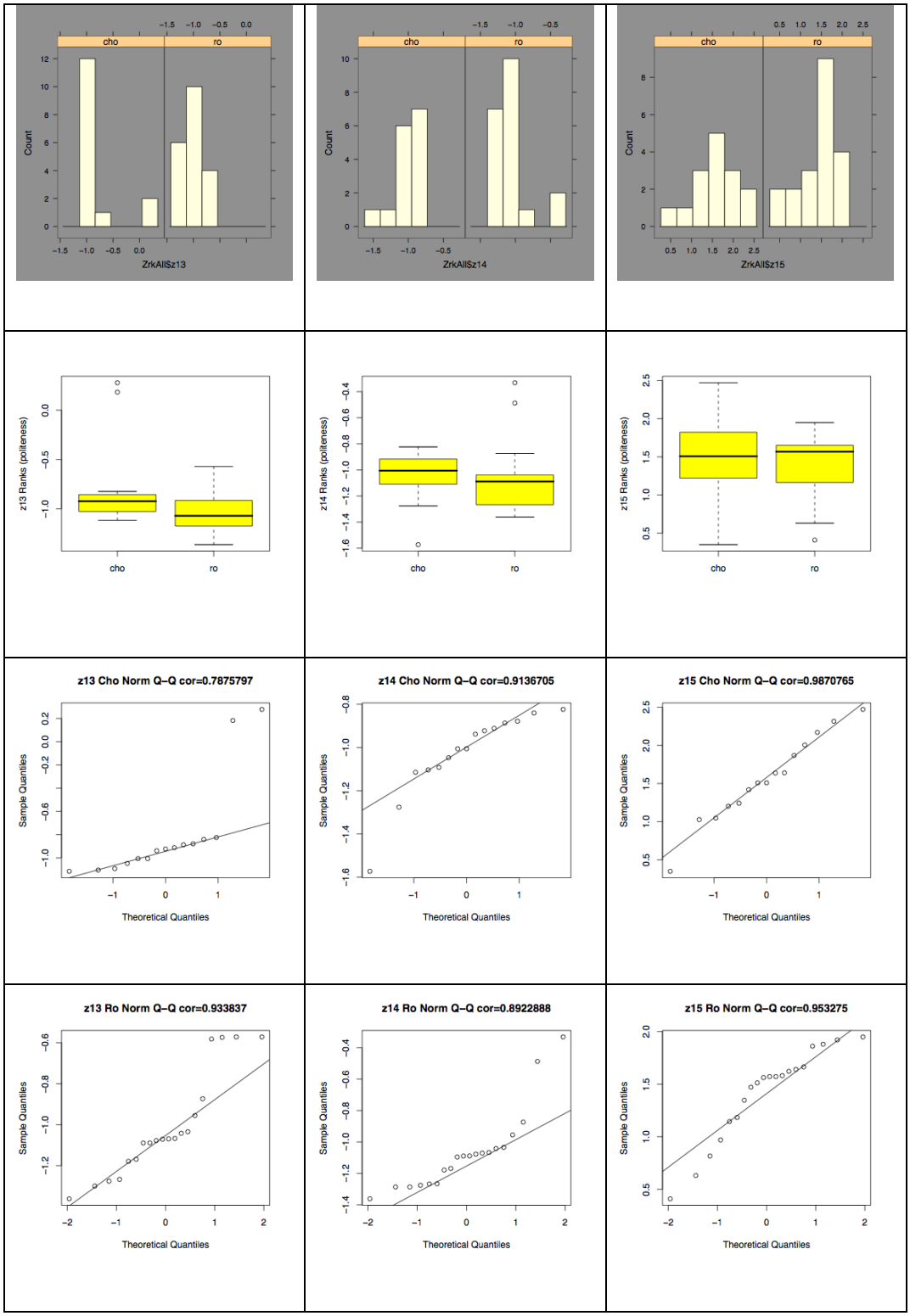
Cho= hearing consultants Ro= Deaf consultants

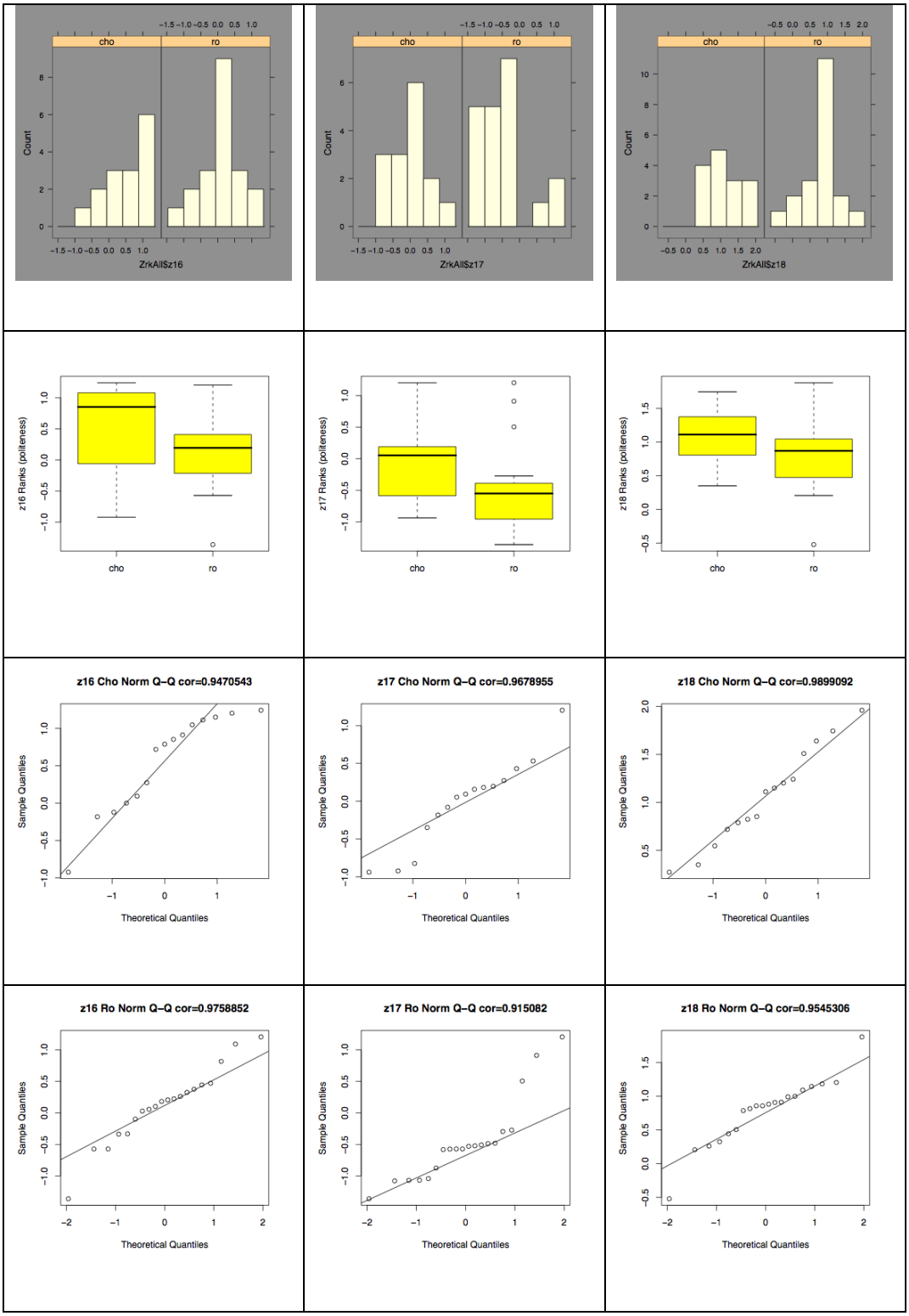


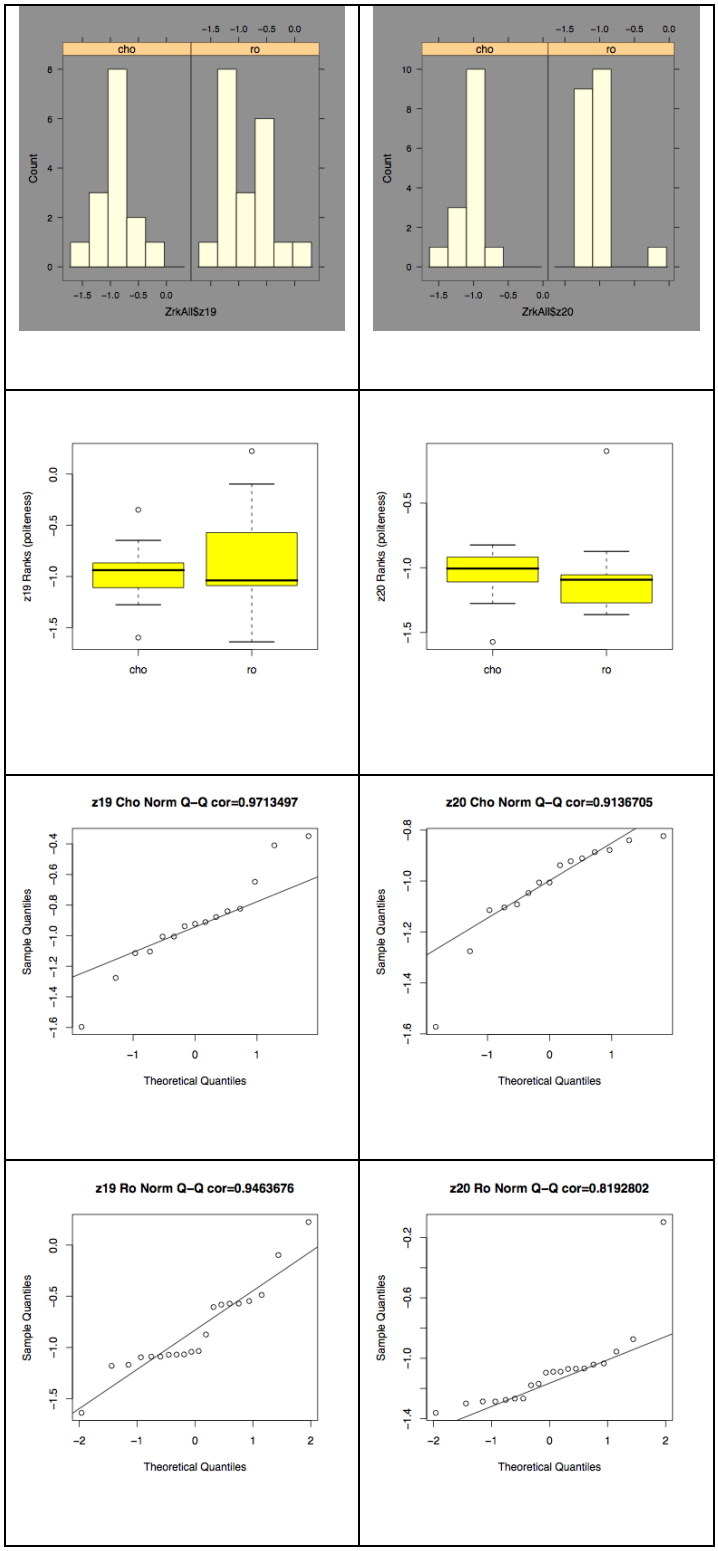

cho
ro
Count
ZrkAll$z4
ZrkAll$z5
ZrkAll$z6
z4 Ranks (politeness)
z5 Ranks (politeness)
z6 Ranks (politeness)
z4 Cho Norm Q–Q cor=0.9790951
z5 Cho Norm Q–Q cor=0.8209577
z6 Cho Norm Q–Q cor=0.887428
z4 Ro Norm Q–Q cor=0.9909167
z5 Ro Norm Q–Q cor=0.8799565
z6 Ro Norm Q–Q cor=0.9712992
Sample Quantiles
Theoretical Quantiles


cho
ro
Count
ZrkAll$z7
ZrkAll$z8
ZrkAll$z9
z7 Ranks (politeness)
z8 Ranks (politeness)
z9 Ranks (politeness)
z7 Cho Norm Q–Q cor=0.9828148
z8 Cho Norm Q–Q cor=0.9741707
z9 Cho Norm Q–Q cor=0.9580409
z7 Ro Norm Q–Q cor=0.9646502
z8 Ro Norm Q–Q cor=0.9022617
z9 Ro Norm Q–Q cor=0.9835032
Sample Quantiles
Theoretical Quantiles


cho
ro
Count
ZrkAllSz10
ZrkAllSz11
ZrkAllSz12
z10 Ranks (politeness)
z11 Ranks (politeness)
z12 Ranks (politeness)
z10 Cho Norm Q–Q cor=0.9145355
z11 Cho Norm Q–Q cor=0.9883112
z12 Cho Norm Q–Q cor=0.938141
z10 Ro Norm Q–Q cor=0.9319493
z11 Ro Norm Q–Q cor=0.9599559
z12 Ro Norm Q–Q cor=0.9466899
Sample Quantiles
Theoretical Quantiles


cho
ro
Count
ZrkAll$z13
ZrkAll$z14
ZrkAll$z15
z13 Ranks (politeness)
z14 Ranks (politeness)
z15 Ranks (politeness)
z13 Cho Norm Q–Q cor=0.7875797
z14 Cho Norm Q–Q cor=0.9136705
z15 Cho Norm Q–Q cor=0.9870765
z13 Ro Norm Q–Q cor=0.933837
z14 Ro Norm Q–Q cor=0.8922888
z15 Ro Norm Q–Q cor=0.953275
Sample Quantiles
Theoretical Quantiles

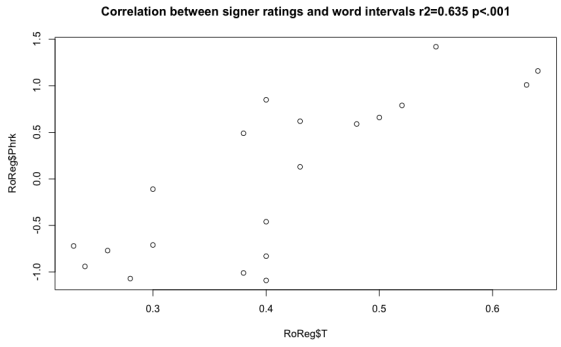

cho
ro
Count
ZrkAll$z16
ZrkAll$z17
ZrkAll$z18
z16 Ranks (politeness)
z17 Ranks (politeness)
z18 Ranks (politeness)
z16 Cho Norm Q–Q cor=0.9470543
z17 Cho Norm Q–Q cor=0.9678955
z18 Cho Norm Q–Q cor=0.9899092
z16 Ro Norm Q–Q cor=0.9758852
z17 Ro Norm Q–Q cor=0.915082
z18 Ro Norm Q–Q cor=0.9545306
Sample Quantiles
Theoretical Quantiles


cho
ro
Count
ZrkAll$z19
ZrkAll$z20
z19 Ranks (politeness)
z20 Ranks (politeness)
z19 Cho Norm Q–Q cor=0.9713497
z20 Cho Norm Q–Q cor=0.9136705
z19 Ro Norm Q–Q cor=0.9463676
z20 Ro Norm Q–Q cor=0.8192802
Sample Quantiles
Theoretical Quantiles

A5. PEN STUDY SECTION 1: PLOTS AND RESIDUALS

1. Plots of Correlations between Ratings and Word Intervals

Signers



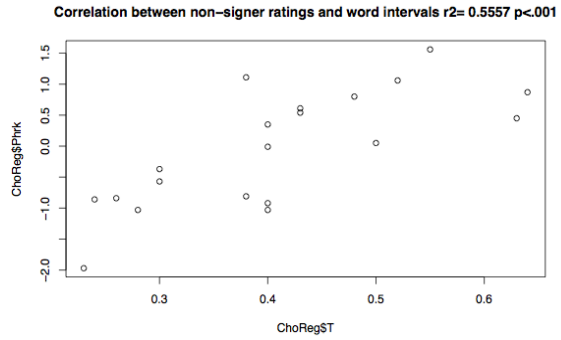
Residuals:
Min 1Q Median 3Q Max
-1.04789 -0.27754 0.03938 0.33892 0.89211

Coefficients:
Estimate Std. Error t value Pr(>|t|)
(Intercept) -2.3148 0.4305 -5.377 4.13e-05 ***
RoReg$T 5.6818 1.0153 5.596 2.61e-05 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5313 on 18 degrees of freedom
Multiple R-Squared: 0.635, Adjusted R-squared: 0.6147
F-statistic: 31.31 on 1 and 18 DF, p-value: 2.605e-05

Non-signers



Residuals:
Min 1Q Median 3Q Max
-0.93604 -0.47663 0.09366 0.44763 1.31984

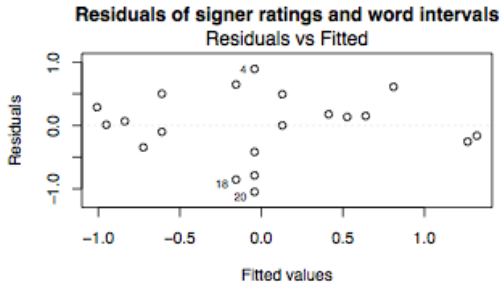
Coefficients:
Estimate Std. Error t value Pr(>|t|)
(Intercept) -2.4116 0.5177 -4.658 0.000196 ***
ChoReg$T 5.7941 1.2211 4.745 0.000162 ***

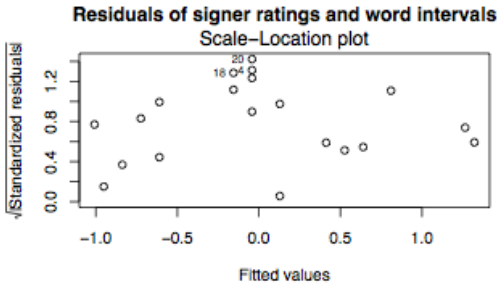
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

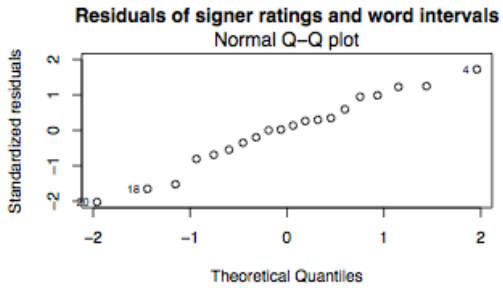
Residual standard error: 0.6389 on 18 degrees of freedom
Multiple R-Squared: 0.5557, Adjusted R-squared: 0.531
F-statistic: 22.52 on 1 and 18 DF, p-value: 0.0001617

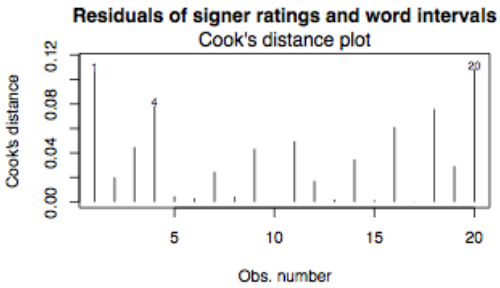
2. Residual Plots of Correlations between Ratings and Word Intervals

Signers

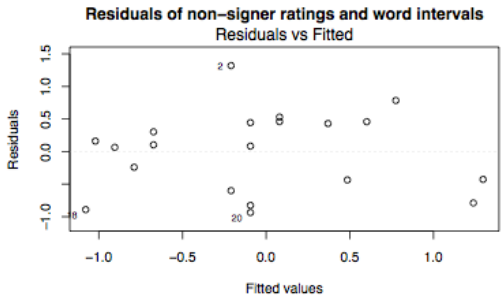


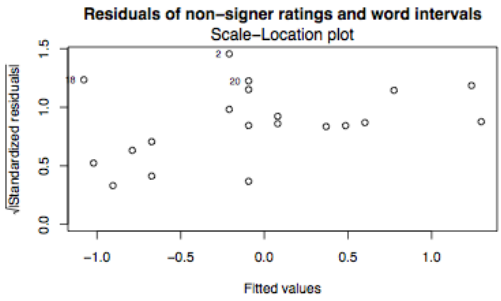


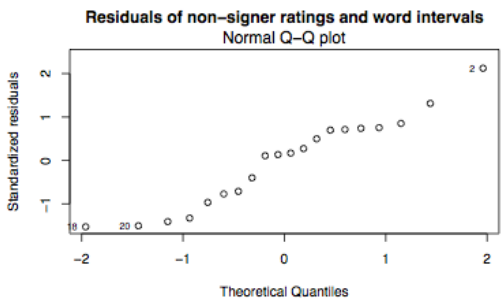


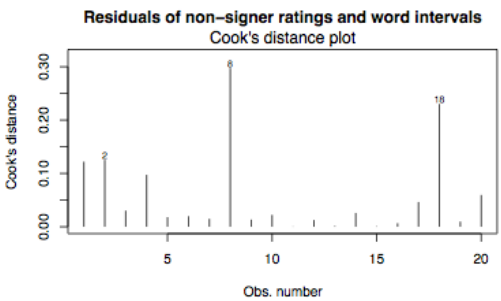


Non-Signers



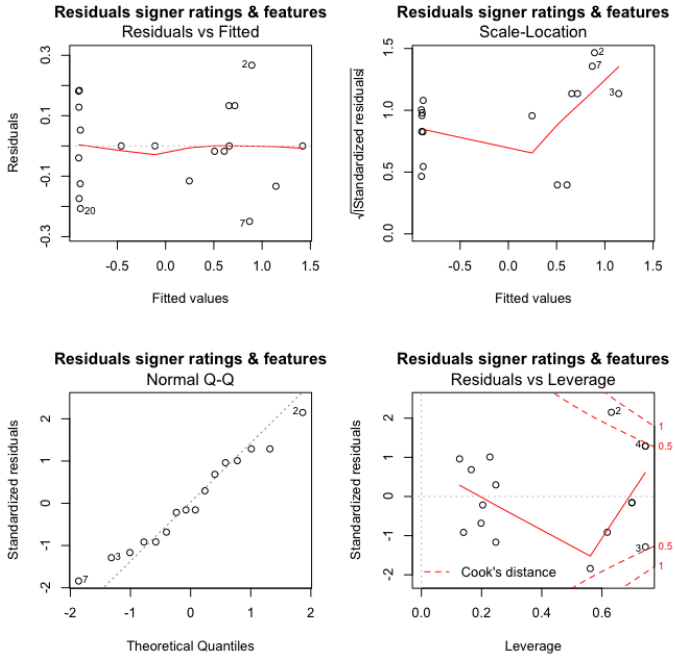




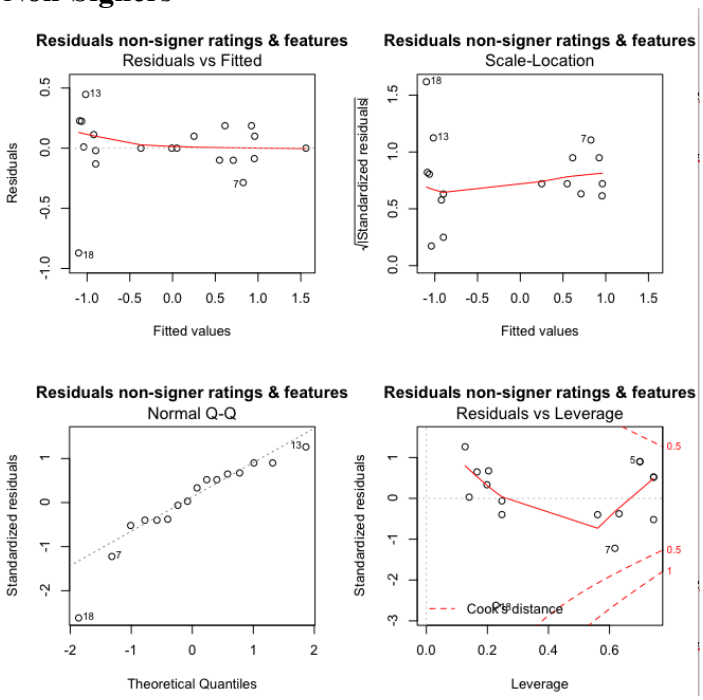


3. Residual Plots for Multiple Regressions

Signers



Non-Signers



4. Full Multiple Regression Tables for Politeness Feature data

5.13 (a) Signer Data

Residuals:

Min	1Q	Median	3Q	Max
-2.496e-01	-1.180e-01	6.340e-18	1.295e-01	2.672e-01

Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	-0.92696	0.26147	-3.545	0.00626 **
RoReg$F	-1.17360	0.61702	-1.902	0.08960 .
RoReg$S	1.26565	0.40911	3.094	0.01285 *
RoReg$T	0.11073	0.80723	0.137	0.89391
RoReg$Nf	0.81565	0.28899	2.822	0.01997 *
RoReg$Ni	-0.20689	0.23180	-0.893	0.39534
RoReg$O	0.42421	0.31391	1.351	0.20957
RoReg$K	0.26749	0.18494	1.446	0.18198
RoReg$Eg	1.16105	0.29190	3.978	0.00322 **
RoReg$E	0.04468	0.23393	0.191	0.85278
RoReg$Econ	0.35641	0.20899	1.705	0.12230

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2048 on 9 degrees of freedom
Multiple R-squared: 0.9729, Adjusted R-squared: 0.9428
F-statistic: 32.3 on 10 and 9 DF, p-value: 7.724e-06

5.13 (b) Non-signer data

Residuals:

Min	1Q	Median	3Q	Max
-8.709e-01	-8.984e-02	1.747e-16	1.315e-01	4.470e-01

Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	-1.36910	0.48330	-2.833	0.0196 *
ChoReg$F	0.61175	1.14048	0.536	0.6047
ChoReg$S	-0.16676	0.75619	-0.221	0.8304
ChoReg$T	1.17382	1.49206	0.787	0.4517
ChoReg$Nf	0.50324	0.53416	0.942	0.3707
ChoReg$Ni	0.69603	0.42845	1.625	0.1387
ChoReg$O	0.04629	0.58023	0.080	0.9382
ChoReg$K	0.15567	0.34183	0.455	0.6596
ChoReg$Eg	0.59294	0.53954	1.099	0.3003
ChoReg$E	0.30049	0.43239	0.695	0.5046
ChoReg$Econ	-0.27171	0.38628	-0.703	0.4996

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.3785 on 9 degrees of freedom
(1 observation deleted due to missingness)
Multiple R-squared: 0.922, Adjusted R-squared: 0.8354
F-statistic: 10.65 on 10 and 9 DF, p-value: 0.0007529

A6. PEN STUDY SECTION 1: HARMONIC GRAMMAR TABLEAU

1. Harmonic Grammar Tableau – Signer Constraints

C=Economy X= Ø, unconventional sign Ni=#N Nf=N#

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 12ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> FSNfNiO_Eg__T	1.0	1.0				5.5		1.0	1.0	1.0	1.0		Weighted total: 60.5
FSNfNiOK__CT		1.0		1.0		6.4	1.0	1.0	1.0	1.0	1.0		Weighted total: 59.5

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 23ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> FSNfNiOK__CT		1.0		1.0		6.4	1.0	1.0	1.0	1.0	1.0		Weighted total: 59.5
FSNf_OK_ECT		1.0		1.0		6.3	1.0		1.0	1.0	1.0	1.0	Weighted total: 58.5

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 35ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> FSNf_OK_ECT		1.0		1.0		6.3	1.0		1.0	1.0	1.0	1.0	Weighted total: 58.5
FSNf_O__ECT		1.0		1.0		5.2		1.0	1.0	1.0	1.0	1.0	Weighted total: 51.0

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 56ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> FSNf_O__ECT		1.0		1.0		5.2		1.0	1.0	1.0	1.0	1.0	Weighted total: 51.0
FSNf__K__CT		1.0		1.0		5.0	1.0		1.0	1.0			Weighted total: 50.0

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 67ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> FSNf__K__CT		1.0		1.0		5.0	1.0		1.0	1.0			Weighted total: 50.0
FSNfNiOK__CT		1.0		1.0		4.3	1.0	1.0	1.0	1.0	1.0		Weighted total: 49.0

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 78ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> FSNfNiOK__CT		1.0		1.0		4.3	1.0	1.0	1.0	1.0	1.0		Weighted total: 49.0
FSNfNiO___CT		1.0		1.0		4.8		1.0	1.0	1.0	1.0		Weighted total: 48.0

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 89ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> FSNfNiO___CT		1.0		1.0		4.8		1.0	1.0	1.0	1.0		Weighted total: 48.0
FSNfNiOK___T		1.0				3.8	1.0	1.0	1.0	1.0	1.0		Weighted total: 38.5

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 910ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> FSNfNiOK___T		1.0				3.8	1.0	1.0	1.0	1.0	1.0		Weighted total: 38.5
FSNfNiO____T		1.0				4.3		1.0	1.0	1.0	1.0		Weighted total: 37.5

2. Harmonic Grammar Tableau – Signer Constraints

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT1 011ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> FSNfNiO____T		1.0				4.3		1.0	1.0	1.0	1.0		Weighted total: 37.5
FSNf K T		1.0				3.0	1.0		1.0		1.0		Weighted total: 32.0

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT1 112ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> FSNf__K___T		1.0				3.0	1.0		1.0		1.0		Weighted total: 32.0
F Nf O CT				1.0		4.0			1.0	1.0	1.0		Weighted total: 31.0

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT1 213ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> F_Nf__O___CT				1.0		4.0			1.0	1.0	1.0		Weighted total: 31.0
_____T						3.0							Weighted total: 15.0

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT1 314ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> _____T						3.0							Weighted total: 15.0
_____T						2.3							Weighted total: 11.5

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT1 417ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> _____T						2.3							Weighted total: 11.5
_____CTU			-1.0	1.0		2.4							Weighted total: 10.5

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT1 718ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> _____CTU			-1.0	1.0		2.4							Weighted total: 10.5
_____TU			-1.0			3.8							Weighted total: 9.5

Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT1 819ro	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
--> _____TU			-1.0			3.8							Weighted total: 9.5
_____TX					-1.0	2.8							Weighted total: 8.5

3. Comparative View of Signer Constraints

	Weights	17.0	11.5	9.5	8.0	5.5	5.0	3.5	1.5	1.0	1.0	1.0	1.0	
input	winner ~ loser	Eg	S	U	C	X	T	K	Ni	F	Nf	O	E	
FSNfNiOKEgECT12ro	FSNfNiO_Eg__T ~ FSNfNiOK__CT	+1.0			-1.0		-0.9	-1.0						Weighted total: 1.0
FSNfNiOKEgECT23ro	FSNfNiOK__CT ~ FSNf_OK_ECT						+0.1		+1.0				-1.0	Weighted total: 1.0
FSNfNiOKEgECT35ro	FSNf_OK_ECT ~ FSNf_O__ECT						+1.1	+1.0	-1.0					Weighted total: 7.5
FSNfNiOKEgECT56ro	FSNf_O__ECT ~ FSNf__K__CT						+0.2	-1.0	+1.0			+1.0	+1.0	Weighted total: 1.0
FSNfNiOKEgECT67ro	FSNf__K__CT ~ FSNfNiOK__CT						+0.7		-1.0			-1.0		Weighted total: 1.0
FSNfNiOKEgECT78ro	FSNfNiOK__CT ~ FSNfNiO___CT						-0.5	+1.0						Weighted total: 1.0
FSNfNiOKEgECT89ro	FSNfNiO___CT ~ FSNfNiOK___T				+1.0		+1.0	-1.0						Weighted total: 9.5
FSNfNiOKEgECT910ro	FSNfNiOK___T ~ FSNfNiO____T						-0.5	+1.0						Weighted total: 1.0
FSNfNiOKEgECT1011ro	FSNfNiO____T ~ FSNf__K___T						+1.3	-1.0	+1.0		+1.0			Weighted total: 5.5
FSNfNiOKEgECT1112ro	FSNf__K___T ~ F_Nf__O___CT		+1.0		-1.0		-1.0	+1.0			-1.0			Weighted total: 1.0
FSNfNiOKEgECT1213ro	F_Nf__O___CT ~ _____T				+1.0		+1.0			+1.0	+1.0	+1.0		Weighted total: 16.0
FSNfNiOKEgECT1314ro	_____T ~ _____T						+0.7							Weighted total: 3.5
FSNfNiOKEgECT1417ro	_____T ~ _____CTU			+1.0	-1.0		-0.1							Weighted total: 1.0
FSNfNiOKEgECT1718ro	_____CTU ~ _____TU				+1.0		-1.4							Weighted total: 1.0
FSNfNiOKEgECT1819ro	_____TU ~ _____TX			-1.0		+1.0	+1.0							Weighted total: 1.0

Eg=polite grimace frown
S=Centralized signing space
U= chin-up
C- Economy
X= Ø, unconventional sign
T=word rate

K= *KAMAIMASEN* 'Do you mind...'
Ni=#N= phrase initial nod
F=chin-forward
Nf=N#=phrase final nod
O= O=*ONEGAI* 'please'
E=polite grimace

4. Harmonic Grammar Tableau – Non-signer Constraints

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 13cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> FSNfNiO_Eg__T	1.0	1.0		1.0	5.5	1.0	1.0	1.0			Weighted total: 57.4
FSNf_O__ECT	1.0		1.0	1.0	5.2	1.0	1.0	1.0		1.0	Weighted total: 56.4

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 34cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> FSNf_O__ECT	1.0		1.0	1.0	5.2	1.0	1.0	1.0		1.0	Weighted total: 56.4
FSNfNiOK__CT	1.0			1.0	6.4	1.0	1.0	1.0	1.0	1.0	Weighted total: 55.4

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 45cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> FSNfNiOK__CT	1.0			1.0	6.4	1.0	1.0	1.0	1.0	1.0	Weighted total: 55.4
FSNfNiO___CT	1.0			1.0	4.8	1.0	1.0	1.0		1.0	Weighted total: 48.0

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 56cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> FSNfNiO___CT	1.0			1.0	4.8	1.0	1.0	1.0		1.0	Weighted total: 48.0
FSNfNiOK__CT	1.0			1.0	4.3	1.0	1.0	1.0	1.0	1.0	Weighted total: 47.0

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 67cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> FSNfNiOK__CT	1.0			1.0	4.3	1.0	1.0	1.0	1.0	1.0	Weighted total: 47.0
FSNfNiO____T	1.0			1.0	4.3	1.0	1.0	1.0			Weighted total: 45.0

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 78cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> FSNfNiO____T	1.0			1.0	4.3	1.0	1.0	1.0			Weighted total: 45.0
FSNf_OK_ECT			1.0	1.0	6.3	1.0	1.0	1.0	1.0	1.0	Weighted total: 44.0

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT 89cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> FSNf_OK_ECT			1.0	1.0	6.3	1.0	1.0	1.0	1.0	1.0	Weighted total: 44.0
FSNf_OK___T				1.0	4.0	1.0	1.0	1.0	1.0		Weighted total: 27.0

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT910cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> FSNf_OK___T				1.0	4.0	1.0	1.0	1.0	1.0		Weighted total: 27.0
FSNf__K__CT					5.0	1.0	1.0	1.0	1.0	1.0	Weighted total: 26.0

5. Harmonic Grammar Tableau – Non-signer Constraints

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT1011cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> FSNf__K__CT					5.0	1.0	1.0	1.0	1.0	1.0	Weighted total: 26.0
F_Nf__O___CT				1.0	4.0		1.0	1.0		1.0	Weighted total: 25.0

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT1112cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> F_Nf__O___CT				1.0	4.0		1.0	1.0		1.0	Weighted total: 25.0
FSNf_OK___T				1.0	3.0	1.0	1.0		1.0		Weighted total: 22.0

Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
Input: FSNfNiOKEgECT1213cho	Ni	Eg	E	O	T	S	F	Nf	K	C	
--> FSNf_OK___T				1.0	3.0	1.0	1.0		1.0		Weighted total: 22.0
___T					3.0						Weighted total: 12.0

6. Comparative View of Non-signer Constraints

	Weights	17.8	7.6	6.8	6.0	4.0	2.0	1.0	1.0	1.0	1.0	
input	winner ~ loser	Ni	Eg	E	O	T	S	F	Nf	K	C	
FSNfNiOKEgECT13cho	FSNfNiO_Eg__T ~ FSNf_O__ECT		+1.0	-1.0		+0.3					-1.0	Weighted total: 1.0
FSNfNiOKEgECT34cho	FSNf_O__ECT ~ FSNfNiOK__CT			+1.0		-1.2				-1.0		Weighted total: 1.0
FSNfNiOKEgECT45cho	FSNfNiOK__CT ~ FSNfNiO___CT					+1.6				+1.0		Weighted total: 7.4
FSNfNiOKEgECT56cho	FSNfNiO___CT ~ FSNfNiOK__CT					+0.5				-1.0		Weighted total: 1.0
FSNfNiOKEgECT67cho	FSNfNiOK__CT ~ FSNfNiO____T									+1.0	+1.0	Weighted total: 2.0
FSNfNiOKEgECT78cho	FSNfNiO____T ~ FSNf_OK_ECT	+1.0		-1.0		-2.0				-1.0	-1.0	Weighted total: 1.0
FSNfNiOKEgECT89cho	FSNf_OK_ECT ~ FSNf_OK___T			+1.0		+2.3					+1.0	Weighted total: 17.0
FSNfNiOKEgECT910cho	FSNf_OK___T ~ FSNf__K__CT				+1.0	-1.0					-1.0	Weighted total: 1.0
FSNfNiOKEgECT1011cho	FSNf__K__CT ~ F_Nf__O___CT				-1.0	+1.0	+1.0			+1.0		Weighted total: 1.0
FSNfNiOKEgECT1112cho	F_Nf__O___CT ~ FSNf_OK___T					+1.0	-1.0		+1.0	-1.0	+1.0	Weighted total: 3.0
FSNfNiOKEgECT1213cho	FSNf_OK___T ~ ___T				+1.0		+1.0	+1.0		+1.0		Weighted total: 10.0

Ni=#N= phrase initial nod
Eg=polite grimace frown
E=polite grimace
O= O=*ONEGAI* 'please'
T=word rate

S=Centralized signing space
F=chin-forward
Nf=N#=phrase final nod
K= *KAMAIMASEN* 'Do you mind...'
C= Economy

7. OT HELP *Files - Signers*

			F	S	Nf	Ni	O	K	Eg	E	C	T	U	X
			F	S	Nf	Ni	O	K	Eg	E	C	T	U	X
FSNfNiOKEgECT12ro	FSNfNiO_Eg__T	1	-1	-1	-1	-1	-1	0	-1	0	0	-5.5	0	0
	FSNfNiOK__CT	0	-1	-1	-1	-1	-1	-1	0	0	-1	-6.4	0	0
FSNfNiOKEgECT23ro	FSNfNiOK__CT	1	-1	-1	-1	-1	-1	-1	0	0	-1	-6.4	0	0
	FSNf_OK_ECT	0	-1	-1	-1	0	-1	-1	0	-1	-1	-6.3	0	0
FSNfNiOKEgECT35ro	FSNf_OK_ECT	1	-1	-1	-1	0	-1	-1	0	-1	-1	-6.3	0	0
	FSNf_O__ECT	0	-1	-1	-1	-1	-1	0	0	-1	-1	-5.2	0	0
FSNfNiOKEgECT56ro	FSNf_O__ECT	1	-1	-1	-1	-1	-1	0	0	-1	-1	-5.2	0	0
	FSNf__K__CT	0	-1	-1	-1	0	0	-1	0	0	-1	-5	0	0
FSNfNiOKEgECT67ro	FSNf__K__CT	1	-1	-1	-1	0	0	-1	0	0	-1	-5	0	0
	FSNfNiOK__CT	0	-1	-1	-1	-1	-1	-1	0	0	-1	-4.3	0	0
FSNfNiOKEgECT78ro	FSNfNiOK__CT	1	-1	-1	-1	-1	-1	-1	0	0	-1	-4.3	0	0
	FSNfNiO___CT	0	-1	-1	-1	-1	-1	0	0	0	-1	-4.8	0	0
FSNfNiOKEgECT89ro	FSNfNiO___CT	1	-1	-1	-1	-1	-1	0	0	0	-1	-4.8	0	0
	FSNfNiOK___T	0	-1	-1	-1	-1	-1	-1	0	0	0	-3.8	0	0
FSNfNiOKEgECT910ro	FSNfNiOK___T	1	-1	-1	-1	-1	-1	-1	0	0	0	-3.8	0	0
	FSNfNiO____T	0	-1	-1	-1	-1	-1	0	0	0	0	-4.3	0	0
FSNfNiOKEgECT1011ro	FSNfNiO____T	1	-1	-1	-1	-1	-1	0	0	0	0	-4.3	0	0
	FSNf__K___T	0	-1	-1	0	0	-1	-1	0	0	0	-3	0	0
FSNfNiOKEgECT1112ro	FSNf__K___T	1	-1	-1	0	0	-1	-1	0	0	0	-3	0	0
	F_Nf__O___CT	0	-1	0	-1	0	-1	0	0	0	-1	-4	0	0
FSNfNiOKEgECT1213ro	F_Nf__O___CT	1	-1	0	-1	0	-1	0	0	0	-1	-4	0	0
	_____T	0	0	0	0	0	0	0	0	0	0	-3	0	0
FSNfNiOKEgECT1314ro	_____T	1	0	0	0	0	0	0	0	0	0	-3	0	0
	_____T	0	0	0	0	0	0	0	0	0	0	-2.3	0	0
FSNfNiOKEgECT1417ro	_____T	1	0	0	0	0	0	0	0	0	0	-2.3	0	0
	_____CTU	0	0	0	0	0	0	0	0	0	-1	-2.4	1	0
FSNfNiOKEgECT1718ro	_____CTU	1	0	0	0	0	0	0	0	0	-1	-2.4	1	0
	_____TU	0	0	0	0	0	0	0	0	0	0	-3.8	1	0
FSNfNiOKEgECT1819ro	_____TU	1	0	0	0	0	0	0	0	0	0	-3.8	1	0
	_____TX	0	0	0	0	0	0	0	0	0	0	-2.8	0	1
[end of tableaux]														
[minimal weight]														

8. OT HELP *Files – Non-signers*

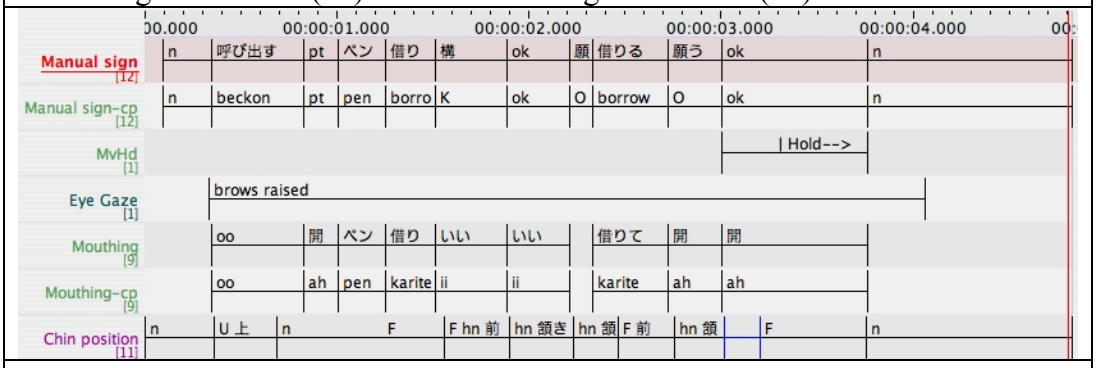
			F	S	Nf	Ni	O	K	Eg	E	C	T
			F	S	Nf	Ni	O	K	Eg	E	C	T
FSNfNiOKEgECT13cho	FSNfNiO_Eg__T	1	-1	-1	-1	-1	-1	0	-1	0	0	-5.5
	FSNf_O__ECT	0	-1	-1	-1	-1	-1	0	0	-1	-1	-5.2
FSNfNiOKEgECT34cho	FSNf_O__ECT	1	-1	-1	-1	-1	-1	0	0	-1	-1	-5.2
	FSNfNiOK__CT	0	-1	-1	-1	-1	-1	-1	0	0	-1	-6.4
FSNfNiOKEgECT45cho	FSNfNiOK__CT	1	-1	-1	-1	-1	-1	-1	0	0	-1	-6.4
	FSNfNiO___CT	0	-1	-1	-1	-1	-1	0	0	0	-1	-4.8
FSNfNiOKEgECT56cho	FSNfNiO___CT	1	-1	-1	-1	-1	-1	0	0	0	-1	-4.8
	FSNfNiOK__CT	0	-1	-1	-1	-1	-1	-1	0	0	-1	-4.3
FSNfNiOKEgECT67cho	FSNfNiOK__CT	1	-1	-1	-1	-1	-1	-1	0	0	-1	-4.3
	FSNfNiO____T	0	-1	-1	-1	-1	-1	0	0	0	0	-4.3
FSNfNiOKEgECT78cho	FSNfNiO____T	1	-1	-1	-1	-1	-1	0	0	0	0	-4.3
	FSNf_OK_ECT	0	-1	-1	-1	0	-1	-1	0	-1	-1	-6.3
FSNfNiOKEgECT89cho	FSNf_OK_ECT	1	-1	-1	-1	0	-1	-1	0	-1	-1	-6.3
	FSNf_OK___T	0	-1	-1	-1	0	-1	-1	0	0	0	-4
FSNfNiOKEgECT910cho	FSNf_OK___T	1	-1	-1	-1	0	-1	-1	0	0	0	-4
	FSNf__K__CT	0	-1	-1	-1	0	0	-1	0	0	-1	-5
FSNfNiOKEgECT1011cho	FSNf__K__CT	1	-1	-1	-1	0	0	-1	0	0	-1	-5
	F_Nf__O___CT	0	-1	0	-1	0	-1	0	0	0	-1	-4
FSNfNiOKEgECT1112cho	F_Nf__O___CT	1	-1	0	-1	0	-1	0	0	0	-1	-4
	FSNf__K___T	0	-1	-1	0	0	-1	-1	0	0	0	-3
FSNfNiOKEgECT1213cho	FSNf__K___T	1	-1	-1	0	0	-1	-1	0	0	0	-3
	_____O____T	0	0	0	0	0	0	0	0	0	0	-3
[end of tableaux]												
[minimal weight]												

A7. PEN STUDY SECTION 2: SCENARIO RATINGS

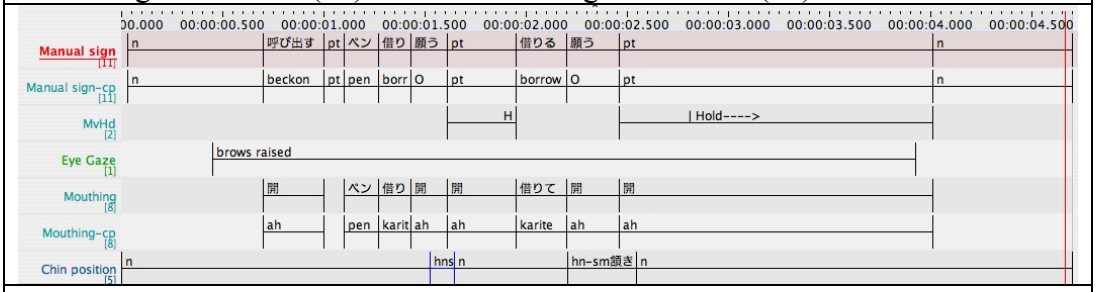
	4	7	15	12	9	19	8	11	16	3	17	2	18	1	5	6	14	10	13	20
Scenario	supervisor	doctor	cop	neatly dressed	prof	admin	po worker	landlord	department store	coworker	young prof	shop	freq coffee waiter	jeans	cohort	mom	partner	older sibling	friend	younger sibling
CID																				
11	3	3	5	5	3	3	3	5	5	3	1	3	4	2	1	4	1	1	1	1
14	3	3	3	3	4	4	3	3	3	3	3	2	3	0	3	1	1	1	1	1
17	4	4	3	4	3	4	4	2	4	2	3	3	3	1	3	1	1	1	1	1
18	3	4	3	3	3	3	3	4	2	2	2	3	2	2	2	3	1	1	1	1
21	4	5	4	4	4	3	3	4	3	2	3	1	2	3	2	1	2	1	1	1
22	3	4	4	4	4	4	3	4	3	3	4	3	3	2	3	1	1	1	1	1
24	5	4	3	4	5	4	4	4	3	3	3	3	3	5	3	3	1	2	1	1
26	5	5	5	3	5	5	3	0	3	2	2	2	2	3	1	2	1	2	1	0
30	3	3	4	4	2	2	4	5	5	3	4	4	2	2	2	4	1	3	1	2
32	5	3	4	0	5	5	3	4	3	4	4	2	3	3	3	1	1	1	1	0
33	5	4	5	5	3	5	3	4	4	4	5	3	3	3	2	1	1	0	1	2
34	4	5	4	5	3	5	5	5	4	2	3	1	4	1	3	1	1	1	1	1
45	3	2	3	3	1	2	3	4	3	2	4	3	3	3	3	2	2	2	2	2
47	5	5	5	5	5	5	4	4	4	5	4	4	4	5	2	2	1	2	2	2
46	4	4	3	4	5	3	4	4	4	3	3	4	2	2	2	3	3	3	2	2
49	4	3	4	3	4	4	2	4	2	4	2	4	2	3	1	2	2	2	1	1
50	4	4	5	3	4	4	4	0	3	2	2	3	3	3	2	1	3	2	1	1
51	4	4	4	3	4	3	3	5	2	2	2	1	1	3	2	1	1	1	1	1
52	5	5	5	4	4	0	3	0	3	4	0	3	3	4	2	1	4	0	4	2
53	4	4	2	3	0	2	4	3	3	4	4	5	3	3	2	5	4	5	5	5
Avg	4	3.9	3.9	3.6	3.55	3.5	3.4	3.4	3.3	2.95	2.9	2.85	2.75	2.65	2.2	2	1.65	1.6	1.5	1.4

1 Non-Signers 0.45 (8) Signers 1.01 (3)

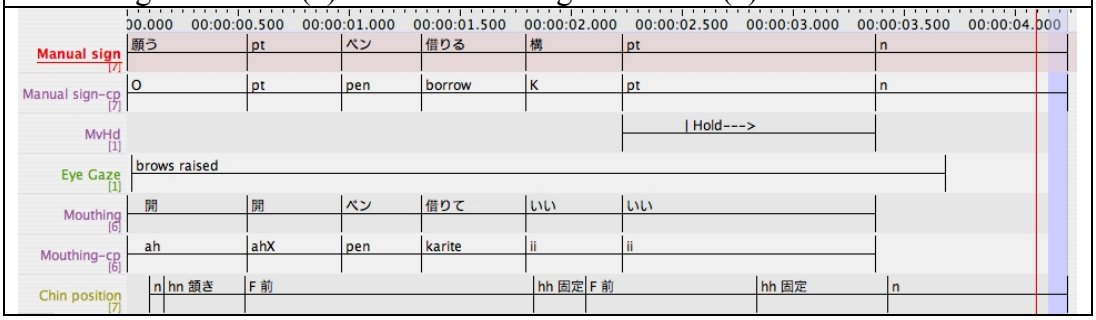
2 Non-Signers -0.37 (12) Signers -0.11 (11)



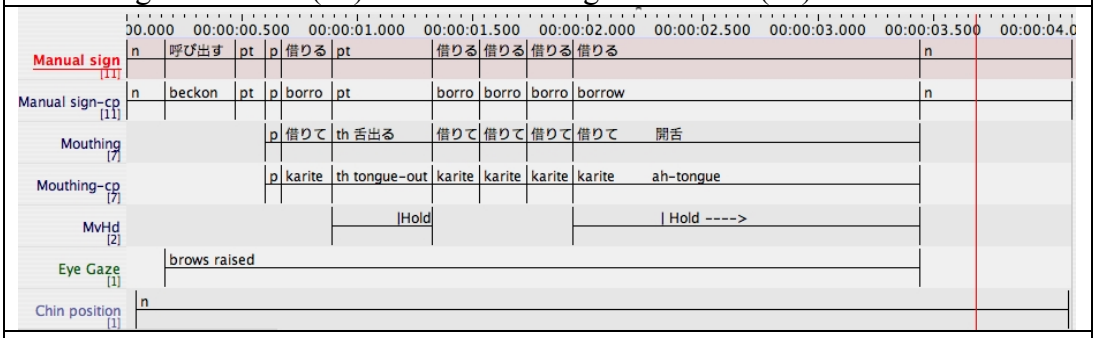
3 Non-Signers -0.97 (18) Signers -0.72 (14)



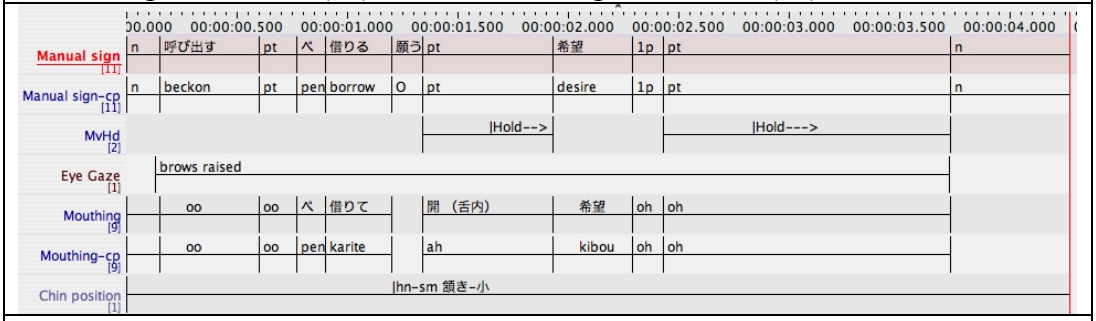
4 Non-Signers 0.61 (6) Signers 0.62 (7)



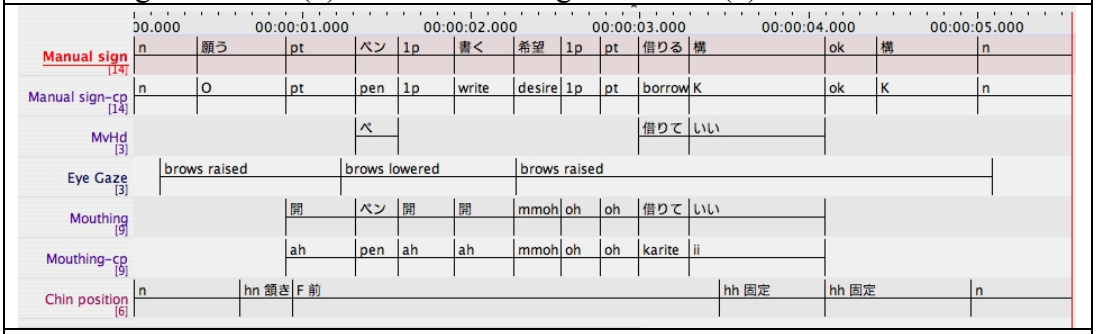
5 Non-Signers -0.84 (15) Signers -0.77 (15)



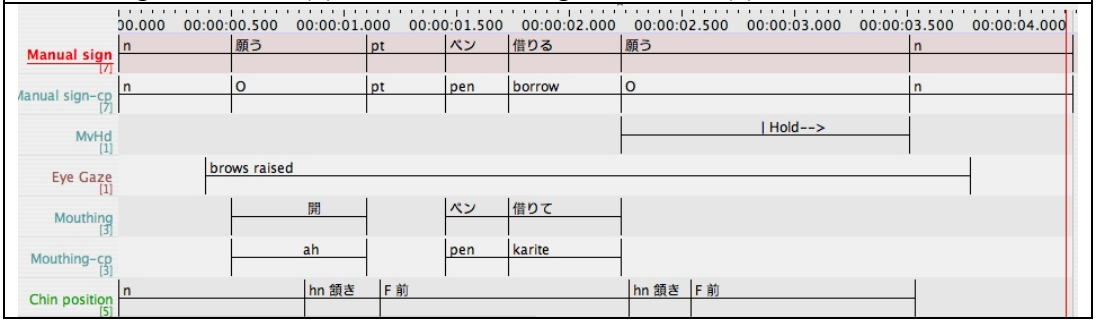
6 Non-Signers -0.57 (13) Signers -0.71 (13)



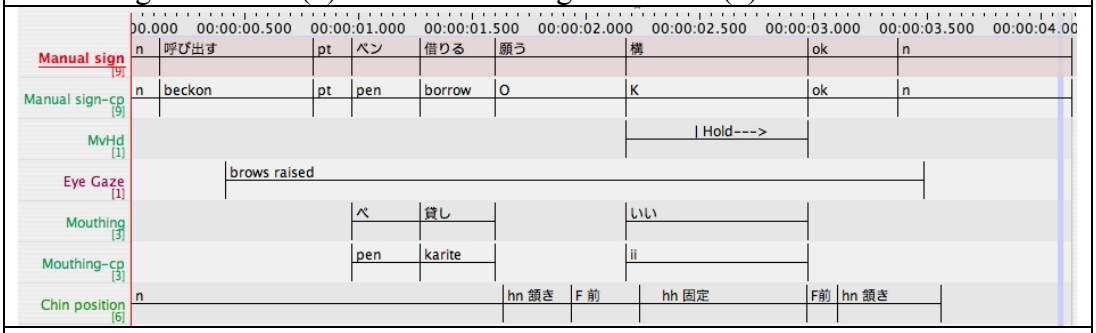
7 Non-Signers 1.11 (2) Signers 0.49 (9)



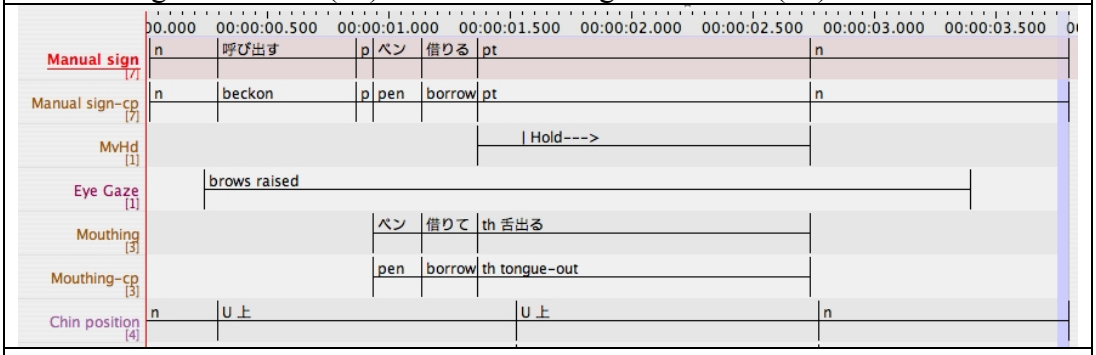
8 Non-Signers 0.80 (5) Signers 0.59 (8)



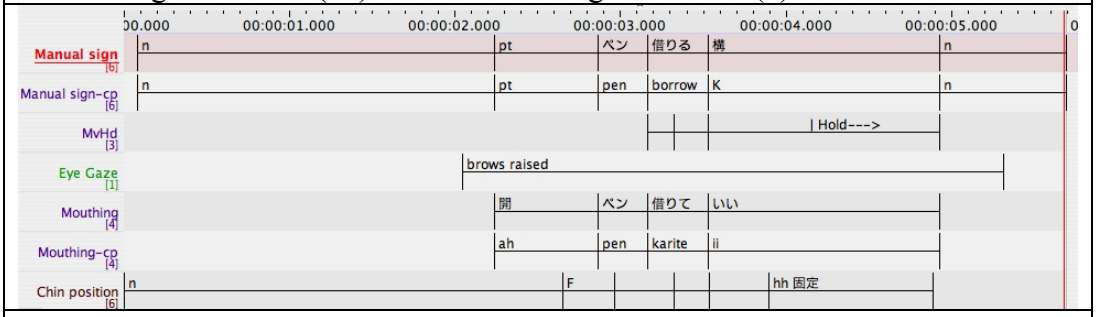
9 Non-Signers 0.35 (9) Signers 0.85 (4)



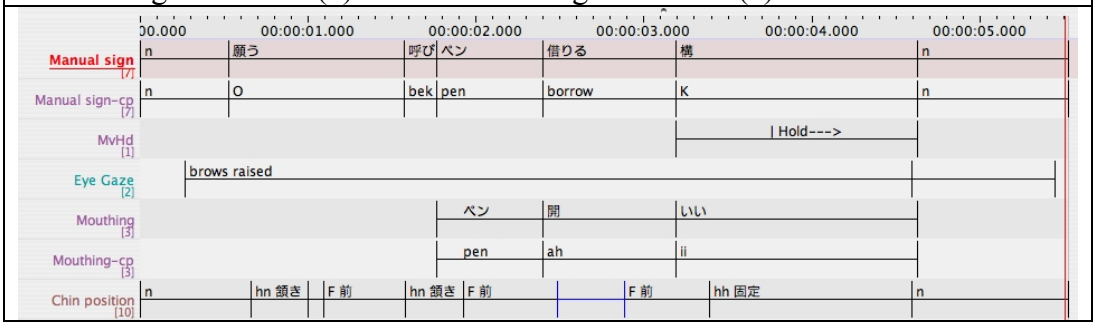
10 Non-Signers -0.86 (16) Signers -0.94 (17)



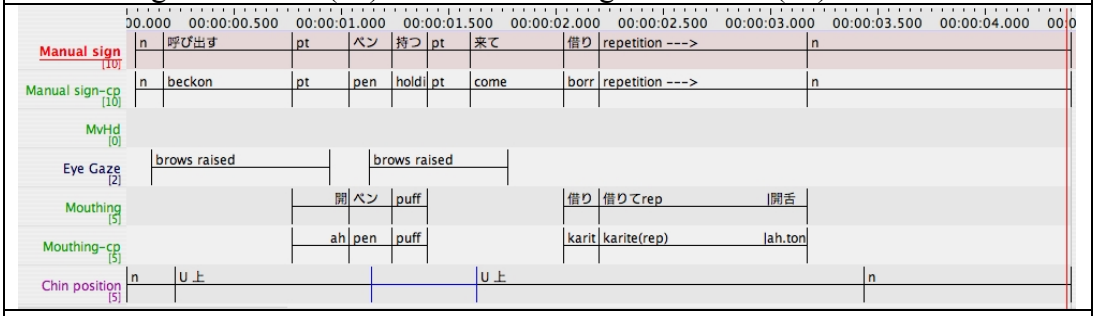
11 Non-Signers 0.05 (10) Signers 0.66 (6)



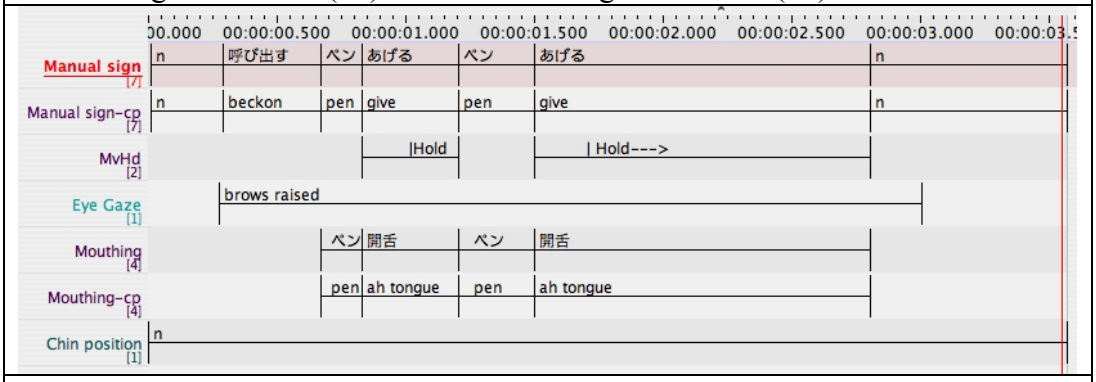
12 Non-Signers 0.87 (4) Signers 1.16 (2)



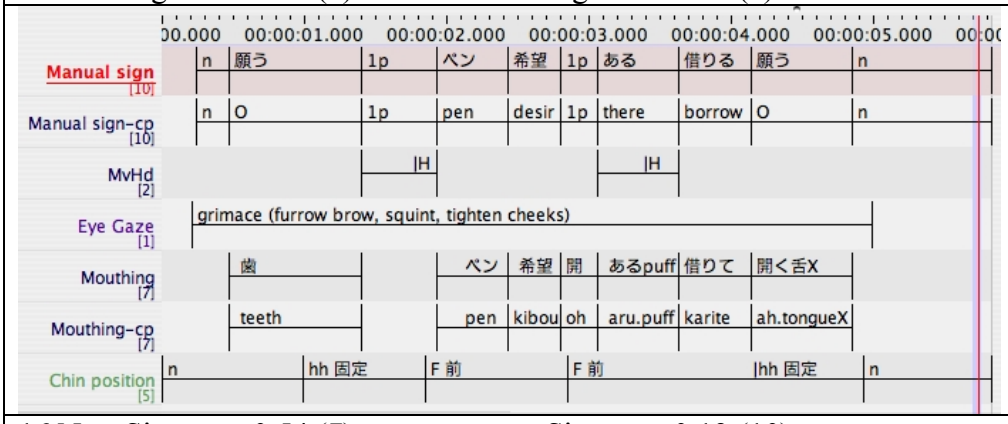
13 Non-Signers -0.81 (14) Signers -1.01 (18)



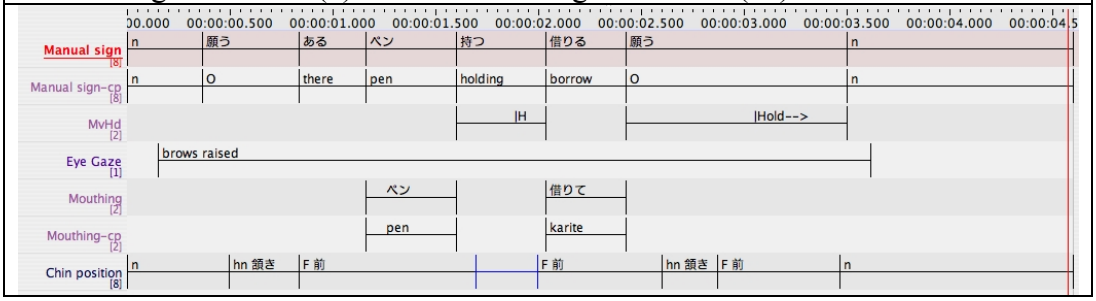
14 Non-Signers -1.03 (20) Signers -1.07 (19)



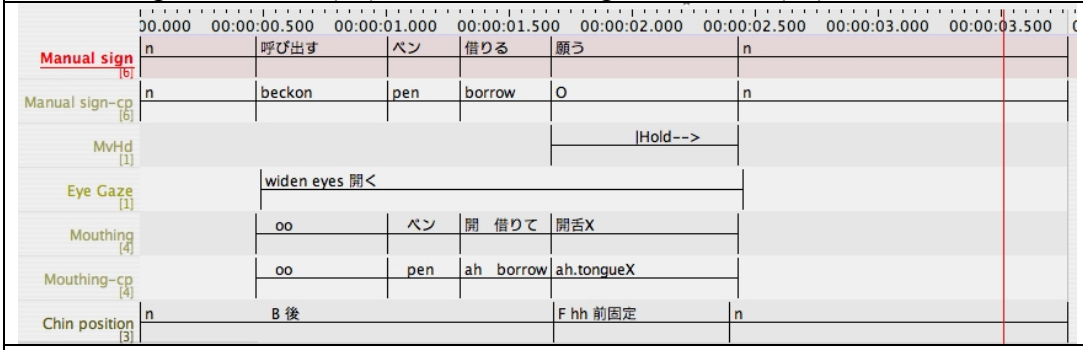
15 Non-Signers 1.56 (1) Signers 1.42 (1)



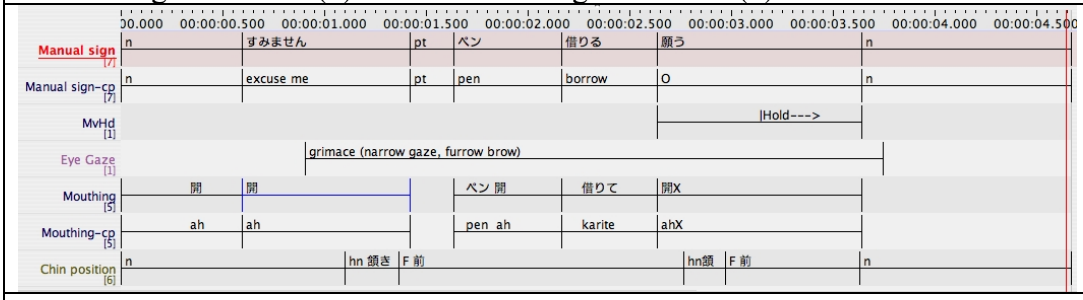
16 Non-Signers 0.54 (7) Signers 0.13 (10)



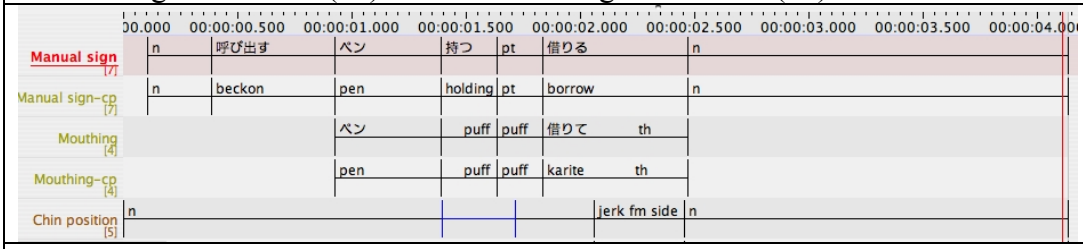
17 Non-Signers -0.01 (11) Signers -0.46 (12)



18 Non-Signers 1.06 (3) Signers 0.79 (5)



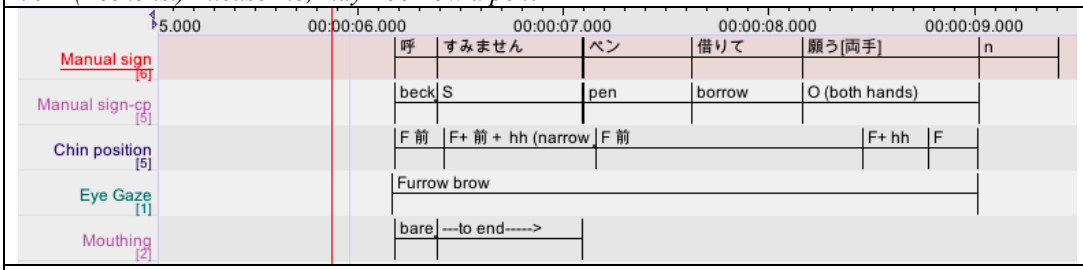
19 Non-Signers -0.92 (17) Signers -0.83 (16)



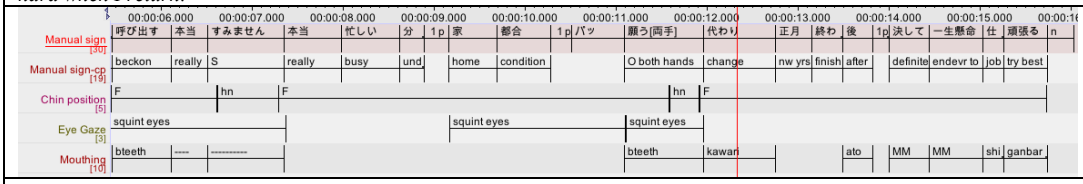
20 Non-Signers -1.03 (20) Signers -1.09 (20)

A9. DCT STUDY: ELAN TRANSCRIPTS

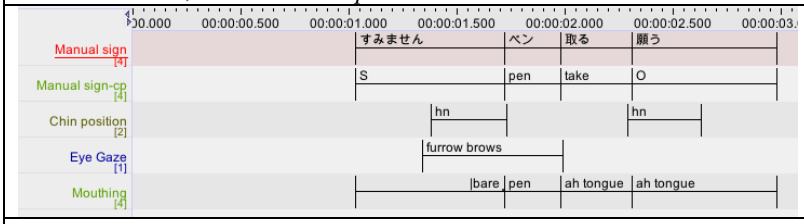
70-1 *(Beckons.) Excuse me, may I borrow a pen?*



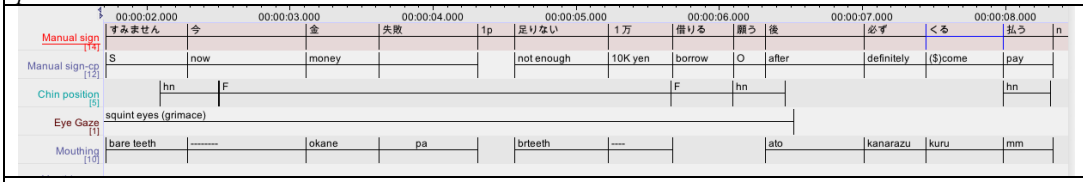
70-2 *(Beckons.) I'm really sorry, this is a really busy time but I suddenly need to be at home. Please let me take the holiday off. I will work hard when I return.*



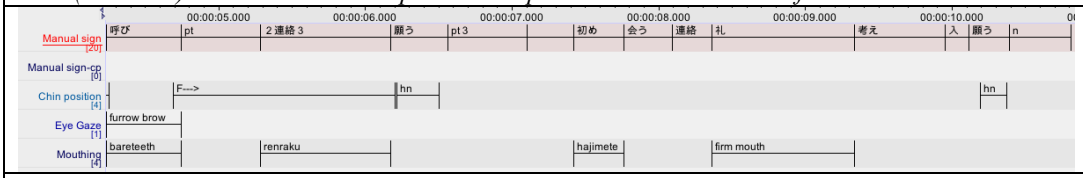
70-3 *Excuse me, can I take this pen?*



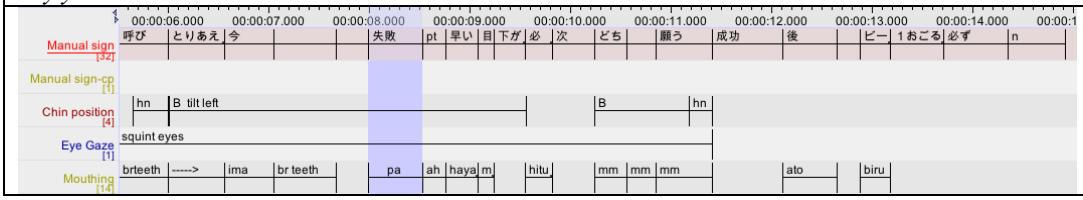
70-4 *Excuse me, I ran out of money. Can I please borrow 10,000 yen? I'll definitely pay you back when I get paid.*



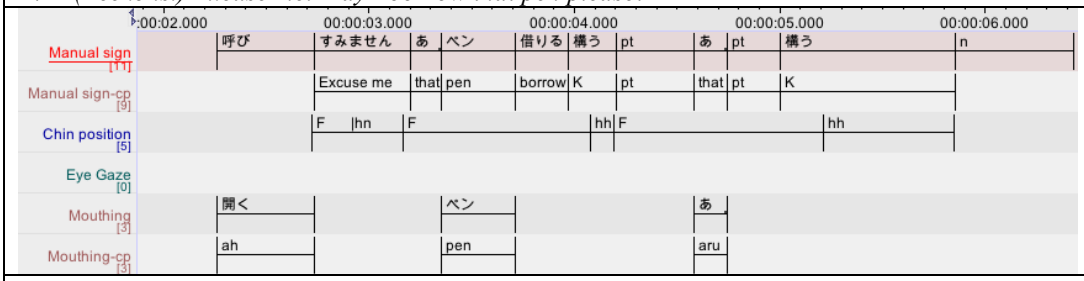
70-5 *(Beckons.) Please contact this person. Keep in mind that this is our first contact with them.*



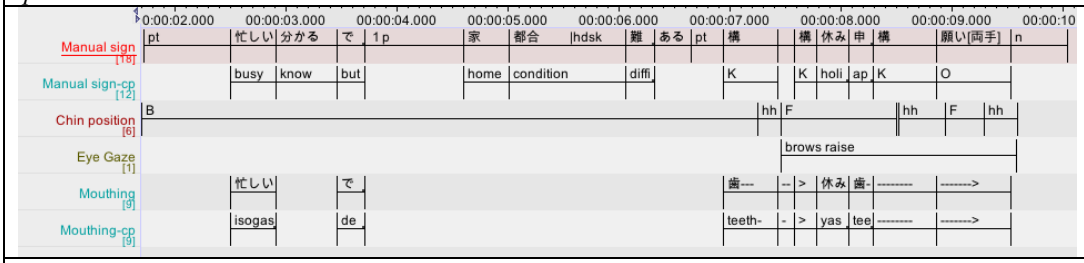
70-6 *(Beckons.) There's a problem. I need you to get the work done earlier. Get it done, and I'll buy you a beer.*



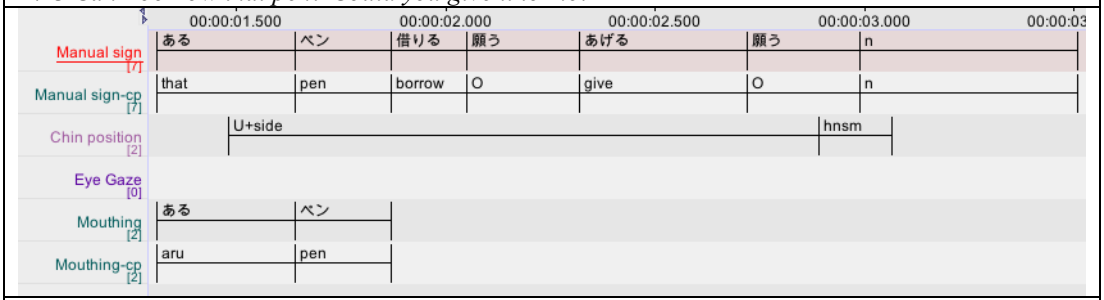
17-1 *(Beckons.) Excuse me. May I borrow that pen please?*



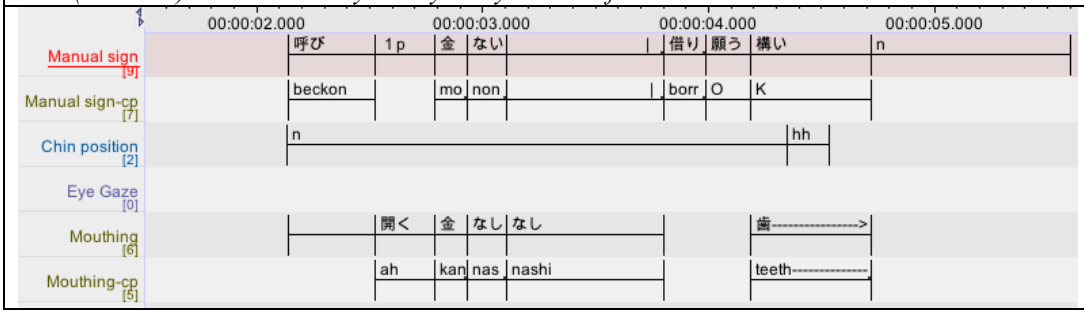
17-2 *I know it's really busy but I need to be at home. If possible, I would like to take a holiday, please.*



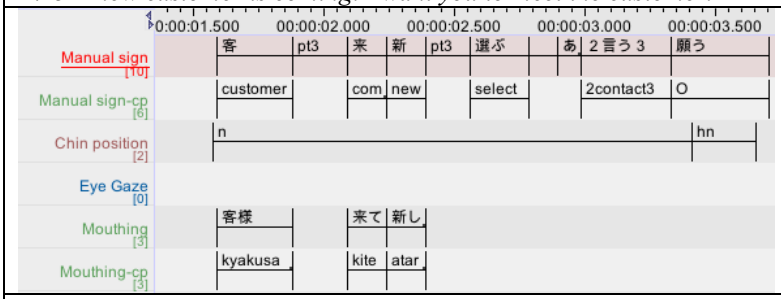
17-3 *Can I borrow that pen? Could you give it to me?*



17-4 *(Beckons.) I don't have any money. Do you mind if I borrow some?*

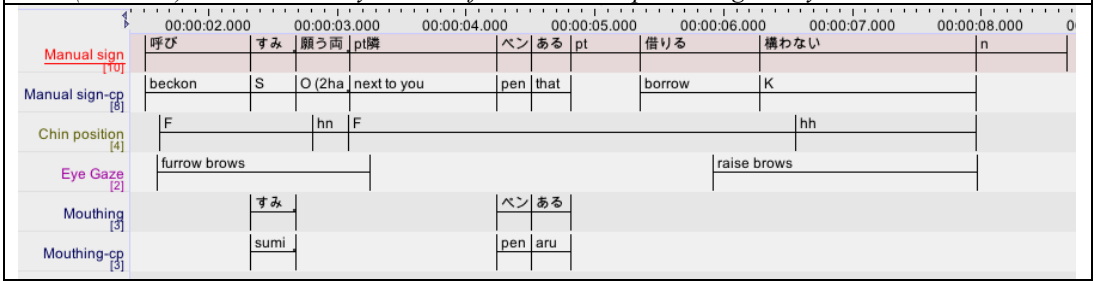


17-5 *A new customer is coming. I want you to meet the customer.*

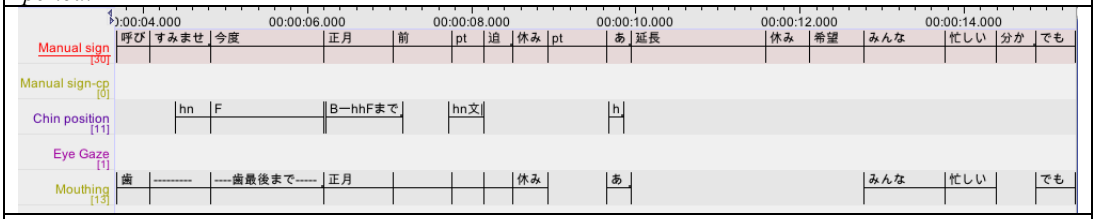


17-6 *The schedule has changed suddenly. It's been shortened two weeks. Could you still get the work done?*

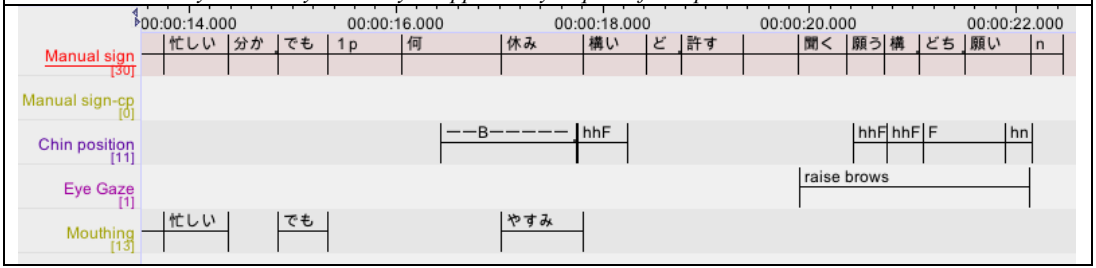
21-1 *(Beckons.) Excuse me. Do you mind if I borrow that pen sitting near you?*



21-2a *(Beckons.) Excuse me. I would like to take off work from just before to after the New Year's holiday period.*

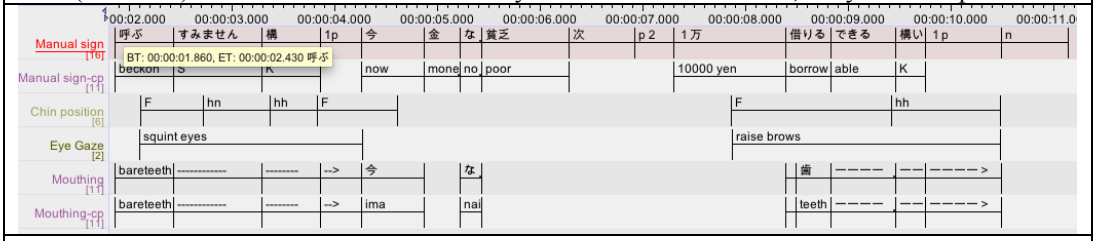


21-2b *I know everyone is busy but can you approve my request if it is possible?*



21-3 (Beckons.) Excuse me, do you mind if I borrow that pen?

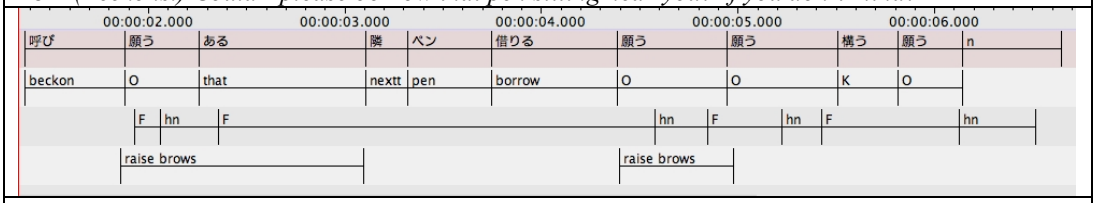
21-4 (Beckons.) Excuse me. I'm short of money now. Could I borrow 10,000 yen if it is possible?



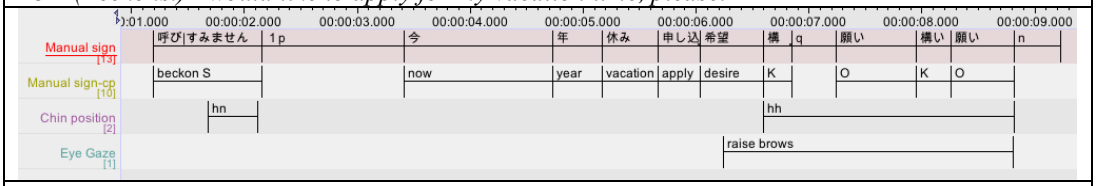
21-5 There is a new client. I want you to make the initial contact.

21-6 The work was due a month from now, but now it has to be done in two weeks. Could you get it done quickly?

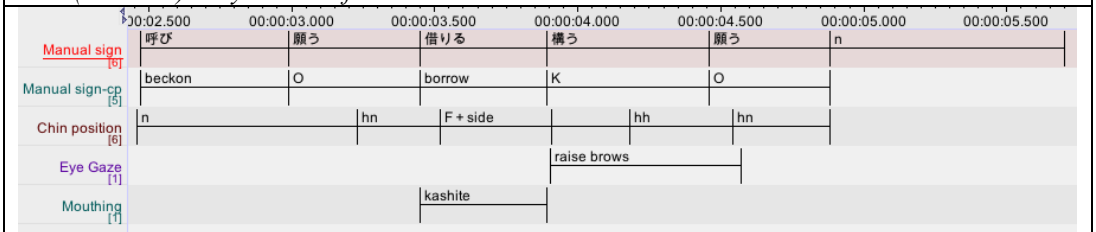
18-1 *(Beckons.) Could I please borrow that pen sitting near you? If you don't mind?*



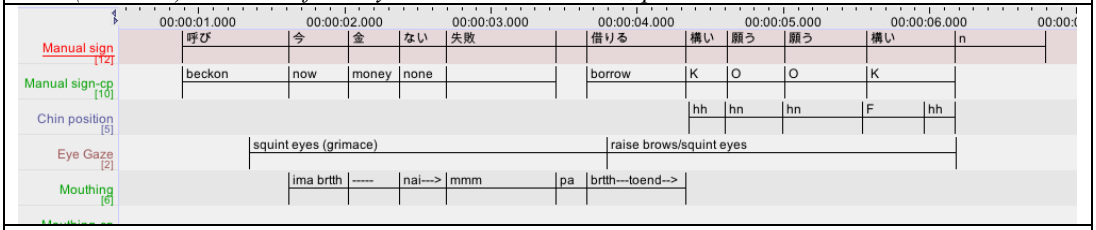
18-2 *(Beckons.) I would like to apply for my vacation time, please.*



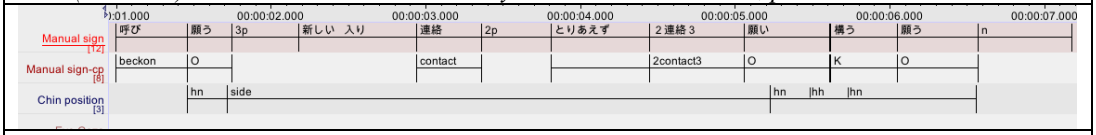
18-3 *(Beckons.) Do you mind if I borrow that?*



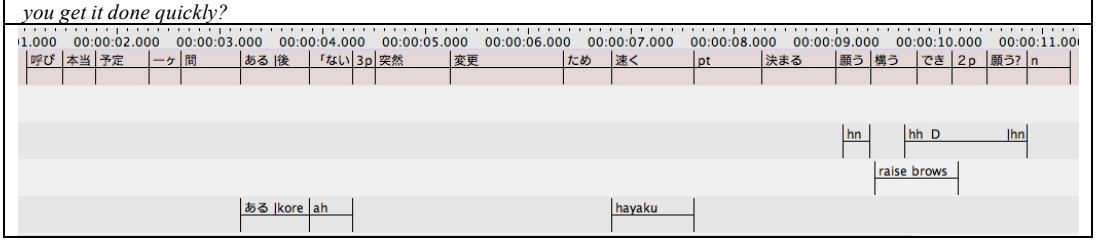
18-4 *(Beckons.) I ran out of money. Could I borrow some, please?*



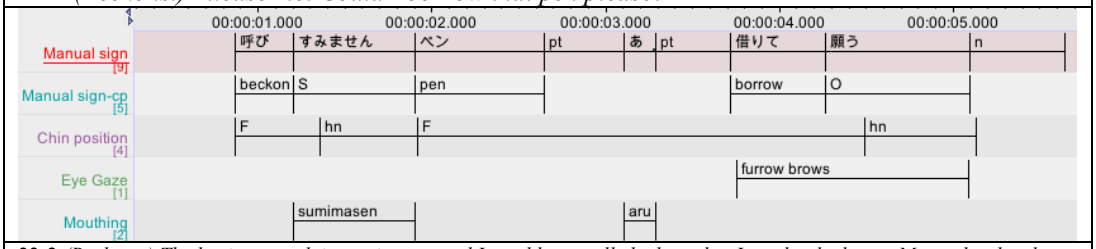
18-5 *(Beckons.) There is a new client. I want you to contact the client, please.*



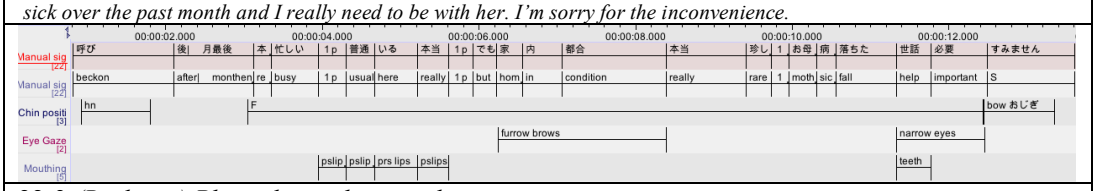
18-6 *(Beckons.) The schedule was for a month, but now there is no time. Because of the sudden change could you get it done quickly?*



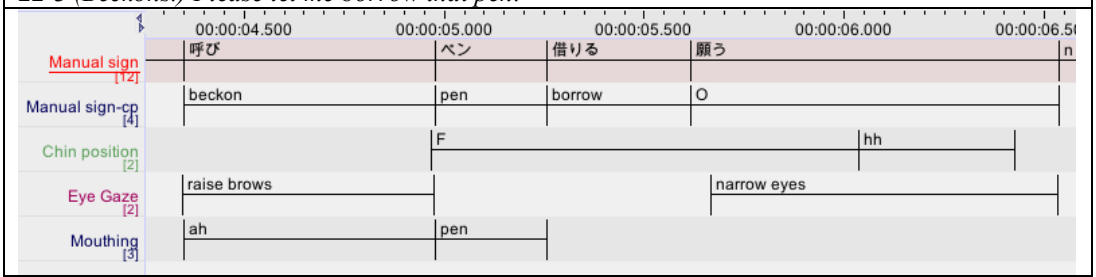
22-1 *(Beckons.) Excuse me. Could I borrow that pen please?*



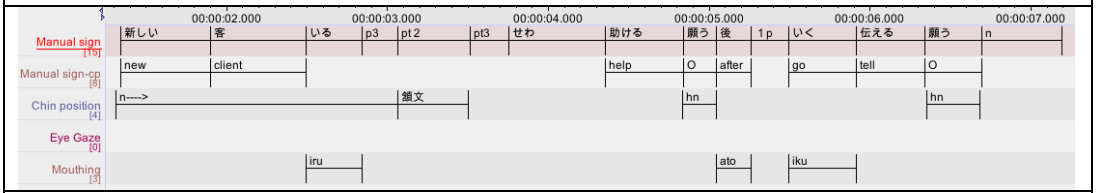
22-2 *(Beckons.) The busiest month is coming up, and I would normally be here, but I need to be home. My mother has been sick over the past month and I really need to be with her. I'm sorry for the inconvenience.*



22-3 *(Beckons.) Please let me borrow that pen.*



22-5 *There is a new client. Please contact the client and then let me know how it went.*



22-6 *The job was due in a month but now it has changed. Copies of the documents have to be prepared so there is now only 2 weeks. It'll be hard so I would like everyone to help.*