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A CASE STUDY ON THE ROLE OF
CHILD-DIRECTED SPEECH (CDS)
IN CHILD LANGUAGE ACQUISITION

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A CASE STUDY ON THE ROLE OF CHILD-DIRECTED SPEECH (CDS) IN CHILD LANGUAGE ACQUISITION

By

Paul Matychuk

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ABSTRACT

A CASE STUDY ON THE ROLE OF CHILD-DIRECTED SPEECH (CDS) IN CHILD LANGUAGE ACQUISITION

By

Paul Matychuk

This dissertation examines the nature of child-directed speech (CDS) from the perspective of functions (Halliday, 1977) and social interactionist theory. It is argued that previous explanations of CDS, often called motherese or caregiver speech, have either minimalized or neglected the functionalist-interactionist dimension of input in language acquisition. Far from being merely a novel way of describing the language caregivers use with infants, CDS is presented as a crucial catalyst in the complex process of L1 acquisition.

At the heart of CDS is negotiation between caregiver(s) and infant. The infant need not always respond with complete or near-complete linguistic units or constituents such as an adult might during a given negotiation, yet the context of the negotiation remains crucial to the infant. As physical maturation increases and the infant begins to produce more adult-like utterances, the negotiation between interlocutors becomes more balanced, syntactically and phonologically but not necessarily semantically/functionally.

This dissertation is a case study which specifically examines the utterances or input which family members direct at a Japanese infant during the early part of his language development. The data generated by the subject and his parents provide an interesting glimpse into one of the ways in which infants absorb language. The results of the data analysis show that while the parents of the subject were seen to use roughly

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equal amounts of language with the child, the distribution of language functions used by the mother was importantly different from that used by the father; therefore, it is suggested that this difference in CDS aids the language development of the infant by providing more interactive negotiation, which is argued to be the crucial factor in language development.

This dissertation is dedicated
to my wife, my soul-mate,

Takako Naka Matychuk,

whose constant love, patience, and encouragement
have upheld me throughout this project.
The words to describe how much you
mean to me have yet to be penned.
You are everything to me.

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I am deeply indebted to many people who have guided and goaded me along the way towards the completion of this study. First, I must thank my dear friends, Tadashi and Masayo, for their constant, faithful help in obtaining the raw data for this study and for having Hikaru, whose grunts and groans and developing language have helped me to glimpse some of the mystery of and increased my awe for this thing we call language.

I also gratefully acknowledge the timely assistance of my committee chairperson, Dr. Grover Hudson, and the other esteemed members of my committee, Dr. Mutsuko Endo-Hudson, Dr. Susan Gass, and Dr. Dennis Preston. These linguists, pre-eminent in their fields, have forgotten more about first and second language acquisition than I could ever learn. They have inspired me in more ways than they could ever know: by their publications, by their inimitable teaching styles, and by their friendship.

Grateful thanks also go to family, friends, and colleagues for their encouragement to see this degree through to its completion: to Mum and Dad and Obaachan and Ojiichan for always believing; to Dave, for always having a joke ready; to Barry, for always being in line with me; to Stella, for being a wise mentor; to Lia, for being the best colleague in the world; and, of course, to my beloved children, Natasha and Michael, for being themselves.

Finally, and most importantly, I thank God for having created people, for having designed us to be 'fearfully and wonderfully made' (Ps. 139:14 KJV), and for having imbued us with language, a wondrous tool of infinite variation that allows us to communicate with one another and with Him.

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H: ((cries))

CHAPTER 1
INTRODUCTION

1.1 Introduction

On the face of it, the following short piece of actual dialogue would seem to contain an ordinary exchange between a mother (M) and father (F) and their young child (H). That it is in Japanese or that its contents relate to mundane events in the life of the child are not the especially noteworthy parts, except, perhaps, to suggest the universality of such parent-child exchanges. However, whether this language exchange contains components crucial to the child's language acquisition process is extremely important.

M: *hikaru chan, yatta to itte,* 'Hikaru, say, "hooray!"'
F: *gokigen wa ii mitaidesu.* 'It appears that his mood is good.'
M: *yatta wa, iutte,* 'What about "hooray?" Say it.'
F: *yatta to itte,* 'Say, "hooray."'
H: [pepe, pepe,]
M: *pipi ne* '"Pipi", isn't it?'
H: [pu:] [pu].
F: *koe dashite, yattatte,* 'Speak up. Say, "hooray."'
H: ((laughs.))
F: *yatta to itte,* 'Say, "hooray."'
((pause here; lots of background noise.))
H: ((laughs,)) [ba, ba,]
M: *doshitan? meme?* 'What's wrong? (Is it your) eye?'
H: [meme] ((squeals and makes 'brrr' noise with lips many times.))
F: *yatta.* 'Hooray!'
((M & F talking in the background for some time here.))
H: ((playing and shouting,)) [pipi pipi pi], [pipi pipi,]
M: ((to F)) *chotto, nitattekitara yowabi ni shitene.*
((to F)) 'Hey, when it starts boiling, lower the heat.'
((to H)) *tori no koto pipi ittendane. pippi pippi,*
((to H)) '(You say) pipi for bird, don't you? Pippi, pippi.'
M: ((goes outside and tells F she is going to the garden.))
F: *hikaru chan itchadameyo.* 'Hikaru, you can't go.'
H: ((starts to cry))
F: ((to H)) *iyo iyo ittekite, ittekite,* ((to H)) 'Ok, ok. Go, go.'
H: ((cries))

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Superficially, this kind of language interaction, which is replicated daily by parents and their children around the world, seems unremarkable, even meaningless. However, it is anything but meaningless for it contains utterances which urge this child into action, question him, and confirm things for him, all of which are rather complex concepts. Parents use language to help reveal the world to their children. However, infants are not born with adult-like language competency with which they can comprehend the meaning of the language their parents direct at them. So, where, one may logically ask, do they get that ability? Though it is likely that children are born with some sort of innate capacity for language acquisition (the nature of which is only theorized at present) which might play some role in the language learning process, we know that normal infants successfully manage to acquire the language(s) of their environment. Exactly how infants become such skilled manipulators of a communication tool as complex and nuanced as language, and to do it within a relatively short time frame, still remains a fascinating riddle without a completely satisfying solution.

Chomsky (1988:3), near the outset of his Managua Lectures, states that

> [a] person who speaks a language has developed a certain system of knowledge, represented somehow in the mind and, ultimately, in the brain in some physical configuration. In pursuing an inquiry into these topics, then, we face a series of questions, among them:
> 1. What is the system of knowledge? What is in the mind/brain of the speaker of English or Spanish or Japanese?
> 2. How does this system of knowledge arise in the mind/brain?
> 3. How is this knowledge put to use in speech (or secondary systems such as writing)?
> 4. What are the physical mechanisms that serve as the material basis for this system of knowledge and for the use of this knowledge?

Of these four deceptively simple questions, question 1 can be approached from either of two (at least) main perspectives, one philosophical and one biological. To be

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addressed adequately, question 1 implies examining the mind/brain and language of a normal *adult* speaker, though studying the language of *children* cannot, and indeed should not, be ruled out. The biological inquiry that questions 1 and 4 imply lies within the purview of neurolinguists and is beyond the scope of this study. Chomsky's second question, which deals with the thorny issue of acquisition, however, necessitates direct, empirical study of child or first language (L1) learning in order to help explain the 'system of knowledge' mentioned in Chomsky's first question. Yet, to approach any sort of answer to the question of how language is acquired, an examination of how and for what purposes that language comes to be used by the infant (question 3) should also be conducted.

To begin to answer this multi-faceted L1 acquisition question and how the acquisition relates to L1 usage, one must ask, 'Assuming that a language acquisition system of some sort exists within the mind of an infant and is operating normally, how does it work?' In the simplest of terms, the function of human language is to encode and decode signals that are sent between individuals. These signals can range from an infant's simple expression of pain or pleasure to a teacher's explanation of a sonnet. Typical production and comprehension of a language (the potentially infinite set of linguistic signals and functions of that language) assume an intelligence which creates, directs, and understands specific linguistic output, and which can accurately decipher and appropriately respond to linguistic input.

Chomsky's questions, especially the acquisition question, have long been considered either from a biological perspective or, once an infant is old enough to begin producing 'language' which somewhat resembles typical adult forms, from a

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developmental perspective, both of which are influenced by the environment. It is almost a truism that the theory of acquisition one adopts and the method of studying L1 acquisition one chooses determine to a great extent the types of questions one asks and the way one examines the data gathered from such questions, and so, theories of language acquisition abound. Piper (1998:141-164) provides a succinct overview of the principles, strengths, and shortcomings of behaviorist, nativist, cognitive, and social interactionist theories of language acquisition. Even though each of these general theories has strengths and weaknesses, the one that I believe provides the greatest insight into the process of language acquisition and, therefore, the one on which I base the present study, is social interaction theory.

More will be said about this theory later, but for now a short quote from Piper (1998:161) sums up my motivation for choosing social interaction theory as a basis for examining L1 acquisition.

> The question that is of primary interest in language acquisition theory is how children acquire the ability to express their intentions or meanings in language. [Social] interactionists believe that they do so through *a process of negotiation with their mothers or principal caregivers* [emphasis added]. This negotiation occurs partly as a result of mothers treating children's speech, even if it is babbling, as *meaningful and intentional* [emphasis added].

Investigations of L1 acquisition which focus on biological aspects and which are unquestionably of great importance, neglect, or at least minimize, what I believe to be the crucial aspect of that acquisition: namely, the interaction (or in Piper's terms, the 'process of negotiation') of the child and mother (or primary caregiver), arguably the most important person in the infant's environment. It is this interaction, and its concomitant facilitation of the development of functional language use, which demands the closest

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scrutiny and, therefore, is the aspect of L1 acquisition on which I will focus.

1.2 Statement of the problem

The research on child language acquisition has examined from a variety of perspectives the language that infants *produce*. If, however, we assume that infants do not learn language in a vacuum, an examination of the infant's linguistic environment seems logical and appropriate. In a different but related area of study, second language acquisition (SLA) research, a great deal of work has focused on the *input* to which learners are exposed (see Gass, 1997 and Gass and Selinker, 2001 for comprehensive and insightful discussions of issues regarding input). The implication of this vein of SLA research is that the input to which second language learners are exposed is a very important component in determining the output that they produce in the target language. That this should be even truer for first language acquisition is almost too obvious to mention. Nevertheless, this specific area of L1 research, the linguistic input directed at infants by their parents, has not been examined from the perspective of what language functions it may contain and how those functions may affect L1 acquisition.

1.3 Research question

In this study I attempt to answer, at least in part, the question of 'how the system of knowledge arises in the mind/brain.' Specifically, I examine L1 acquisition through a study of the interaction between a young child and his family in order to discover how it might be that infants come to understand the relationship between the phonetic and semantic net which is thrown over them in the first few years of life and the world which that net represents. First, I will examine what research into L1 acquisition says about how language acquisition is believed to take place. Next, I will present what has been

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said about one of the most crucial factors in that acquisition: child-directed speech (CDS—variously referred to in the literature as 'infant-directed speech, parentese, caretaker speech, nursery talk, nursery language, and caregiver speech' (Catell 2000:104)) and its contribution to the language learning process. Then, after having presented the research plan for this study, I give the results of this study with their analysis. Finally, I will explain why previous analyses of the L1 acquisition by infants are incomplete and will propose a more appropriate perspective from which to view the relationship of CDS and L1 development.

For this study I examine the interaction between an infant and his environment in the context of social interactionist theory and using the taxonomy of language functions proposed and defined by Halliday (1977). Halliday's work posited that the language children use contains functions which show what children do with language. These functions, which Halliday believed to be present in the child's output system, do not, of course, appear fully formed and functioning at birth. The functions (and of course the language which is used to convey them) must have developmental roots within either the children themselves or the environment, or perhaps both. Although Halliday examined a child's linguistic *output* system, it is reasonable to ask what influence the environment, in other words, the *input*, has on the development of that output system. If the environment plays any role at all in the linguistic development of an infant, presumably the parents or primary caregivers are responsible for a substantial part of the input needed for the infant's linguistic development to commence and then flourish.

But, recalling Chomsky's question of how the system of knowledge arises in the mind/brain, we may ask 'What is the nature of the input, the "linguistic net," which is

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thrown over the infant? Does it contain some or all of the types of functions seen in the output that Halliday has proposed? If so, which functions appear and in what concentration? Can we discover any sort of relationship between the input and the output?' If this functional language 'net' does indeed exist, it should be detectable in the language spoken to infants by their family members or those with whom they have sustained contact. It is perhaps reasonable, then, to suppose that CDS may be more complex and play a more crucial role in acquisition than has been thought.

By examining the kind of language parents or caregivers use with infants according to the functions Halliday saw in the output of his subject, it may be possible to discover a more quantifiable way of describing CDS than has been available before. It is logical to believe that normal adult speakers have the ability to use their language for any and all functions that exist in a given language with other adults; however, one might assume that there is some observable and quantifiable variation among parents or caregivers in their use of functional language when they interact with their young children. But because there are no set rules about what sort of language people must use with their children, an empirical examination of just what they actually do is necessary. In an attempt to do this, I believed that recording the language and interactions in which an infant and his parents engaged would provide the raw data from which a clearer picture of CDS might emerge. Since much of the literature in the field of L1 acquisition examines the relationship between infant and mother, I hypothesized that it would be in that dyad where functional language use and L1 development would be most easily observable.

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investigation (Bloom 1993; de Boysson-Bardies 1991; Snow 1995), I also surmised that this relationship would produce results that were quantitatively very different from that of the other relationships the child would have with other family members. Based on my understanding of Hallidayan functions (which will be explained below), I presumed that the interactional function would be the most important and prominent and that the regulatory function would also be prominent in the mother-child interactions but to a lesser degree. Putting all of these beliefs, assumptions, and guesses together, I formulated and proceeded to test the following related hypotheses:

> a) The CDS used by the mother with her child in this study will be quantifiably different in content and quantity from the language that other family members use with the subject.
>
> b) Though all functions of language may be present in the linguistic input to which the child is exposed, a specific subset of those functions, the interactional and regulatory functions, will dominate the interactions between mother and child and will be less prominent in the language uttered by other family members.

1.4 Overview

Chapter 2 reviews issues relevant to language acquisition theory, examines the literature related to CDS, presents the major concepts of CDS, outlines how CDS relates to social interactionist theory, and explains Halliday's (1977) system of language functions and how the data can be analyzed with it.

Chapter 3 presents the research method used in this study, describes the subject and his family, and gives some concerns related to data collection.

Chapter 4 presents the results of the data analysis, discusses the data collected with respect to language functions present, and shows important aspects of the interaction between the subject and his family members, the main providers of the linguistic input in

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his environment. It examines which functions are seen in the speech of his four other family members (M – mother, F – father, B – Brother, and S – sister) and how they compare. Finally, the relationship between CDS and the subject's utterances is examined.

Chapter 5 contains a discussion of the results of the data analysis and presents final conclusions and paths for future study.

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CHAPTER 2
A REVIEW OF CHILD-DIRECTED SPEECH (CDS)

2.1 Introduction

In the following sections, I will present a discussion of language acquisition theory as it applies to the area of phonological acquisition. This is done to show the extent to which one specific area of L1 acquisition research has gone to explain this process and to show that a crucial part of that process (the input) has been somewhat overlooked and should be re-examined. The suggestion here is that biological explanations for language development fail to provide a complete picture of how language acquisition happens, and that, consequently, there is a need for a greater consideration of environmental factors. Then I introduce and discuss social interactionism, the theory on which the present study hinges. Next, I present an overview of CDS (including a criticism), after which I will discuss various crucial aspects of CDS. Finally, I present Halliday's taxonomy of language functions and how they can relate to the L1 acquisition process.

2.1.1 Theories related to the acquisition of phonology

Although a complete understanding of how infants acquire language still eludes researchers, various theories of language development exist. Many of these theories are based on biology due to the assumption that the biological maturation process of an infant is concomitant with and largely responsible for the relatively rapid acquisition of language proficiency.

To take one example, a great deal of work has been done on the development of the speech capacity and phonological development in infants (Bloom 1993; de Boysson-

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Bardies 1999; Budwig 1995; Harris 1990; Ingram 1989; Jusczyk 1997; Locke 1993; Oller 2000.) Even within this single component of L1 acquisition, there are various theoretical approaches. Ingram (1989:96), for example, summarizes four main types of theories of infant speech production:

> *Universal theory*: the infant begins with the ability to articulate all human speech sounds, then loses those that do not occur in the linguistic environment.
>
> *Articulatory learning theory*: the infant is born with virtually no articulatory ability. Early speech sounds will consist of those heard in the environment.
>
> *Maturational theory*: the onset of human speech sounds will be gradual, that is, according to a biological predetermined program. Infants in all linguistic environments will show the appearance of specific sounds at the same approximate ages.
>
> *Refinement (vs. Attunement) theory*: the infant begins with a preliminary or basic set of speech sounds to build upon. He [sic] then acquires or adds other less basic sounds from the linguistic environment.

Ingram (1989: 97) adds a minor caution in his discussion of theories of infant speech production when he states that

> [these] theories can only begin to be appropriately examined with data from infants around 6-8 months of age. The reason for this is the tremendous physiological development that takes place in the infant's speech apparatus after birth, especially during the first year. These changes will continue in fact up to 14 years of age. It is at approximately 6 months, however, that the child's vocal tract begins to approximate to its adult shape, and that the vocal behavior generally referred to as 'babbling' begins.

This is not to suggest that during the first six to eight months of an infant's life nothing of phonological importance is generated. On the contrary, Oller (2000), who has created a taxonomy of what he calls protophones which can be used to analyze infant speech, indicates which categories of 'global protophones (the precursors of phones)' (11) have been mastered within even the first few months of life (see Table 1). This

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suggests that Oller views very young infants as already actively involved in the learning process. Nevertheless, Ingram's caution implies that the speculation regarding exactly what is happening to the very young infant in terms of perception and production of L1 requires more supporting data to be of maximum use.

Table 1 - Infraphonological Interpretation of
Infant Vocalizations at Four Ages
(OLLER 2000:11)

Ages in Months	Global Protophone Categories Mastered	Principles of Syllable Well-Formedness Mastered
0-1	Quasivowels	Normal phonation
2-3	Gooing	Articulation
4-5	Marginal babbling, full vowels	Full resonance
6-7	Canonical babbling	Rapid formant transition

An interesting point to keep in mind here is that the environmental input is quite prominent in three of the four theory types mentioned above. Even in the area of speech production, without input from the environment, the infant will apparently not successfully acquire the ability to produce the sounds of its language no matter how much physical maturation proceeds.

2.1.2 Influences of input on phonological development

Kent (1992:83), in his discussion of the origins of perception and production, provides a simple diagram (Figure 1) which shows how he views the interaction of genetic and environmental factors. This interaction is a very important aspect of social interactionist theory to be discussed later.

		Environmental influences • Ambient language		
Genetic Factors		↓		
• Audition: Universal (innate) speech sounds categories	→	Attentional Subsystem	→	Recognition code for speech sounds
		↑ ↓		
		Orienting Subsystem		
		↓		
• Speech Motor Function: Developmental anatomy of speech apparatus; early movement synergies	→	Modification by perceptual experience; development of sensorimotor trajectories	→	Adjustment of motor patterns to phonetic properties of the ambient language

Figure 1
A scheme of auditory-motor developments in early phonological acquisition. Genetic and experiential factors interact during development to produce the final observed behaviors.
(KENT 1992:83)

Although it may not appear so at first glance, the flowchart above contains both input and output stages with respect to an infant's phonological development: 'the input channel (principally audition, but this input may be integrated with vision) and the output channel (motor regulation of the speech apparatus)' (Kent 1992:82). As Kent (1992:82-83) goes on to describe this input-output relationship, he mentions that:

> [b]oth input and output channels have a genetically determined potential. With respect to audition [the input], the genetic potential is for an apparently universal, multicategoried analysis of acoustic stimuli...The genetic potential for output, *as mediated by environmental factors* [emphasis added], is expressed primarily in the form of predispositions to certain sound patterns...*Exposure to the ambient language* [emphasis added] selects some categories of auditory analysis for preservation, others for neglect. The mechanisms appear to involve both attentional and orienting processes.

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For Kent, a very important aspect of language development seems to be how the genetically determined potential is maximized via the intricate processes of motor development. Yet, as the emphasized portions of the previous quote suggest, without the environmental influences (presumably, the language the infant is exposed to), there might be no motor adjustments, no sensorimotor trajectory changes, and no language development at all. Even the terms used in this model, 'attentional subsystem' and 'recognition code,' suggest that meaning is present in the language the infant is exposed to; otherwise, it would simply be noise. Therefore, the infant must somehow deal with this meaning; it must make sense of the language input it receives, not simply be exposed to it.

Kent bases the innateness of speech sound categories on Jusczyk (1992) who has concluded that infant speech sounds are universal and very similar across languages. This system of environmental influences and genetic factors requires the attentional and orienting subsystems to be both stable and plastic at the same time; stable 'in the presence of irrelevant or frequently repeated events' and plastic 'to deal with new or novel events, or changing circumstances' (Kent 1992). Although Kent (1992:83) states that the attentional and orienting subsystems interact 'to produce a recognition that is stable for important events but also adaptive as environmental or behavioral demands change,' he does not specify how this occurs but simply that it does. Unfortunately, this is descriptive not explanatory. Presumably, and this certainly seems uncontroversial, the 'environmental or behavioral demands' to which Kent refers, would be conveyed to the infant, no matter what its age, through linguistic input from the caregivers in the environment. This may be the first inkling of how language input influences the genetic

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or biological factors related to language acquisition. Nevertheless, however the genetic and environmental factors may interact for audition, motor control proceeds differently. Kent (1992:84) states that

> [q]uite early in life, as the infant gains motor regulation of the vocal tract and is exposed to the ambient language, articulatory adjustments will reflect the learning of a motor envelope. This envelope is to some degree language sensitive, and this sensitivity is revealed in cross-language studies of infant babble, which indicate that babbling becomes adjusted to the parent language in terms of features such as syllable structure and vowel articulation ... Adjustments in the motor envelope presumably are precursors to phonetic mastery but they are not in themselves necessarily segmental in nature.

This statement suggests that as an infant begins babbling, the sounds coming from it undergo a sort of internal analysis in which they are compared with the ambient language (typically the speech of parents) and are progressively adjusted during the 'motor envelope' to match that ambient language. A Japanese infant, for example, would, according to this view, eventually develop the typical vowel system ([a], [i], [u], [e], [o]) (Shibatani 1990:159) and syllable system (essentially CV(C)) of Japanese as its articulatory mechanism and control over those systems develop.

2.1.3 The place and limitations of biology in the L1 acquisition process

The references to the biological processes of development which affect an infant acquiring language are clear and important: anatomical changes, motor development, sensory input, and 'vocal motor schemes.' To summarize, it can be claimed that physiological development is the biological driving force behind the acquisition of the units of sound which combine to make phones and syllables which ultimately become words, phrases, and sentences.

Although such a theory assumes that biology ('nature') is the driving force behind

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language and its development/acquisition, it is important to note that during virtually the entire physiological maturation process, a normal infant will continue to receive input ('nurture') in all forms of CDS, which in turn also affects the sounds the infant produces during the complex process of language acquisition, ultimately transforming those sounds into meaning. For theorists to attribute the infinite capacity of language entirely to the workings of an enormously complex yet ultimately finite system such as biology, or more specifically, genetics, may be too simplistic an answer. Certainly the physical maturation of infants into normally functioning adults is an observable fact of biology. We note the physical changes which help explain why the infant becomes physiologically articulate (the changes in the vocal tract during the first few months of life, for example.) Other processes, such as increasing manual dexterity due to ever-increasing gross and fine motor control, are observable and play an important role in the overall development of the infant and how it interacts with its environment. But to attribute language development mainly to biological changes, no matter how complex they may be at, say, even the cellular level (see Behe 1996), does not explain why a child comes to differentiate accurately the pronunciation of the words for, say, 'dog' and 'cat' in his/her language. Observable maturational processes which take place in infants are, therefore, not necessarily sufficient to account completely for language acquisition.

Biological explanations only partially answer the question of how L1 acquisition is achieved. They provide explanations of how the physical apparatus necessary for L1 acquisition develops, but they cannot go further. An apt analogy to how these biological explanations relate to L1 acquisition might be that of a computer complete with all peripherals (monitor, keyboard, hard drive, etc.) but with no programs loaded into it.

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Until the programs are loaded and set into operation by the programmer with the appropriate 'input' commands, the computer will remain a simple collection of parts without purpose.

2.1.4 The contribution of Oller's theory to understanding the L1 acquisition process

As researchers have attempted to understand how language is acquired, many have looked specifically at one component of language development, as has already been noted. In his highly informative book on the emergence of the speech capacity, Oller (2000:7) has suggested that previous approaches to the explanation and even transcription of infant 'speech' have been inaccurate and inadequate because they have attempted to 'shoe-horn' the infant's output into normal adult forms. To avoid this, he proposes what he calls an infrastructural model to account for early language development.

To illustrate how an infrastructural system functions at the conceptual level, Oller gives an example from the field of chemistry. In such an infrastructural system, three interrelated levels are posited: the operational categories, the infrastructural model, and the prime parameters. The *operational categories* of this chemistry example would be the 'lowest-order functional units: air, water, stone, etc.' The *infrastructural model* would contain the various theories of chemistry: 'atomic theory, thermodynamics, etc.' This level would 'specif[y] first-order units [elementary particles], and properties of function and interaction for both first-order and lower-order units.' The final and conceptually most basic level, the *prime parameters*, would 'include dimensions of description for units: mass, form, charge, viscosity, elasticity, color, number, etc' (Oller 2000:7).

This system of interrelated levels is part of the backbone of scientific inquiry.

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Applying this theoretical framework to the study of language, specifically the area of phonological development, Oller (2000:12) gives the following general infraphonological model:

> *Operational categories* — examples of functional units: particular phonological features, segments, syllables, phonological phrases, etc.
> *Infraphonology* — specifies principles generating the entire class of potential well-formed operational units and specifies properties of utilization and function of such units.
> *Prime parameters* — dimensions of description for units: amplitude, duration, frequency, resonance, etc.

He further explains why this type of approach is important.

> The principles themselves in an infraphonological approach are primary points of reference in interpretation. In this newly designed search for understanding of the development of the speech capacity, operational-level questions, such as whether or not a newborn infant did or did not produce a [b], are avoided. Instead, at each point in time, the question is more fundamental. We seek to determine the extent to which infant sounds reveal command of the principles of well-formed speech sound construction. Further, we encourage description of the operational categories of infant sounds on their own terms with no shoe-horning. Infant sounds are called protophones in general and are given individual infant-appropriate operational-level titles, but they are not forced into frames of mature alphabetical categories where they do not fit (13).

Not only can this building block approach apply to theories of phonological development, it certainly seems logical to apply it to the account of the acquisition of meaning in infants as we will note in Oller's discussion of 'Semanticity' (see section 2.3.3.) The present study attempts to show that Oller's theoretical approach, which he uses to establish the tenets of infraphonology, is applicable to and can aid in the analysis of the meaning in early language since biological models account for developmental issues related to articulation but not directly to intentional meaning (Locke 1995; Kent and Miolo 1995).

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2.2 Social interactionist theory

The theoretical foundation of the present study is that of social interactionism. This theory of L1 acquisition differs from others in important ways that will be examined here. Like behaviorists, social interactionists see the environment as central to language growth (Piper 1998:159). Piper also notes that 'both [theories] see parents as crucial to the process, but there is a major difference. Behaviorists tend to view children as passive vessels into which language is poured while social interactionists believe that children are active participants [in the L1 acquisition process] through their interaction with their parents.' She also mentions that though concerned with syntactic universals (like nativists), social interactionists '... are interested in how structure helps the child to function socially with language and thus learn more of it.' Also like nativists, social interactionists believe that children have some sort of innate predisposition to language acquisition but that that predisposition is less important to acquisition than is the social environment (1998:159-60).

Within the broad area that social interactionist theory subsumes can be found recent studies of baby-talk and motherese. These studies show that far from being linguistically impoverished (see section 2.3.5 for comments on this issue by de Villiers and de Villiers), these forms of CDS actually aid language acquisition (Field et al. 1982; Gallaway and Richards 1994; Stern, Beebe, Jaffe, and Bennet 1977). Social interactionists would argue that the mother's (or caregiver's) role is of prime importance within the environment of the child. Piper (1998:168) says that 'parents play an important role in matching the language *input* to the appropriate level of cognitive and language development of their children.' We will note later in the discussion of

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motherese some of the alterations parents make in the language they use with their children, such as shorter sentences and less structural variety. However, as Piper (1998:168-69) continues, 'it is probably not the case that adults consciously make such adjustments to their speech; what is more likely is that in their attempts to communicate with children, they unconsciously match their language to the appropriate cognitive and linguistic level for the child.' Parents also aid in language acquisition by focusing the child's attention on the immediate environment, the here-and-now. Whatever the child tends to be focusing on at a given moment is what generally becomes the topic of the language the parents use. These claims will be considered in the analysis of the data in this study.

According to Snow (1995:180), the alterations parents make in the speech they use with their children (i.e., CDS),

> ...whether by adults or older siblings, differs from speech among peers on a variety of dimensions. It is syntactically simpler, more limited in vocabulary and in prepositional complexity, more correct, and more fluent ... In other ways, though, CDS is still quite complex; it displays full range of conventional indirectness, for example, without the simplification of form-function one might expect (Shatz, 1978). While in general CDS is constrained to the here-and-now and related to the child's focus of attention or ongoing activity, a high proportion of at least some mothers' CDS redirects children's attention and activity, introduces nonpresent referents, and in other ways seems to complicate the task of learning language.

Snow explains that finetuning (the language adjustments caregivers make to their language when addressing infants and very young children) which begins in infancy is noted for its 'high pitch and exaggerated intonation pattern' (1995:182). Research has confirmed that these characteristics are found in languages as varied as 'Chinese (Greiser and Kuhl, 1988), Japanese (Masataka, 1992), and various European languages (Fernald,

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Taeschner, Dunn, Papousek, Boysson-Bardies, and Fukui, 1989)' (Snow 1995:182). Though finetuning may deal with phonetic alterations of language directed at children, it is within the area of syntax where discussions of finetuning most often take place. Sokolov (1993) found that when children were more likely to delete items such as modals, nouns, or pronouns, parents were more likely to supply these missing items. However, as Snow (1995:183) points out, there may be some developmental advantages in a relative absence of finetuning. She says:

> [c]onsiderable work (see Mannle and Tomasello, 1987; Barton and Tomasello, 1994, for extensive reviews) suggests that fathers (or secondary caregivers) and older siblings produce CDS that is less finely tuned to the child's developmental level than do mothers; these less familiar interlocutors are in general less responsive to immature child utterance and less likely to continue child topics ... Fathers are also more likely to use unusual vocabulary items than are mothers. While the immediate effect of this poorly tuned speech may be conversational disruption, it is possible that fathers and other less familiar interlocutors provide children with important opportunities to learn skills needed for communication to more distant or unknown audiences, without the contextual and conversational support very young children enjoy in interaction with mothers.

Although it is clear that some input is needed for language learning, the question, as Snow (1995:187) puts it, is whether or not this crucial language input should be viewed 'as a trigger (Lightfoot, 1989) or a catapult (Randall, 1990) launching the child into the language system with a single nudge, or as a source of opportunities for incremental learning.' There is likely some lower limit on the degree to which input can act as a trigger since we know that children in impoverished linguistic environments show language delays (Culp, Watkins, Lawrence, Letts, Kelly, and Rice, 1991). But Snow also adds that 'most children clearly receive more input than is strictly necessary to support normal language acquisition, as shown by the fact that input can be distributed over two or three languages with the result that the child is a fully bilingual or trilingual

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Snow (1995:189), discussing communicative intent, states the following:

> As children acquire new words during the one word stage, they typically also acquire expanded capacities to express themselves. There is considerable controversy over the degree to which children's early meanings and the means for expressing them derive directly from input. For example, Ninio (1992) demonstrates that over 90 percent of 18-month-old's single word utterances are used to express the same communicative intents as the single word utterances of the mothers addressing them, and furthermore that the children typically selected the most frequent form used by the mothers to express any particular speech act. She argues that this is possible because the children have an adultlike system for analyzing communicative intent, but rely on predictable form-function mappings in the input when seeking ways of expressing those intents. Barrett, Harris, and Chasin (1991) agree that initial word uses are closely tied to maternal use, but argue that subsequent uses by the child are less predictable from high frequency maternal use.

But there are some potential inconsistencies herein. If the child uses an adultlike system for analyzing intent, then the child must already have at its disposal, possibly through prior acquisition or an innate endowment, some type of system for the comprehension and interpretation of intent. Although these researchers have observed what children do, they do not explain how the input causes the children to acquire this apparent ability to understand intent and produce utterances which adults believe contain that intent.

Certainly simple utterances usually associated with the expression of pain or pleasure noted in infants are typically construed by caregivers as carrying an appropriate (expected) intent/function of seeking assistance of some sort or giving confirmation of contentment. But when more complex requests or ideas are to be conveyed to these caregivers, there must be something in the input which has caused the child to know which sounds to utter to achieve his/her goals.

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2.2.1 Issues regarding noun and verb learning

Examining specific aspects of L1 acquisition, Snow (1995:188) cites research (Huttenlocher, Haight, Bryk, Seltzer, and Lyons, 1991) which indicates there are two primary factors that are extremely important for vocabulary acquisition. They are 1) density of maternal speech and 2) situation of exposure to the novel word. She cites research which points to the not unexpected fact that the first words children learn are those they are most frequently exposed to (Hart 1991; Harris, Barrett, Jones, and Brookes 1988). She also points out that 'children whose mothers talk more per unit time show more rapid growth of vocabulary (Huttenlocher, et al., 1991)' (1995:188).

Within the area of vocabulary learning, noun learning research (Tomasello and Todd 1983) points to the most likely learned nouns as being those which are used during 'joint attentional focus between adult and child in naturally occurring interactions.' (Snow 1995: 188) Also, not surprisingly, 'highly nominative children are those whose mothers respond to social initiatives by naming objects the child is attending to (Goldfield, 1990)' (Snow 1995:188). Finally, 'Huttenlocher et al.'s findings (1991) ... [show] that children who hear more maternal speech, other things being equal, learn vocabulary faster' (Snow 1995:188). Such findings certainly suggest the importance of the interaction between mother and child for noun learning.

A word of caution is in order here. Since the research just mentioned was done in an English-speaking environment, the question arises about how differences in basic syntactic structure may affect such outcomes as those given. Japanese is SOV in nature while English is SVO, and this difference may have some undetermined effect on just how language develops in children who are exposed to syntactically different input. (See

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Snow (1995:188) indicates there are, however, differences between the learning of nouns and verbs. While nouns may be effectively learned by the child through 'joint attentional focus,' verbs do not seem to be learned this way. In fact, 'Tomasello and Kruger (1992) report that verbs used to name impending actions are better learned than those used to name ongoing action.' This, Snow points out, may seem to contradict the findings that 'highly directive mothers have children who learn language more slowly (Della Corte, Benedict, and Klein, 1983; Tomasello and Todd, 1983), since directives typically include impending action verbs.' However, Snow (1995:188) mentions a fascinating finding in which a 'careful analysis of directive mothers' talk suggests that "responsively directive" mothers, those who issue directives that do not shift the child's attentional focus but follow on from the current activity, actually facilitate vocabulary acquisition ($r = 0.78$ in a study by Akhtar, Dunham, and Dunham, 1991).'

It seems, then, that there is still an important 'focus of attention' which mothers must make sure their children maintain if vocabulary learning of nouns or verbs is to be facilitated. Naturally, not all verbs can be learned in this way. Mental state verbs (think, feel, etc.) or abstract nouns (love, fear, joy, etc) do not lend themselves to these contexts for acquisition (Snow 1995: 188).

An interesting point emerges when the data for this study are examined. Nouns are predominantly, though not exclusively, the focus of the parents' attention in getting H to speak during the recording sessions. However, Snow (1995:193) points out that Clancy's 1985 study showed that 'children in Japan do not start out learning nouns, sharing with English-speaking children the unquestioned conviction that nouns are

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cognitively more accessible, easier to map onto referents, and simpler in form; they prefer to learn verbs, just as their language prefers to retain verbs and delete nouns in conversational ellipsis.' Snow concludes this discussion of the work which is beginning to be done with children on the effects of input on the language system itself with this statement: 'these effects of language structure on children's language systems suggest an enormous susceptibility on the part of language learners to the effects of input, only a tiny portion of which have we yet documented. (1995:193)'

Input, then, would appear to be of much greater importance than anyone has yet believed. It is responsible for language acquisition with CDS clearly being the leading component of the input which, depending on one's point of view, either gradually leads the infant closer and closer to adult proficiency or catapults the infant into the world of meaningful communication. What appears most clearly in all the preceding discussion is that social interaction between the child and its caregivers is of crucial importance if a child is to foster normal L1 language development.

2.2.2 Where social interactionism and biology meet

To conclude this discussion of social interactionist theory of language acquisition, several crucial points that Dickinson and McCabe (1991) make will prove helpful both to understanding the theory and to seeing how the current study employs this theory. In their description of social interactionism, they state (1991:10-11) '[w]hereas behavioral and linguistic approaches to language acquisition are on opposite extremes of the empiricism-nativism pole, *social interactionism* is an approach that acknowledges biological contributions to the language acquisition process but emphasizes also the way that language is acquired socially.' They cite research by White (1978) which indicates a

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positive relationship between the amount of time parents talk to their children and the IQ of those children between birth and three years. In addition, research by Wells (1981) relates the same factor (amount of parent talk) to academic achievement between ages three and five. The obvious implication here is that the interaction parents and infants engage in reaps long-term benefits academically as well as socially.

Dickinson and McCabe (11) provide the following reasons (from Snow et al 1984) why such 'global measures of language are predictive of intellectual accomplishment.'

> 1. To begin with, such language is *semantically contingent* (i.e., what the parent says meaningfully relates to what the child says). For example, if a child says, "truck," an adult might respond, "A big, big, yellow truck, isn't it?" In such exchanges children hear language related to their own but providing a little more information on a topic of interest to them. Repeatedly, investigators find that semantically contingent speech facilitates children's language acquisition (Clarke-Stewart 1973; Cross 1976; Snow 1984; Wells 1980).
>
> 2. Children acquire *communicatively useful language* from all that they are exposed to; that is, children learn the words that apply to objects and experiences that interest them, ignoring words for objects and experiences that are not salient to them. For example, although young children undoubtedly hear the articles *a, and,* and *the* quite frequently—these are the most frequent words used in English—they never include these among their early vocabulary; the words refer to nothing of interest to them.
>
> 3. Children *imitate selectively* as a technique to keep conversation going, to practice unfamiliar forms of language, and to learn new forms; they do not mechanically imitate upon request. Despite learning theory accounts that foreground child imitation is a key mechanism of the language acquisition process, adult imitation of children may be more important than child imitation of adults in the language acquisition process. Only when children find imitation communicatively useful will they engage in it.
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> 4. Children *negotiate meaning* with their parents, with parents requesting clarification from them and vice versa. Communication allows for second, third, and fourth chances for success in optimal parent-child encounters.

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These concepts, tenets if you will, are important not simply because they encapsulate the elements of social interactionism but also because they raise questions about the validity of both behavioristic and nativist theories of L1 acquisition. Social interactionism cites the interactive nature of parent-infant language as the reason why language acquisition happens. L1 acquisition is not viewed as simply stimulus-response conditioning no matter how complex one might envision the stimulus-response chains which behaviorist theory posits as responsible for learning. The communicative and creative nature of language, especially the language of children, cannot be accounted for by behaviorism, nor can the selective imitation of words children engage in. Such 'selective imitation' implies a decision on the infant's part as to what chunks of the language he/she is interested in and is willing to explore further. Similarly, the question arises of how the 'here-and-now' nature of infant speech relates to nativism with its heavy reliance on innate capacities of language. Social interactionism sees parents and children negotiating meaning of the 'here-and-now' – children selectively imitating portions of L1 input they deem interesting and parents expanding on that output to provide the child with additional and more finely tuned input.

CDS, I believe, facilitates the infant's exploration and development of L1 in more varied ways than may be first apparent. Within the negotiation that takes place in CDS, the mother's CDS (at least in this study) contains a unique combination of language functions which is importantly different from that directed at the infant by other family members. Far more than being just a part of the overall process of L1 learning an infant goes through, CDS/motherese may be seen as a possible catalyst for L1 acquisition.

Before going on to a discussion of CDS, one last point needs to be made. There

are some who feel that social interactionist theory and CDS have some serious flaws. These criticisms will be discussed in section 2.3.1.

2.3 CDS: An overview

The miracle that is language acquisition can be examined from a wide variety of perspectives through the lenses of various theories, some of which have been mentioned. Ultimately, however, a fully adequate theory of first language acquisition must account for the influence of both genetic and environmental factors on that process. Recall the discussion of Kent's views on how genetic and environmental factors interact in the development of the child's phonological system. Those environmental factors require further examination and explanation. To explain at least part of this enigmatic process, CDS, surely one of the most crucial parts of the environmental influence on language development, must be examined closely. Many researchers have weighed in regarding the nature of the linguistic input directed at children from parents. What follows touches on specific important aspects of CDS. The next sections will present information that will explain various aspects of CDS and provide support for the social interactionist theory of language acquisition.

2.3.1 First, a criticism of social interactionist theory and CDS

Some objections to social interactionist theory of language acquisition have been voiced, however, and should be considered. One criticism of this theory, as Piper (1998:163) puts it, concerns universality: 'As Susanna Pflaum has pointed out, if the dialogue between parent and child is the critical mechanism for language learning, then such dialogues would be found in the language learning of all children everywhere.' This claim (or unsupported hypothesis) may be too broad to be viewed as a serious

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criticism; however, some researchers (Heath 1983, 1986; Schieffelin and Ochs 1983) have cited cultures where this (the 'dialogue' between parent and child) apparently does not take place. 'In one community studied by Heath, it appears that baby talk does not exist; and if children wish to participate in the talk of the group, they have to interrupt to do so' (Piper 1998:163). This particular issue will be discussed further a little later in a related context.

This criticism certainly must be considered if social interactionist theory is to try to account for any L1 acquisition. Although social interactionist theory does hinge on the interaction between infant and caregiver (though perhaps not just on parent-child dialogues), perhaps for the exceptions cited in the above examples, the definition of caregiver simply needs to be broadened. Parents, especially the mother, are typically the primary caregivers and language providers for an infant; however, the theory does not necessarily exclude other people from being sources of language input for the infant. In fact, if parents (or just mothers) are not going to be the primary caregivers and/or source of linguistic input for infants, given that even the children cited in Piper's statement above do learn their first language, it is clear that enough input from an appropriate source (others in the community, surely) has been available to achieve the goal of L1 acquisition.

A slightly different but related issue will now be discussed. Though many researchers have written about CDS and have taken it as an important factor in child-language research, at least one linguist, Lightfoot (1991), presents an opposing view. Reacting to the theory of motherese put forth by Snow (1977), which claims '...that the crucial input for language growth is very small, and that it consists of a specially

structured form of speech transmitted through mothers and caretakers,' Lightfoot states that though '…"motherese" is supposed to provide a set of patterns which are generalized by children on an inductive basis[,] … there are at least four reasons why this kind of pattern generalization is not the means by which children acquire speech' (1991:18). These reasons (Lightfoot 1991:18-19) are summarized here:

1) no factual basis exists for the claim that children 'register only what is filtered for them through their parents' deliberately simplified speech,'

2) if motherese does help the child register well-formed utterances, it still does not overcome the other problem of 'deficient' input; it deals only with the 'degeneracy' problem,

3) if motherese allows the child to register only simplified and well-formed sentences of motherese, then the task of learning the complete language is made more difficult since it does not provide the child with all the other sorts of language that must be encountered to ensure mature language development,

4) motherese exposes the child only to a limited set of sentence types (questions and imperatives) and does not represent the typical language the child will meet in the real world.

Additionally, Lightfoot comments that there is no clear definition of what motherese consists of and that, in fact, it may not be universal. Therefore, 'even where motherese is not practiced, children nonetheless attain a normal linguistic capacity' (1991:19).

These criticisms of motherese/CDS are perhaps valid if one considers motherese as the 'cause,' or perhaps 'trigger,' of an infant's development of syntactic competency.

However, it may be, in fact, that the main purpose of motherese/CDS is not necessarily to supply all the language that will trigger the specific parameters of universal grammar (UG) for the infant's L1. It may have a very different role. However, Lightfoot is quite right to ask for a better definition of motherese/CDS, one that will specify its bounds and highlight its strengths. This is part of what this dissertation attempts to do.

I will attempt to counter or at least diminish the preceding criticisms Lightfoot has leveled at motherese/CDS. First, perhaps it is not necessarily syntax that is filtered through motherese as much as it is affect. If anything stands out from Harris's descriptions of motherese below (see section 2.3.7) it is the way in which those who use motherese with a child try to make their language fit the child's emotional state. Syntactic concerns are not the primary focus of descriptions of the qualities of motherese. Therefore, to criticize motherese for not being structurally adequate to account for all language development seems to me to be unfair. Lightfoot says at the outset that we cannot know exactly what it is that any child registers out of the total input. If that is the case (and I do not admit that contention is absolutely valid), this does not necessarily mean that motherese does not provide the child with substantial and important input.

Lightfoot's second criticism of motherese deals with the problem of 'deficient' input. Again, if motherese is not viewed primarily as a conveyor of L1 syntax, then this criticism is not valid.

His third criticism, that a limited set of well-formed motherese utterances would hamper rather than facilitate language learning, is problematic. Whether motherese consists of nothing but well-formed utterances is debatable. The data of this dissertation certainly do not support such a claim, so his assumption may be flawed.

A study by Kuntay and Slobin (1996) of the language a Turkish mother uses with her child dealt with what they referred to as 'the "puzzles" presented to a child by a language with flexible word order, complex nominal and verbal morphology, and a high rate of nominal ellipsis' (265). The purpose of this study was to determine whether, in a language other than English, CDS does in fact exhibit simplified structures to aid the child in learning the language, in this case Turkish, a very complex one. If, as Lightfoot suggests, CDS contains only a limited set of well-formed utterances, the child could not succeed in learning the complex language without, perhaps, substantial simplification in the mother's CDS. The Kuntay and Slobin study, however, found that, 'at all identifiable points of morphological complexity, we [saw] no evidence of simplification or avoidance of complex forms in child-directed speech' (1996:284). They go on to say that

> [i]n Turkish the child must learn to track lexical items across varying utterance positions, with different associated collections of agglutinated morphemes, moving in and out of patterns of ellipsis. The mother did not seem at pains to simplify these tasks for the child. If anything, we would propose that the entire set of cues is necessary for the child to be able to solve the problem. That is, without being exposed to this range of variety, it would probably take much longer to identify the relevant dimensions of lexical, morphological, and syntactic variation in the language (1996:284).

It appears then that, although the Kuntay and Slobin study was based on only one informant and extrapolating their results to other languages is dangerous, it is quite possible that mothers or caregivers do not simplify or limit their speech as Lightfoot states. Their study concludes by reminding readers that the communicative context of all language is crucial:

> It would be strange, indeed, to equip the child with subtle means for detecting lexical, morphological, and syntactic structures, while leaving her with only the most primitive equipment for learning to become an interactive member of human society. Every linguistic structure that we have explored in CDS takes its

meaning in definable communicative contexts (1996:284).

Another study by Crago et al (1998) on the differences between English-speaking children and Inuktitut-speaking children with respect to their acquisition of affixes provides another plank, though perhaps smaller than the previous one, in the argument against Lightfoot's claims. The researchers found that the CDS of Inuktitut mothers and caregivers was not simple; rather, it was quite complex. Since Inuktitut is 'a null subject polysynthetic language with numerous verbal, nominal, and possessive inflections as well as numerous affixes that function as verbalizers, nominalizers, valency changers, and modifiers' (Cargo et al 1998:37), it is not perhaps very surprising that infants exposed to this language acquire a much higher level of affixation accuracy than do English-speaking infants, who are exposed to relatively much less affixation. Still, the point here is that the non-English CDS was, in fact, not simple, but rather complex and therefore speaks against Lightfoot's claim that CDS is limited in complexity.

Lightfoot's fourth criticism of motherese, that the relatively more frequent instances of questions and imperatives than of declarative sentences is unnatural, again misses the point that motherese/CDS is primarily a 'language' of interaction. Therefore, questions and imperatives would seem to be much more logical candidates for fostering interaction than simple declaratives.

Finally, his comment that this 'phenomenon' of motherese is not uniform and does not occur in all households or cultures may be too broad to be useful. It may simply be that 'motherese' can be present in atypical ways. If parents in some cultures do not interact linguistically with their children in the same way Western parents typically do, it may be that other individuals in the linguistic community provide similar, or at least,

adequate motherese-like language which the child requires for that interactional base. Additionally, we must be aware that what individuals say they do in a given context may not be what they actually do. To illustrate this, the following study by Haggan (2002) will be examined.

Haggan (2002), in her study of Kuwaiti adults, indirectly supplies a very compelling piece of evidence that may help counter Lightfoot's last criticism of motherese/CDS. Of the adults in her study who believed they did not use motherese with children, all were found to exhibit characteristics consistent with (Kuwaiti) Arabic motherese. Haggan's fascinating study points out that self-reported perception of what informants do in a given linguistic context may be very different from what they actually do. A very important part of Haggan's study highlighted the fact that Heath's 1983 study has been used by other highly reputable linguists to support claims that motherese is not universal. Haggan believes, however, that using Heath's study was inadvisable since even Heath herself warned against making too much of the claims of an important informant in the very small Trackton community, Annie Mae, who suggested the following as the way her grandchild, Teegie, would learn language: '... He just gotta be keen, keep his eyes open, don't he be sorry. Gotta watch hisself by watchin' other folks ...' (Heath 1983:84). Haggan suggests that a closer examination of the Heath study would have shown researchers who wish to support 'the nativist poverty of data argument in language development' (2002:26) that some statements, which appeared to support the idea of a lack of motherese in that community, actually 'would seem to provide quite a wide range of linguistic opportunities for the child to be exposed to speech from adults' (2002:27). As Haggan rightly states at the end of her study, '[t]he case for the innateness

of language and the poverty of data theory may or may not be sound, but the Heath study should not have been presented as "evidence"' (2002:27).

I believe the point of Haggan's comments is to caution us against accepting what informants 'tell' us they do since, as her own study showed, this is not always true. This caution can be applied to Heath's study. Although there are definite differences between the ways parents/caregivers interact with infants in the Roadville and Trackton communities of her study, the fact is that the children in both communities ultimately learn to communicate in the same way the adults in their respective communities do. It is not possible to say that there was no interaction between infants and adults in either community because there was in fact a great deal of communication going on around infants all the time in both the Trackton community (Heath 1983: 74) and the Roadville community (116-117). Because of this almost constant contact with adults, it appears, as Haggan suggests, that linguistic input was readily available to the children in both communities albeit in very different forms. Heath's study appears to me not to show that one community exhibits and one does not exhibit the CDS or input necessary for children to acquire language. Rather, it suggests that different types of input and ways of presenting it to the infants can have the same result: successful L1 acquisition.

To sum up, the preceding criticisms which have been leveled at social interactionist theory and CDS have little merit when a) previous data used to support such claims are re-examined more carefully, and b) faced with additional cross-linguistic data that appear to support the claim that CDS is not the simplified version of adult language it is thought to be, but a rather complex form of language which seems to be specifically designed to facilitate learning among the infants who are exposed to it.

2.3.2 The purpose of CDS

Moskowitz (1978) presented what may now be viewed as the traditional view of CDS (though she used the term 'caretaker speech'). She stated that '...the language environments children inhabit are restructured, usually unintentionally, by the adults who take care of them' (1978:5). Though she was referring primarily to syntactic issues, she did mention that caretaker speech was 'a distinct speech register that differs from others in its simplified vocabulary,' that it contained 'syntactic simplification,' and that 'the functions of the various language modifications in caretaker speech are not [as] equally apparent [as syntactic ones]' (1978:5).

In a more recent examination of the language that caregivers use with infants, de Boysson-Bardies (1999:83) explains what she views as the purpose of CDS, or what she terms motherese.

> What is the point of motherese? These first vocal messages — which are intended, on the one hand, to capture the child's attention, and on the other, to encourage exchanges — convey affective values through melodic contours. The voice, more than any other stimulus, provokes smiles in infants, attracts their gaze, allows face-to-face exchanges of verbal communication. These early vocal exchanges with the mother orient the baby toward a mode of oral communication. Thus, the behavior of turn-taking emerges toward the end of the second month, when infants react to the vocal promptings of the mother by cooing when she stops talking.
>
> Parents' use of higher pitch of voice, nearer that of children, lets their child know that they are talking to her.

Shifting to an explanation of baby talk, de Boysson-Bardies (1999:84-85) states that

> when their babies reach seven or eight months, parents realize that they are beginning to recognize words and then to understand them: the remarks that are directed to them must therefore prepare them for this. These remarks become clearer and better articulated, utterances shorter and spoken more slowly, with longer pauses in between. Adults seek to make themselves understood. Prosodic characteristics remain important. The voice continues to be higher, and intonation, like the emphasis placed on ends of sentences, is quite pronounced ... Sentences

are simple, short, and repeated. The frequency of words containing reduplicated syllables is important.

Present-day research finds labials and syllables not involving too many movements of the upper articulators appear with the greatest frequency in the first production of babies and in the vocabulary of mothers, who spontaneously employ more words beginning with labials ([m], [b], [f], [v]) when they speak to children.

The child's repertoire reflects that of the language spoken in the family circle more than any particular aspect of the mother's phonetic repertoire.

From the preceding sections relating to the nature of CDS, it is a simple matter to conclude that CDS is a crucial factor in the language development of children and that those unfortunate infants who received little or no normal linguistic nurturing face a harsh life, the (in)famous case of Genie (Curtis 1977) being a prime example. What will be shown later in this study is that CDS has an even greater influence than may already be appreciated but in ways not previously examined.

2.3.3 Interpreting intent

As soon as infants have begun to utter sounds that resemble the phones and then the words of their parents' language, the problem of meaning arises. Interpretation of those sounds and/or words by caregivers becomes a crucial factor in the infant's language development, but such interpretation, even by highly trained observers, is not without its pitfalls. Karmiloff-Smith (1979:228-230) gives an example from an early book of Piaget in which he cites the example of a young child, J., who is asked to determine, upon seeing some slugs on the ground, whether or not a second slug is 'another' slug or 'the same' slug. The conclusion Piaget came to was that the question had no meaning for the child. Throughout the discussion of this example, many assumptions are made about the intent of the child's utterances. The implication is, of course, that the researcher knew this intent at least well enough to assume he was correct. But how can we be sure of the

veracity of such assumptions? The researcher was making interpretations of the child's utterances. These interpretations, according to Karmiloff-Smith, can be viewed differently if the observer's assumptions change. This is certainly true for all scientific inquiry and should be applied to the acquisition of meaning by very young children. By the time children have begun uttering adult-like phones, it is necessary that the innate seeds of meaning for the child have already begun to germinate.

As in the Piaget example just mentioned, language researchers, as observers, apply interpretations to the utterances and behaviors of infants in order to explain what the infants 'mean.' Though the very act of interpretation is subjective, it is an unavoidable problem when dealing with infants who are still unable to communicate meaning or intent via normal adult language. The present case study is also faced with this unavoidable problem, as are all the other references used herein, which rely to a greater or lesser extent on interpretation.

Bloom (1993:4-5) discusses intent and emotion, two important components in language learning. With regard to intent, for example, she believes that,

> the 1-year-old child's intentionality drives the acquisition of language. Our intentional states — the beliefs, desires, and feelings that we have — are themselves unobservable, but they determine how we relate to one another in daily events. Children learn language for acts of expression in the effort to make known to others what their own thoughts and feelings are about, and for acts of interpretation in the effort to share the thoughts and feeling of other persons. Intentional states underlying acts of expression and interpretation provide the *mental meanings* for which knowledge of language — its vocabulary, semantics, syntax, and discourse procedures — is acquired.
>
> Mental meanings are constructed, as we talk and listen, from data perceived in the here and now and data recalled from the knowledge we have in memory ... Because such mental phenomena are hidden, language is required to make them manifest when what one individual has in mind differs from what another has in mind and needs to be shared.
>
> A basic assumption being made here is that infants at the end of the first

> year of life have intentionality. All this means is that they are capable of having thoughts and feelings and that the thoughts and feeling they have in mind are *about something*, because they are directed at objects (including persons and events) in the world ... Attributing intentionality to infants should not be controversial: after all, we routinely attribute intentionality to a pet cat or dog.

From this we can surmise, based on the assumption of intentionality, that meaning is something that is given to the utterances an infant may make. This intentionality, in turn, is interpreted by the listener, in the case of speech, based on that *listener's interpretation* of the sounds and/or any actions accompanying the speech. If this seems somewhat circular reasoning, it may be unavoidable. Attributing a specific meaning to an infant's utterance may in fact be straightforward. If, for example, a parent holds out a tempting piece of an infant's favorite food and the child upon seeing it lunges for it while uttering something like [aʔ] with a sharply rising intonation, one could assume or interpret that utterance to mean approximately, 'Yes! I want that! Give it to me!' However, surely interpretations of similar examples of 'infant language' would likely *not* be something like, 'Why Father, Mother! I am shocked by the fact that you recalled my favorite food and were good enough to offer me some.' Beyond examples of nascent language that appear to have a stimulus-response component, it is very difficult to be certain that the meaning ascribed to an infant's utterance is absolutely accurate.

The debate as to relative influence on the development of language has frequently referred to the concepts of input and output. Input refers to the language (or signals or communication) which arrives at the sensory receptors of an infant and which may or may not be directed meaningfully at the infant. Output, of course, is what the infant produces communicatively. Certainly, input which is directed at the infant for some clear purpose is what we hope has the greatest influence on L1 development. This assumption

may or may not be correct since without direct feedback from the infant (as is implied above), determination of the degree of influence any given input exerts on L1 remains elusive.

One last example here will, I believe, highlight the problem of ascribing intent to the language of an infant (from simple grunts to phones to words) no matter what its age. Oller (2000: 277-278) discusses how animal and human communication differ with respect to alarm calls which he believes can all be subsumed under the term 'reference,' which is clearly associated closely with intent. He states, however, that '... humans can be seen to command reference in a more powerful way, and that the advantage can be seen by the second year of life in the human infant.' To clarify this difference in usage that exists between animals and humans, he cites the property of Semanticity (a component of his overall infrastructural theory of language acquisition) which he explains thus:

> [w]hen I say a child commands the property of Semanticity (or referentiality in the common usage of the field of child language), I normally intend to indicate that the child is capable of referring to a class of entities analytically, to designate that class specifically in a way that is free of contextual and illocutionary limitations. A variety of illocutionary forces are possible once Semanticity is in place (2000:277).

Although Oller suggests that other 'illocutionary forces are possible' once the infant has developed 'Semanticity,' he does not actually explain how the infant manages to acquire this. Presumably, the environment is responsible for allowing the infant to get 'Semanticity.' Next, Oller shows how he believes an infant uses this ability through an example in which an infant utters [ba] in a variety of contexts:

> Suppose a child says [ba] while playing a game involving a ball. If this is the only circumstance under which the child uses [ba], we cannot be sure the child is

> intentionally referring to the class of objects, balls, or whether the utterance [ba] is merely produced in the context of a particular game. Therefore we do not know whether the term [ba] analytically designates the class for the child or merely has the effect on mature listeners of invoking their awareness of a class of objects that the mature language designates by the term *ball.*
>
> One kind of evidence that the child does control semanticity and its implied analytical referentiality to classes of entities can be seen when the usage of the term [ba] is extended to new illocutionary conditions. Suppose the child not only says [ba] while rolling a ball, but also points to the ball, looking up at a parent, then back at the ball while saying [ba], suggesting an illocutionary force we might call labeling. The game is not being played on this occasion, nothing is requested in such circumstances, and no obvious emotion (only interest) is expressed. Suppose further that when the parent holds the ball, the same child reaches for it, saying [ba] with a tone *suggesting* [emphasis added] an illocutionary force of solicitation, and then after having been given the ball, the child *seems appeased* [emphasis added]. Finally, suppose the same child points to the ball and says [ba] with rising intonation, waiting for the adult to confirm that indeed the object is called *ball.* The child's illocutionary force in this last case is that of a question. Such variability of usage within the same child at a single age, pairing a single meaning and sound with multiple forces, provides evidence that the child understands the term [ba] to refer analytically to the class of objects, balls. The word [ba] can be said to have achieved semantic status. When the child uses the term, *he or she intends for the listener to understand* [emphasis added] that in the act of communication, the class of objects is being invoked (2000:277-78).

The scenario cited in this example, most would agree, is certainly typical of infants when they are beginning to explore their world linguistically. The problem, as I see it, and as has been emphasized by italics in the above citation, is that in so assigning illocutionary force, or intent if you will, to even obviously unambiguous utterances such as those given, the assigner is simply confirming what *he/she believes* those utterances mean. Even granting the fact that the child commands the property of Semanticity does not mean that we know what the child actually means. The only way that we can discuss the meaning of a given utterance is if there is already some innate ability related to the giving and receiving of meaning which is awakened in the infant by situations such as those above and by the adults involved who ascribe meaning to the child's utterances and

actions. In other words, it is not just the child who begins to understand the meaning but also the adults around the child who, through their actions, confirm what meaning they believe is present in the child's utterance.

Therefore, while Oller's system of infraphonological properties (of which semanticity is but one) may have applicability to the development of phonology in infants, I do not see that using his theory (at least the component of semanticity) to discuss the meaning which is swirling around and through the utterances parents use with their children provides much explanatorily regarding the acquisition of that meaning.

2.3.4 Response of mothers to emotional signals from infants

On the other hand, Bloom does, a little later in her discussion of emotion and intent in language acquisition (1993:5-6), describe how important social context is to infants.

> Sharing the contents of mind is not something that 1-year-old infants purposefully do as they set out on their language-learning careers. Instead, the motivation for sharing is in the need they have to sustain intersubjectivity with other persons and thereby locate themselves in a social world.
>
> If intentionality drives the acquisition of language, then intersubjectivity drives the development of intentionality. Intersubjectivity comes from the appreciation infants have for 'being together' with another person and depends on each attributing to the other a sense of being in touch with what they are feeling and thinking about. These mutual attributions certainly happen without the infant's and probably even the adult's having a sense of where the thoughts and feelings in these situations come from. One-year old infants do not yet have a theory of mind, but they do have a good start on acquiring a commonsense theory about the world. And a large part of their nascent theorizing has to do with the other persons in their lives who care for and about them.

Here Bloom stresses the close social contact, i.e. the interaction, which is necessary for the development of intentionality. She continues (1993:64) in this vein by suggesting the emotional value of infant vocalization and the adult language which surrounds the infant.

> ... We needn't be surprised, then, that studies that set out to catalog the features of vocal affect associated with the different emotions in infant's expressions have met with little success. Instead, infant vocal behaviors have been more successfully discriminated on the basis of their positive and negative hedonic tone. Part of the reason may be that young infants perceive the vocal and facial features of other persons' emotional expression holistically, rather than componentially.
>
> As long ago as 1936, M. M. Lewis underscored the importance of affective tone in the speech infants hear: "From the outset, heard adult speech comes to the child steeped in affective quality. In the first month it soothes him; a month later it makes him smile." One highly salient feature of adult's speech to babies is its melody, or intonational quality, and infants respond to speech based on intonation long before they respond to the words. An infant will actually respond in the same way to messages that have different words and meaning if the intonation contour is the same. "Conversations" with babies sound like conversation because infants are particularly sensitive to patterns of pitch contour (intonation) from an early age. Ann Fernald pointed out that the message in the melody of adult speech to infants is a pragmatic one — prohibitions, affection, impatience, and the like — rather than informational. Moreover, the different melody contours for these pragmatic messages are essentially the same in talk babies hear from speakers of such widely different language as Japanese, German, Italian, and English, and infants heading them respond similarly, even though much else about the sound patterns in these languages is very different.

This is the sort of discussion which gets at the heart of the acquisition model, I think, since it focuses on that interaction that is constantly going on between child and caregivers.

Bloom (1993:184-186) discusses how caregivers (in her study, mothers) responded to emotional signals from infants at 9, 13, 17, and 21 months.

> They [the mothers] either expressed emotionally toned affect themselves, or they did or said something that was directed at the causes, consequences, or circumstances of the child's emotional experience and expression. However, the frequency with which mothers responded to emotional expression was not the primary way in which they influenced a child's emotion profile.
>
> The mothers contributed to their children's understanding of emotional experience and expression in other ways. An emotional expression is a public display to which we can attribute a private representation, which is its meaning or what it is about. And indeed, in responding to a child's emotional expressions, the mothers were attributing mental meanings to them. At a minimum, they acknowledged the child's expression by saying things like "What?" or "Okay" to

moth

and b

other

meaning

> indicate that they appreciated the child's effort at expression even if they might not have understood the child's intent. And in responding the mothers conveyed meaningful messages to their children. A caregiver's own affect, action, or speech is an expression and, in the context of a child's emotional display, communicates a message to the child about the feelings and expression of those feelings in the display. Regularities over time in the meanings a child attributes to a mother's behaviors when she responds to emotional expressions contribute to understanding and learning about the experience and expression of emotion.
>
> The mothers provided their children with a rich array of such meaningful behaviors. In addition to expressing affect themselves and talking about emotion or its expression, mothers responded with actions and action-directed speech. Either they acted themselves or encouraged their children to act in ways to achieve their goals, of they talked about those goals and/or the situations for them.
>
> In responding to positive emotions, the mothers most often expressed positive affect themselves. They were also very likely to do or say something directed at maintaining a child's goal and to talk about the situational context. In response to negative expressions, mothers were least likely to express affect themselves in response. Instead, they were most likely to act in a way or say something directed at helping the child achieve a goal or change the goal, either by abandoning it or substituting a new goal. They also attended to their children's physical needs in response to negative emotions.
>
> In sum, in their own actions and talk mothers provided information about the causes or circumstances of an emotion or provided information about how actions contribute to coping for the regulation of feelings. Mothers' actions and talk about actions were their dominant form of responding to a child's emotional expression, and the rate of action-related behaviors by the mothers remained a constant in their interactions, showing no change from 9 to 21 months.
>
> However, as the children acquired language, their mothers were increasingly likely to talk to them about the emotional experience and correspondingly less likely to express emotionally toned affect themselves. But they rarely labeled the child's emotion or talked about a child's feelings directly ... Instead, these mothers talked about a child's goal or the situation or how to achieve their goals in one or another situation — the cause and occasions for their feelings and what to do about them — rather than about the feelings themselves.

From this rather long, detailed explanation, it is reasonable to hypothesize that a mother's interaction with her child is responsible for *associating affect* to both language and behavior and, in turn, *associating meaning* with both language and behavior. In other words, we can conclude that without mother's interaction, her CDS if you will, meaning cannot be achieved easily or completely.

2.3.5 Rich interaction between parents and child

de Villiers and de Villiers (1979:97-98) attribute normal language acquisition to the quality of interaction between and the child and parents.

> Language acquisition normally takes place in the context of a rich interaction between the child and his parents. Several facets of that interaction seem to be important facilitators of language acquisition, and some of them may even be necessary for the acquisition of normal speech.

They go on to say that

> [s]ince most of the early conversations between parent and child take place in familiar contexts and concern objects that are present in the situation, the child already has a good idea of what the parents' sentences are about (1979:98).

One may wonder how the child has already developed 'a good idea of what the parents' sentences are about.' de Villiers and de Villiers suggest that familiarity of context is the reason for this which is certainly reasonable. What also has likely occurred is that the child has, even at this early stage of language development, acquired a means of 'figuring out' what the parents are talking about, quite possibly because of the functional language the parents have already directed at the child.

de Villiers and de Villiers continue their description of the language children receive from their parents and note the importance of various qualities of that language. They explain (1979:101) that

> [t]he quality of the language that children hear from their parents and the way in which it relates to their own comprehension and production of speech may also be important factors in language learning.
>
> Mothers (and fathers too, although they have not been studied as much) tailor the length and complexity of their utterances to the linguistic ability of their children. Mother's speech to one- and two-year olds consists of simple, grammatically correct, short sentences that refer to concrete objects and events. There are few references to the past and almost none to the future. Sentence intonation and stress are greatly exaggerated, and clear pauses appear between sentences. Furthermore, as many as 30 percent of the utterances are repetitions,

> partial or complete, of one of the earlier sentences of the mother to the child.
>
> ... Other features of speech to children, such as the use of a higher-pitched voice and special baby-talk words containing simplified speech sounds, reflect the adult's conception of the way children talk. The adult assumes that the young child finds certain sounds and words easier to pronounce than others.
>
> Finally, some properties of speech to children of different ages seem to depend on what the parent is trying to do with the language. With a child of one or two years the mother is often trying to manage and direct the child's behavior, as well as provide him with the names of objects.
>
> How might the speech modifications made by adults assist the child in language learning? The restriction of early conversations to familiar settings and to objects and events that are present in those situations greatly simplifies the child's problem of learning the words for things. It limits the range of possible referents for any new word and provides the child with clues from the situation that might indicate what is being referred to, clues such as the speaker's direction of gaze of the presence of a new object among familiar ones. Adults also use recurrent sentence frames in talking to children: "Look at the_____," "That's a ," or "Where's the_____?" The word that enters into the frame is usually heavily stressed, so the child's attention is drawn to it.
>
> Other features of mother-to-child speech may help the child to divide speech up into words, phrases, and sentences. Single-word utterances are quite frequent, and even multiword sentences are slowly enunciated and have distinct pauses between them. Mothers also tend to repeat isolated phrases and words following the complete utterance.

The preceding clearly stresses the importance of this 'rich' interaction between parents and child and, at least in part, suggests that the nativist argument of 'impoverished input,' which says that the language input an infant receives during L1 acquisition is often ungrammatical and is insufficient to account for the infant's rather dramatic language learning ability, may not be absolutely valid.

2.3.6 Modification of adult speech to children

de Boysson-Bardies (1999:81) explains the 'natural' concern that adults have for infants by stating that

> ... [a]lmost all adults, no matter their sex or age, modify their way of speaking when talking to infants and very young children. Adults show a concern and a willingness to adapt to the capacities of the child by adjusting the register of their voices, adopting an affectionate tone, and articulating words clearly and more

slowly.

Affect seems to lie at the heart of adult-to-infant interaction. Later she states that 'motherese'

> ... refer[s] to the modulations of the prosody and voice of mothers (or other adults) speaking to babies, whereas *baby talk* indicates the simplification of vocabulary, syntax, and the forms of the words of the language addressed to a slightly older child, without, however, neglecting the modes of intonation that are associated with it. Whether peering into the infant's cradle or taking care of the baby, adults, when they speak, first attempt to establish affective contact and to elicit vocalizations (1999:82).

She goes on to describe 'petel' (from the Italian word for 'breast'), coined by the poet Zanzotto (1986), as

> the cuddling language mothers use to address very small children, which tries to mimic the language these children use to express themselves. One notes, in particular, modifications of voice and prosody — a higher vocal register than usual; and a restricted range of intonation contours (but with very exaggerated modulations and variations of pitch), and long, soft melodic forms with sudden glissandi and large F0 [also, F_0, frequency of phonation, measured in hertz (Hz)] excursions ... to focus the baby's attention, heightening interest and helping establish a preference for this type of communication (1999:82).

Finally, she mentions that interestingly, though not surprisingly, 'this preference [for the voice of their mothers] is found until children reach preschool age' (1999:83).

2.3.7 Possible results of a lack of CDS

If examined from the perspective of potential language impairment, the lack of CDS may cause serious problems for a child. According to Harris (1990:93–94) the vital role of CDS

> ... has fuelled speculation that some forms of language impairment may arise from the child having insufficient exposure to adult language or, alternatively, being among adults who adopt inappropriate styles of talking to young children ... These problems may then lead on to additional difficulties at school, especially if the teaching staff mistake linguistic delay as indicative of limited intelligence, or interpret differences in a child's inability to use language as a sign of impaired

ability to learn language.

Harris (1990: 200-201) later gives 6 characteristics of adult language directed to young language-learning children. Adult-to-child language:

1. is slightly more complex than the language the child uses. This structural complexity may vary according to such factors as:
    a) Mean Length of Utterance
    b) Mean length of speaking turn
    c) Grammatical complexity - embedded sentences and passives
    d) Type-token ratio - the frequency of different words expressed as a proportion of all the words used
2. deals with the child's interests: actions, objects, people and events that are present in the 'here and now.'
3. is semantically related to the child's language so that the child will recognise the connection between her own communicative intentions and the language structures presented by the adult. This can be done by
    a) repetition of the child's utterance in a conventional or 'idealised form:' the child says 'buh' but the adult responds with 'butter.'
    b) expansion of the child's utterance as when the child says 'play bath,' the adult responds with 'You want to play with your toys in the bath.'
    c) recasting the child's utterance to illustrate an alternative grammatical structure. For example, to illustrate questions, after the child utters 'You can't get in', the adult might respond: 'No I can't get in, can I?'
4. is filled with phatic responses such as 'yes', 'oh', 'mmmm' and 'I see' to indicate the adult is listening and attending to what the child is saying.
5. does not simply use questions to get children to speak, but rather uses meaningful contributions from the adult to the conversation context.
6. whenever possible uses naturally occurring conversational slots so that the adult's language fits in with other activities and the child's increasing ability to participate in verbal and non-verbal interactions.

As we shall see later in the data analysis, these characteristics arise within the language of the parents. To sum up, then, we have seen that CDS can be viewed as a highly specialized language, having affective qualities necessary to engage the child in language, and one which allows the child to remain focused on the provider of the input thereby maximizing language learning.

2.4 Halliday's functions of language. As was mentioned at the outset of this paper, the clear functional purpose of language is to send and receive linguistic signals. Various approaches to the analysis of such functional language have been proposed. Scollon (1976) examined the language output of a one-year old, Brenda, for a wide variety of components, one of which was intonation. He gives a list of illocutionary acts that Brenda's intonation is believed to express. These acts range from reference to assertion to direct directive and so on to translative (Scollon, 1976:209). Such an extensive list proved too large to be used in the present study. Though Scollon's study is a fascinating one, it focuses on the output of the child rather than on the input she is exposed to, which is the focus of the present study.

In his discussion of the development of speech acts in infants, Atkinson (1982) provided an outline and comparison of three inventories of functional categories, one by Dore, one by Carter, and one by Halliday. Halliday's system was chosen for use in this study because it provides a taxonomy which appears to be conceptually 'cleaner,' providing less overlapping of functions than the other systems exhibit.

In his study of the functions language may contain, Halliday (1977) examined the English language acquisition of one child, Nigel, from about six through eighteen months of age. Halliday's basic premise in the study was that the language infants use could be described in terms of certain functions. The functions Halliday (1977:19-20) proposed were:

> 1. The *instrumental* function is the function that language serves of satisfying the child's material needs, of enabling him to obtain the goods and services he wants. This is the 'I want' function of language.

2. The *regulatory* function is related to this, but it is also distinct. It is the function of language as controlling the behaviour of others, something which the child recognizes very easily because language is used on him in this way: language is used to control his own behaviour and he soon learns that he can turn the tables and use it to control others. The regulatory is the 'do as I tell you' function of language.

3. The *interactional* function is what we might gloss as the 'me and you' function of language. This is language used by the child to interact with those around him, particularly his mother and others that are important to him, and it includes meanings such as generalized greetings "Hello," "Pleased to meet you." And also responses to calls "Yes?", as well as more specific forms.

4. Fourthly there is the *personal* function. This is language used to express the child's own uniqueness; to express his awareness of himself, in contradistinction to his environment, and then to mould that self—ultimately, language in the development of the personality. This includes...expression of personal feeling, of participation and withdrawal, of interest, pleasure ... We might call this the 'here I come' function of language.

5. Fifthly, once the boundary between the child himself and his environment is beginning to be recognized, then the child can turn towards the exploration of the environment; this is the *heuristic* function of language, the 'tell me why' function, that which later on develops into the whole range of questioning forms that the young child uses.

6. Finally we have the *imaginative* function, which is the function of language whereby the child creates an environment of his own. As well as moving into, taking over and exploring the universe which he finds around him. The child also uses language for creating a universe of his own ... This we may call the 'let's pretend' function of language.

7. Later on there is in fact a seventh to be added to the list: but the initial hypothesis was that this seventh function, although it is the one which is undoubtedly dominant in the adult's use of language, and even more so in the adult's image of what language is, is one which does not emerge in the life of the child until considerably after the others. This is the one that we can call the *informative* function of language, the 'I've got something to tell you' function.

At this point, it is necessary to add a comment regarding this taxonomy of functions. Because Halliday came up with this taxonomy of function by observing Nigel's use of language, these functions are initially intended to be descriptive of what

children might use language for. In this study, I am attempting to turn the tables, as it were, by using these functions to describe the speech that the subject's parents and siblings use with him. Although Halliday does not analyze the speech of adults specifically, the preceding comments in his description of the seventh function, the *informative*, certainly suggest that he has thought about what adults use language for. Since he does so, I am adding this function to his initial list of six because I am specifically interested in the kind of functions these adults and children use with and around the subject.

Although it would be possible to create a different taxonomy of functions that might be applied to any language in normal communication, the one that Halliday has produced clearly is meant to encompass normal language use. To facilitate the discussion, I will assume that these seven functions are sufficient to describe both the language that infants hear in their environments and are, consequently, the functions which could be noted in the language they acquire and then produce.

In addition to such issues, examining the type of interactions each parent has with an infant with respect to the qualities of CDS those interactions might contain is certainly relevant to a functional analysis of the L1 acquisition process. Essentially what such a taxonomy of functions provides is a way of quantifying the various aspects of CDS. This in turn allows a more discrete analysis of a given utterance than may have been possible before.

One other set of criteria could possibly have been used to analyze the data of this study, namely, Dickinson and McCabe's criteria discussed in section 2.2. Those criteria relate to the language the child is exposed to and to how the child responds. Though they

would possibly have rendered equally interesting results, I considered the set of Hallidayan criteria to be of more use as an analytic tool given its division of language into specific functions, which I found to be a good match for the recorded data .

CHAPTER 3
METHOD

3.1 Introduction. This chapter first presents the research design used in this study. Next, a description of Halliday's taxonomy of language functions and how they are utilized in this study are given. A second method of analysis is present and discussed. Following this, the subject of this study is described along with the data-gathering procedure and some concerns about that process.

3.2 Research design. The case study presented herein was primarily done using a naturalistic approach. Because as much information as possible regarding the subject was sought, a long-term plan was established with the parents after their consent was received. Permission was granted to proceed with this study after a UCRIHS review. (IRB# 99217, Category 2:F)

3.3 Subject. The subject, Hikaru (H), born on October 20, 1996 (19 months old at the beginning of the study), is the youngest son of a Japanese couple living in a small mid-Western college town. H's father is a doctoral student and his mother is a homemaker who, in addition to caring for H, cares for his two older siblings, a boy, Tadahiro (usually called Ta-kun), at the initial time of the study, seven years of age and a girl, Sakura (usually called A-chan), five years of age.

H, an active child, was chosen because I knew he would be growing up in and virtually surrounded by the Japanese language. I thought that this home would simulate as much as is practically possible in this area of the United States a Japanese L1 environment. Although H's older siblings use English in school and have become essentially bilingual over the years they have been living in the United States, Japanese is

the language used in the home. H's mother and father are never heard to use more than a few words of English (heavily Japanese-accented) for the duration of the study: *hello, lucky, cheese,* and *Jesus*, for example (see Appendix B for the complete list). Apparently, these were somehow special to H or his family (or the context of the conversation) and therefore appear from time to time in the data. It should be noted that most of the non-Japanese words seen in the data are not uncommonly seen in typical Japanese, having been borrowed from other languages such as English and, in one case, *pan* 'bread,' from Portuguese. Hence, to say that these are instances of English is, perhaps, not completely accurate. The pronunciation of these words, at least the English words, by the family members is typically heavily-accented and therefore not necessarily representative of normal English L1 input.

Aside from the rare instances of English usage scattered throughout the data, H's parents used and currently use only Japanese in the home and assured me that H's older siblings do not use English with him. This is a rather closely enforced rule in the home and goes so far as to include the television programming the children are exposed to: essentially Japanese children's programs on videotape. Therefore, it can be assumed for the purposes of this study that his English input from the environment was minimal and has insignificant impact on any results or conclusions.

At this point I would like to state that although the first idea I had for this dissertation was to study a child's language acquisition in a foreign language environment, the frequent silence of the subject and the relatively few and limited utterances he did produce during the recording sessions necessitated a slightly different focus for this study. Instead of looking primarily at what the subject produced, I began

examining the parents' language and found it to be far more fascinating from a functionalist perspective. There seemed to be a decidedly different kind of language directed at the subject from both parents. This then became the focus of this study,

I chose a Japanese family and their child for study for three reasons. The first consideration was practicality. I needed to be able to gather data on an infant as reliably and easily as possible. Since this family was well-known to me and was very willing to help me in this case study, and since they had had other experience gathering data from one of their other children, I knew I had access to willing, eager, and interested participants. This family had assisted me in a previous study, so I knew that they would be reliable assistants for the data-gathering process.

Secondly, beyond these issues of practicality, I saw the opportunity to go beyond a mono-lingual (typically, English) examination of the developmental process of meaning and compare previous research done with English-speaking children to that of a child raised in a (mostly) Japanese-speaking environment. If parallels could be found in these different linguistic groups, then another page in the book of universal theory could be highlighted, if not completely written.

Finally, because I have had and continue to have intimate connections with the Japanese language and culture in a teaching capacity, I was very interested to see what implications this study would have for the teaching of language to young children, an area of special interest to me. I acknowledge that language teaching is perhaps not always of immediate concern to linguists, but because this study deals with aspects of how infants acquire language, I believe there may be potentially important implications from the outcomes of this study for the field of language teaching.

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The fact that some of the background research mentioned in this paper was done on very young infants (birth to 12 months) may raise the question of whether results from that research can be appropriately used with a child who was already about 19 months old at the beginning of the study. Since H did not have a large repertory of words and certainly few, if any, examples of telegraphic speech or two- or three-word holophrastic utterances at the time this study began, it seemed likely that the research would cover a time in his language development when meaningful utterances, words, and complete phrases would become more frequent, thus providing an observable pattern of development.

Additionally, attempting to study the development of meaning appears to be more appropriate with older infants. Oller's discussion of 'Semanticity' refers to 18-month-olds (2000:278), and he believes that humans begin to develop the power to 'command information free of context within symbol systems...shortly after infants begin to build their lexicons in the second year of life' (281).

3.4 Data gathering procedure. H's parents tape recorded his speech during normal interactions with him over a period of twelve months from June 4, 1998 to June 21, 1999. At the beginning of the tape recording sessions H was about 19 months old. Although the parents were asked to record H as regularly as possible, this instruction could not always be strictly followed. The time between recordings varied from 3 to 15 days and toward the end of the recording sessions, there were larger gaps of up to more than a month. During some of the last recording sessions, there were large gaps of silence which accounted for the sometimes sparse data. Every effort was made to salvage whatever useful data appeared on these tapes.

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The method for recording consisted of the parents' placing a very high quality cassette tape recorder (SONY WM-D3 Walkman Professional with a high quality stereo condenser microphone) in close proximity to H at times when he appeared to be vocally active, engaging him in conversation, and recording him until he had uttered what his parents considered to be representative of his productive ability at the time. The result was a series of ten 90-minute cassette tapes, each of which was returned for examination as it became full. These tapes were then transferred to the mini-disc format (SONY MiniDisc Deck MDS JE440) since its capability of isolating any given section of data and replaying it indefinitely facilitates careful transcription and analysis. High quality headphones (SONY MDR V600) were used during all transcription work. The raw data are presented in a numbered format with English gloss in Appendix A.

A final comment is perhaps in order here. It will be noted that I, the researcher, was not physically present during the recording sessions except at the very outset. The main reason I did this was to ensure that there was no extra English language influence on the subject. Although I can speak Japanese to a moderate degree, I felt that if I were present, there would be a greater chance that H's parents would use English with me, which might inadvertently but adversely influence H's Japanese output. Additionally, I was confident that H's parents would have little difficulty using the tape recorder or getting H to produce usable output because they had worked with me on a previous project that required very similar procedures. As it turned out, there were only one or two minor problems in this respect, but these did not alter the results of this study.

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3.4.1 Problems in and limitations of the data: Transcription concerns

Although some of the data were transcribed using IPA symbols that were considered to be as close as possible to the sounds uttered by the infant, there is some doubt, as Oller (2000, 1986) and Ingram (1989) note, as to the accuracy of transcribing a child's utterances with symbols that are intended for use with adult speech. This is the problem of shoe-horning: trying to force a model to fit a certain situation. In addition, because only one person, the researcher, transcribed the data, errors in accurate transcription are not impossible.

Because of these concerns, IPA symbols are used sparingly for allophonic accuracy and only to clarify or specify a specific utterance by the parents when there is relatively high probability of the accuracy of the transcription. The subject's (H) utterances are, however, all given in IPA symbols that were deemed as close as possible to what he actually said. Otherwise, a conventional phonemicization of the Japanese is given along with an approximate English gloss for all the utterances produced by the rest of the family members. The accuracy of any unclear Japanese words or phrases was carefully checked by my wife, a native speaker of Japanese. Naturally, any and all errors or inaccuracies are my responsibility alone.

3.4.2 Absence of video recording. Because obtaining the most natural data possible was the goal of the recordings, and since the researcher was unable to be physically present with the family for the length of the study, only a tape recorder was used. Videotape would have undoubtedly provided additional useful data regarding, especially, objects handled or referred to, relative proximity of speakers to the subject, facial expressions, direction of gaze, and disambiguating who said what. This was,

unfortunately, beyond the capabilities of the present study because another important goal in the study was to be as unintrusive on the family as possible considering the length of the study. Future study that would incorporate the use of relatively unobtrusive video cameras is suggested.

CHAPTER 4
DATA ANALYSIS

4.1 Introduction. Once the data of the family members were transcribed into a conventional phonemicization (with an English gloss) and into phonetic script for the subject, they were all placed into a table format and numbered for ease of reference. The numbering is of two types: 1) the data sets are numbered from 1 to 32 and represent the different recording sessions (Appendix C); and, 2) a consecutive numbering of utterances from the beginning of the first data set to the end of the last data set. All these data can be found in Appendix A. In addition to the raw data, the final column in Appendix A presents the function(s) believed to be represented by each utterance. It is these data and the functions contained therein which will now be examined.

4.2 Analysis. Each utterance in the data set was examined in its local context (the utterance immediately preceding it) to determine its most likely function according to Halliday's descriptions of language functions. Some utterances were coded with two or more functions because it was often clear that while the form of the utterance may have suggested a certain type of function, what was likely intended given the context was another function. Occasionally, no coding is made of an utterance because what was said was unclear or because the utterance was merely a laugh or some sort of grunting or squirming noise which carried no clear overt intentional function. This is not to say that the speaker had no intention; the fact is, however, that more information than was available was necessary to assign a function to this type of utterance.

Before proceeding further, it should be noted that according to the coding

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parameters which follow, three functions, the instrumental, the personal, and the imaginative, were not found in the language of the family members. Although no simple explanation for the absence of these three functions immediately presents itself, there may be unique cultural and idiosyncratic reasons for their absence. These will be discussed in the final chapter, but see 'd)' in the Summary of Table 2, section 4.2.1 below for an initial discussion of this phenomenon. It may be that the nature of parent-child interactions adheres more to the 'here-and-now' nature of language which is expressed in the regulatory, interactional, heuristic, and informative functions than in the three missing ones.

Abbreviations used to coding the Hallidayan functions of utterances are:

INST	– the instrumental function
REG	– the regulatory function
INTER	– the interactional function
PERS	– the personal function
HEUR	– the heuristic function
IMAG	– the imaginative function
INFORM	– the informative function

To demonstrate how the coding was performed, the following examples (taken directly from the raw data in Appendix A) are offered. No examples of the instrumental, personal, or imaginative functions are given since they were not found to be present in the data from any of the family members (M – Mother, F – Father, B – elder Brother, and S – elder Sister). The examples given are all from F's speech, but the coding process is the same regardless of speaker.

a) Regulatory utterances, such as #14, are coded thus if they contain direct or indirect commands.

14	F: omeme to ittegoran, omeme.	F: Say, 'Eye, eye.'	REG

b) Interactional utterances, such as #16, were those in which the speaker had attempted to call the subject, to rephrase what the subject had said, to comment about something the subject had said, and so on.

16	*F: hikaru chan,*	F: Hikaru, ('chan' is a term of endearment)	INTER

c) Heuristic utterances were those with direct questions, such as #22, or indirect questions (rephrases asking for clarification, for example).

22	*F: otosan no, (.) kore wa?*	F: (Is this/it) Father's? What about this (one)?	HEUR

d) Informative utterances, such as #25, were those in which the speaker simply presented factual information or gave some explanatory commentary to either the tape recorder (for the benefit of the researcher) or to another family member.

25	*F: ma, rokuon chu no desu.*	F: Well, we're in the middle of recording.	INFORM

e) Some utterances were coded with more than one function since the utterance could be interpreted in more than one way given the particular context. This multi-function coding is indicated by the likely functions separated by a slash mark(s). The following (#33) is an example of such an utterance. The context of the interaction between F and H was that they were planning to go outside, so F uttered a statement which appeared to be interactional since he called H and suggested that they BOTH go outside. The other intent of this utterance was, of course, that it was an order for H to accompany his father outside since H really had little choice in the matter. This second coding for the regulatory function was therefore thought to be reasonable.

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33	*F: soto demasho hikaru.*	F: Let's go outside, Hikaru.	INTER/ REG

4.2.1 Functions in the data sets. The tables found in Appendix C show the number and percentage of utterances of the various functions for each speaker, excluding H. Each table presented there is organized in the following manner:

a) The top row of each table shows the seven possible functions for each utterance.

b) The leftmost column of the table indicates the speaker: M (mother), F (father), B (elder brother), or S (elder sister).

c) The rightmost column indicates total number of utterances per speaker.

d) The bottom row of each column indicates the total number of utterances of a specific function.

e) For each cell that contains data within a table, the top number indicates the actual utterance count within the raw data while the bottom number in brackets indicates the percentage that number represents out of the total number of utterances for the speaker.

f) Summary comments regarding which speaker dominates the data set vis-à-vis number of total utterances (i.e. who has the greatest percentage) and which function is most prevalent in each data set immediately follow each table.

In order to facilitate a discussion of such a large amount of data that would be meaningful vis-à-vis the hypothesis of this study, all the data sets were included in the composite table, Table 2, which provides a complete overview of all functions and speakers in the study. Following Table 2 is a summary of findings based on an

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examination of those data from several perspectives.

Table 2 - Composite of entire data set[1]

FUNCTION COUNT / SPEAKER	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	TOTAL/ SPEAKER →
M	0	271 (27%)	325 (33%)	0	250 (25%)	0	153 (15%)	**999** (51%)
F	0	358 (42%)	186 (22%)	0	205 (24%)	0	109 (13%)	**858** (44%)
B	0	6 (13%)	20 (44%)	0	4 (9%)	0	15 (33%)	**45** (2%)
S	0	7 (17.5%)	12 (30%)	0	1 (2.5%)	0	20 (50%)	**40** (2%)
TOTAL/ FUNCTION	0	**642** (33%)	**543** (28%)	0	**460** (24%)	0	**297** (15%)	**1942**

Table Legend:
Speakers: M – Mother, F – Father, B – Brother, S - Sister
Functions: Inst – Instrumental function; Pers – Personal function; Inform – Informative function; Reg – Regulatory function; Heur – Heuristic function; Inter – Interactional function; Imag – Imaginative function

Summary: Several points stand out in the analysis of Table 2:

a) The data which were captured by the tape recorder suggest that M spoke more often than did F. Though this may not reflect a completely accurately comparison between the total amount of time M and F spent or spend respectively interacting with H over the course of an entire day, it does suggest that M may have been the most prominent speaker in H's world during the recording sessions, though only by a margin of 7%.

b) The most prominent function noted in F's speech, by 18% over the next most

[1] A chi-square was run on the four functions (REG, INTER, HEUR, INFORM) for mother (M) and father (F), producing a 2x4 table with 3 degrees of freedom. The chi-square result was 51.273; significance level, $p \leq .001$.

prominent function, is the regulatory function. This suggests, and is confirmed in many places throughout the data, that F is more likely to use commands to try to engage H in a language interaction than M is. It also suggests, and is confirmed throughout the data, that the exchanges between F and H are of shorter duration and contain less of the give-and-take seen in interchanges between M and H.

c) Both B and S exhibit relatively large percentages of interactive function use which suggests that, although neither sibling has much formal spoken communicative interaction with H during the entire data set, when they do communicate with him they use the interactional function far more than they use the regulatory function. Additionally, the informative function is used by these siblings to a much greater extent than it is used by the parents. This may have implications for the influence older siblings have on their younger siblings both in the kind of interaction they have with the younger siblings and in the type of language they use during those interactions.

d) Three functions were not found at all in the data: the instrumental, personal, and imaginative functions. Given the fact that these three functions by definition, especially the personal and imaginative functions, are typically used by parents or caregivers to indicate much more complex ideas and language than a young child would be likely able to comprehend (or, likely, generate), it is perhaps not surprising that they do not appear in the language of the parents. Of course, the presence of these three apparently absent functions cannot be ruled out categorically; it may be rather that language bearing these functions was present during conversations that were not recorded, though this is unlikely given the broad range of times and settings in which the data were gathered.

There is one other possible explanation for the lack of, at least, the imaginative function. Because the parents in this study have specific religious beliefs regarding the nature of what literature their children may read, many of the fictional stories and characters that other children read about (Harry Potter books, for example) are not read in the home. This would naturally limit, though not eliminate, the amount of language containing the imaginative function around the subject.

e) The functions which do appear in the language of M and F are, perhaps, not very surprising in that by definition these functions are directly related to the language so often used with infants: giving commands (regulatory function), language used to keep conversations going (interactive function), asking questions (heuristic function), and giving information (informative function).

4.2.2 Graphs comparing the functions. The following graphs (Figures 2 through 17) are presented to give a graphic representation of the numerical data presented in Table 2 and the data from the full 32 data sets found in Appendix C. Where a graph contains a great deal of data, thereby rendering it rather dense in appearance, separate graphs are also provided which break down these larger graphs into specific components for ease of reference. The information contained in Figure 4 (which is based on Table 2 and shows actual utterance count of each function in each data set) is also represented by Figures 5 through 8 (each shows the utterance count of one function in each data set). Similarly, the information in Figure 9 is broken down into separate graphs, Figures 10, 12, 14, and 16. Figures 11, 13, 15, and 17 are given to compare actual utterance count with the percentages of the same utterance count.

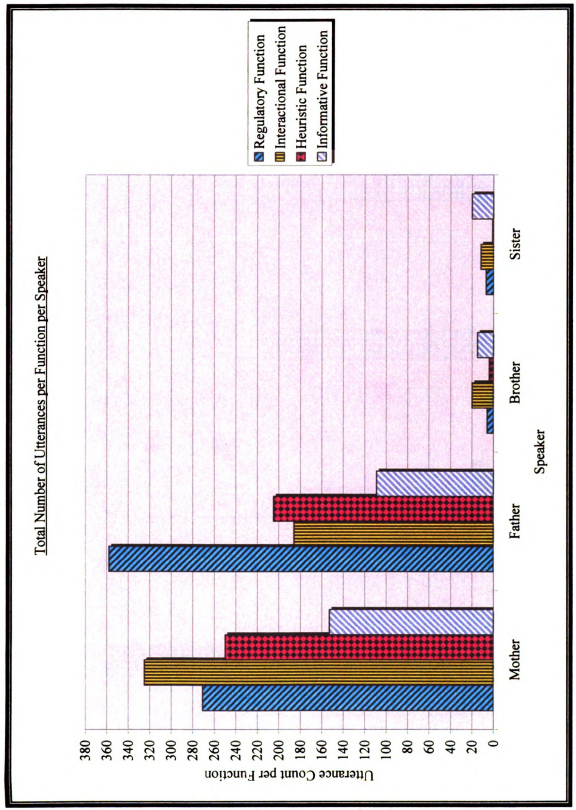

Figure 2. Total number of utterances per function per speaker.

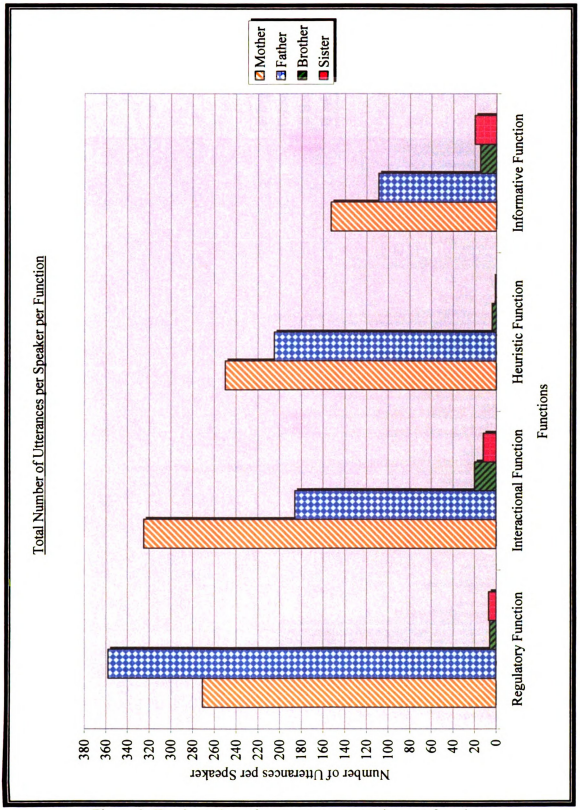

Figure 3. Total number of utterances per speaker per function.

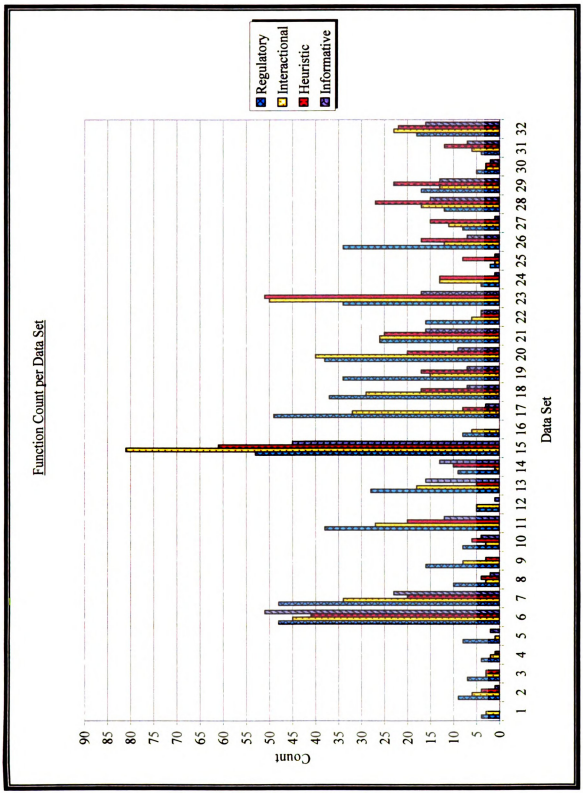

Figure 4. Function count per data set.

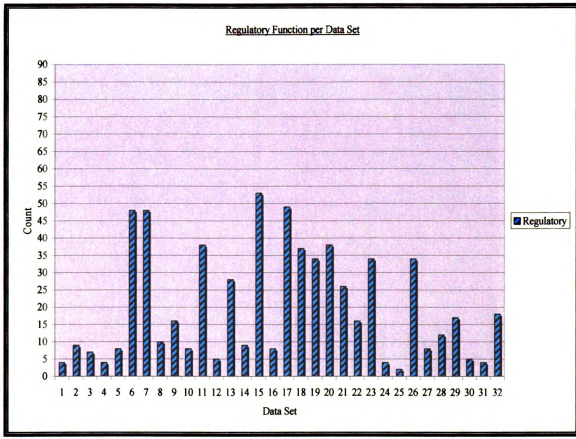

Figure 5. Regulatory function per data set.

As we examine Figure 5, it is clear that when the regulatory function is present, it accounts for either a relatively substantial amount of parental CDS (30+ utterances) or a relatively small amount (~10 or fewer utterances). There does seem to be a clustering of data sets (11 – 23) which contain, on average, higher amounts of utterances bearing the regulatory function. Towards the end of the data collection period the number of utterances which carry the regulatory function seems to decrease somewhat. This may result from an increase in language which carries other functions, as we shall see. Perhaps this indicates a shift in the kind of language the parents use as the subject's language develops.

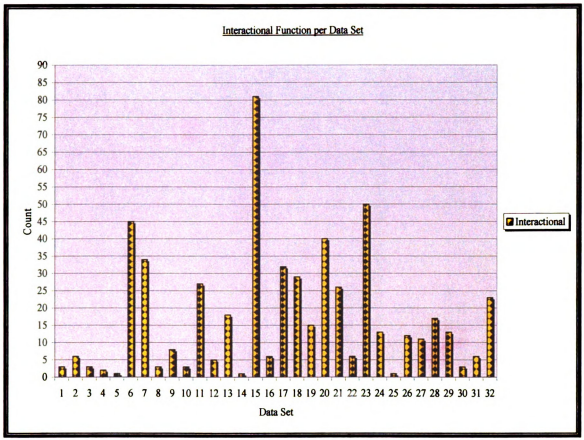

Figure 6. Interactional function per data set.

In Figure 6, we note, once again, a slight clustering towards the center of the graph of data sets (15, 17 – 21, and 23) which carry larger amounts of interactional function content. We also note that when the interactional function is present, it can be quite prominent (note data sets 6, 15, and 23). There is somewhat of a decrease in utterance count towards the end of the data collection period as was also noted in the regulatory function. This may also reflect and result from an increase in the presence of language containing other language functions, notably, the heuristic function.

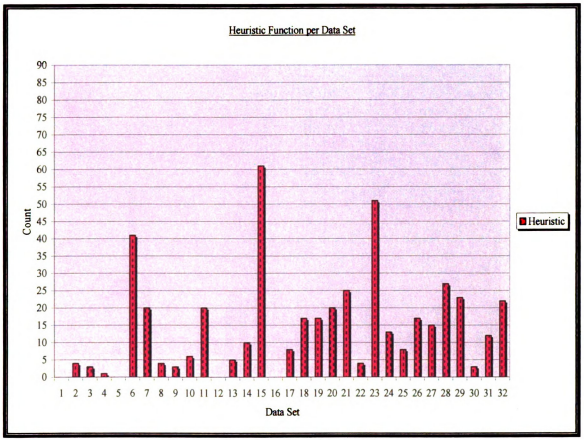

Figure 7. Heuristic function per data set.

Immediately evident in Figure 7 is the increasing usage of language carrying the heuristic function over the course of the study. Although there are a few data sets in which larger quantities of language bearing the heuristic function can be seen (data sets 6, 15, and 23), the general increase seen from about data set 17 onward is of special interest. The increase seen in the heuristic function coincides well and interestingly with the decrease in the previous two functions. This certainly suggests that as the subject matures, the nature of the language directed at him changes to accommodate new or increasing linguistic demands.

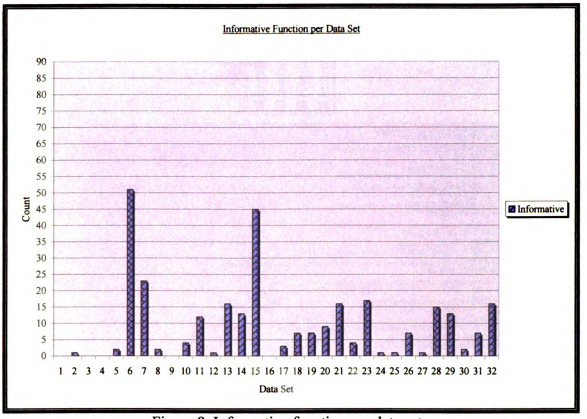

Figure 8. Informative function per data set.

Examination of Figure 8 produces somewhat different conclusions compared with those noted in the previous three discussions. The informative function appears prominent in only two data sets (6 and 15) and is almost nonexistent at the beginning of the study. There is a very slight increase in language that carries this function over the course of the study, but the change is not as dramatic as that seen with other functions. Perhaps this is not very surprising since this function, the 'I have something to tell you' function, clearly is of less utility to an infant until that infant can fully understand that information is being directly presented to the infant. What is interesting, however, is that the informative function is theorized by Halliday only to become influential until after all the other functions have developed. That this function is present at all, then, seems perhaps unusual and unanticipated.

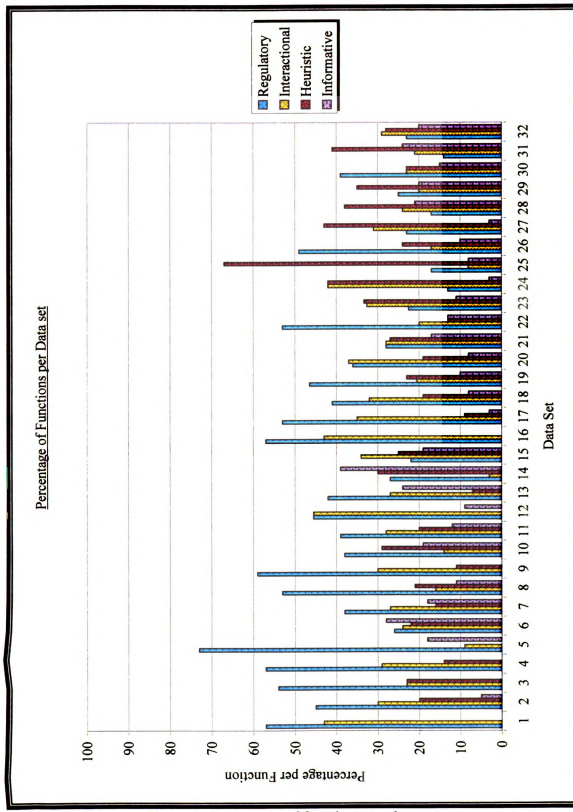

Figure 9. Percentage of functions per data set.

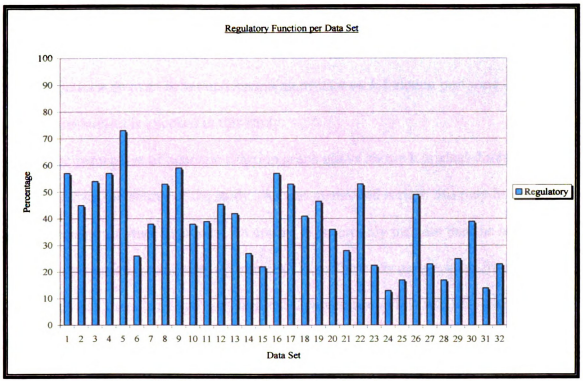

Figure 10. Percentage of regulatory function per data set.

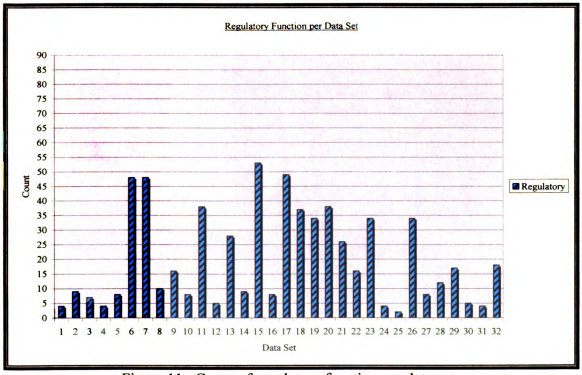

Figure 11. Count of regulatory function per data set.

When we compare the pair of graphs above (Figures 10 and 11) and those following, we note that the graph showing percentages of functions in each data set provides perhaps an even better understanding of how each function performs in the CDS to which the subject is exposed in this study.

The percentage of heuristic function graph above shows a gradual diminution of percentage over the course of the study. As was mentioned earlier, this may be due to a gradual increase in other functions. Of course, it is certainly the case that the heuristic function plays an important role in parental CDS in this study as is evident from the observation that there is a relatively substantial percentage of this function throughout the study.

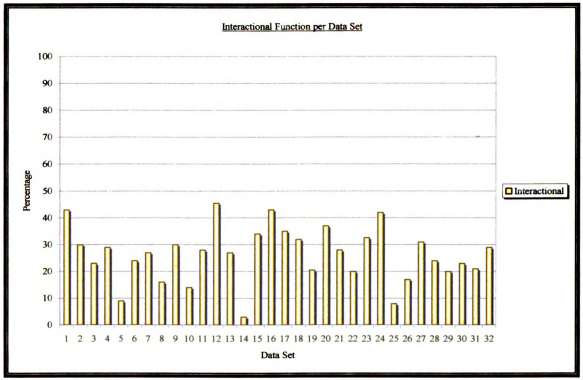

Figure 12. Percentage of interactional function per data set.

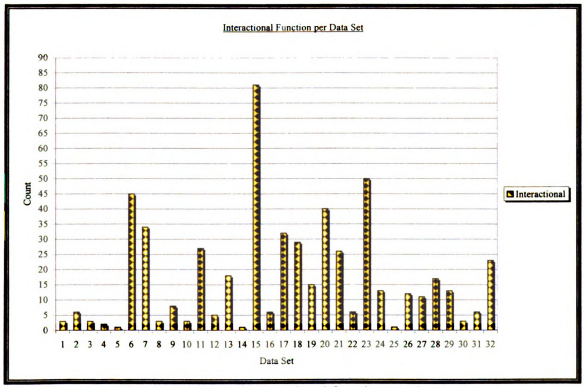

Figure 13. Count of interactional function per data set.

One obvious point we note in examining the differences between the actual count and percentage graphs (Figures 12 and 13) of the interactional function is that the percentage of the interactional function appears to be fairly consistent across the study, with the exception of data set 14. This suggests that the function plays a crucial and consistent role in the language of the parent or parents. This consistency also suggests that this function may be indispensable to the social and linguistic relationships that exist between child and parents.

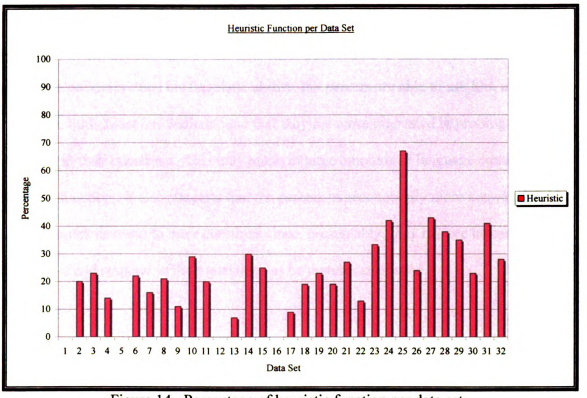

Figure 14. Percentage of heuristic function per data set.

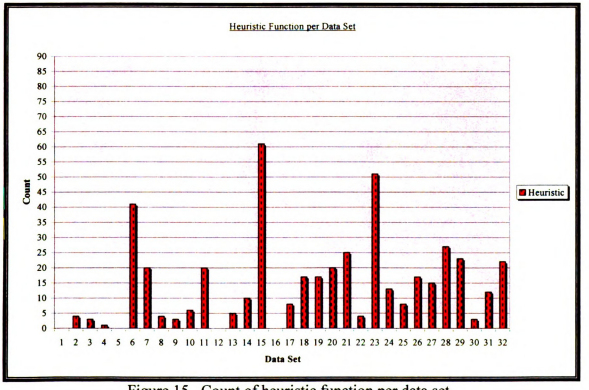

Figure 15. Count of heuristic function per data set.

A comparison of Figures 14 and 15 shows a decided increase in the heuristic function percentages over the duration of the study. A possible reason for this increase is that as the child develops his linguistic ability, the parents are able to ask him more questions, both direct and indirect, and that they are more interested in probing his reactions to their questions. This may result in large amounts of language containing the heuristic function. It also suggests that the parents expect not only more answers but also more complex answers to their questions since, presumably, they believe he can better understand and respond to their questions as he matures over time.

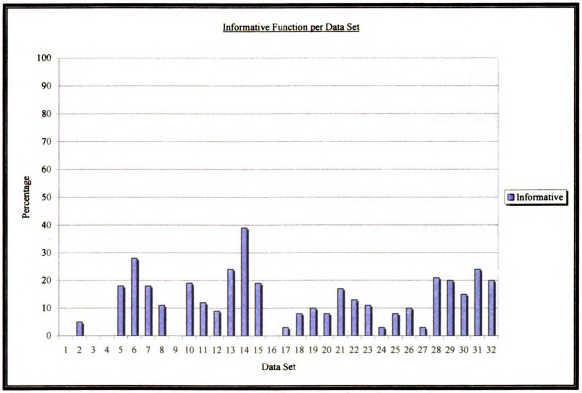

Figure 16. Percentage of informative function per data set.

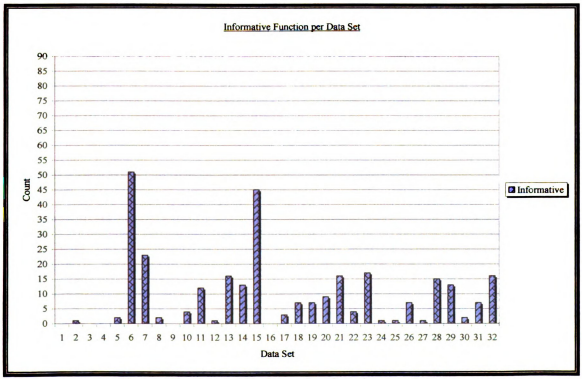

Figure 17. Count of informative function per data set.

As previously mentioned, the informative function does not show as dramatic an increase over the course of the study as some of the other functions do. The percentage graph (Figure 16) shows a relatively consistent percentage (~20%) of the informative function except for the lack of it at the outset of the study. This speaks neither to its great importance nor its lack thereof. Because this function is believed to be more important later in life once a child has more or less developed the other functions, it is reasonable to assume that it does not have much impact on the subject's early language development. However, that it is present at all and that three other functions are not is somewhat surprising.

4.2.3 Selected data in chronological order. Next, Table 3 presents in chronological order selected data from all of the data set tables. To facilitate analysis of these data according to important issues in this study, the following data were selected and placed for comparison within the table. Column (1) shows the number of the data set; column (2), the dominant speaker, always the Mother or Father, and the percentage of domination within the data set; column (3), the dominant function (by percentage); column (4), the next dominant function (by percentage); and, column (5), the total utterance count for the data set.

Table 3 - Data sets in chronological order

(1) Data Set Number	(2) Dominant Speaker	(3) Dominant Function	(4) Next Dominant Function	(5) Count
1	M (86%)	REG (67%)	INTER (33%)	7
2	F (90%)	REG (44%)	INTER (28%)	20
3	M (54%)	REG (71%)	INTER (14%)	13
4	F (71%)	REG (60%)	INTER (20%)	7
5	F (55%)	REG (83%)	INFORM (17%)	11
6	M (81%)	INTER (27%)	HEUR (25%)	185

Table 3 – (cont'd)

7	M (78%)	INTER (33%)	REG (31%)	125
8	F (53%)	REG (70%)	INFORM (20%)	19
9	M (52%)	INTER (43%)	REG (36%)	27
10	F (100%)	REG (38%)	HEUR (29%)	21
11	F (66%)	REG (51%)	INTER (22%)	98
12	F (100%)	REG=INTER (45%)	REG=INTER (45%)	11
13	M (49%)	REG (42%)	INTER (30%)	67
14	F (97%)	INFORM 38%)	HEUR (31%)	33
15	M (53%)	INTER (38%)	HEUR (23%)	240
16	F (71%)	REG=INTER (50%)	REG=INTER (50%)	14
17	M (52%)	REG (60%)	INTER (27%)	92
18	M=F (49%)	M-INTER (41%); F-REG (43%)	M-REG (39%); F-INTER (25%)	90
19	F (85%)	REG (48%)	HEUR (24%)	73
20	F (50%)	REG (39%)	INTER (35%)	107
21	F (73%)	REG (34%)	INTER (28%)	93
22	F (93%)	REG (57%)	INTER=HEUR= INFORM= (@14%)	30
23	M (93%)	INTER (35%)	HEUR (34%)	153
24	M (100%)	INTER=HEUR (42%)	INTER=HEUR (42%)	31
25	F (100%)	HEUR (67%)	REG (17%)	12
26	F (83%)	REG (53%)	HEUR (28%)	70
27	F (100%)	HEUR (43%)	INTER (31%)	35
28	M (93%)	HEUR (41%)	INTER (26%)	71
29	F (52%)	HEUR (44%)	INFORM (24%)	66
30	F (69%)	REG (44%)	HEUR=INFORM (22%)	13
31	M (90%)	HEUR (42%)	INTER (23%)	29
32	F (72%)	HEUR (30%)	REG=INTER (25%)	79

In Table 3 the term 'dominant' is used simply to indicate that either a particular speaker produced more utterances than any other speaker in a data set or a particular function was more prevalent than any other function. Use of the terms 'dominance' or 'dominant' is not intended to refer to how these terms are used in their syntactic sense.

Some data sets contained data that showed that either two speakers or functions were numerically equivalent. This is indicated by the equals sign (=).

Even a cursory glance at the data in Table 3 shows that the regulatory and interactional functions predominate as either the dominant or next dominant function. In order to more clearly analyze and understand the chronologically ordered data in Table 3, Table 4 was created. In Table 4 the data in column 5 of the Table 3 (Count) are presented again in column (5) but in descending order, in order to determine who and what function(s) were most prevalent in the data sets which had the most utterances. The rationale here was that, although there were many data sets, the ones which contained a lot of language would likely be the ones which would be the most profitable for examination. Naturally, all data sets were analyzed, but it proved to be more interesting to examine the larger data sets because there was a better comparison between the kinds of language used by the various family members in the study.

Table 4 – Data sets in order of utterance count

(1) Data Set Number	(2) Dominant Speaker	(3) Dominant Function	(4) Next Dominant Function	(5) Count
15	M (53%)	INTER (38%)	HEUR (23%)	240
6	M (81%)	INTER (27%)	HEUR (25%)	185
23	M (93%)	INTER (35%)	HEUR (34%)	153
7	M (78%)	INTER (33%)	REG (31%)	125
20	F (50%)	REG (39%)	INTER (35%)	107
11	F (66%)	REG (51%)	INTER (22%)	98
21	F (73%)	REG (34%)	INTER (28%)	93
17	M (52%)	REG (60%)	INTER (27%)	92
18	M=F (49%)	M-INTER (41%); F-REG (43%)	M-REG (39%); F-INTER (25%)	90
32	F (72%)	HEUR (30%)	REG=INTER (25%)	79
19	F (85%)	REG (48%)	HEUR (24%)	73
28	M (93%)	HEUR (41%)	INTER (26%)	71
26	F (83%)	REG (53%)	HEUR (28%)	70
13	M (49%)	REG (42%)	INTER (30%)	67
29	F (52%)	HEUR (44%)	INFORM (24%)	66
27	F (100%)	HEUR (43%)	INTER (31%)	35
14	F (97%)	INFORM 38%)	HEUR (31%)	33
24	M (100%)	INTER=HEUR (42%)	INTER=HEUR (42%)	31

Table 4 – (cont'd)

22	F (93%)	REG (57%)	INTER=HEUR= INFORM= (@14%)	30
31	M (90%)	HEUR (42%)	INTER (23%)	29
9	M (52%)	INTER (43%)	REG (36%)	27
10	F (100%)	REG (38%)	HEUR (29%)	21
2	F (90%)	REG (44%)	INTER (28%)	20
8	F (53%)	REG (70%)	INFORM (20%)	19
16	F (71%)	REG=INTER (50%)	REG=INTER (50%)	14
3	M (54%)	REG (71%)	INTER (14%)	13
30	F (69%)	REG (44%)	HEUR=INFORM (22%)	13
25	F (100%)	HEUR (67%)	REG (17%)	12
5	F (55%)	REG (83%)	INFORM (17%)	11
12	F (100%)	REG=INTER (45%)	REG=INTER (45%)	11
1	M (86%)	REG (67%)	INTER (33%)	7
4	F (71%)	REG (60%)	INTER (20%)	7

Many interesting facts present themselves when Table 4 is examined. First, we note that M is the dominant speaker of the four data sets which contain the largest number of utterances. Additionally, those four data sets all have the interactional function as dominant. The total number of utterances in these four data sets is 703 or about 36% of the entire data set. Though the interactional function is not the only one found in this large portion of the entire data set, it is the function which dominates (sometimes quite strongly) the language used by M. This certainly suggests that when H is surrounded by major amounts of language, much, if not most, of it comes from M and is of an interactional nature. Interestingly, when the table is further examined, we note that F dominates the next three largest data sets and predominantly uses the regulatory function therein. This rather stark distinction between the language that M and F exhibit is suggestive of the roles they play when interacting with H. That is, one may surmise that M, through the interactive nature of her conversations with the subject, is more interested in sustaining the interaction between them. This may allow H to learn to

interact with his environment better. On the other hand, the regulatory nature of F's interaction with H tends to suggest that topics are not sustained as long, which may consequently lessen the time H has to interact with his environment. That the data sets indicated here are from throughout the entire data set suggests that this distinction is not merely a chance occurrence and that the nature of the language M and F use with H is fairly consistent. Of course, variation in functional language use does arise, as an examination of the individual data sets shows.

4.2.4 Functions in data sets dominated by M. The following two tables (5 and 6) were created by dividing Table 4 into those data sets that were dominated by M and those dominated by F. As in the previous table, both of these tables show the data sets in order of highest to lowest utterance count.

Table 5 – Functions in data sets dominated by M

(1) Data Set Number	(2) Dominant Speaker	(3) Dominant Function	(4) Next Dominant Function	(5) Count
15	M (53%)	INTER (38%)	HEUR (23%)	240
6	M (81%)	INTER (27%)	HEUR (25%)	185
23	M (93%)	INTER (35%)	HEUR (34%)	153
7	M (78%)	INTER (33%)	REG (31%)	125
17	M (52%)	REG (60%)	INTER (27%)	92
18*	M=F (49%)	M-INTER (41%); F-REG (43%)	M-REG (39%); F-INTER (25%)	90
28	M (93%)	HEUR (41%)	INTER (26%)	71
13	M (49%)	REG (42%)	INTER (30%)	67
24	M (100%)	INTER=HEUR (42%)	INTER=HEUR (42%)	31
31	M (90%)	HEUR (42%)	INTER (23%)	29
9	M (52%)	INTER (43%)	REG (36%)	27
3	M (54%)	REG (71%)	INTER (14%)	13
1	M (86%)	REG (67%)	INTER (33%)	7

18* - this data set is shown in this table and the next because, although M and F have

equal number of total utterances and therefore share dominance here, they exhibit different percentages of function usage.

Noteworthy points in Table 5 are:

a) Of the 13 data sets where M is the dominant speaker, the interactive function is most prominent in 7 (including #18). In 4 other data sets, the regulatory function is most prominent. In the remaining 3 (including again #18), the heuristic function is most dominant.

b) In 4 of the 7 data sets where the interactive function is most prominent, the next most prominent function is the heuristic function. In the remaining 3 data sets, the regulatory function is the next most dominant. In the 4 data sets where the regulatory function is most prominent, the next most prominent function is the interactional function.

c) What these previous two descriptions point out is that in the vast majority of the data sets where M dominates, the interactional function is very prominent and therefore highly influential vis-à-vis the input H receives from M. When the interchanges M has with H are examined, we note that language carrying interactional and heuristic functions appears to generate substantially more and varied linguistic output from H than does the language F uses with H.

4.2.5 Functions in data sets dominated by F.

Table 6 - Functions in data sets dominated by F

(1) Data Set Number	(2) Dominant Speaker	(3) Dominant Function	(4) Next Dominant Function	(5) Count
20	F (50%)	REG (39%)	INTER (35%)	107
11	F (66%)	REG (51%)	INTER (22%)	98
21	F (73%)	REG (34%)	INTER (28%)	93

Table 6 – (cont'd)

18*	M=F (49%)	M-INTER (41%); F-REG (43%)	M-REG (39%); F-INTER (25%)	90
32	F (72%)	HEUR (30%)	REG=INTER (25%)	79
19	F (85%)	REG (48%)	HEUR (24%)	73
26	F (83%)	REG (53%)	HEUR (28%)	70
29	F (52%)	HEUR (44%)	INFORM (24%)	66
27	F (100%)	HEUR (43%)	INTER (31%)	35
14	F (97%)	INFORM 38%)	HEUR (31%)	33
22	F (93%)	REG (57%)	INTER=HEUR= INFORM= (@14%)	30
10	F (100%)	REG (38%)	HEUR (29%)	21
2	F (90%)	REG (44%)	INTER (28%)	20
8	F (53%)	REG (70%)	INFORM (20%)	19
16	F (71%)	REG=INTER (50%)	REG=INTER (50%)	14
30	F (69%)	REG (44%)	HEUR=INFORM (22%)	13
25	F (100%)	HEUR (67%)	REG (17%)	12
5	F (55%)	REG (83%)	INFORM (17%)	11
12	F (100%)	REG=INTER (45%)	REG=INTER (45%)	11
4	F (71%)	REG (60%)	INTER (20%)	7

18* - this data set is shown in this table and the previous because, although M and F have equal number of total utterances and therefore share dominance here, they exhibit different percentages of function usage.

Noteworthy points in Table 6 are:

a) Of the 20 data sets where F is the dominant speaker, the regulatory function is most prominent in 15 (including #18). In 4 other data sets, the heuristic function is most prominent. In the remaining data set, the informative function is most dominant.

b) In 9 of the 15 data sets where the regulatory function is most prominent, the next most prominent function is the interactional function. In 5 other data sets, the heuristic function is the next most dominant. In 3 other data sets, the next most prominent function is the informative function. 2 data sets (#16 and #4) contain equal

numbers of two functions and are therefore counted twice.

c) The other data sets, where some function other than the regulatory is most prominent, exhibit a wider variety of combinations of functions than do the similar data sets where M is the dominant speaker. This suggests that, while F may use much more of the regulatory function in general, he does use perhaps more varied or special language in his interactions with H than M does. This may parallel the idea mentioned earlier (Snow 1995:183; see section 2.2) that fathers are, in general, more likely to bring new information into the child's world than are mothers.

d) What these previous descriptions point out is that in the vast majority of the data sets where F dominates, the regulatory function is very prominent and therefore affects the input H receives from F in specific ways. When the interchanges F has with H are examined, we note that although F urges H to say things, some of which might be new to H's world, he is not able to keep the interchange going as long as M can and must, therefore, keep trying to get H to say different things. He seems much less likely to comment on what H has uttered either by offering other information or by asking questions.

4.3 Subject responses to the dominant speaker. Now that we have examined the functions contained in the CDS used by the main caregivers (M and F), an examination of the responses from H to the dominant speaker at given times may give us a glimpse of the effectiveness of that CDS on the language production (if not directly on acquisition) which H exhibits. With this in mind, a re-examination of the data sets should give a representative view of how H reacts to certain functions/CDS used by his parents.

Table 7 takes the data from the study and juxtaposes them thus: column (A) lists

the 32 data sets; column (B) indicates the total number of CDS utterances produced by all speakers in each set; column (C) lists which speaker was dominant (either M or F) and which function was dominant; column (D) gives the number of utterances produced by H that appeared to contain any function; and column (E) shows the ratio of total number of CDS utterances in the data set to total number of H's utterances (CDS:HU ratio) in the same data set, that is, the ratio of column (A) to column (C).

Following the table are three graphs, Figures 20 – 22, which graphically display the information in Table 7 in important ways, highlighting certain elements. (Please note that the asterisk in the following table highlights that in data set #4 a true ratio could not be calculated because H produced no utterances. In order to keep data set continuity, an utterance count of 1 for H was used. See part e) in the discussion of table 7 below for additional discussion of this unusual case.)

Table 7 – H's utterances in the data sets

(A) Data Set	(B) Total Parental Utterance Count	(C) Dominant Speaker – Dominant Function	(D) Total H's Functional Utterances	(E) CDS:HU Ratio: (A)/(C)
1	7	M – REGULATORY	4	1.75:1
2	20	F – REGULATORY	8	2.5:1
3	13	M – REGULATORY	3	4.33:1
***4**	**7**	**F – REGULATORY**	**1 (0)**	***7:1 (0)**
5	11	F – REGULATORY	1	11:1
6	185	M – INTERACTIONAL	47	3.94:1
7	125	M – INTERACTIONAL	33	3.79:1
8	19	F – REGULATORY	5	3.8:1
9	27	M – INTERACTIONAL	10	2.7:1
10	21	F – REGULATORY	11	1.91:1
11	98	F – REGULATORY	25	3.92:1
12	11	F – REGULATORY = INTERACTIONAL	8	1.38:1
13	67	M – REGULATORY	28	2.39:1

Table 7 – (cont'd)

14	33	F – INFORMATIVE	17	1.94:1
15	240	M – INTERACTIONAL	42	5.71:1
16	14	F – REGULATORY = INTERACTIONAL	6	2.33:1
17	92	M – REGULATORY	37	2.49:1
18	90	M and F – INTERACTIONAL = REGULATORY	37	2.43:1
19	73	F – REGULATORY	30	2.43:1
20	107	F – REGULATORY	52	2.06:1
21	93	F – REGULATORY	45	2.07:1
22	30	F – REGULATORY	15	2:1
23	153	M – REGULATORY	92	1.66:1
24	31	M – INTERACTIONAL = HEURISTIC	20	1.55:1
25	12	F – HEURISTIC	6	2:1
26	70	F – REGULATORY	25	2.8:1
27	35	F – HEURISTIC	19	1.84:1
28	71	M – HEURISTIC	38	1.87:1
29	66	F – HEURISTIC	34	1.94:1
30	13	F – REGULATORY	6	2.17:1
31	29	M – HEURISTIC	12	2.42:1
32	79	F – HEURISTIC	32	2.47:1

The next three figures graphically display the ratios in Table 7 above. The method for calculating these ratios was to simply take the total number of utterances from both parents and divide that by the total number of functional utterances H produced in the particular data set. The figures show along the x-axis the following information which may be helpful to the reader: the data set number (1 – 32), the dominant speaker in each data set (M or F), and the dominant (highest percentage) function in each data set. Figure 18 shows the ratios arranged chronologically by data set. Figure 19 gives the ratios according to speaker, while Figure 20 shows the ratios according to dominant function.

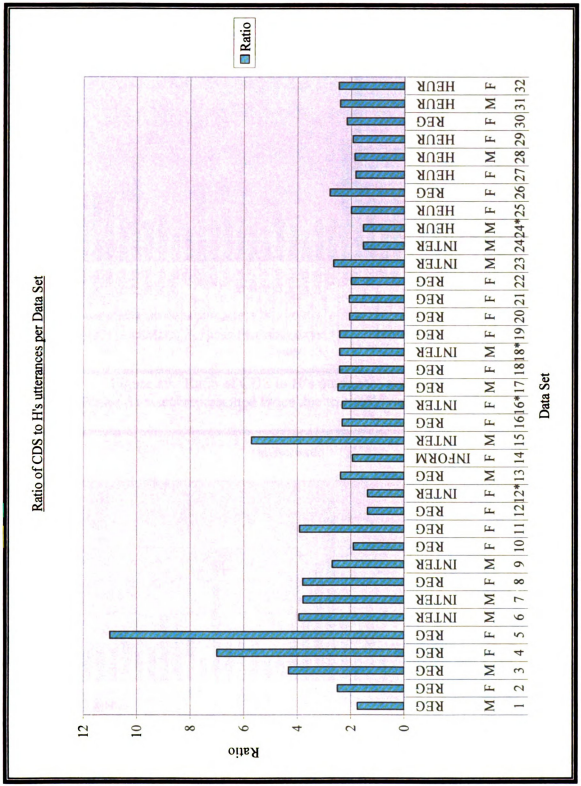

Figure 18. Ratio of number of CDS to H's utterances per data set.
(* - indicates data sets represented twice due to equal dominance of functions)

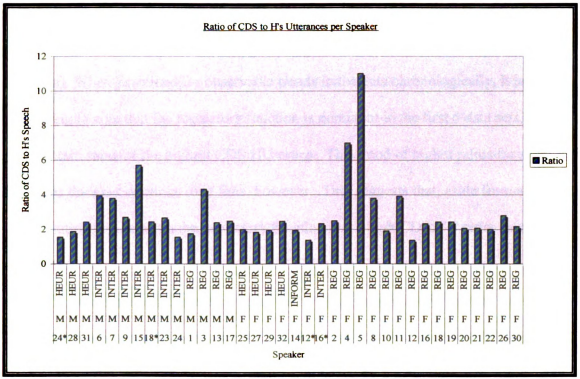

Figure 19. Ratio of CDS to H's utterances per speaker.
(* - indicates data sets represented twice due to equal dominance of functions)

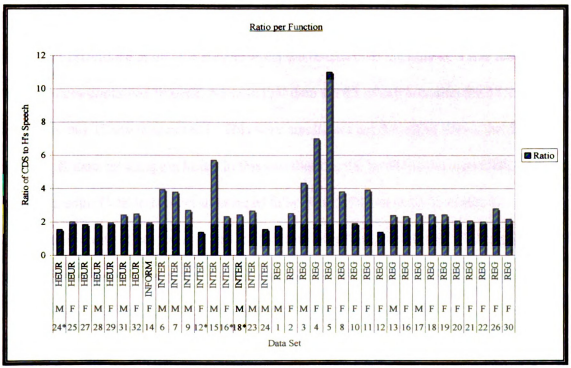

Figure 20. Ratio of CDS to H's utterances per function.
(* - indicates data sets represented twice due to equal dominance of functions)

A few interesting points arise out of an examination of the data in Table 7 and its associated graphs, Figures 18 – 20.

a) When examined for observable trends in the data chronologically, it is interesting to note that the regulatory function is dominant in the first 5 data sets, which also contain some of the highest CDS:HU ratios. This trend of higher ratios for specific functions does not continue over time, however. This suggests that, aside from a possible early relationship between the regulatory function and a high CDS:HU ratio, there is no single function that appears to foster high CDS:HU ratios in any crucial way.

b) When these ratios are examined according to speaker (Figure 19), we note that F is the dominant speaker in the data sets which contain the two highest CDS:HU ratios. Both of these data sets also happen to show dominance by the regulatory function. The average CDS:HU ratio for data sets dominated by M is 2.85:1, while the average CDS:HU ratio for data sets dominated by F is 2.79:1. At first this may not seem to be an important difference at all. However, when we re-examine the data sets and the number of utterances contained in each, we note that data set #5 which contains the 11:1 CDS:HU ratio only has 12 utterances total. This very small data set therefore skews the data greatly. If data set #5 is excluded in this calculation, the previous average CDS:HU ratio of F's parental CDS to subject utterances falls from 2.79:1 to 2.33:1, which is substantially lower than the average for the data sets dominated by M. Although no data should be excluded because they are problematic, it is clear that inclusion of this particular data set would produce averages that suggest a much different comparison of how H might be responding to M and F.

c) As to the presence or absence of specific functions, it should be noted that

Figure 19 highlights the fact that while the regulatory and interactional functions dominate data sets throughout the entire study, the heuristic functions appears dominant only from data set 25 onward. This does not mean that no questioning language was noted earlier than data set 25; rather, it may suggest that later in the study H is more likely to produce language or do things that cause his parents to question him more than they may have prior to this.

d) We also note a more regular CDS:HU ratio from about midway through the study until the end. Additionally, we note that this CDS:HU ratio stability occurs with little variation due to dominant function. We may surmise from this observation that the subject's response to different types of parental language is minimal because, perhaps, the subject increasingly understands and can respond to the parents' language.

e) If we examine the CDS:HU ratio per function, the following results obtain. The regulatory function produces an average CDS:HU ratio of 3.12:1. Once again, however, two data sets (#4 and #5) skew this ratio. As was mentioned above, data set #4 does not in fact even provide a ratio (or rather, the ratio is infinity) since there are no subject responses to the seven parental CDS utterances contained therein. Rather than delete the data set completely, an artificial ratio of 7:1 was created by arbitrarily assigning one utterance to H for that data set. Data set #5, which also contains a very small number of total utterances, produces a very large CDS:HU ratio of 11:1. If these two problematic data sets are not calculated in the average ratio for the regulatory function, a CDS:HU ratio of 2.22:1 is obtained. The interactional function produces an average CDS:HU ratio of 2.98:1, with the heuristic function producing a 2.02 CDS:HU ratio and the informative function producing a 1.94 CDS:HU ratio. Unfortunately, since

only one data set exhibited dominance by the informative function, we cannot truly call its 1.94 CDS:HU ratio an *average* ratio. Nevertheless, what falls out of this analysis (assuming we revise the calculations of CDS:HU ratio averages mentioned above) is that the interactional function shows the highest CDS:HU ratio compared to that of the other functions. This suggest rather strongly that H is surrounded, on average, by more language when the interactional function is dominant than when any other function dominates a language interchange.

If we examine the figurative 'other side of the coin,' the number or utterances H produced according to dominant function (Figure 21), we note that the interactional and regulatory functions produced similar counts (318 vs. 309). Yet it took twice as many data sets to produce the lower regulatory total than the interactional total (17 vs. 8). One possibility for this situation is that the interactional function, when the dominant function in a data set, is responsible for more language output from H (approximately double) than when the regulatory function appears dominant in a data set. Perhaps this is not surprising when one considers that interchanges between parent and child which are of an interactional nature would logically include more utterances per speaker because there is more statement/question and comment than in a regulatory interchange which is typically a command followed by a single response. It is also reasonable, then, that interactional interchanges may allow the child more opportunity to create language than do regulatory ones.

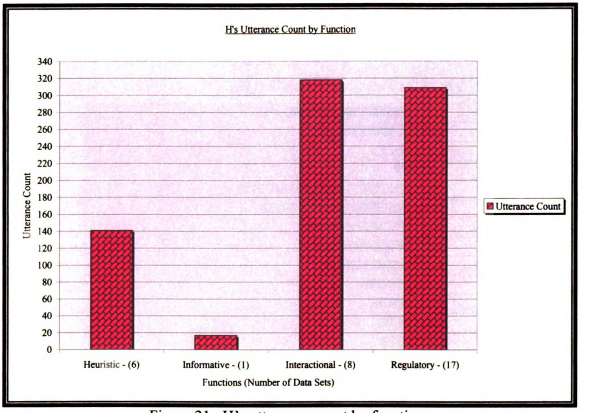

Figure 21. H's utterance count by function.

The following chart (Figure 22) also shows H's utterance count according to function, speaker, and data set. The important points to note are (from the left) that H's utterance count rises to its highest level when M is the dominant speaker the interactional function is the dominant one in the data set. We also note that F most often dominates data sets which contain a majority of the regulatory function.

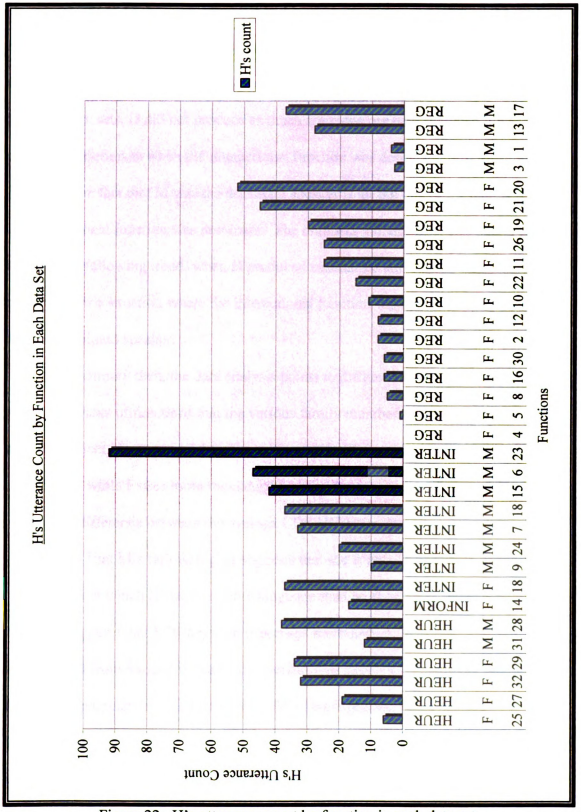

Figure 22. H's utterance count by function in each data set.

As can be readily seen from the preceding two figures, H produced the greatest number of utterances in the data set (number 23) where the interactional function was most prevalent. Although the regulatory function was also quite prevalent in the entire group of data sets, H did not produce as much language per data set when it was the dominant function as when the interactional function was dominant. Figure 22 also highlights the fact that M was the dominant speaker is all but one of the data sets where the interactional function was dominant. The numbers in these final two charts certainly indicate the following trend: when H produced substantial amounts of language, it was more often in a situation where the interactional function was dominant and the mother was the dominant speaker.

In summary then, the data analysis points to differences between the kinds and relative amounts of functions that the various family members, especially M and F, use with the subject. In general, M uses more interactional function language with H than F does, while F uses more regulatory function language with H than M does. This results in a difference between the average CDS:HU ratios that M and F exhibit (2.85:1 vs. 2.33:1). That M's ratio is higher suggests that she is able to engage H in language interchanges in which H receives more language than he does when interacting with F. This also suggests that M's language is perhaps more important to H's language development from a social interactionist perspective than F's (or the other family members') language is. Put another way, M's language fosters H's language development in more direct ways due to its greater interactional function content, which appears to be a prominent factor in the relative amount of language H produces.

CHAPTER 5
SUMMARY AND CONCLUSIONS

5.1 Introduction. In this chapter, I will discuss how the findings from the previous chapter affect the current understanding of CDS. First, I discuss whether and how the results of this study support the initial hypotheses of this case study. Next, I present a new perspective from which to view what CDS does for the developing child vis-à-vis language acquisition. Finally, I suggest areas for further research.

5.2 Hypotheses revisited

The results of the analysis of the data collected for this study do partially support the initial hypotheses. The following comments take the hypotheses in turn.

a) The CDS used by the mother with her child in this study will be quantifiably different in content and quantity from the language that other family members use with the subject.

This hypothesis appears to have qualified support. The CDS used by the mother turned out to be, in fact, quantifiably different from that used by any other family member. Notably, the mother's CDS differs from that of any other family member because it contains more of the interactional function. Additionally, the mother's language was observed to generate more output (number of utterances) from the subject than did the father's.

One concern that some readers may express regarding the outcomes of this dissertation is that what I have examined in this study is essentially the difference(s) between women's and men's language. While this distinction was not the main thrust of my study, it is certainly the case that such differences may in fact explain some part of the results. Citing Tannen's recent work on the differences between men and women vis-

à-vis interactional styles, Talbot (1998:98) lists this group of 'binary oppositions' which characterize men's and women's styles of talk. No verbs were given for each quality or characteristic, so I have supplied (probably) appropriate verbs.

Women	Men
(Show) Sympathy	(Engage in) Problem-solving
(Develop) Rapport	(Like to) Report
(Practice) Listening	(Practice) Lecturing
(Are more) Private	(Are more) Public
(Strive for) Connection	(Strive for) Status
(Are more) Supportive	(Are more) Oppositional
(Value) Intimacy	(Value) Independence

Such oppositions suggest that, traditionally, women take on or find themselves in the nurturing role of mother. I considered, therefore, that such a woman might be more likely to use language which contains Hallidayan functions such as the Interactional (the 'you and me' function). Likewise, I surmised that a man, traditionally taking the controlling role of father, might more likely use language containing the Regulatory (the 'do as I tell you') function. My findings do reflect a situation in which some of these oppositions exist, but such oppositions, generalizations perhaps, may be overly simplistic and do not show what else might be going on in the interchanges between parent and child. The parents in this study used several, though not all of the Hallidayan functions.

The general characteristics I just mentioned may be true of men and women in Western societies, but the subjects in this study were Japanese. In Japan such oppositions may not necessarily be the same or exist at all. Japanese men and women have different

styles of communication and interaction with each other and with their children than do Western parents. While living in Japan for several years, I have personally observed many families in Japan which bear out such (often striking) differences. For example, fathers can often seem harsh and distant, almost non-participants in their children's upbringing, while mothers are typically comforting and sympathetic to the child's slightest problem or want, sometimes to the point of doting on them. Naturally, parental attitudes can vary widely even in a society as homogenous as that of Japan. However, I believe that the parents in this study were similar to one another in overall interactional attitude toward their child. In some respects though, the parents in this study are atypical. Both parents were with their children perhaps more than is usual for many parents in Japan where the father, due to work pressures, may typically only interact briefly with his children while he is leaving for work or late at night after he returns home and just before they go to bed. This often leaves the raising of the children essentially to the mother.

In this family, however, since the father was a doctoral student, he was home from suppertime almost every day. He was also often available to his youngest child (the subject) during the day when he did not have classes. The mother was typical of most Japanese mothers, intent on giving her children the best education possible whatever that may entail. This drive to aid their children among Japanese mothers has resulted in the somewhat derogatory term 'kyoiku mama' or 'education Mother.' The mother in this study was certainly typical in this respect.

Nevertheless, the data show that the mother and the father in this study produced different kinds of language with their youngest child. The tables included in my paper show these details. Essentially, the mother used more interactional language, while the

father used more regulatory language with their child. The Tannen oppositions mentioned above relate to adults, but this study shows that perhaps these oppositions or distinctions or contrasts start being inculcated into children or, at least, have an influence on children shortly after birth as the parents engage in interactions which contain different types of functional language. My analysis of the parents' CDS reveals another realm in which these differences exist. Perhaps the broad 'cultural' distinctions we see in male and female speech are partly based, indeed, on the interactions infants have with their male and female caregivers.

b) Though all functions of language may be present in the linguistic input to which the child is exposed, a specific subset of those functions, the interactional and regulatory functions, will dominate the interactions between mother and child and will be less prominent in the language uttered by other family members.

The second hypothesis appears to have less support than the first. The CDS to which H was exposed (at least the recorded data) in fact did not contain all of the possible functions of language as proposed by Halliday, according to the analysis which was performed on that CDS. Also, while the interactional and regulatory functions were very prominent in the mother's language and did technically dominate the mother's CDS, the heuristic and informative functions also appeared fairly often. Therefore, this first part of this hypothesis has only limited support and would need to be revised to reflect accurately the observed data.

The second part of the second hypothesis does have some support. Table 2 shows that the mother does use more interactional language than the father does and also shows that her use of the interactional and heuristic functions is quite different from that of the other family members. However, both the brother and the sister use the interactional

function quite more than the father does, at least in terms of percentages. In the case of the regulatory function, the father uses far more of this type of language than any other family member, but the mother's speech is much more likely to contain the regulatory function than either brother's or sister's language.

Overall then, the two hypotheses have some limited support suggesting, albeit tentatively, that CDS used by the mother in this study does contain a subset of the functions proposed by Halliday, and that her CDS is to some degree (importantly) different from the CDS other family members use with the subject, especially due to its higher content of language containing the interactional function.

In retrospect, other hypotheses could have been posited. For example, given the kind of language which makes up the various functions, one might hypothesize that over the duration of the study, an increase in the heuristic function would be seen due to the ever increasing curiosity and linguistic development of the subject. In fact, just such an increase in the heuristic function is noted, as can be seen in Figure 14. Whether the reason for this increase is that suggested is not immediately clear. We do note in Table 7, however, that 7 of the last 9 data sets are dominated by the heuristic function. We also note that in these data sets, H produces relatively substantial amounts of data in response to the language directed at him. While the heuristic function is not the dominant one in the data sets where the largest numbers of H's utterances are seen (data set #6 – 47 utterances, Interactional function; #15 – 42 utterances, Interactional function; #20 – 52 utterances, Regulatory function; #21 – 45 utterances, Regulatory function; #23 – 92 utterances, Regulatory function), H does produce an average of 23 utterances in those data sets in which the heuristic function dominates.

Other such retrospective hypotheses that might be constructed from an examination of the results are:

a) The personal ('here I come') function will be seen only minimally, if at all, since at the beginning of L1 acquisition, language directed at the developing child from the parents does not likely contain references to themselves. Rather, that language will logically contain references about the child and be more of an interactional nature. Consequently, no or very little language that represents the personal function will be observed. That this situation obtained is not surprising.

b) The imaginative function ('let's pretend'), though logically observable in the output of children, will not be found in the language the parents use with their child unless they are reading books or are in play settings where they are generating language that refers to imaginary characters or situations. Again, that this result obtained is not surprising. One other possible reason for the imaginative function being absent is that mentioned in the analysis of Table 2 (4.2.1 above).

c) The instrumental function ('I want'), like the previous two, will not be noted because the parents are more likely to use language of a regulatory nature whenever they address the child in order to get him to do something rather than using language which tells the child what they, the parents, want (e.g. I want a piece of your cookie, or I want a new toy.) This situation was observed in the data; its presence should not be surprising given the nature of the function.

5.3 A new perspective on CDS. In chapter 2 of this dissertation the discussion of what constitutes CDS and why it is a valuable asset in the linguistic development of children was presented. Recalling the general descriptions of the language directed by adults at young children (CDS) given by Harris (1990: 200-201), we note (in a summarized form) that it

1. is slightly more complex than the language the child uses,
2. deals with the child's interests in the 'here and now,'
3. is semantically related to the child's language so that the child will recognise the connection between her own communicative intentions and the language structures presented by the adult. This can be done by repetition, expansion, or recasting of the child's utterance,
4. is filled with phatic responses to show the adult is paying attention,
5. uses meaningful contributions from the adult to the conversation context,
6. uses naturally occurring conversational slots so that the adult's language fits in with other activities and the child's increasing ability.

The results of this study showed that four of Halliday's seven functions appeared to be present in the language the parents used with their child. They were: a) the Regulatory function – the 'Do as I tell you' function, b) the Interactional function – the 'Me and you' function, c) the Heuristic function – the 'Tell me why' function, and d) the Informative function – the 'I've got something to tell you' function.

If we compare Harris's descriptions of CDS and the Hallidayan functions observed in the language of the parents in this study, we note that all but the first of Harris's stated characteristics of CDS seem to fall roughly into Halliday's interactional function. If Harris's descriptions are accurate concerning what CDS is typically considered to be, then the Hallidayan taxonomy of language functions may provide additional and therefore (possibly) more accurate descriptions of CDS. For example, the regulatory function, which was certainly prevalent in this study as is witnessed by the

large number of data sets in which it was the dominant function, appears to play a role not specifically referred to by Harris's descriptions of CDS. This suggests that a functional analysis of CDS is perhaps better suited to obtaining a clearer picture of CDS than previous traditional descriptions have been.

In a more speculative vein, if Oller's proposed 'infrastructural system' model of language (section 2.1.4) were used as a pattern for formulating a revised functionalist/social interactionist model of how CDS relates to language acquisition based on the observations in this study, we might posit that functions, such as those defined by Halliday, would be the *operational categories* of language. Each function could be theorized as being made up of the *infrastructural model* components of each function: perhaps, for example, sentence types (interrogatives, declaratives, imperatives), which would fit naturally into the various functions. These in turn would be made up of *the prime parameters* (the smallest units in the model): for example, vocabulary, intonation, gestures, and phonetic and phonological components.

Such a model would, in effect, use a system of language functions to describe what children come to be able to do with language (as Halliday, of course, did). This could be seen as a metric for language acquisition. Unlike Halliday's study which only examined the output, however, this system could apply to both output and input, both sides of the learning matrix.

Continuing this discussion of models of CDS, Kent's (1992) description of what he believes takes place in the acquisition of the phonology of a language contained a flowchart, which was discussed earlier (section 2.1.2). Using that as a template for a functionalist/social interactionist explanation of how the environment (replete with

functional CDS) and genetic factors might interact, the following flowchart would result.

		Social Interactionist influences • FUNCTIONAL CDS		
Genetic Factors		↓		
• Audition: Universal (innate) speech sounds Categories	→	Attentional Subsystem becomes tuned to FUNCTIONS	→	FUNCTION discrimination
		↑ ↓		
		Orienting Subsystem		
		↓		
• Speech Motor Function: Developmental anatomy of speech apparatus; early movement synergies	→	Modification by perceptual experience of FUNCTIONAL language	→	FUNCTIONAL language output

Figure 23.
The interaction of genetic factors and functional CDS.

What is different in this flowchart (compared to Kent's original) is that instead of simply ascribing to the input a vague role, functional CDS is seen as the prime input. This function-laden input then interacts with the innate and developing systems for perception and production. As the attentional subsystem encounters the various functions of language from the parents (through interaction), output is modified through experience with and in the language. As more and more functions are discerned by the child, more and finer functional usage/output results.

Though this sort of theorizing about how a child interacts with the CDS in his/her environment still requires much more empirical data before more concrete statements can be made regarding the veracity of such models, what I believe is worthwhile here is the

idea that the input to which an infant is exposed contains meaningful language (the functions found in CDS) which triggers the innate subsystems of language to begin to work their magic resulting in language acquisition.

Primary among the results of this study is the fact that the CDS observed in this study contains a specific set of language functions. Moreover, the CDS here appears to be most effective in fostering language acquisition when it contains the interactive, heuristic and regulatory functions in relatively equal balance. The reaction of the subject to speech which contained mostly regulatory function utterances was less language and less meaningful language in those situations. However, when interactions where a variety of functions was present, the implication is clear: when used in combination, the regulatory, heuristic, and interactional language functions may help the budding language learner cope with his environment and learn to express him/herself more fully than when single functions dominate the linguistic interaction.

5.4 Implications for further research

Several lines of research suggest themselves from the results of this study. First, longitudinal research which would follow several infants during a similar period of time (or longer) in their language development is suggested. With a larger number of participants from varying ethnic and linguistic backgrounds, a broader and more accurate view of the relationship of CDS input to language development may be achieved. Second, how CDS affects other areas of language acquisition should be examined as well. For example, although the current study does not examine the relationship between CDS and syntax, this is surely one area that could be examined. The current study has examined the social/interactional input the child receives during language acquisition, but

this same input is supposed to be responsible for appropriate syntactic development. Exactly how and which functions of language may be responsible for syntactic development may provide a more humanistic approach to understanding how syntax develops than currently exists.

Naturally, any conclusions which might be drawn from this study need to be tempered by the fact that the subject for this study was learning Japanese. Much of the research cited in this study was done with English-speaking infants. As was mentioned earlier, the syntactic difference between Japanese and English may play an as yet unknown role vis-à-vis language functions and language acquisition. Therefore, it is suggested that further research should include replicating this study using English-speaking infants. If such research produced results similar to those of this study, the contention that language functions in CDS are crucial to language acquisition would gain further empirical support.

CDS is the first and arguably the most important factor related to successful language development that an infant encounters at the beginning of its life. While later linguistic encounters with other extended family members, friends, classmates, and strangers may help add to a child's language in terms of new vocabulary and more complex structures and ideas, the initial CDS encounters with parents or primary caregivers comprise the base on which all other language rests. Ensuring that this base is constructed of the best type of language, that is, CDS which contains a rich combination of language functions, is the challenge facing all parents and caregivers.

APPENDICES

APPENDIX A

NUMBERED ENTRIES OF THE TRANSCRIPT OF SUBJECT H, RECORDED FROM JUNE 4, 1998 TO JUNE 21, 1999.

Transcription conventions

Transcription conventions used in data from Gass, et al, (1999:45, 46) (with slight modifications identified by *):

1) intonation/punctuation

- ? Rising intonation
- . Falling intonation
- , Nonfinal Intonation (slight rise)
- No punctuation at clause or utterance end indicates transcriber uncertainty

2) other

(?) or ( )	Incomprehensible word or phrase (due to background noise)
(all right)	A word or phrase within parentheses indicates that the transcriber is not certain that s/he has heard the word or phrase correctly
[	Indicates overlapping speech; it begins at the point at which the overlap occurs
=	Means that the utterance on one line continues without pause where the next = sign picks it up (latches)
y-	A hyphen after an initial sound indicates a false start
(.)	A dot within parentheses indicates a brief pause
((laugh))	Nonlinguistic occurrences such as laughter, sighs, that are not essential to the analysis are enclosed within double parentheses

3*) an English gloss of the Japanese is given following each instance.

4*) occasionally phonetic transcription in square brackets [ ] is used for greater clarity of utterance or to show contrast between the speech of interlocutors.

	Raw Data	English Translation	Functions
	(1ST Data set, 6/4/98, 9:35 PM) H (age): 1;7.15. (yr;mo.days.)	**(1ST Data set, 6/4/98, 9:35 PM) H: 1;7.15.**	**(1st Data set)**
1	H: [ʌ].	H: [ʌ].	
2	M: hikaru ikenai.	M: Hikaru. That's bad!	INTER/ REG
3	H: ((cries.))	H: ((cries.))	
4	M: ((scolds S for something))	M: ((scolds S for something))	REG
5	H: [ba, ba, ba,] ((M is reading a book in Japanese to H.)) ((high-pitched squeals and a few grunts.))	H: [ba, ba, ba,] ((M is reading a book in Japanese to H.)) ((high-pitched squeals and a few grunts.))	Inter
6	M: ((continues reading a story about a fire engine.))	M: ((continues reading a story about a fire engine.))	
7	H: [waʊ, waʊ, waʊ, waʊ,] (.) [waʊ, waʊ, waʊ, waʊ. waʊ, waʊ,]	H: [waʊ, waʊ, waʊ, waʊ,] (.) [waʊ, waʊ, waʊ, waʊ. waʊ, waʊ,]	Inter/Pers
8	M: ((making sounds of a fire engine,)) bu, bu, bu, bu.	M: ((making sounds of a fire engine,)) bu, bu, bu, bu.	INTER
9	H: [wu, wu,] ((laughs and squeals.)) [aʔ, aʔ, aʔ] ((squeals many times.))	H: [wu, wu,] ((laughs and squeals.)) [aʔ, aʔ, aʔ] ((squeals many times.))	Inter/Pers
10	M: ((scolds H for doing something to S.))	M: ((scolds H for doing something to S.))	REG
11	H: ((laughs.))	H: ((laughs.))	
12	M & F: kaeshinasai. dame.	M & F: Give it back! Bad!	REG
13	H: [wu wu wuw].	H: [wu wu wuw].	Inter/Pers

	(2nd Data set, 6/9/98, 10:30 AM) H: 1;7.19.	(2nd Data set, 6/9/98, 10:30 AM) H: 1;7.19.	(2nd Data set)
14	F: omeme to ittegoran, omeme.	F: Say, 'Eye, eye.'	REG
15	H: ((squeals and laughs. B and S talking in background.))	H: ((squeals and laughs. B and S talking in background.))	
16	F: hikaru chan,	F: Hikaru, ('chan' is a term of endearment)	INTER
17	H: ((laughs.))	H: ((laughs.))	
18	F: ((scolds other children.))	F: ((scolds other children.))	REG
19	H: ((laughs.))	H: ((laughs.))	
20	F: omeme wa?	F: What about (saying) 'Eye?'	HEUR/ REG
21	H: [∧, ∧, ∧]	H: [∧, ∧, ∧]	Inter
22	F: otosan no, (.) kore wa?	F: (Is this/it) Father's? What about this (one)?	HEUR
23	H: [∧, ba], [∧, ∧, ∧] ((squeals.))	H: [∧, ba], [∧, ∧, ∧] ((squeals.))	Inter
24	M: ((says something in background to F.))	M: ((says something in background to F.))	
25	F: ma, rokuon chu no desu.	F: Well, we're in the middle of recording.	INFORM
26	H: [∧, ∧, ∧, ∧] [b∧, ga, ha,] (.) [wa,] ((continues babbling this sound many times.))	H: [∧, ∧, ∧, ∧] [b∧, ga, ha,] (.) [wa,] ((continues babbling this sound many times.))	Inter
27	B: ((talking in Japanese in background.))	B: ((talking in Japanese in background.))	
28	H: ((high-pitched squeal)) [i]	H: ((high-pitched squeal)) [i]	Pers
29	F: hikaru chan omeme. ((F then scolds B for something.))	F: Hikaru, (say) 'Eye.' ((F then scolds B for something.))	REG
30	H: ((cries.))	H: ((cries.))	
31	M & F: ((talking together and then they both say,)) ikemasen.	M & F: ((talking together and then they both say,)) Bad!	INTER/ REG
32	H: ((squeals.))	H: ((squeals.))	
33	F: soto demasho hikaru.	F: Let's go outside, Hikaru.	INTER/ REG
34	H: [ba]?	H: [ba]?	Heur/Reg
35	F: ba.	F: Ba.	INTER
36	H: [ba]? ((getting ready to go outside.)) (.)	H: [ba]? ((getting ready to go outside.)) (.)	Heur/Reg
37	F: dochi no kutsu?	F: Which shoes?	HEUR

38	H: [i, i, i,]? ((they go outside.))	H: [i, i, i,]? ((they go outside.))	Reg
39	F: soto ni demasho. hikaru, oide, kochi.	F: Let's go outside. Hikaru come. This way.	INTER/ REG
40	H: ((humming to himself,)) [ba]? ((spoken very loudly.))	H: ((humming to himself,)) [ba]? ((spoken very loudly.))	Inter
41	F: baibai wa?	F: (Can you say) Bye-bye?	HEUR/ REG
42	H: ((humming to himself again, then he utters high-pitched squeals.))	H: ((humming to himself again, then he utters high-pitched squeals.))	
43	M & F: ((talking in background.))	M & F: ((talking in background.))	
44	H: ((begins fussing.))	H: ((begins fussing.))	

	(3rd Data set, 6/13/98, 9:00 PM) H: 1;7.23.	(3rd Data set, 6/13/98, 9:00 PM) H: 1;7.23.	(3rd Data set)
45	F: hikaru, chita to itte (.) moikai.	F: Hikaru, say 'cheetah.' Once more.	REG
46	M: chita wa doko ni iru.	M: Where is the cheetah?	HEUR
47	M & F: ((simultaneously,)) chita to ittegoran.	M & F: Say 'cheetah.'	REG
48	H: [ba].	H: [ba].	Inter
49	M: chita to itte,	M: Say, 'cheetah.'	REG
50	B: [ʧita] ((said many times in background.))	B: [ʧita] ((said many times in background.))	
51	H: [ita, ta ta, ta ta, ta ta,]	H: [ita, ta ta, ta ta, ta ta,]	Inter
52	M: iyaiya to ittegoran.	M: Say, 'iyaiya.' ('no, no.')	REG
53	H: [ja ja, ja ja,]	H: [ja ja, ja ja,]	Inter
54	S: ((squealing in background about a broken watch.))	S: ((squealing in background about a broken watch.))	
55	M: daijobu da.	M: It's ok.	INTER
56	H: ((squeals.))	H: ((squeals.))	
57	M: iyaiya to ittegoran.	M: Say, 'iyaiya.'	REG
58	H: ((squeals and fusses.))	H: ((squeals and fusses.))	
59	B: ((talking in background.))	B: ((talking in background.))	
60	F: hikaru chan.	F: Hikaru.	INTER
61	M: chita.	M: Cheetah.	REG
62	H: ((long pause, then he laughs.))	H: ((long pause, then he laughs.))	
63	F: ((begins quietly reading to H a book about taking baths.)) goshigoshi shita?	F: ((begins quietly reading to H a book about taking baths.)) Did (he/it/you?) scrub (in the bath)?	HEUR/ INTER
64	H: ((no response.))	H: ((no response.))	
65	F: hikaru chan, kore nani?	F: Hikaru, what's this?	HEUR
66	H: ((no direct response, but he begins to grunt and sing.))	H: ((no direct response, but he begins to grunt and sing.))	
67	((The remainder of this tape became garbled due to a mechanical malfunction rendering the data unusable.))	((The remainder of this tape became garbled due to a mechanical malfunction rendering the data unusable.))	

	(4th Data set, 7/7/98, 6:15 PM) H: 1;8.17.	(4th Data set, 7/7/98, 6:15 PM) H: 1;8.17.	(4th Data set)
68	B & S: ((in background talking and making noise))	B & S: ((in background talking and making noise))	
69	F: ((to B & S)) chotto, shizukanishite rokuonshiteru kara. ne, chotto shizukanishite,	F: Hey. Quiet down, (I'm) recording. Hey. Quiet down.	REG
70	H: ((laughs.))	H: ((laughs.))	
71	M: (hikaru chan) iyaiya ieru	M: You can say, 'iyaiya.'	INTER/ REG
72	F: iyaiya to itte. iyaiya to ittegoran. (.) iyaiya to ittegoran. pan wa, pan.	F: Say, 'iyaiya.' (.) Say, 'iyaiya.' What about 'bread, bread?'	REG/ HEUR
73	H: ((squeals.))	H: ((squeals.))	
74	B & S: ((making noise in background.))	B & S: ((making noise in background.))	
75	F: hikaru chan,	F: Hikaru.	INTER
76	H: ((squeals, sounds upset))	H: ((squeals, sounds upset))	
77	F: chotto, urusai. ne, ursuai, shizunkanishite. ne shizukanishite to itte desho. ((loudly.))	F: Hey! You're really loud. Be quiet. Hey! I said please be quiet!	REG
78	F: pan?., to itte hikaru chan.	F: Hikaru, say, 'bread.'	REG
79	B & S: ((talking fairly loudly in background.))	B & S: ((talking fairly loudly in background.))	
80	H: ((squirming.))	H: ((squirming.))	

	(5th Data set, 7/16/98, 10:15 AM) H: 1;8.26.	(5th Data set, 7/16/98, 10:15 AM) H: 1;8.26.	(5th Data set)
81	F: hai hikaru chan, [ɾak:i] to itte, [ɾak:i] to itte, (.) [ɾak:i] to itte. (X3) [ɾak:i] to itte, [ɾak:i] to itte, (.)	F: OK, Hikaru, say, 'lucky.' Say, 'lucky,' (.) Say, 'lucky.' (X3) Say, 'lucky.' (X2) (.)	REG
82	M: a. nameteiruyo.	M: Ah! He's licking (the mic)!	INFORM
83	F: hikaru chan, [ɾak:i] to itte,	F: Hikaru, say, 'lucky.'	REG
84	M: [ɾak:i] wa, [ɾak:i]. ja, iyaiya to itte, iyaiya.	M: 'Lucky? Lucky.' Well then, how about saying, 'iyaiya, iyaiya?'	REG
85	F: iyaiya te (X2).	F: Say, 'iyaiya.' (X2)	REG
86	M: iyaiya to itte,	M: Say, 'iyaiya.'	REG
87	F: a, [ɾak:i] to itte,	F: Oh, say, 'lucky.'	REG
88	H: [ʤoʔ]	H: [ʤoʔ]	Pers
89	M: [ʤoʔ] ja nakute, [ɾak:i] to itte, (X2)	M: Not '[ʤoʔ],' say, 'lucky.' (X2)	INTER/ REG
90	H: ((laughs.))	H: ((laughs.))	
91	F: [ɾak:i] to itte,	F: Say, 'lucky.'	REG
92	((short pause.))	((short pause.))	
93	F: hikaru chan, [ɾak:i] to itte, hikaru chan, [ɾak:i] to itte kudasai, ((much background noise at this point while M changes his diaper.))	F: Hikaru say, 'lucky.' Hikaru, please say, 'lucky.' ((much background noise at this point while M changes his diaper.))	REG
94	F: a, ii nyoi ga shitekimashita. ((laughs.))	F: Oh! There is a good smell! (i.e. from his diaper) ((laughs.))	INFORM

	(6th Data set, 7/18/98, 7:00 PM) H: 1;8.28.	(6th Data set, 7/18/98, 7:00 PM) H: 1;8.28.	(6th Data set)
95	F: iyaiya to itte. [ɾak:i] to itte, [ɾak:i] to itte, (.) [ɾak:i] to itte.	F: Say, 'iyaiya.' Say, 'lucky.'(X3)	REG
96	M: iyaiya wa?	M: How about, 'iyaiya?'	HEUR/ REG
97	F: [ɾak:i] to itte,	F: Say, 'lucky.'	REG
98	M: iyaiya to itte hikaru chan, iyaiya, soko motteteyo, koko koko, iyaiya to ittegoran,	M: Say, 'iyaiya,' Hikaru. Hold it (the mic) there. Here, here. Say, 'iyaiya.'	REG
99	H: [ha]. [ha]. ((hums, laughs.))	H: [ha]. [ha]. ((hums, laughs.))	Inter
100	F: ((to B and S,)) shiranaiyo. wasuretekitanjanai?	F: ((to B and S,)) I don't know. Aren't you forgetting (it)?	HEUR/ INTER
101	H: ((fusses.))	H: ((fusses.))	
102	M: hikaru chan, iyaiya to itte, yada?	M: Hikaru, say, 'iyaiya.' You don't want to?	REG/INTER/ HEUR
103	M & F: ((ask H to say 'lucky' many times here.))	M & F: ((ask H to say 'lucky' many times here.))	REG
104	M: ((to F)) are ga sawaritai	M: ((to F)) He wants to touch that.	INFORM
105	H: ((no response.))	H: ((no response.))	
106	((During this time, M & F are talking about the tape recorder.))	((During this time, M & F are talking about the tape recorder.))	
107	M: are, nanka ima uguoitazo,	M: What? Something moved just now.	INFORM
108	H: [a].	H: [a].	Inter
109	F: hikaru chan, iyaiya wa,	F: Hikaru, say, 'iyaiya.'	REG
110	M: mawatteru kore.	M: It's turning. (the tape recorder)	INFORM
111	H: [ɛ] (rising and falling intonation)	H: [ɛ] (rising and falling intonation)	Inter
112	F: [ɾak:i] to itte (X2)	F: Say, 'lucky.' (X2)	REG
113	M: mm, mawatte, mawatte,	M: Uh huh, it's turning, it's turning.	INFORM
114	F: [ɾak:i] to itte	F: Say, 'lucky.'	REG
115	H: ((grunts.))	H: ((grunts.))	
116	M: doko dake. koko? a, asoko oshite dame. a.	M: Where was that? Here? Oh, don't push that (on the recorder). Oh.	HEUR/ REG
117	H: ((grunts.))	H: ((grunts.))	

118	M: n, koko dake.	M: Yes, only here.	INTER/ INFORM
119	M: ((asks H to say 'ah' many times.)) o, hikaru chan ga shaberuto pikapika to tsukundawa.	M: ((asks H to say 'ah' many times.)) Oh, when Hikaru speaks, the sparkling lights light up!	INFORM
120	H: ((grunts a bit throughout.))	H: ((grunts a bit throughout.))	
121	M: n?. janai.	M: Not [n] (with rising and falling intonation).	INTER
122	M: soko oshitara, tomachaono. (.) a, kesuchattakana. a to ittegoran.	M: If you push there, it will stop. Ah, did you stop it? Say, 'ah.'	INFORM/ HEUR/REG
123	F: a, a, (.) [ɾakːi] to itte hikaru chan.	F: Ah, ah. (.) Say, 'lucky,' Hikaru.	REG
124	M: sore oshite dame. soko wa dame. (.)	M: Don't push that. That (place) is bad/forbidden. (.)	REG
125	M: hikaru chan [ɾakːi] wa, [ɾakːi], iyaiya (X3) to itte.	M: Hikaru, say, 'lucky, lucky.' Say, 'iyaiya.' (X3)	REG
126	H: [n].	H: [n]	Inter
127	M: iyaiya (X2),	M: (Say,) 'iyaiya' (X2).	REG
128	H: [ɛ]?	H: [ɛ]?	Heur
129	M: iyaiya iya (spoken slowly) shibaraku kore ni tepu ni narenai to (.) dame dayo.	M: 'Iya, iya, iya.' For a little while you have to get used to the tape. (.) That's bad.	INFORM/ INTER
130	H: [n].	H: [n].	Inter
131	M: wakatta? wakattane. (.) tepurekoda narenai to.	M: Do you understand? You understand, don't you? You must get used to the tape recorder.	HEUR/ INFORM
132	((pause here.))	((pause here.))	
133	H: [ɛ]?	H: [ɛ]?	Heur
134	M: nanka okashi?	M: Is something funny?	HEUR
135	((pause))	((pause))	
136	M: iyaiya.	M: 'Iyaiya.'	REG
137	H: ((squirming and mild grunting))	H: ((squirming and mild grunting))	
138	M: mo iya? achi iku? (.)	M: Are you tired of this? Do you want to go over there?	HEUR/ INTER
139	H: ((grunts))	H: ((grunts))	
140	M: iiyo tsukete, (.) tsuita? moikai oshite pachintte,	M: Go ahead, turn it on. Is it on? Push it once more. (sound effect)	REG/ HEUR
141	F: ((to B and S,)) sore wa dame.	F: ((to B and S)) That's bad/Don't do that.	REG

142	M: ((to H,)) iyaiya to itte (X2).	M: Say, 'iyaiya'(X2).	REG
143	F: [ɾakːi] wa?	F: (What about saying) 'lucky?'	HEUR/REG
144	M: ((to F)) [ɾakːi] wa kigen ga iitoki janai to iuwanai kara muzukashiiyo. yoppodo kigen ga iitoki janai to [ɾakːi] to iuwanai.	M: ((to F)) (He) won't say 'lucky' unless he is in a good mood, so it's difficult (to get him to say it.) (He) won't say 'lucky' unless he is in a very good mood.	INFORM
145	((pause))	((pause))	
146	H: [aː]	H: [aː]	Inter
147	F: ((to M)) hikaru chan ga sukina hon o dashiteagete.	F: ((to M)) Take out a book Hikaru likes.	REG
148	M: sore? wonwon iru? wonwon iru? misete, misetegoran, (.)	M: That (one)? Is there a dog? (X2) Show me, show me. (.)	HEUR/ REG
149	H: [a].	H: [a].	Inter
150	M: kore nani? wonwon?	M: What's this? A dog?	HEUR
151	H: [a]?	H: [a]?	Heur
152	M: kore usagi. kore wa? (.) ((whispering)) doshin dane, doshin dayo, (.) yoisho yoisho to itterune. nenne nenne surunokana?	M: This is a rabbit. This? (.) It crashed, didn't it? (He/It) is saying, 'Oof! Oof,' isn't he/it? I wonder if he/it is going to go to sleep.	INFORM/ HEUR
153	H: [aʔ aʔ],	H: [aʔ aʔ],	Inter
154	M: kore nani? wonwon?	M: What's this? A dog?	HEUR
155	H: [ʌʔ]	H: [ʌʔ]	Inter
156	M: kore usagi chan.	M: This is the rabbit.	INFORM
157	H: [ʌʔ].	H: [ʌʔ].	Inter
158	M: a, pooh chan, yoisho yoisho to ittenne.	M: Ah, Pooh is saying, 'Oof! Oof!' isn't he?	INFORM/ HEUR
159	F: ((to the tape recorder as a comment,)) ma, okasan ga 'Winnie the Pooh and the Honey Tree' no hon o miseteageteimasu.	F: ((to the tape recorder as a comment,)) Well, Mother is showing (Hikaru) the book, Winnie the Pooh and the Honey Tree.	INFORM
160	M: datte shu-, to itteru, shu-,	M: Well, he said/it went, 'shu, shu.'	INFORM
161	H: [aʔ]?	H: [aʔ]?	Heur
162	M: n, koko ni bon.	M: Yes, here it went, 'Bang!'	INTER
163	H: [buː].	H: [buː].	Inter

164	M: bon to ne, bu- oshiri hikakatchattane, oi to itte hora. oi-. soretomo wau- to itterukana, wau-, wau.	M: Bang! His/Its bum got stuck, didn't it? He/It said, 'Oy!' Look. Or is he/it saying, 'wow, wow, wow!'	INFORM/ INTER
165	H: [wa͡ʊ:].	H: [wa͡ʊ:].	Inter
166	M: wau dane. bu-n to hachi dayo. wau-. hora myam myam, oishi oishi,myam myam, oishi oishi, ichi ni, yoisho, yoisho, to itterunne. a. kore nanikashiran,	M: 'Wow' isn't it? The bee says, 'bun.' Look, yum yum, yummy yummy, yum yum, yummy yummy, '1, 2, Let's go. Let's go,' he's saying, isn't he? Ah. I wonder what this is.	INTER/ HEUR
167	M: ((to S)) yamete sakura, sakura yamete.	M: ((to S)) Stop it, Sakura. Sakura, stop it.	REG
168	M: ((to H)) yoisho, yoisho, yoisho,	M: Let's go. (X3)	INTER
169	H: [ʌʔ]?	H: [ʌʔ]?	Heur
170	M: a. oishi oishi to ittenne, myam myam, (X3) (.) pochin-.	M: Ah. He's saying, 'Yummy yummy,' isn't he? 'Yum yum' (X3). (.) (splashing sound effect)	INFORM
171	H: [ʌʔ]?	H: [ʌʔ]?	Heur
172	M: n, koko atama ga itakunatchaodane, itai itai.	M: Yes. Here his head got hurt, didn't it? Ouch ouch.	INFORM/ INTER
173	H: [ʌʔ]?	H: [ʌʔ]?	Heur
174	M: so. itai itai dane,	M: Right. 'Ouch ouch,' isn't it?	INTER
175	H: [da].	H: [da].	Inter
176	M: takun? (Elder brother's nickname.)	M: (Did you say,) 'Takun?'	HEUR/ INTER
177	((M continues reading.))	((M continues reading.))	
178	M: bun bun bun bun, shu-, ((onomatopoeic sounds.))	M: bun bun bu bu, shu,	INFORM
179	H: [ʌʔ]	H: [ʌʔ]	
180	M: n. iyaiya to hora komatta kao o shiteru, hora,	M: Yes. Look, 'no, no' he's saying with a troubled face. Look.	INTER/ INFORM
181	F: urusai, sakura,	F: You're being noisy, Sakura.	INTER/REG
182	H: [aʔ]	H: [aʔ]	Inter
183	M: n, barun ne, barun, iyoiyo.	M: Yes, it's a balloon, isn't it? Balloon. Ok, ok.	INTER/ INFORM
184	F: urusai, urusai, ((to B & S in background.))	F: You're being noisy. ((to B & S in background.))	INTER/ REG
185	H: [n]? [aʔ], [pi. pi, pi?]	H: [n]? [aʔ], [pi pi pi]	Inter/Pers

186	M: ((copies him,)) pi pi pi-	M: pi pi pi-	INTER
187	H: ((whispering something))	H: ((whispering something))	
188	M: ush ush ush ush, hokani nani ...a, kore ga ii ka, hikaru chan ga suki dane, kore hanmyo to ittendane,	M: (sound effects for something) Anything else? ... Ah. This is good, right? Hikaru likes this, right? This is called 'hanmyo (cicindela chinensis)' right?	INTER/ HEUR/ INFORM
189	H: [ha]	H: [ha]	Inter
190	M: hanmyo	M: 'hanmyo (cicindela chinensis).'	INFORM
191	F: [ha] tte ((chuckles))	F: He's saying, '[ha].' ((chuckles))	INFORM
192	M: ha. hikaru chan, pa-n? arukana? pa.-n? a, aomushi,	M: 'Ha.' Hikaru, (say), 'bread.' Is there any? Bread. Ah, a green caterpillar.	REG/INTER/ INFORM
193	H: [bapu bapu bapu] [a]?,	H: [bapu bapu bapu] [a]?,	Inter/Pers
194	M: nani kore, kore kemushi. kemushi, kemushi. pa.-n? a doko ni arukana?	M: What's this? It's a caterpillar. A caterpillar, a caterpillar. Bread? Oh, where could it be?	HEUR/ INFORM/ INTER
195	H: [a]. ((fusses.))	H: [a].	Inter
196	M: hikaru chan pan taberu kyo meshi no pan wa doko, sore kiyageha no, kiyageha no youchu, a. wa? kirei dane-?	M: Hikaru, do you want to eat bread today? Where is the lunch bread? That's a yellow butterfly. . . A yellow butterfly larva. Ah! Wow! It's beautiful, isn't it?	HEUR/ INFORM
197	H: [a]?	H: [a]?	Heur
198	M: sore wa monkicho, (.)	M: That's a yellow butterfly.	INFORM
199	H: [∧].	H: [∧].	Inter
200	M: kore wa batta, tonosama batta.	M: This is a grasshopper, a king grasshopper.	INFORM
201	H: ((squirms and moans slightly))	H: ((squirms and moans slightly))	
202	M: nennesuruno? okasan ja nenne, nenneshitechodai. nenne nenneshite okasan.	M: Do you want to sleep? OK then, please go to sleep for Mother. Sleep, sleep, Mother.	HEUR/ REG
203	H: [∧].	H: [∧].	Inter
204	M: nenne nene okasan ni shitenene, nene,	M: Do 'Go to sleep, go to sleep, Mother. Go to sleep, go to sleep.'	REG
205	H: ((squirms))	H: ((squirms))	

206	M: itai itai koko, itai itai. (.) wonwon wa? doko ni ita? wow wow, wow, wow ((barking sounds.)) a, kyo wonwon itane,	M: Ouch! Ouch! It hurts here. Ouch! Ouch! What about the dog? Where is he/it? wow wow, wow, wow ((barking sounds.)) Ah, today there was a dog, wasn't there?	INTER/ HEUR
207	H: ((seems to be making barking sounds))	H: ((seems to be making barking sounds))	
208	M: koko ni iru? hikaru chan ni sa, wonwon ga wonwonwonwon to ittetane.	M: Is it here? A dog said, 'bowwow bowwow' to Hikaru today, right?	HEUR
209	H: [aʔ] (.) ((makes an eating sound.))	H: [aʔ] (.) ((makes an eating sound.))	Inter
210	M: koko itta? kore wonwon janai, kore semi no e dayo. kore kabutomushi no okasan.	M: Was it here? This is not a dog. This is a picture of a cicada. This is the rhino beetle's mother.	HEUR/ INFORM
211	S: a, mimizu tabeteru.	S: It's eating a worm.	INFORM
212	M: hontoda.	M: That's right.	INTER/ INFORM
213	H: [ɛ]?	H: [ɛ]?	Heur
214	M: n, oishi oishi te itteta, hikaru chan wonwon iyaiya dattadesho?	M: Yes, it's saying, 'yum yum.' Hikaru, the dog (said), 'iyaiya,' didn't it?	INTER/ HEUR
215	H: ((eating sound with rising intonation))?	H: ((eating sound with rising intonation))?	
216	M: myam myam myam to tabeterune?	M: (He's) eating, yum yum yum, isn't he?	INTER/ HEUR
217	H: [n]?	H: [n]?	Heur
218	M: kore oishi oishi to tabeterune myam myam myam myam,	M: 'This is yummy,' he said while eating, yum yum yum yum.	INFORM
219	H: [m m m m]?	H: [m m m m]?	
220	M: so, m m m m to tabeterune?	M: That's right, [m m m m].	INTER
221	S: ((to M)) okasan chotto (hanmyo) kore?	S: ((to M)) Mother, hey, is this hanmyo?	HEUR
222	M: so hanmyo sore, hikaru chan	M: That's right, it's hanmyo. Hikaru?	INFORM
223	H: [ɛ a]	H: [ɛ a]	Inter
224	M: a, are nani,	M: Ah, what's that?	HEUR
225	H: [u a]	H: [u a]	Inter

226	M: hikaru, kiharu kyo [ɾakːi] wa shita? ((then to S)) chotto kore kashite, a torarechatta hikaru ni,	M: Hikaru? Did Hikaru say, 'lucky' today? ((then to S)) Hey, give me this, ah, Hikaru took mine.	HEUR/REG/ INTER
227	H: ((laughs))	H: ((laughs))	Inter
228	M: ((to H)) okasan no torarechatta	M: ((to H)) (You) took Mother's.	INTER
229	H: ((laughs))	H: ((laughs))	Inter
230	M: hikaru [ɾakːi] (X6). hikaru [ɾakːi] iutte,	M: Hikaru, 'lucky' (X6). Hikaru, say, 'lucky.'	REG
231	H: ((laughs,)) (.) [dati] ((laughs again,))	H: ((laughs,)) (.) [dati] ((laughs again,))	Inter
232	M: a iuttete moikai to iutte moikai to iutte,	M: Ah! He said it! Say it again, say it again.	REG
233	H: [ha ha] ((laughs))	H: [ha ha] ((laughs))	Inter
234	M: [ɾakːi], [ɾakːi] iutte,	M: 'Lucky,' say, 'lucky.'	REG
235	M: inai inai ba. [ɾakːi], dandan kibun yokunattekita? [ɾakːi] te iutte,	M: Peek-a-boo. Lucky. Gradually his mood is getting better. Say, 'lucky.'	INTER/ INFORM/ REG
236	H: ((laughs.))	H: ((laughs))	Inter
237	M: [ɾakːi] iutte,	M: Say, 'lucky.'	REG
238	H: [ja ha],	H: [ja ha],	Inter
239	M: yaha ja nai, [ɾakːi],	M: Not 'yaha, lucky.'	INTER/REG
240	H: ((laughs))	H: ((laughs))	
241	M: hikaru chan [ɾakːi] moikai iutte, [ɾakːi],	M: Hikaru, say, 'lucky' once more, 'lucky.'	REG
242	H: ((laughs)) [ha, ha. ha?]	H: ((laughs)) [ha, ha. ha?]	Inter/Pers
243	F: hikaru chan [ɾakːi] wa	F: Won't you say, 'lucky,' Hikaru?	INTER/ HEUR
244	M: [ɾakːi]?	M: Lucky.	REG
245	H: ((laughs loudly))	H: ((laughs loudly))	
246	M: [ɾakːi]?	M: Lucky.	REG
247	H: ((laughs))	H: ((laughs))	
248	M: [ɾakːi] to dekita, ja hikaru	M: Ok, you did 'lucky,' Hikaru…	INTER
249	H: [akːi]	H: [akːi]	Inter
250	M: iutteta iutetta moikai moikai iutte [ɾakːi], (.) hikaru chan mochotto maiku no soba de iutekureru, ((chuckles))	M: You said it, you said it. Once more, once more, say, 'lucky.' (.) Hikaru, could you say it a little closer to the mic? ((chuckles))	INTER/ REG/ HEUR

251	H: ((squirms))	H: ((squirms))	
252	M: gomen gomen gomen hai hai, [ɾak:i], a mite mite, kore nani chita kana, chita,	M: Sorry, sorry, sorry, Ok, Ok. Lucky. Ah, look, look, What's this? A cheetah? Cheetah?	INTER/ HEUR
253	S: raion	S: A lion.	INFORM
254	M: chita chita.	M: A cheetah, a cheetah.	INFORM
255	S: raion da sore.	S: That's a lion.	INFORM
256	M: chita ga iru?	M: Is there a cheetah?	HEUR
257	S: raion.	S: A lion.	INFORM
258	M: kore nani, wonwon?	M: What's this? A dog?	HEUR
259	S: raion.	S: A lion.	INFORM
260	M: chita?	M: A cheetah?	HEUR
261	S: raion.	S: A lion!	INFORM
262	H: [ʌ]?	H: [ʌ]?	Heur
263	S: raion sore.	S: That's a lion.	INFORM
264	H: [ʌ]?	H: [ʌ]?	Heur
265	S: sore raion dayo.	S: That's a lion.	INFORM
266	M: raion datte, chita janain datte,	M: It's a lion (she said). It's not a cheetah (she said).	INFORM/ INTER
267	H: [ʌ]?	H: [ʌ]?	Heur
268	M: hikaru chan [ɾak:i] to moikai iutte,	M: Hikaru, say, 'lucky' once more.	REG
269	S: okasan ((mumbles something))	S: Mother ((mumbles something))	
270	M: ((mumbles a reply))	M: ((mumbles a reply))	
271	H: ((squirms))	H: ((squirms))	
272	M: [ɾak:i] te hikaru, [ɾak:i] (.) ((to the tape recorder?)) mo iuwanai no yo desu.	M: Say, 'lucky' Hikaru, 'lucky.' (.) ((to the tape recorder?)) It appears he won't say anything (more).	REG/ INFORM
273	H: ((squirms))	H: ((squirms))	
274	M: hikaru chan wonwon wa, yoisho, yoisho, ja yoisho, yoisho.	M: Hikaru, what about the dog? Let's go (X4)	HEUR/INTER/ REG
275	H: ((squirms; sounds uncomfortable or frustrated))	H: ((squirms; sounds uncomfortable or frustrated))	
276	M: itai itai te. (.) ii ne, ii ne ii ne ii ne, dare desu.	M: Ouch ouch! (.) That's great! (X4) Who is it?	INTER/ HEUR
277	S: ((trying to get M's attention))	S: ((trying to get M's attention))	
278	M: inai inai, inai inai, inai inai ba- (X3)	M: Peek-a-boo (X3)	INTER

279	S: okasan (X3), ((mumbles a request))	S: Mother (X3), ((mumbles a request))	REG
280	M: ((to S)) chotto matte ((to H)) inai inai inai inai inai ba-	M: ((to S)) Wait a minute. ((To H)) Peek-a-boo.	REG/ INTER
281	S: inai inai ba?	S: ((joins in)) Peek-a-boo.	INTER
282	M: kore nani? chita (.) inai inai inai inai inai ba-.	M: What's this? A cheetah. Peek-a-boo.	HEUR/ INFORM/ INTER
283	H: ((laughs))	H: ((laughs))	
284	M: inai inai inai inai inai inai... ba.	M: Peek-a-boo.	INTER
285	H: [ba:]. ((laughs))	H: [ba:]. ((laughs))	Inter
286	M: inai inai inai inai inai inai,	M: Peek-a-...	INTER
287	S: itai koko.	S: This hurts.	INFORM
288	M: nande,	M: Why?	HEUR
289	H: ((laughs))	H: ((laughs))	
290	M: ba-.	M: ...boo!	INTER
291	F: hikaru chan [ɾak:i] wa naino?	F: Hikaru, won't you say, 'lucky?'	HEUR/ REG
292	M: [ɾak:i] mo sankai gurai iuta kedo yoku kikoenai. ba-, ba- hikaru chan, ba- teitteyo.	M: He's said 'lucky' about three times already, but they were hard to hear. Ba, ba, Hikaru, say, 'ba.'	INFORM/ REG
293	H: ((laughs))	H: ((laughs))	
294	S: ((complaining about something))	S: ((complaining about something))	
295	M: ita ita-	M: It was there, it was there.	INFORM
296	H: ((laughs)) [u] [u]	H: ((laughs)) [u] [u]	Pers
297	M: itai itai itai, (.) hikaru chan mo iku? hikaru chan mo iku? ja, soto, otosan ikundatte,	M: Ouch, ouch, ouch. (.) Will Hikaru go, too? (X2) Well, since Father is going outside...	INTER/HEUR/ INFORM
298	F: mmm, ittokoyo.	F: Uh huh, let's go.	REG
299	H: [n].	H: [n].	Inter
300	F: ja owarinishimasu.	F: Well, we will end (the recording) for now.	INFORM

	(7th Data set, 7/22/98, 10:30 PM) H: 1;9.02.	(7th Data set, 7/22/98, 10:30 PM) H: 1;9.02.	(7th Data set)
301	((There is a lot of noise from all three children))	((There is a lot of noise from all three children))	
302	F: chotto takun shizukanishite.	F: Takun, please be quiet!	REG
303	B: ((asking F for something))	B: ((asking F for something))	
304	F: ((to B)) chotto shizukanishite	F: ((to B)) Hey, be quiet!	REG
305	H: [ja:]	H: [ja:]	Pers
306	M: ((to H)) moikai itte, iya-	M: ((to H)) Once more say, 'iya-.'	REG
307	H: [jaɪ]	H: [jaɪ]	Inter
308	M: iya-	M: (Say), 'iya-,'	REG
309	H: [jaɪ: jaɪ] ((many other squeals))	H: [jaɪ: jaɪ] ((many other squeals))	Inter
310	B: ((continues trying to get F's attention))	B: ((continues trying to get F's attention))	REG
311	F: ((scolds B for interrupting right now))	F: ((scolds B for interrupting right now))	REG
312	M: hikaru chan itate, ita	M: Hikaru, say, '(he) was there, (he) was there.'	REG
313	F: ((to B)) chotto dame datte, dame na mon, ma rokuonshiterun, dame. ((lots of noise here))	F: Hey, don't do that. That's bad. Well, (we're) recording. Bad/No! ((lots of noise here))	REG
314	M: hikaru chan, takun to itte, takun takun, ((thumping on a table is heard))	M: Hikaru, say, 'Takun, Takun, Takun.' ((thumping on a table is heard))	REG
315	M: ((to H)) a, yamenasai, takun to iutte, takun, a, ai to iutte, takun,	M: Ah! Stop that. Say, 'Takun, Takun.' Ah, say, 'ai, Takun.'	REG
316	F: hikaru ((shouted))	F: Hikaru! ((shouted))	REG
317	M: hikaru, ikenaiyo?	M: Hikaru, that's not nice.	INFORM/ INTER
318	H: ((begins crying))	H: ((begins crying))	
319	M: a, o, kore ja, demo ikenai hikaru chan, okorarechatta,	M: Ah, oh, well then, but Hikaru, that's not nice. (aside) He was scolded.	INTER/ INFORM
320	H: ((cries))	H: ((cries))	

321	M: hikaru chan, iya to itte, chiru chiru chiru chiru, a nezumi ga chiru chiru chiru chiru. ne kore ijo torenaiyo.	M: Hikaru, say, 'iya' ((mouse sound effects)) Ah, the mouse says ((more mouse sound effects.)) (We) can't get any more than this (i.e. record any more).	REG/ INFORM
322	H: ((cries even harder as M tries to get his mind off this scolding))	H: ((cries even harder as M tries to get his mind off this scolding))	
323	F: ((to M)) chotto tatte dako shiteagetene,	F: ((to M)) Hey, stand up and hug/pick him up.	REG
324	H: ((cries))	H: ((cries))	
325	((short pause here while M tries to calm him down to no avail.))	((short pause here while M tries to calm him down to no avail.))	
326	M: jusu, jusu, jusu ienaino,	M: Juice, juice, won't you say, 'juice?'	INTER/ HEUR
327	S: okasan hayaku kore yonde,	S: Mother, hurry up and read this (for me)	REG
328	F: hikaru chan, hai to itte. hai,	F: Hikaru, say, 'Yes. Yes.'	REG
329	M: ma, so iu kibun janai te.	M: Well, he is not in that mood now.	INFORM
330	F: hikaru chan,	F: Hikaru.	REG
331	M: mo, otosan no baka yaro datte. mo yamen…mo iya datte,	M: Oh Father, what a fool you have been! Stop… He has had enough.	INFORM
332	F: hikaru chan,	F: Hikaru.	REG
333	M: kibun dainashidatte.	M: His mood has been ruined.	INFORM
334	((short pause here.))	((short pause here.))	
335	M: takun doko ni iru, hikaru, takun doko ni iru, takun wa?	M: Where is Takun? Hikaru, where is Takun? Where's Takun?	HEUR
336	F: hikaru chan, hai to itte,	F: Hikaru, say, 'Yes.'	REG
337	M: iya da. mo dameda.	M: That's disgusting. It's useless.	INFORM
338	H: [n]	H: [n]	Inter
339	M: n, ohana. a kore nani	M: Yes, a flower. Ah, what's this?	INTER/ HEUR
340	B: ashita 'dorestapu' shinai to dame dayo.	B: Tomorrow, I have to get dressed up.	INFORM
341	F: n,	F: Uh huh.	
342	M: kore wa...a, kore nani pipi pipi da. pipi pipi,	M: What about this? Ah, what's this? It's pipi pipi. Pipi pipi.	HEUR/ INFORM

343	H: [əʔ ha a:] ((the last sound has rising and falling intonation.))	H: [əʔ ha a:] ((the last sound has rising and falling intonation.))	
344	M: iya desho.	M: It's 'iya', right?	INTER/HEUR
345	H: [əja ja]	H: [əja ja]	Inter
346	M: ((repeats,)) iyaiya wa,	M: ((repeats,)) What about 'iyaiya?'	HEUR/ REG
347	H: [əja]?.	H: [əja]?.	Inter/Heur
348	M: ya, takun wa? takun, takun to iu desho?	M: Ya. What about 'Takun? Takun,' you can say, 'Takun,' can't you?	HEUR/REG/ INTER
349	H: [ʌ]?	H: [ʌ]?	Heur
350	M: n.	M: Uh huh.	INTER
351	H: [a]?	H: [a]?	Heur
352	M: mushi, mushi,	M: It's an insect, an insect.	INFORM
353	B: ja, kyokai no shiroi fuku kiteiku ashita.	B: Well, tomorrow I'll wear my white church clothes.	INFORM
354	M: nani,	M: ((to B)) What?	HEUR
355	H: ((squirming))	H: ((squirming))	
356	B: datte so iu fuku kiteru ipai yo	B: But there are many who wear that sort of clothes.	INFORM
357	H: [ə]?.,	H: [ə]?.,	Inter/Heur
358	M: so?	M: Is that right?	HEUR
359	B: hitori.	B: One person.	INFORM
360	M: a, a.	M: Ah, ah.	
361	H: [a]. [a]?	H: [a]. [a]?	Inter
362	M: wau.	M: Wow.	INTER
363	H: [wa]	H: [wa]	Inter
364	M: wau.	M: Wow.	INTER
365	H: [a əwa wa wa] ((laughs.))	H: [a əwa wa wa] ((laughs))	Inter
366	M: wau. wau.	M: Wow, wow.	INTER
367	H: ((laughs))	H: ((laughs))	
368	M: kibun naottekita.	M: His mood has improved.	INFORM
369	H: ((laughs))	H: ((laughs))	
370	M: so? takun doko ni iru? hikaru chan, takun to itte, takun. takun doko,	M: Is that right? Where's Takun? Hikaru, say, 'Takun, Takun.' Where's Takun?	HEUR/ REG
371	H: [jaɪ jaɪ]	H: [jaɪ jaɪ]	Pers
372	M: a iyaiya nandesho.	M: Ah, it's 'iyaiya,' is it?	HEUR/INTER

373	H: [ha jaɪ jaɪ ja ja] [ja] (.) [ja] ((many repetitions of this sound))	H: [ha jaɪ jaɪ ja ja] [ja] (.) [ja] ((many repetitions of this sound))	Inter
374	M: chita.	M: Cheetah.	INFORM
375	H: [itaʔ]	H: [itaʔ]	Inter
376	M: chita. a, ita to ittetane. kyo ne, takun ita to ittetane. takun ita? doko ni ita? takun doko ni ita? are? achi ni itaka? kochi wa? are? inai ne, doko?	M: Cheetah. Ah, you said, 'ita,' didn't you? Today, you said, 'Takun is there,' didn't you? Is Takun here? Where is he? Where is Takun? Oh? Was he there? He's not here, is he? Where?	INTER/ HEUR
377	S: koko ni iruyo,	S: He's here.	INFORM
378	M: ((whispered)) ita ita ita ne, ita, ((louder)) takun doko ni ita?	M: ((whispered)) He's there (X4). ((louder)) Where was Takun?	INTER/ HEUR
379	F: are sakura chan.	F: That was Sakura.	INFORM
380	H: ((squirms))	H: ((squirms))	
381	B: achi.	B: Over there.	INFORM
382	M: a, ita. mite, mite, ita,	M: Ah, he's there. See, see. He's there.	INFORM
383	H: [ha]	H: [ha]	Inter
384	M: ita, takun doko ni ita, a, koko ni ita ne? ((to F)) kyo ita to ittetayo.	M: He's here. Where did Takun go? Ah, he is here, isn't he? ((to F)) Today (Hikaru) said, 'ita,' didn't you?	INTER/ HEUR
385	M: sore zubon ne	M: Those are pants, aren't they?	INTER/HEUR
386	B: ne,	B: Hey,	REG
387	M: sore dare no,	M: Whose are they?	HEUR
388	B: 'doresutapu' wa ashita shinakyadamenandayo, chotto dake,	B: Tomorrow, I have to get dressed up, just a little.	INFORM
389	H: ((laughs.))	H: ((laughs))	
390	M: a to itte, hikaru chan, a, kore ni a to ittete, a.	M: Say 'ah,' Hikaru. 'Ah,' say 'ah,' to this (recorder), 'ah.'	REG
391	H: ((whines.))	H: ((whines))	
392	M: hai to itte, hai to itte,	M: Say, 'Yes.' (X2)	REG
393	F: sonnani chikazu(ku)	F: Not so close (to the mic).	REG
394	M: pachin.	M: Pachin (sound effect of something shutting off.)	INTER
395	H: ((laughs,)) [aʔ],	H: ((laughs,)) [aʔ],	Inter
396	M: a to ittegoran,	M: Say, 'Ah.'	REG
397	H: [hɛʔ]	H: [hɛʔ]	Inter

398	M: osanai. sore oshite dame. oshite dame.	M: Don't push that. Don't push it. Don't push it.	REG
399	H: [ə]	H: [ə].	Inter
400	M: a hora hikaru chan, a to iute hora kore ugokunno. hi- ka- ru- (.) a to ittegoran (X3)	M: Ah, look Hikaru, if you say 'ah' this (recorder lights) moves. Hi-ka-ru. Say, 'Ah.' (X3)	INTER/ INFORM/ REG
401	H: [ə].	H: [ə].	Inter
402	((brief pause.))	((brief pause.))	
403	M: wonwon to itte, hora hora	M: Say, 'bow wow.' Look, look.	REG/INTER
404	((break in recording))	((break in recording))	
405	F: wonwon to iutte,	F: Say, 'bow wow.'	REG
406	M: takun, takun wa, takun to itte (X2), takun ierudesho,	M: Takun. What about 'Takun?' Say, 'Takun.' (X2) You can say, 'Takun.'	HEUR/REG/ INTER
407	H: [aʔ],	H: [aʔ],	Inter
408	M: a, hora, pa to ittegoran.	M: Ah, look. Say, 'Pa.'	REG
409	H: ((laughs.))	H: ((laughs.))	
410	M: pochin, pochin	M: Pachin (X2) (onomatopoeic word)	INTER
411	H: ((laughs))	H: ((laughs))	
412	M: pochin to iutte,	M: Say, 'pachin.'	REG
413	H: ((laughs))	H: ((laughs.))	
414	M: ((to B)) takun mo yamete? ne okasan yamete te ittandayo, ne, mo shimattekinasai,	M: ((to B) Takun, stop it. Hey, Mother just told you to stop it. So, put it away.	REG
415	H: ((laughs))	H: ((laughs))	
416	((brief pause here.))	((brief pause here.))	
417	H: [ha a] ((very close to mic))	H: [ha a] ((very close to mic))	Inter
418	M: a, ima mita, hora mite	M: Ah, now, did you see? Look!	HEUR/REG
419	H: [a a] ((laughs))	H: [a a] ((laughs))	
420	M: wonwon to itte, wonwon to itte,	M: Say, 'bow wow.' (X2)	REG
421	H: [wa͡ʊ wa͡ʊ],	H: [wa͡ʊ wa͡ʊ],	Inter
422	M & F: jozu jozu.	M & F: Skillful/Very good!	INTER
423	((M & F clap their hands.))	((M & F clap their hands.))	
424	M: ja, kondo ne, takun to itte,	M: Well, next, say, 'Takun.'	REG
425	H: [a wa] ((laughs.))	H: [a wa]	Inter
426	M: takun, hai, takun.	M: Takun. Yes, Takun.	INTER
427	H: [awa] ((laughs.))	H: [awa]	Inter
428	M: chigau. kondo ta- kun- ((spoken slowly and clearly)).	M: No. Next, 'Ta- kun-.' ((spoken slowly and clearly)).	INTER/ REG

429	H: [a wa], ((spoken more slowly than the previous utterance.))	H: [a wa], ((spoken more slowly than the previous utterance.))	Inter
430	M: takun, n, kon kon, takun asoko ita. ita to itte, ita.	M: Takun, uh huh, knock knock. Takun is over there. Say' 'ita (he's there),' 'ita.'	INTER/ INFORM/ REG
431	H: ((laughs,)) [ta].	H: ((laughs)) [ta].	Inter
432	M & F: so da. so da.	M & F: That's right! That's right!	INTER
433	((M & F laugh loudly.))	((M & F laugh loudly.))	
434	H: ((squeals with laughter.))	H: ((squeals with laughter.))	
435	((lots of noise with M and F trying to get H to say 'ita' and 'lucky.'))	((lots of noise with M and F trying to get H to say 'ita' and 'lucky.'))	
436	M: [ɾakːi], hikaru chan kondo [ɾakːi] to itte, iya iuwanaino, soka. dame ka, ja kashite, okasan mite iuyo, ((to B)) takun. ((mumbles)) ((to H)) [ɾakːi], a, [ɾakːi] na kimochi janai? [ɾakːi]. hai hikaru chan mo. ja okasan itchao zembu [ɾakːi] [ɾakːi] [ɾakːi], hai hikaru chan itte	M: Lucky. Hikaru, next say' 'lucky.' No? You won't say it? I see. You won't. Well then, give it (the mic) to me. Watch Mother. I'll say it. ((To B)) Takun, ((mumbles)) ((to H)) Lucky. Ah, you don't have the 'lucky' feeling, is that it? Lucky. Yes, Hikaru, too. Well then, Mother will say everything: Lucky (X3), Ok Hikaru, say it.	INTER/ REG
437	H: [wa͡ʊ wa͡ʊ],	H: [wa͡ʊ wa͡ʊ],	Pers
438	M: ((laughs,)) [ɾakːi] wa?	M: ((laughs,)) What about 'lucky?'	INTER/ REG/HEUR
439	H: [wa͡ʊ wa͡ʊ].	H: [wa͡ʊ wa͡ʊ],	Pers
440	M: chigau. wonwon janakute, [ɾakːi] to itte, [ɾakːi].	M: No. Not 'bow wow,' say, 'lucky. Lucky.'	INTER/ REG
441	H: [awa wa wa], ((laughs.))	H: [awa wa wa], ((laughs))	Inter
442	M: ja, inai ina ba- to itte.	M: Well then, say, 'peek-a-boo!'	REG
443	S: ba- to itte hikaru chan	S: Say, 'Ba!' Hikaru.	REG
444	H: [wawa]	H: [wawa]	Pers
445	M: chigau, [ɾakːi]. [ɾakːi]. a, [ɾakːi] ierukana?	M: That's wrong. Lucky, lucky. Ah, I wonder if you can say, 'lucky.'	INTER/ REG
446	S: iyaiya to ittegoran?	S: Say, 'iyaiya.'	REG
447	M: hora pika pika (X2)	M: Look, pikapika pikapika. (sparkling lights)	INTER/ INFORM
448	F: [ɾakːi] to itte, [ɾakːi],	F: Say, 'lucky.' Lucky.	REG

449	M: pika pika, pika pika (.) hikaru chan	M: Pikapika pikapika. Hikaru.	INTER
450	H: [awa] ((laughs)) [awa awa] (X15)	H: [awa] ((laughs)) [awa awa] (X15)	Pers
451	M: hikaru chan, [ɾakːi] wa?	M: Hikaru, what about 'lucky?'	INTER/REG/ HEUR
452	H: ([wa͡ʊ wa͡ʊ],)	H: ([wa͡ʊ wa͡ʊ],)	Pers
453	((This section of the tape becomes very noisy: H is speaking into the mic very loudly, and B & S are disturbing M & F who are trying to record H and placate B & S.))	((This section of the tape becomes very noisy: H is speaking into the mic very loudly, and B & S are disturbing M & F who are trying to record H and placate B & S.))	

	(8th Data set, 7/29/98, 12:00 PM) H: 1;9.09.	(8th Data set, 7/29/98, 12:00 PM) H: 1;9.09.	(8th Data set)
454	M: hikaru chan, yatta to itte ,	M: Hikaru, say, 'hooray!'	REG
455	F: gokigen wa ii mitaidesu.	F: It appears that his mood is good.	INFORM
456	M: yatta wa, iutte,	M: What about 'hooray?' Say it.	HEUR/REG
457	F: yatta to itte,	F: Say, 'hooray.'	REG
458	H: [pepe, pepe,]	H: [pepe, pepe,]	Pers
459	M: pipi ne	M: 'pipi', isn't it?	HEUR/INTER
460	H: [pu:] [pu].	H: [pu:] [pu].	Inter
461	F: koe dashite, yattatte,	F: Speak up. Say, 'hooray.'	REG
462	H: ((laughs.))	H: ((laughs))	
463	F: yatta to itte,	F: Say, 'hooray.'	REG
464	((pause here; lots of background noise.))	((pause here; lots of background noise.))	
465	H: ((laughs,)) [ba, ba,]	H: ((laughs,)) [ba, ba,]	Pers
466	M: doshitan? meme?	M: What's wrong? (Is it your) eye?	HEUR/ INTER
467	H: [meme] ((squeals and makes 'brrr' noise with lips many times.))	H: [meme] ((squeals and makes 'brrr' noise with lips many times.))	Inter
468	F: yatta.	F: Hooray!	REG/INTER
469	((M & F talking in the background for some time here.))	((M & F talking in the background for some time here.))	
470	H: ((playing and shouting,)) [pipi pipi pi], [pipi pipi,]	H: ((playing and shouting,)) [pipi pipi pi], [pipi pipi,]	Pers
471	M: ((to F)) chotto, nitattekitara yowabi ni shitene ((to H)) tori no koto pipi ittendane. pippi pippi,	M: ((to F)) Hey, when it starts boiling, lower the heat. ((to H)) (You say) pipi for bird, don't you? Pippi, pippi.	REG/ HEUR
472	M: ((goes outside and tells F she is going to the garden.))	M: ((goes outside and tells F she is going to the garden.))	
473	F: hikaru chan itchadameyo.	F: Hikaru, you can't go.	REG
474	H: ((starts to cry))	H: ((starts to cry))	
475	F: ((to H)) iyo iyo ittekite, ittekite,	F: ((to H)) Ok, ok. Go, go.	REG
476	H: ((cries))	H: ((cries))	

477	F: a, okasan ga hatake ni itteshimattanode, kyu ni fukigen ga imashita, u wa wa wa, hai itteirashai, ((door slams)) chikusho, itchatta.	F: Ah, because Mother went out to the garden, (Hikaru's) mood quickly worsened. Ooh, wa wa wa wa. Ok. Come back soon. ((door slams)) Nuts! She went.	INFORM
478	H: ((cries))	H: ((cries))	
479	F: nakanaide, nakanaide,	F: Don't cry, don't cry.	REG
480	H: ((crying dies down quickly but starts up again shortly))	H: ((crying dies down quickly but starts up again shortly))	

	(9th Data set, 7/30/98, 6:00 PM) H: 1;9.10.	(9th Data set, 7/30/98, 6:00 PM) H: 1;9.10.	(9th Data set)
481	B: kyampu,	B: Camp.	
482	F: hikaru chan, takun to itte hikaru chan.	F: Hikaru, say, 'Takun,' Hikaru.	REG
483	H: [aʔ].	H: [aʔ].	Inter
484	S: kyampu to itte, kyampu	S: Say, 'camp, camp.'	REG
485	F: achan, shizukanishite, takun shizukani,	F: Achan, be quiet. Takun, be quiet.	REG
486	H: [apu].	H: [apu].	Inter
487	M: apu,	M: Up.	REG/INTER
488	H: [aʔ u:]. [aʔ] [aʔ]	H: [aʔ u:]. [aʔ] [aʔ]	Inter
489	((very noisy))	((very noisy))	
490	M: ((in background)) [ɾak:i]? (.) hikaru chan, [ɾak:i] wa? [ɾak:i]. (.)	M: ((in background)) 'Lucky?' (.) Hikaru, what about 'lucky? Lucky?'	HEUR/ INTER/REG
491	H: ((making high-pitched noises))	H: ((making high-pitched noises))	
492	M: hikaru chan, yatta wa? yatta.	M: Hikaru, what about 'hooray?' 'Hooray.'	HEUR/ INTER/REG
493	H: [apu].	H: [apu].	Pers
494	((brief pause here.))	((brief pause here.))	
495	M: takun,	M: Takun.	INTER
496	H: [o]?.	H: [o]?.	Pers
497	M: sonna koto shinai, takun,	M: Don't do that, Takun.	REG/INTER
498	H: [paʔpu:] [pipi] ((laughs,)) [pipi pipi] [pipi pipi] (.) [u]? [u]? [u]? ((loud bang in background,)) [wa] ((laughs,)) ((background noise increases here. M & B having a loud discussion.))	H: [paʔpu:] [pipi] ((laughs,)) [pipi pipi] [pipi pipi] (.) [u]? [u]? [u]? ((loud bang in back-ground,)) [wa] ((laughs,)) ((background noise increases here. M & B having a loud discussion.))	Pers
499	M: ((to H)) suwatenasai oisu ni, beddo de yoko ni nattemoishi,	M: ((to H)) Sit in your chair, or you can also lie on your bed.	REG/ INTER
500	H: [u u u u u u u] ((spoken as he is running to his chair)) ((laughs))	H: [u u u u u u u] ((spoken as he is running to his chair)) ((laughs))	Pers
501	M: ((speaking to B and S in background about supper))	M: ((speaking to B and S in background about supper))	

502	F: chotto shizukanishite takun, ((to H)) soko wa dame, hikaru chan, asoko wa dame.	F: Hey, be quiet Takun. ((to H)) That place is bad, Hikaru, that place is bad.	REG
503	H: ((squirms then)) 'brrr' ((raspberry.))	H: ((squirms then)) 'brrr' ((raspberry.))	
504	F: ((mentions that H is climbing into his highchair.))	F: ((mentions that H is climbing into his highchair.))	
505	B: ((questioning M about something that he is not happy about))	B: ((questioning M about something that he is not happy about))	
506	F: chotto shizukanishiteyo?	F: Hey, please be quiet!	REG
507	H: [bi bju] [wa͡ʊ] [wa͡ʊ wa͡ʊ] (.) [api bebe] [u u u] [bi bi] [u u] [we͡i e͡i e͡i e͡i e͡i] [u u u] ((high-pitched squeals,)) [aʔ] [wa] ((more high-pitched squeals))	H: [bi bju] [wa͡ʊ] [wa͡ʊ wa͡ʊ] (.) [api bebe] [u u u] [bi bi] [u u] [we͡i e͡i e͡i e͡i e͡i] [u u u] ((high-pitched squeals,)) [aʔ] [wa] ((more high-pitched squeals))	Pers
508	M, F, & B: ((talking in background. F pours some juice))	M, F, & B: ((talking in background. F pours some juice))	
509	H: [paʔ] [api] (.) [pipi pju] [pju] ((screams))	H: [paʔ] [api] (.) [pipi pju] [pju] ((screams))	Pers
510	M: doshitano.	M: What's wrong?	HEUR
511	B: ((screams, too))	B: ((screams, too))	
512	F: takun, shizukanishite,	F: Takun, be quiet.	REG
513	((brief pause here))	((brief pause here))	
514	H: ((playing and singing to himself))	H: ((playing and singing to himself))	
515	F: hikaru chan, [ɾakːi] to itte	F: Hikaru, say, 'lucky.'	REG
516	H: ((humming and singing to himself.))	H: ((humming and singing to himself.))	
517	H: [abu],	H: [abu],	Pers
518	B: dame hikaru ((shouted))	B: That's bad, Hikaru! ((shouted))	REG/ INTER
519	F: ne chotto oki koe dasenaide,	F: Hey, don't shout so loudly.	REG
520	H: ((cries))	H: ((cries))	
521	F: nakun no yamena, hai hai hai hai	F: Stop crying, Yes, yes, yes, yes.	REG/ INTER
522	H: ((continues crying))	H: ((continues crying))	
523	F: okorunayo.	F: Don't get/be angry.	REG
524	H: ((continues crying))	H: ((continues crying))	

525	M, F, & B: ((talking to each other. Scolding B for making H cry.))	M, F, & B: ((talking to each other. Scolding B for making H cry.))	

	(10th Data set, 8/2/98, 5:20 PM) H: 1;9.13.	(10th Data set, 8/2/98, 5:20 PM) H: 1;9.13.	(10th Data set)
526	F: hikaru, (.) achi ikoka?	F: Hikaru, shall we go over there?	INTER/ REG/HEUR
527	H: [wa wa wa wa] ((while running)) [e e e e e] ((while running)) ((laughs.))	H: [wa wa wa wa] ((while running)) [e e e e e] ((while running)) ((laughs.))	Pers
528	((pause here.))	((pause here.))	
529	F: ((to another child playing nearby,)) thank you. thank you.	F: ((to another child playing nearby,)) Thank you. Thank you.	
530	F: hikaru nanka shabete, iina, (.) hikaru chan, kashite, dozote.	F: Hikaru say something. That's nice. Hikaru, give it to me. Say, 'please.'	REG
531	H: [hɛ]	H: [hɛ]	Inter
532	F: hikaru chan, shabete nanka. hikaru, achi iko. oide, (.) hikaru chan sore otomodachi no naka dameyo,	F: Hikaru, say something. Hikaru, let's go over there. Come. Hikaru, that's your friend's, don't do that.	REG
533	H: ((laughs)) [a a a] [we we] [wa͡ʊ wa͡ʊ wa] ((while running.))	H: ((laughs)) [a a a] [we we] [wa͡ʊ wa͡ʊ wa] ((while running.))	Pers
534	F: achi?	F: That way?	HEUR
535	F: ((talking to S in background. Comments that H is now playing with a bucket and some toys in the dirt.))	F: ((talking to S in background. Comments that H is now playing with a bucket and some toys in the dirt.))	
536	F: hikaru chan, omoshiroi? hikaru chan, dekita?	F: Hikaru, is it fun? Hikaru did you make/finish it?	HEUR
537	((pause.))	((pause.))	
538	H: [ha͡ɪ] ((very breathy [h] at the beginning.))	H: [ha͡ɪ] (Possibly 'Yes.')	Inter
539	F: a, jozu jozu, [a͡ɪ] to itte ima ne, hai, hikaru chan.	F: Oh, very good! You said, '[a͡ɪ]', didn't you? Yes, Hikaru.	INTER
540	((short pause.))	((short pause.))	
541	H: [a a] [ʃ], [ʃ], (X3) ((loudness increases and decreases.))	H: [a a] [ʃ], [ʃ], (X3) ((loudness increases and decreases.))	Pers
542	((at this point, M arrives, and she talks with a neighbor in English for several minutes while H plays.))	((at this point, M arrives, and she talks with a neighbor in English for several minutes while H plays.))	

543	F: hai, kondo shinbun o mitteimasu, ((a discussion continues in background.))	F: OK, now (he) is looking at a newspaper. ((a discussion continues in background.))	INFORM
544	F: dame, dame, dame,	F: No, no, no!	REG
545	F: hai hikaru. oishi?	F: Ok, hikaru. Is it delicious?	HEUR
546	H: ((whispering)), [fapa]	H: ((whispering)), [fapa]	Pers
547	F: papa ittano?	F: Did you say, 'papa?'	HEUR
548	H: ((squirms)) [mam mam mam mam u wa fa fa͡ɪ ja fa fa͡ɪ]	H: ((squirms)) [mam mam mam mam u wa fa fa͡ɪ ja fa fa͡ɪ]	Pers
549	F: hikaru chan, iyaiya to ittegoran, hikaru chan	F: Hikaru, say, 'iyaiya.' Hikaru.	REG
550	H: [pipi pi: u] ((singing.))	H: [pipi pi: u] ((singing.))	Pers
551	F: hikaru chan, iyaiya to itte,	F: Hikaru, say, 'iyaiya.'	REG
552	H: [ha:], [a͡ʊʔ] [ha] ((laughs.))	H: [ha:], [a͡ʊʔ] [ha] ((laughs.))	Pers
553	F: hai, osenbei o tabehajimemashita.	F: OK, he has begun to eat a rice cracker.	INFORM
554	H: ((grunting.))	H: ((grunting.))	
555	F: hai, kondo maiku o te ni motteshimaimashite, ((while H is playing with the mic, F, M, and S have a discussion in the background.))	F: Next, (he) has put the mike in his hand. ((while H is playing with the mic, F, M, and S have a discussion in the background.))	INFORM
556	F: ((to B)) takun hayaku yaranai to sa, mono ga sumanaindayo.	F: ((to B)) Takun, if you don't hurry up and do it, you won't get it done.	INFORM/ REG
557	B: wakatteruyo--,	B: I know.	
558	H: [n]?	H: [n]?	Heur
559	((M and F talking about some item they purchased))	((M and F talking about some item they purchased))	
560	M: hikaru chan, ka chan, ka chan mo ((unintelligible))	M: Hikaru, (Mother/Hikaru) (X2). ((unintelligible))	
561	((they go back inside.)) (.)	((they go back inside.)) (.)	
562	F: hikaru chan, chotto, asoko iko. soko iko, isshoni asoko iko, achi iko, achi.	F: Hikaru, hey, let's go over there. Let's go over there. Together let's go over there. Let's go over there, over there.	REG/ INTER
563	H: [ʃ] ((begins whispering this many times.)) [fa i], [fa i], [fa i], ((whispered))	H: [ʃ] ((begins whispering this many times.)) [fa i], [fa i], [fa i], ((whispered))	Pers
564	F: nani itteruno hikaru chan?	F: What are you saying?	HEUR

	(11th Data set, 8/9/98, 12:00 PM) H: 1;9.20.	(11th Data set, 8/9/98, 12:00 PM) H: 1;9.20.	(11th Data set)
565	F: hikaru chan, okasan wa?	F: Hikaru, where's mother?	HEUR
566	M: ((in background,)) hai, hikaru chan,	M: Yes (as if answering F). Hikaru.	INTER
567	H: [∧]?	H: [∧]?	Heur
568	F: sore nani?	F: What's that?	HEUR
569	M: kore nani? kore, banana taberu? ba to ittegoran, ba.	M: What's this? This. Do you want to eat a banana? Say, 'ba, ba.'	HEUR/ REG
570	H: ((laughs,)) [ba]. ((laughs again.))	H: ((laughs,)) [ba]. ((laughs again.))	Inter
571	M: ((laughs)) ba	M: ((laughs)) ba	INTER
572	F: ((laughs)) ierune,	F: ((laughs)) You can say it, can't you?	HEUR
573	M: banana.	M: banana.	INTER
574	H: ((laughs)) [ba]. ((laughs.))	H: ((laughs)) [ba]. ((laughs.))	Inter
575	F: ba	F: ba	INTER
576	M: ba ne,	M: 'ba,' isn't it?	HEUR
577	F: ((to B)) chotto terebi chotto yamete ima.	F: ((to B)) Hey, let's turn off the TV now.	REG
578	B: bideo nandakedo,	B: It's a video tape.	INFORM
579	F: rokuon owattara,	F: When the recording is over...	REG
580	B: chotto chisakusuru kara.	B: Well, I'll turn the volume down.	INFORM
581	F: oto kesundattara iiyo. oto sugoku chisakushitene,	F: It's ok if you turn off the volume. (Or) turn down the volume very low.	REG
582	B: n. kore, kore desho.	B: Uh huh, like this right.	INTER
583	F: n.	F: Uh huh.	INTER
584	F: hikaru chan,	F: Hikaru.	REG
585	H: [n] ((Sounds like a typical Japanese speaker saying 'Yes?'))	H: [n] ((Sounds like a typical Japanese speaker saying 'Yes?'))	Inter
586	F: n,	F: Uh huh.	INTER
587	M: ((in background)) hikaru chan, terebi miseteagetara shaberukamo, nanka,	M: ((in background)) Hikaru, if you show (him) the TV, he might say something.	INFORM
588	F: n.	F: Uh huh.	INTER
589	S: ((unintelligible))	S: ((unintelligible))	
590	B: a-?	B: Ah?	HEUR

591	F: daijobu daijobu,	F: Are you OK? Are you OK?	HEUR
592	B: are?	B: What?	
593	F: hai, oide, oide, hikaru chan.	F: OK, come, come, Hikaru.	REG
594	H: ((notices something on TV and shouts loudly,)) [aʔ]?	H: ((notices something on TV and shouts loudly,)) [aʔ]?	
595	F: a, hikaru chan suwattemiyo.	F: Oh, Hikaru, let's try to sit down (and watch TV).	REG
596	B: itai. ((H apparently did something to make B cry out.))	B: Ouch! ((H apparently did something to make B cry out.))	
597	F: ((softly)) hikaru chan gomenne, hikaru chan, takun ni gomenne te, (.) ((louder,)) hikaru chan ((louder still,)) hikaru chan. onichan ni gomennasaite, gomennasai.	F: ((softly)) Hikaru, say, 'sorry.' Hikaru, say sorry to Takun. (.) ((louder,)) Hikaru! Say you are sorry to your older brother, say, 'sorry!' (.)	REG
598	F: ((mentions that H is watching a cartoon on TV.))	F: ((mentions that H is watching a cartoon on TV.))	
599	H: ((laughs.)) [a]	H: ((laughs.)) [a]	Inter
600	((pause))	((pause))	
601	F: ((to B)) mo chotto okikushiteii takun, ((to H)) hikaru chan, suwatete, suwatete. hikaru chan, kochi no isu no ho ga ii janaino? sochi ga ii?	F: ((to B)) You can turn it up a little more, Takun. ((to H)) Hikaru, sit down, sit down. Hikaru, isn't this chair better (than that one)? Is that one better?	REG/ HEUR
602	H: [n]?	H: [n]?	Heur
603	F: shita ni suwatemoiiyo. soko ga ii no? tatcha dame, tatcha dame,	F: It's all right if you sit down (or) lower. There is better? Don't stand up! Don't stand up!	INTER/ REG
604	H: [do do do do do: do do do], ((singing.))	H: [do do do do do: do do do], ((singing.))	Pers
605	F: do desuka? do desuka?	F: 'Doh,' is it? 'Doh,' is it?	HEUR/INTER
606	H: [ti tau̯]. [tita]?	H: [ti tau̯]. [tita]?	Pers
607	F: chita, hai.	F: Cheetah, yes.	INTER
608	H: [dita].	H: [dita].	Inter
609	F: chita to ittano,	F: Did you say, 'cheetah?'	HEUR
610	H: [ta] ((chuckles)) [tita].	H: [ta] ((chuckles)) [tita].	Inter
611	F: so.	F: That's right.	INTER
612	M: hikaru chan, takun to ittegoran, takun doko. takun doko, achan doko, achan doko,	M: Hikaru, say, 'Takun.' Where's Takun? Where's takun? Where's Achan? Where's Achan?	REG/ HEUR

613	((brief pause while they wait for some response.))	((brief pause while they wait for some response.))	
614	F: achan doko hikaru chan, achan. achan to ittegoran. hikaru chan,	F: Where's Achan, Hikaru? Achan? Say, 'Achan.' Hikaru.	HEUR/ REG
615	M: hikaru chan iyaiya ieru, iyaiya,	M: Hikaru, you can say, 'iyaiya, iyaiya.'	INFORM/ INTER
616	F: hikaru, hikaru koko suwatte, koko ((taps chair)) sochi ga ii? n.	F: Hikaru, Hikaru, sit here. Here. ((taps chair)) Over there is better? Uh huh.	REG/HEUR/ INTER
617	((pause))	((pause))	
618	F: so iufu ni suwate, koyate, yarninasai, koyate, mae muitte, ko, so so so so so, (.) a to iutte hikaru, a to ittegoran	F: If you sit like that...do this, face forward, here, right right right right right. (.) Say, 'Ah' Hikaru, say, 'Ah.'	REG
619	H: ((laughs))	H: ((laughs))	
620	F: okochiru okochiru okochiru, maiku o kajiro to shiteimasu.	F: You'll fall, you'll fall you'll fall! He's trying to bite the mic.	INFORM
621	H: ((whispers something))	H: ((whispers something))	
622	F: mo chotto okikushiteiiyo	F: It's OK to speak more loudly.	REG/INTER
623	H: [n]	H: [n]	Inter
624	F: mo chotto ne,	F: A little more.	REG
625	((B and S begin arguing about something in background))	((B and S begin arguing about something in background))	
626	H: [a ə ə ə: ə ə ə: a ə ə ə:]	H: [a ə ə ə: ə ə ə: a ə ə ə:]	Pers
627	F: okasan to ittegoran,	F: Say, 'Mother.'	REG
628	H: [ə ə ə:]	H: [ə ə ə:]	Inter
630	F: asoko ni iru, okasan to ittegoran,	F: She's over there. Say, 'Mother.'	REG
631	M: hai.	M: Yes.	INTER
632	H: ((laughs))	H: ((laughs))	
633	F: okasan to ittegoran, yada,	F: Say, 'Mother.' You don't want to?	REG/ HEUR
634	H: [tu] [tuta tuta tatu tatu:] [ta tu]. [tabu:], [tatu: tu: ta:tu:] [f:] ((long and whispered many times)) [e] [tatu].	H: [tu] [tuta tuta tatu tatu:] [ta tu]. [tabu:], [tatu: tu: ta:tu:] [f:] ((long and whispered many times)) [e] [tatu].	Pers
635	F: hikaru chan, nobita to iu? nobita.	F: Can you say, 'Nobita?' 'Nobita?'	HEUR
636	M: ((in background)) nobita to ierunda.	M: He can say, 'Nobita.'	INFORM

637	F: nobita to ittegoran, wa to ittegoran, hikaru chan,	F: Say, 'Nobita.' Say, 'wa,' Hikaru.	REG
638	H: [wa] ((throws something,))	H: [wa] ((throws something,))	Inter
639	F: wa? to ittegoran,	F: Say, 'wa.'	REG
640	H: [wa]? [wa] [uwa]? [uwa].	H: [wa]? [wa] [uwa]? [uwa].	Inter?
641	M: hikaru chan [aʔaː] to itte,	M: Hikaru, say, '[aʔaː].'	REG
642	H: [aʔ to]	H: [aʔ to]	Inter?
643	F: kondo tsumiki no yo na omocha o nagete asondeimasu,	F: Now he is playing with block-like toys, throwing them.	INFORM
644	H: ((throws a block))	H: ((throws a block))	
645	F: a a a, abunai hikaru chan,	F: Ah, ah ah! That's dangerous, Hikaru.	INTER/ INFORM
646	H: ((squirms))	H: ((squirms))	
647	M: doshite, mo onaka suichattayone	M: What's wrong? You're hungry, aren't you?	HEUR
648	H: ((squirms))	H: ((squirms))	
649	M: onaka suita suita,	M: Hungry, hungry.	INTER
650	H: ((squirms))	H: ((squirms))	
651	M: chotto matte ne. ja gohan tabeyo.	M: Wait a minute. OK, let's eat.	REG/ INTER
652	H: ((squirms)) [əː]?	H: ((squirms)) [əː]?	Heur
653	M: n, onaka suita ne hikaru chan ne,	M: Uh huh, hungry, aren't you, Hikaru?	HEUR/ INTER
654	H: ((squirms))	H: ((squirms)).	
655	M: ja mata gohan, gohan tabete (toro) ne, a a a a, wakatta achi, kochi, ((something drops to the floor)) [ʧː] dayo, [ʧː], a, mizu ga,	M: OK, here's supper, eat, a a a a, I see. Over there, over here, ((something drops to the floor)) It's [ʧː], [ʧː], a, the water (boiled over/fell),	INFORM/ INTER
656	F: hikaru chan oide,	F: Hikaru come.	REG
657	((short pause))	((short pause))	
658	H: ((whispers something, then says)) [te to tu]?	H: ((whispers something, then says)) [te to tu]?	Pers
659	F: ((says that H is holding a violin now,)) kore violin. (.) hikaru chan, ba to itte, hikaru chan. ba to itte,	F: ((says that H is holding a violin now,)) This is a violin. (.) Hikaru, Say, 'ba,' say, 'ba.' ((laughs.))	INFORM/ REG
660	H: ((laughs.))	H: ((laughs.))	
661	F: okasan to itte, otosan to itte,	F: Say, 'Mother,' say, 'Father.'	REG
662	H: ((laughs.))	H: ((laughs.))	

663	M: ((in background,)) tosan, tosan, hikaru chan, takun, achan, hikaru chan,	M: ((in background)) Father, Dad, Hikaru, Takun, Achan, Hikaru.	INTER
664	F: hai to ittegoran hikaru chan, hikaru chan, hai to ittegoran,	F: Say, 'Yes,' Hikaru. Hikaru, say, 'Yes.'	REG
665	H: [aɪ].	H: [aɪ]. (Yes)	Inter
666	F: a, jozu jozu, hai moikai ittegoran,	F: Oh very good, very good. Say, 'Yes' once more.	INTER/ REG
667	H: ((laughs.))	H: ((laughs.))	
668	F: nani itterno, (.) ara, chotto torechatta anta. chotto, neji totchatteruyo. dame dame dame dame kore, (.) hikaru?	F: What are you saying? (.) What? You took it off! Hey, a screw came off. No, no, no, no, (.) Hikaru.	HEUR/ REG
669	H: ((squirms and starts crying))	H: ((squirms and starts crying))	
670	M: hikaru chan no dekita, hikaru chan tabeyoja, hai hikaru chan no, hai.	M: Hikaru's food is ready. Hikaru let's eat. OK, here's yours, Hikaru, Yes.	INFORM/ INTER
671	F: hikaru? oide, gohan.	F: Hikaru, come. Supper.	REG
672	H: [ʌʔ]? [ʌʔ]?	H: [ʌʔ]? [ʌʔ]?	Inter
673	F: ja, te arao, te.	F: OK, wash your hands, your hands.	REG
674	H: ((singing, grunts, washes hands.)) [ijaʔ ijaʔ ijaʔ]	H: ((singing, grunts, washes hands.)) [ijaʔ ijaʔ ijaʔ]	Pers
675	F: hai. te araimasho.	F: OK, let's wash our hands.	REG
676	M: [ɛja ɛja] desho.	M: It's [ɛja ɛja], right?	INTER/HEUR
678	F: n.	F: Uh huh.	INTER
679	H: [do doʔ] [do]	H: [do doʔ] [do]	Inter
680	F: hai, otete fuitte,	F: OK, wipe your hands.	REG
681	M: takun terebi keshitekite,	M: Takun, turn off the TV.	REG
682	H: [a]?	H: [a]?	Inter
683	B: doshite,	B: Why?	HEUR
684	M & F: mo gohan,	M & F: Supper.	REG
685	F: hai, keshite takun, hikaru chan, keshite, hai.	F: OK, turn it off, Takun, Hikaru, turn it off. OK.	REG
686	B: chotto, pawa oshite,	B: Wait! Push the Power (button).	REG
687	S: pawa pawa,	S: Power, Power.	INFORM
688	H: [awa].	H: [awa].	Inter
689	F: a, pawa to ittano ima,	F: Oh, you said 'Power' just now.	INFORM/ INTER

	(12th Data set, 8/12/98, 2:50 PM) H: 1;9.23.	(12th Data set, 8/12/98, 2:50 PM) H: 1;9.23.	(12th Data set)
670	H: [ta ta ta] (X3)	H: [ta ta ta] (X3)	Pers
671	B: ((singing and shouting))	B: ((singing and shouting))	
672	F: takun, chotto shizukanishite,	F: Takun, hey, please be quiet.	REG
673	B: ((continues singing, but more quietly))	B: ((continues singing, but more quietly))	
674	F: ((to the mic)) kyo wa chotto kaimono ni ittatame hirugohan osokunari, ima osohiru o tabeyo to shiteimasu ((to H)) hikaru chan, mata utatte,	F: ((to the mic)) Because we went shopping a little, lunch is late. We are getting ready to eat a late lunch. ((to H)) Hikaru, sing again some more.	INFORM/ REG
675	H: [da da da:], [da da da:], ((laughs.))	H: [da da da:], [da da da:], ((laughs.))	Pers
676	F: hai, jozu jozu. ((laughs))	F: Yes, very good!	INTER
677	H: [da da da:], [da da da:],	H: [da da da:], [da da da:],	Pers
678	S: ((shouts in background))	S: ((shouts in background))	
679	F: chotto achan shizukani. hikaru chan jozu dane.	F: Hey, Achan, be quiet. Hikaru is very good.	REG/ INTER
680	H: [da da],	H: [da da],	Pers
681	F: a, maiku tabenai de kudasai	F: Ah, please don't eat the mic.	INTER/REG
682	H: [da da da:], (X3)	H: [da, da, da:], (X3)	Pers
683	B & S: ((laughing at H's singing.))	B & S: ((laughing at H's singing.))	
684	H: [da da da:] (X6)	H: [da da da:] (X6)	Pers
685	F: hikaru mo tabete iiyo	F: Hikaru, it's ok to eat.	INTER
686	B & S: ((talking loudly in background.))	B & S: ((talking loudly in background.))	
687	H: [da da da:] (X2) (.) [da da da:] (X4)	H: [da da da:] (X2) (.) [da da da:] (X4)	Pers
688	((short pause. Very noisy in background. B & S are having a loud lunch!))	((short pause. Very noisy in background. B & S are having a loud lunch!))	
689	F: hikaru chan, pipi to itte, ((pause,)) hikaru chan, pipi to itte,	F: Hikaru, say, 'pipi.' ((pause,)) Hikaru, say, 'pipi.'	REG
690	H: [pipi pipi]	H: [pipi pipi]	Inter
691	F: a, jozu.	F: Oh, very good.	INTER

692	((dinner noises take over on the tape. Only grunts heard between mouthfuls of food.))	((dinner noises take over on the tape. Only grunts heard between mouthfuls of food.))	

	(13th Data set A, 8/14/98) Damaged tape. No usable data.	(13th Data set A, 8/14/98) Damaged tape. No usable data.	
	(13th Data set B, 8/21/98, 10:20 AM) H: 1;10.01	(13th Data set B, 8/21/98, 10:20 AM) H: 1;10.01	(13th Data set B)
693	F: kochi kara yobu. kochi kara. kochi kara oide, hikaru chan.	F: Call from this way. This way. Come this way, Hikaru.	REG
694	H: ((squirming))	H: ((squirming))	
695	M: mado no tokoro kara yomeba ii janai,	M: Isn't it better to call from the window area?	REG/ HEUR
696	F: n, takun to koko kara yondegoran? hora, ta-kun-? Te	F: OK, call to Takun from here. Look, say, 'Takun!'	REG
697	M: ne mado o akete yonde,	M: Hey, open the window and call.	REG
698	F: ((to H)) oide? ((opens the door)) hai, yonde ja.	F: ((to H)) Come. ((opens the door)) OK, call him.	REG
699	H: [ati], [ati], [ati], ((all high-pitched throughout this part))	H: [ati], [ati], [ati], ((all high-pitched throughout this part))	Reg
700	F: ita, takun,	F: He's there, Takun.	INFORM
701	H: [ati], (.) [ati],	H: [ati], (.) [ati],	Reg
702	F: ita?	F: Was he there?	HEUR
703	H: [n]? [ati] (X8) ((H seems to want to go where the other children are.))	H: [n]? [ati] (X8) ((H seems to want to go where the other children are.))	Reg
704	F: oide,	F: Come.	REG
705	H: [ati, ati], ((Some other children come over to H and F. Then they go back inside.))	H: [ati, ati], ((Some other children come over to H and F. Then they go back inside.))	Reg
706	H: ((squeals with what sounds like displeasure, then...)) [ati]	H: ((squeals with what sounds like displeasure, then...)) [ati]	Reg
707	F: okasan to ittegoran,	F: Say, 'Mother.'	REG
708	M: nani? ((responding as if H had called her, not F.))	M: What? ((responding as if H had called her, not F.))	INTER
709	H: [ati], (X5)	H: [ati], (X5)	Reg
710	M: takun (te), hikaru chan, takun,	M: Say, 'Takun,' Hikaru, 'Takun.'	REG
711	F: ((to H)) sochi wa dame, mushi ga haite, mushi ga haite,	F: ((to H)) Not that way. A bug came in, a bug came in.	REG/ INFORM
712	M: ((to H)) iya dane, iyaiya, a-otosan ga boku no koto o wakatekurenai,	M: ((to H)) It's disgusting. No, no! Ah, Father doesn't understand me (H) at all.	INFORM/ INTER

713	((pause))	((pause))	
714	F: baton no yo na omocha de asondeimasu. hikaru. ((H drinks some juice here)) hikaru. (.) hikaru oide, hikaru.	F: He is playing with a baton-like toy. ((to H)) Hikaru, ((H drinks some juice here)) Hikaru, Hikaru come here.	INFORM/ REG
715	M: a,	M: Ah.	
716	F: pipi naiteruyo,	F: Pipi is crying/peeping.	INFORM
717	H: ((children are heard playing nearby)) [a:] ((very long here)) [ati] (X6)	H: ((children are heard playing nearby)) [a:] ((very long here)) [ati] (X6)	Reg
718	M: chacha ni itte, hai te. chacha itte,	M: Go to Chacha, say, 'Here you go'. Say, 'Chacha.'	REG
719	H: [ati], (X2)	H: [ati], (X2)	Reg
720	F: hora --- no ojisan hora, yondegoran hora, hello te,	F: Look, it's Mr. ---. Call to him. Look, say, 'Hello.'	REG
721	M: hai ittete hai.	M: Ok, say it.	REG
722	F: tomodachi desho, furidorihi. hai te hikaru chan,	F: Your friend, right? Freidrich. Say, 'Here you go.'	REG
723	H: [aʔn],	H: [aʔn],	Pers/Inter
724	F: a ((a big noise in background)) hikaru chan halo te,	F: Ah! ((a big noise in background)) Hikaru, say, 'Hello.'	REG
725	H: [ati]	H: [ati]	Reg
726	F: mata te o futte ano ojisan ni,	F: Again, wave to that man.	REG
727	H: [ati] (X11) [aʔ]	H: [ati] (X11) [aʔ]	Reg
728	M: a, kita kita kita	M: Ah, he's here (X3).	INFORM
729	((Brother returns from school.))	((Brother returns from school.))	
730	H: ((laughs))	H: ((laughs))	
731	M: kita ne?	M: He's here, isn't he?	INFORM
732	B: ((to M)) mata, n, ne mata che… mata sa nanika kashite te iuttandayo	B: ((to M)) Again, uh huh. Hey, again the chai(n)… Again he's asking to borrow something.	INFORM
733	M: kashiteagetara,	M: Then lend him (it).	REG
734	H: [ati]	H: [ati]	Reg
735	F: takun ga kimenasai?	F: Takun, you decide.	REG/INTER
736	M: ((to B,)) takun, hai to iuteagete, takun takun to iu, hikaru chan yonderu kara. hai to iuteagete,	M: ((to B)) Takun, say, 'yes.' When Hikaru calls 'Takun, Takun' say, 'Yes.'	REG
737	B: hai.	B: Yes.	

738	M: a, hai datte, onichan, hikaru chan, hai to itte, hai? hikaru chan? nani o yatteno, a bachi bachi yo	M: Ah, he said 'yes,' your older brother. Hikaru, say, 'yes, yes.' What are you doing? Ah, that's dirty.	INFORM/ HEUR/ INTER
739	F: bachi yo bachi yo kore bachi	F: It's dirty, it's dirty, this thing.	INFORM
740	H: [aʔn]?	H: [aʔn]?	Inter/Heur
741	M: hai to iuteagete takun, ta-kun-?	M: Takun, answer, 'Yes.' Ta-kun-.	REG
742	B: ha-i. (As if he is responding to H's calling him.)	B: Yes. (As if he is responding to H's calling him.)	INTER
743	M: ta-kun to hikaru chan ga yondete toki ni ha-i to iuteageteyo	M: When Hikaru calls 'Takun,' answer him.	REG
744	B: ha-i,	B: Yes.	INTER
745	M: chigau ima yondenaiyo, mo zenzen wakatenai dakara	M: No, he hasn't called you yet! Oh, you don't understand at all!	INTER
746	((some noise here from S))	((some noise here from S))	
747	H: [aʔn]	H: [aʔn]	Inter
748	B: ha-i,	B: Yes.	INTER
749	M: a, moikai takun to iutte hikaru chan	M: Ah, say, 'Takun' once more, Hikaru.	REG
750	H: [taʔn]	H: [taʔn]	Inter
751	B: ha-i,	B: Yes.	INTER
752	H: ((laughs)) [ha i]	H: ((laughs)) [ha i]	Inter
753	B: ha-i,	B: Yes.	INTER
754	H: [aɪ]	H: [aɪ]	Inter
755	F: jozu jozu	F: Very good!	INTER
756	H: [aʔn] [hai]	H: [aʔn] [hai]	Inter
757	F: a, jibun de	F: Ah, by yourself...	REG
758	H: [aɪ aɪ]	H: [aɪ aɪ]	Inter
759	F: sore bachi kara yamete hikaru,	F: Hikaru, that's dirty. Stop it!	REG
760	H: [ati] [aɪ] [aɪ aɪ aɪ pu, aː (very long) ita],	H: [ati] [aɪ] [aɪ aɪ aɪ pu, aː (very long) ita],	Inter/Pers
761	M: ita.	M: He's there.	INFORM
762	H: [tu].	H: [tu].	Inter
763	M: ita ga dekita, ita.	M: You were able to say, 'He's there.'	INFORM/ INTER
764	H: [ta].	H: [ta].	Inter
765	M: ita.	M: 'He's there.'	REG/INTER
766	H: [aɪ] [tuː] (very long)	H: [aɪ] [tuː] (very long)	Inter
767	F: katen de asondeimasu,	F: He's playing with the curtain.	INFORM

768	H: [ta].	H: [ta].	Inter
769	M: ita.	M: 'He's there.'	REG/INTER
770	H: ((laughs)) [ta].	H: ((laughs)) [ta].	Inter
771	M: ita, ita,	M: 'He's there. He's there.'	REG/INTER
772	H: [ta]	H: [ta]	Inter
773	M: inai inai ita.	M: He's not there, not there, he's there!	INTER
774	H: [ba].	H: [ba].	Inter
775	M: ba.	M: ba.	INTER
776	H: [ba]. ((laughs,)) [ba, ba, ba], ((laughs,)) [ba] ((laughs)) [ta ta]. (.) ((other children heard playing,)) [ati] (X4) (.) [aʔ aʔ] (.) [ati].	H: [ba]. ((laughs,)) [ba, ba, ba], ((laughs,)) [ba] ((laughs)) [ta ta]. (.) ((other children heard playing,)) [ati] (X4) (.) [aʔ aʔ] (.) [ati].	Inter/Reg
777	((in background B is heard talking to M. This discussion becomes prevalent here.))	((in background B is heard talking to M. This discussion becomes prevalent here.))	
778	B: ((talking about lending something to a friend))	B: ((talking about lending something to a friend))	
779	F: kaishitekureru? chanto. shiranaiyo? hora, bachi hikaru,	F: Will he bring it back? Properly? I'm not so sure. Hey! That's dirty, hikaru.	HEUR/ INTER
780	M: ((to B)) nani kashiteno,	M: ((to B)) What are you lending?	HEUR
781	B: chen de kusari,	B: 'Chain'…a chain.	INFORM
782	M: a, are, chanto buringubakushite to iuta,	M: Ah, that. Did you properly tell him to bring it back?	HEUR
783	B: shita. shita yo.	B: I did. I did.	INFORM
784	M: puromisu te iuta (.) ja, hayaku yachao, okasan miteteagerukara.	M: Did he promise? (.) OK, hurry up and do it. I'll watch you	HEUR/ REG
785	F: hai, dewa kyo wa owarinasu,	F: OK, that's all for today.	INFORM

	(14th Data set, 8/24/98, 9:00 AM) H: 1;10.04.	(14th Data set, 8/24/98, 9:00 AM) H: 1;10.04.	(14th Data set)
786	H: ((drinking juice.))	H: ((drinking juice.))	
787	F: hikaru chan, papa to itte,	F: Hikaru, say, 'Papa.'	REG
788	H: [ba ba]. ((laughs.))	H: [ba ba]. ((laughs.))	Inter
789	F: hikaru chan, pipi doko itchatta, pipi?	F: Hikaru, where did Pipi go? Where's Pipi?	HEUR
790	H: [ʌ]?	H: [ʌ]?	Heur
791	F: pipi wa? achi ittadame. tondeitchatta,	F: Where's Pipi? Don't go that way. It flew away.	HEUR/REG/ INFORM
792	H: [pi pi] ((gruff voice, laughs)) [pi]	H: [pi pi] ((gruff voice, laughs)) [pi]	Inter
793	F: tondeitchatta.	F: (It) flew away.	INFORM
794	H: ((laughs,)) [pipi]	H: ((laughs)) [pipi]	Inter
795	F: pipi doko itchattane? takun doko? takun,	F: Where did Pipi go? Where is Takun?	HEUR
796	H: [ati]?	H: [ati]?	Inter
797	M: takun gakko itchatta.	M: Takun went to school.	INFORM
798	H: [ati]? [ati]?	H: [ati]? [ati]?	Inter
799	F: [akun], takun gakko itchatta.	F: [akun], Takun went to school.	INFORM
800	H: [a:pi]?	H: [a:pi]?	Inter
801	F: onechan doko? onechan? ((pause,)) achi? kochi?	F: Where is your sister? Sister? ((pause,)) That way? This way?	HEUR
802	H: [a] [a] [pipi]?	H: [a] [a] [pipi]?	Inter
803	F: pipi. okasan doko, okasan, ((F walks over to M and says,)) a, ita.hai, ita to ittegoran? (.) hikaru chan, pipi doko pipi. hikaru chan, pipi doko?	F: Pipi. What about Mother? ((F walks over to M and says,)) Ah, (She's) here. Hikaru, where's Pipi? (X2)	HEUR
804	H: [aʔ] (.)	H: [aʔ].	Inter
805	F: hikaru chan oide, otosan to ittegoran, ienai?	F: Hikaru come here. Say, 'Father.' Can't you say it?	REG/ HEUR
806	H: ((has the hiccups))	H: ((has the hiccups))	
807	F: takun wa ierundane?	F: You can say, 'Takun,' can't you?	INTER/ HEUR
808	H: [hɛ]?	H: [hɛ]?	Heur?
809	F: inaiyo pipi. itchatta pipi.	F: Pipi is not there. Pipi is gone.	INFORM
810	H: [pipi]? [əʔ]? [pipi]. ((grunts and squirms.))	H: [pipi]? [əʔ]? [pipi]. ((grunts and squirms.))	Pers

811	F: dame dame dame dame dame. (.) hikaru chan, haro to ittegoran. hai te ittegoran,	F: No, no, no, no, no. Hikaru, say, 'hello.' Say, 'Yes.'	REG
812	H: [aɪ?, aɪ, aɪ: aɪ], (.)	H: [aɪ?, aɪ, aɪ: aɪ], (.)	Inter
813	F: dame, keshite dame. (.) a, kura no soba ni imasu. (.)	F: No. Don't shut it off. (.) Ah, he is beside the cooler (air conditioner.)	REG/ INFORM
814	H: ((laughs,)) [da] ((laughs))	H: ((laughs,)) [da] ((laughs))	Pers
815	F: maiku o tsukamo to shite, a maiku o tsukandeshimaimashita, kowareru kowareru, haro to itte	F: He's trying to grab the mic. Ah, he grabbed the mic. It will break, it will break. Say, 'hello.'	INFORM/ REG
816	H: [aɪ]	H: [aɪ]	Pers
817	F: takun wa takun wa.	F: What about 'Takun?' (X2)	REG
818	H: [i:jakun] [ati, pipi pipi pipi], (.) [u u u u u] (X4) ((up and down intonation,))	H: [i:jakun] [ati, pipi pipi pipi], (.) [u u u u u] (X4) ((up and down intonation,))	Inter/Pers
819	F: baton no yo na mono o furimawashite asondeimasu.	F: He is playing with a baton-like thing, swinging it around.	INFORM
820	H: [u u u] [u u u u u] ((louder)) [uwawawawawaw] ((uttered many times, some faster some slower, up and down intonation)) ((laughs,)) (.) [ija ija, uwawawaw], [it:a it:a it:a] (X2)	H: [u u u] [u u u u u] ((louder)) [uwawawawawaw] ((uttered many times, some faster some slower, up and down intonation)) ((laughs,)) [ija ija, uwawawaw], (.) [it:a it:a it:a] (X2)	Inter/Pers
821	F: ((to S)) achan, kecha dame, achan dame yo, hikaru chan dame yo, ((gives H some juice,)) oishi? umai?	F: ((to S)) Achan, don't kick. Achan, that's bad. Hikaru, that's bad. ((gives H some juice,)) Delicious? Yummy?	REG/ HEUR
822	H: ((squirming))	H: ((squirming))	
823	F: do mo onechan to umaku ikimasen. onechan wa jibun no omocha o motte, hoka no heya nigeteshimaimashite.	F: For some reason he's not getting on well with his sister. Sister has taken her own toys and run away to another room.	INFORM
824	H: ((squirms))	H: ((squirms))	
825	F: a a, onechan itchatta,	F: Ah, ah, Sister left.	INFORM
826	((after a pause, in the background a 'pee pee' sound is emanating from a small toy.))	((after a pause, in the background a 'pee pee' sound is emanating from a small toy.))	
827	F: de, omocha no pipi no koe desu ((sound is heard again)) pipi ita.	F: That's the sound of the Pipi toy, ((sound is heard again)) Pipi is there.	INFORM
828	H: ((chuckles, then a bump is heard))	H: ((chuckles, then a bump is heard))	

829	F: a a a, kyotsukete hikaru chan. yoromeite, kabeni atama o butsukete shimaimashita. (.) mata jusu o nondeimasu. ringo jusu o nanbai ni mo usumeta, usui jusu desu. (.) oishi?	F: Ah, ah, ah! Be careful Hikaru. Staggering, he bumped his head on the wall. (.) He is drinking juice again. It's diluted apple juice. Weak juice. (.) Delicious?	REG/ INFORM/ HEUR
830	((all this time the 'pee pee' sounds continues nonstop))	((all this time the 'pee pee' sounds continues nonstop))	
831	H: [ə ə ə ə ə ə]	H: [ə ə ə ə ə ə]	
832	F: umai?	F: Yummy?	HEUR
833	H: [ə a ə] ((squeals a little here, then)) [do do do, do do do, do do do] ((hums to himself)) (.) [mimi mimi mimi mimi mimi mimi mimi]	H: [ə a ə] ((squeals a little here, then)) [do do do, do do do, do do do] ((hums to himself)) (.) [mimi mimi mimi mimi mimi mimi mimi]	Pers
834	F: ((unclear)) no omocha de asobihajimemashita. (.) onechan ga pipi no omocha o motte asondeimasu. ((the sound stops then restarts))	F: ((unclear)) started playing with some toy. (.) Sister has taken the Pipi toy and is playing with it. ((the sound stops then restarts))	INFORM

	(15th Data set, 8/30/98, 8:50 PM) H: 1;10.10.	(15th Data set, 8/30/98, 8:50 PM) H: 1;10.10.	(15th Data set)
835	M: hikaru, hikaru, kore restamin de, restamin iranai ima. otosan to itte, totan, totan.	M: Hikaru, Hikaru, this is Restamin (drug). We don't need Restamin now. Say, 'Father. Dad, Dad.'	INFORM/ REG
836	F: hikaru chan, hai te ittegoran (.) hikaru chan, moshi moshi, haro to itte,	F: Hikaru, say, 'Yes.' (.) Hikaru, say, 'Hello (as when picking up the telephone),' say, 'hello.'	REG
837	M: hado.	M: 'Hello.'	REG
838	F: hikaru, haro. hikaru.	F: Hikaru, (say), 'hello,' Hikaru.	REG
839	M: arigato? iiko da?	M: Thank you. What a good child!	INTER
840	F: hikaru chan haro,	F: Hikaru, hello.	REG
841	M: hikaru chan tsume nobiteimasuka?	M: Hikaru, are your fingernails long?	HEUR
842	F: kino kittadesho, hikaru chan wa.	F: Hikaru had them cut yesterday, right?	INFORM
843	M: e. sore ni shitemo nanka te no tsume ga daibu nobitetayone,	M: Right. In spite of that, his fingernails seem to have grown a lot.	INFORM
844	F: are takun datta (kana), moshi moshi, hikaru chan, e? kino kitta tomon, are chigau. moshi moshi. hikaru, ima okasan tsume o kitte moratteimasu. chokin chokin to ittegoran,	F: What? Was that Takun? Hikaru, hello, hello. What? I thought they were cut yesterday. No? Hello, hello, Hikaru. Now Mother is cutting his fingernails for him. Say, 'chokin, chokin.' (cutting sounds)	HEUR/ INFORM/ REG
845	M: chokin. kochi wa, chokin, chokin, chokin,	M: 'chokin.' What about this one? 'chokin, chokin, chokin, '	HEUR/ INTER
846	F: uwa. dainamiku ni kirundane!	F: Wow! You're cutting dynamically!	INFORM
847	H: [ti].	H: [ti].	Inter
848	M: a, choki datte, chokin.	M: Ah, that was 'choki', 'chokin.'	INFORM
849	F: chokin to itta ima,	F: You said, 'chokin' just now?	HEUR
850	M: n. choki. chokin (X3) a kondo kochi kochi kochi ((to S)) chotto mate achan, ((to H)) chokin chokin	M: Uh huh. 'choki. chokin' (X3) Ah, next, this one, this one, this one. ((to S)) Wait a minute Achan, ((to H)) 'chokin chokin.'	INFORM/ REG/ INTER
851	H: [n].	H: [n].	Inter
852	M: n? kondo kochi, a kondo koko da.	M: What? Next, this one. Ah, the next one is here.	HEUR/ INTER

853	F: hikaru chan, kore kittehoshino?	F: Hikaru, do you want this cut?	HEUR
854	H: ((squirms))	H: ((squirms))	
855	M: ashi?	M: Your foot (toenails are meant)?	HEUR
856	F: ashi ga ii no?	F: Your foot (toenails) is ok?	HEUR
857	M: ashi? ashi kiru,	M: Your foot? You want me to cut your toenails?	HEUR/ INTER
858	F: un to itteyo. ashi kittehoshino,	F: Say, 'uh huh.' Do you want your toenails cut?	REG/ HEUR
859	H: [n] [n] [n] ((squirms))	H: [n] [n] [n] ((squirms))	Inter
860	M: a kore hai hai, kore? kore kiruno,	M: Ah, this one ok ok. This one? You want this one cut?	INFORM/ HEUR
861	H: [n].	H: [n]. (Uh huh.)	Inter
862	M: wakkata wakkata wakkata. natto no nyoi ga suru (no) hikaru no ashi.	M: OK, OK, OK. Hikaru's foot smells like natto (fermented soy beans.)	INFORM/ INTER
863	F: hikaru chan. ikutsu, hikaru chan, nansai?	F: Hikaru, how old are you? How old are you?	HEUR
864	M: kondo kochi. kochi nobiteruyo, chokin. chokin. chokin. chokin. chokin. chokin.	M: Next, this one. This one is getting long. 'chokin. chokin. chokin. chokin. chokin. chokin.'	INFORM
865	H: ((squirms))	H: ((squirms))	
866	M: kondo kore wa, koko wa nobitenai mo zenbu kitta?	M: Next this one. This one's not long. Have all been cut?	INFORM/ HEUR
867	H: [n]?	H: [n]?	Inter/Heur?
868	M: a kore de, nobiteta hora, chokin, chokin? hai dore da, ato	M: Ah, this one…is long, look. 'chokin, chokin?' Yes, any others?	INFORM/ HEUR
869	F: ((to B)) takun haburashishita?	F: ((to B)) Takun, did you brush your teeth?	HEUR
870	M: chokin,	M: 'chokin,'	
871	B: onaka ga itai,	B: My stomach hurts.	INFORM
872	M: tabesugida.	M: You overate.	INTER
873	F: haburashishinasai, haburashi,	F: Brush you teeth. Brush.	REG
874	M: chokin?. chokin?. ne hikaru chan, hikaru chan nani ga suki nandake terebi… ((the tape stops mid-sentence))	M: 'chokin?. chokin?.' Hey, Hikaru is there something on TV you like… ((the tape stops mid-sentence))	INFORM/ INTER/ HEUR
875	F: hikaru chan, nani kore, hikaru chan,	F: Hikaru, what's this? Hikaru.	HEUR
876	H: [n]?	H: [n]?	Inter/Heur?

877	F: hikaru chan kore nani,	F: Hikaru, what's this?	HEUR
878	M: kore nani, kore nani, kore nandake.	M: What's this? What's this? What's this supposed to be?	HEUR
879	F: hikaru chan, kore nani,	F: Hikaru, what's this?	HEUR
880	H: [n]?	H: [n]?	Inter/Heur?
881	M: kore nani, kore.	M: What's this? This.	HEUR
882	H: [n] [n] [n]?	H: [n] [n] [n]?	Inter/Heur?
883	M: pappa? pappa?	M: 'pappa? pappa?'	HEUR
884	F: moikai ittegoran, pappa, pappa to itte,	F: Say it again, 'pappa, pappa.'	REG
885	M: pappa,	M: 'pappa,'	REG
886	H: ((exhales deeply.))	H: ((exhales deeply.))	
887	F: hikaru chan nani ima no. hikaru, hikaru, nani ima no, sore.	F: Hikaru, what was that? Hikaru, Hikaru, what was that just now?	HEUR
888	((B & S enter the scene))	((B & S enter the scene))	
889	M: ((reading a book and showing the pictures to H,)) poppo, poppo, a, kore nani, a kore nani, poppo (de), hikaru chan, poppo, poppo, densha poppo.	M: ((reading a book and showing the pictures to H,)) 'poppo poppo' Ah, what's this? What's this? 'poppo' Hikaru, the train says, 'poppo.'	HEUR/ INFORM
890	F: ((to M)) ne tsuki no koto nantoiundake,	F: ((to M)) Say, what do you call 'tsuki?'	HEUR
891	M: moon.	M: Moon.	INFORM
892	F: chigau, tsuki wa chikyu no nandake,	F: No. The moon is earth's what?	HEUR
893	M: eisei.	M: Satellite.	INFORM
894	F: eisei da, eisei ga ippai janai,	F: A satellite. There are many satellites, right?	HEUR
895	B: chigau.	B: No. (That's wrong.)	INTER
896	F: kore nani, kore nani,	F: What's this? What's this?	HEUR
897	M: sh sh poppo, sh sh poppo,	M: 'sh sh poppo, sh sh poppo,'	INFORM
898	H: [poppo] ((whispered,))	H: [poppo] ((whispered,))	Inter
899	M: poppo,	M: 'poppo,'	INTER
900	H: [po] ((whispered))	H: [po] ((whispered))	Inter
901	M: poppo, ((to S)) chotto mate ne? ((to H)) hikaru chan, otosan to iuwanaino? totan. hikaru chan? sakura chan. takun. takun wa hikaru chan,	M: 'poppo,' ((to S)) Wait a minute, OK? ((to H)) Hikaru, won't you say 'Father? Dad. Hikaru? Sakura. Takun. Takun, Hikaru.'	INTER/ HEUR
902	F: itte, kore nani, kore,	F: Say it. What's this? This.	REG/HEUR

903	M: takun, poppo,	M: 'Takun, poppo,'	INTER/REG
904	F: hikaru chan kore nani, (.) a, maiku de asobihajimeteshimaimashita.	F: Hikaru, what's this? (.) Ah, he's begun playing with the mic.	HEUR/ INFORM
905	M: sonna koto suru kara kowarechaon.	M: The reason it breaks is because you do that sort of thing.	INFORM/ INTER
906	F: kore nani, kore. poppo? kore nani, kore nani,	F: What's this? This. 'poppo? What's this? What's this?	HEUR
907	H: [papa],	H: [papa],	Inter
908	F: jozu jozu, poppo.	F: Very good! 'poppo.'	INTER
909	M: hikaru chan, otosan to itte, totan,	M: Hikaru, say, 'Father. Dad.'	REG
910	F: so iu tsumori arimasen.	F: He does not intend to do that.	INFORM
911	M: totan ieruyo, nantonaku, hikaru chan, totan to itte,	M: You can say, 'Dad,' sort of. Hikaru, say, 'Dad.'	REG
912	M: ja, okasan ga sakura chan to yobu kara sakura chan henjishitene, achan, hai to itte,	M: OK, Mother is going to call (you) Sakura, so Sakura answer, OK? Achan, say, 'Yes.'	INTER/ REG
913	S: hai.	S: Yes.	INTER
914	M: takun, takun,	M: Takun, Takun,	INTER
915	F: henjishinasai	F: Answer!	REG
916	M: takun,	M: Takun,	INTER
917	F: takun, henjishinasai.	F: Takun, answer!	REG
918	B: hai.	B: Yes.	INTER
920	M: otosan,	M: Father.	INTER
921	F: hai.	F: Yes.	INTER
922	M: hikaru chan,	M: Hikaru.	INTER
923	H: ((laughs.))	H: ((laughs.))	
924	F: nottekimasen,	F: He's not playing along.	INFORM
925	M: takun, takun,	M: Takun, Takun,	INTER
926	F: hanno ga arimasen,	F: There's no reaction.	INFORM
927	B: hai.	B: Yes.	INTER
928	M: achan,	M: Achan,	INTER
929	S: hai.	S: Yes.	INTER
930	M: otosan,	M: Father,	INTER
931	F: hai.	F: Yes.	INTER
932	M: hikaru chan, ((laughs.))	M: Hikaru, ((laughs.))	INTER
933	H: ((laughs softly.))	H: ((laughs softly.))	
934	M: hikaru chan, hai to iutte,	M: Hikaru, say, 'Yes.'	REG
935	H: ((laughs softly.))	H: ((laughs softly.))	
936	M: hikaru chan,	M: Hikaru,	INTER

937	B: hai.	B: Yes.	INTER
938	M: takun,	M: Takun,	INTER
939	B: hai.	B: Yes.	INTER
940	M: [aːtʃan],	M: [aːtʃan],	INTER
941	S: hai.	S: Yes.	INTER
942	M: otosan,	M: Father,	INTER
943	F: hai.	F: Yes.	INTER
944	M: hikaru chan,	M: Hikaru,	INTER
945	H: ((laughs more loudly.))	H: ((laughs more loudly.))	
946	M: hikaru chan,	M: Hikaru,	INTER
947	H: ((laughs again.))	H: ((laughs again.))	
948	((background noise increases.))	((background noise increases.))	
949	F: kuchi wa aiterundakeredomo...	F: His mouth is open, but…	INFORM
950	M: warate hai to iutteruyo	M: He's laughing and saying, 'Yes.'	INFORM
951	F: ((to B)) chotto dame dame	F: ((to B)) Hey, that's bad, that's bad.	INTER/ REG
952	M: chotto a.	M: Hey! Ah,	INTER
953	B: motto chikaku ni yatteikanai to dame dayo.	B: You have to do this closer.	INFORM/ REG
954	H: [haɪ],	H: [haɪ],	Inter
955	M: hikaru chan,	M: Hikaru,	REG
956	H: [haɪʔ]	H: [haɪʔ]	Inter
957	M: takun,	M: Takun,	INTER
958	B: hai.	B: Yes.	INTER
959	M: otosan,	M: Father,	INTER
960	F: hai.	F: Yes.	INTER
961	M: hikaru chan iutte? otosan. totan.	M: Hikaru, say it, 'Father, Dad.'	REG
962	F & B: ((talking together in background. This part is noisy.))	F & B: ((talking together in background. This part is noisy.))	
963	M: takun wa,	M: 'Takun?'	REG
964	F: hikaru chan, hai, ((to B)) chotto yamete. ((to H)) hikaru chan,	F: Hikaru, 'yes,' ((to B)) Just a minute. ((to H)) Hikaru,	REG
965	B: [tekin taːnu]	B: [tekin taːnu] (Take turns.)	INFORM
966	F: dame dame, hikaru,	F: No! No! Hikaru,	REG
967	M: kore wonwon. a, pipi ga iru, pipi,	M: This is a bow-wow (dog). Ah, pipi is there, pipi.	INFORM

968	H: [pipi]	H: [pipi]	Inter
969	M: a pipi,	M: Ah, pipi,	INTER
970	F: ((to B)) doite, doite, doite chotto dame ima, jama	F: ((to B)) Move, move, move. Hey, not now! You're in the way.	REG
971	M: ((whispered to B)) takun, takun chotto hikaru no … ((unclear))	M: ((whispered to B)) Takun, Takun. Hey, Hikaru's … ((unclear))	REG
972	H: ((whispered)) [pipi] [pipi] ((loudly)) [pipi]	H: ((whispered)) [pipi] [pipi] ((loudly)) [pipi]	Inter
973	F: a jozu jozu	F: Ah, very good!	INTER
974	M: pipi ne? kore ne? ((to S)) iino hayaku hikaru ni papi … ((unclear))	M: It's pippi, isn't it? This, right? ((to S)) That's alright, hurry up and (give) papi to Hikaru…((unclear))	INTER/ HEUR/ REG
975	H: [ati]?	H: [ati]?	Reg
976	F: kore nani hikaru chan.	F: What's this, Hikaru?	HEUR
977	H: [papa]	H: [papa]	Inter
978	M: papa ne densha poppo	M: It's papa, isn't it? Train, 'poppo.'	INTER/ HEUR
979	H: [papa]?	H: [papa]?	Inter
980	M: papa ne, a hikaru chan kore nani, a itai? nani, kore nani,	M: Papa, right? Ah, Hikaru, what's this? Ah, ouch! What? What's this?	HEUR
981	H: [aʔ] [pipi aʔ].	H: [aʔ] [pipi aʔ].	Inter
982	M: pipi janai,	M: Not 'pipi.'	INTER
983	F: kore nani, kore	F: What's this? This.	HEUR
984	M: papi wa. hikaru no papi wa,	M: 'papa?' What about Hikaru's papi?	REG/ HEUR
985	H: [papi] [pipi]	H: [papi] [pipi]	
986	F: kore nani kore, kore nani hikaru chan, ((to B)) ne chotto iino sonnakoto shinakute, ((to H)) kore nani, hikaru chan kore nani? ((in background S is talking softly to M))	F: What's this, this? What's this, Hikaru? ((to B)) Hey, that's OK, you don't have to do that. ((to H)) What's this? Hikaru, what's this? ((in background S is talking softly to M))	HEUR
987	((brief pause))	((brief pause))	
988	F: sore nani, papi?	F: What is it? Papi?	HEUR
989	H: [n]. ((B comes closer to help F & H.))	H: [n]. ((B comes closer to help F & H.))	Inter

990	F: ((to B)) takun iroiro arigatone? demo ima yarenakuteii, warawasenakuteiikara arigato ne takun.	F: ((to B)) Takun, thanks for everything, but right now you don't have to do that. You don't have to make him laugh, but thanks.	INFORM/ INTER
991	H: ((laughs and squeals))	H: ((laughs and squeals))	
992	F: kore dare kore dare ((to B)) mo iino takun iino,	F: Who's this? Who's this? ((to B)) That's alright, that's alright.	HEUR/ INTER
993	M: warawaserunjanaino.	M: We aren't making him laugh.	INFORM
994	F: koe dasenai to ikenai. kotoba o iuwanakute ikenaiyo.	F: We must make him speak out. He must say some words.	INFORM
995	M: hikaru chan kore nani, hikaru, hikaru papi wa. papi.	M: Hikaru, what's this? Hikaru, 'papi?' Papi.	HEUR/ REG
996	H: ((laughs))	H: ((laughs))	
997	F: takun…to itterundesho?	F: You can say, 'Takun,' right?	INTER
998	H: ([papi])	H: ([papi])	
999	M: papi wa, papi doko ni iru, hikaru chan papi doko ni iru, papi wa	M: Papi? Where's papi? Hikaru, where's papi? Papi?	HEUR
1000	F: ((to B)) ii kara, iino tsukerarenai no hikaru ni wa,	F: ((to B)) It's OK. You don't have to turn it on for Hikaru.	INFORM/ INTER
1001	B: doshite	B: Why?	HEUR
1002	F: ijichao kara hikaru wa akachan dakara?	F: Because he is … Because Hikaru is a baby.	INFORM
1003	M: namechate doro ga tsuitara. taihen na koto,	M: If he licks it, and dirt gets on it, it will be a terrible thing.	INFORM
1004	F: so da yo kowarechaon dakara,	F: That's right. It will break.	INFORM
1005	H: [otʃi]? [pipi].	H: [otʃi]? [pipi].	Heur/Inter
1006	F: pipi janai, papi, ((to B)) ne chotto yamete to itterun.	F: Not pipi, papi. ((to B)) Hey! I said stop it.	INTER/ REG
1007	H: [papi]?	H: [papi]?	Heur
1008	M: a iutte papi te,	M: Ah, you said it, 'papi.'	INTER
1009	B: hikaru kun?	B: Hikaru.	HEUR
1010	M: papi?	M: Papi.	HEUR
1011	B: hai.	B: Yes.	INTER
1012	M: papi, papi doko da, papi	M: Papi. Where's papi? Papi.	HEUR
1013	B: iyaiya. hai?	B: 'iyaiya,' Yes.	INTER
1014	H: ((humming))	H: ((humming))	
1015	B: hikaru chan, hi-karu chan, hikaru chan ha-a-i,	B: Hikaru. Hi-karu. Hikaru. Ye—s.	INTER
1016	M: takun	M: Takun.	INTER
1017	H: [atʃ],	H: [atʃ],	Inter

1018	S: ((to M, unclear))	S: ((to M, unclear))	
1019	B: achi to itta ima yo,	B: He just said, 'that way.'	INFORM
1020	H: [atʃ:],	H: [atʃ:],	Inter
1021	M: achi wa nanda.	M: What's '[atʃi]?'	HEUR/INTER
1022	B: hikaru chan, takun? takun?	B: Hikaru. Takun? Takun?	REG
1023	S: ((tries to make H laugh))	S: ((tries to make H laugh))	
1024	F: ((to S)) iino sore yarenakute	F: ((to S)) It's OK, you don't have to do that.	REG/ INTER
1025	M: oisu? oisu wa. oisu desho	M: The chair? The chair? The chair, right?	HEUR
1026	H: [n]?	H: [n]?	Heur
1027	M: sore keiki. keiki? oisu wa dore, kore.	M: That's a cake. Cake? Which is the chair? This?	INFORM/ HEUR
1028	((pause))	((pause))	
1029	F: sore nani. ((to B & S)) ne chotto shizukanishiteyo tanomu kara, ((to H)) kore nani, kore.	F: What's that? ((to B & S)) Hey, please be quiet, I beg you. ((to H)) What's this? This?	HEUR/ REG/ HEUR
1030	H: ((cries out loudly))	H: ((cries out loudly))	
1031	M: okotteruyo.	M: He's angry.	INFORM
1032	F: kore nani.	F: What's this?	HEUR
1033	M: dame desu, jibun de suki de iretendakara,	M: That's bad! Put it where you like it by yourself.	INTER/ REG
1034	((pause))	((pause))	
1035	F: hikaru chan haro to itte.	F: Hikaru, say, 'hello.'	REG
1036	H: [dotʃi]?.	H: [dotʃi]?.	Heur
1037	M: dochi. a, kore tsume haiten gomen	M: Which? Ah, (my) fingernail was in there, sorry.	HEUR/ INTER
1038	H: ((squirms))	H: ((squirms))	
1039	M: hikaru chan, (.) hikaru chan, totan to iutte,	M: Hikaru. (.) Hikaru, say, 'Dad.'	REG
1040	B: totan.	B: Dad.	INTER
1041	M: tosan,	M: Dad.	INTER
1042	F: hai.	F: Yes.	INTER
1043	M: otosan,	M: Father.	INTER
1044	F: hai.	F: Yes.	INTER
1045	M: totan to iutte, totan to iutte hikaru chan,	M: Say, 'Dad,' say, 'Dad,' Hikaru.	REG
1046	F: so iu kibun janaiyone	F: It seems he doesn't have the desire for that (saying Dad.)	INFORM
1047	H: ((laughs))	H: ((laughs))	
1048	M: ja takun wa,	M: OK, Takun?	INTER

1049	H: [taʔn]	H: [taʔn]	Inter
1050	M: a takun, moikai iutte,	M: Ah, Takun. Say it once more.	REG
1051	H: [aʔn]	H: [aʔn]	Inter
1052	M: ((to B)) hai to itte,	M: ((to B)) Say, 'Yes.'	REG
1053	B: hai.	B: Yes.	INTER
1054	H: [haʔn] [ha i]	H: [haʔn] [ha i]	Inter
1055	B: hai. hai.	B: Yes, Yes.	INTER
1056	M: takun	M: Takun.	INTER
1057	H: ((grunts))	H: ((grunts))	
1058	S: hikaru chan,	S: Hikaru,	INTER
1059	M: hikaru chan, takun to itte	M: Hikaru, say, 'Takun.'	REG
1060	H: ((humming, then walks away))	H: ((humming, then walks away))	
1061	((pause here; several futile attempts to engage H, then...))	((pause here; several futile attempts to engage H, then...))	
1062	F: mo owarinisuru? hikaru chan.	F: Shall we stop now? Hikaru.	INTER/HEUR
1063	M: hikaru chan totan iuwanaino?	M: Hikaru, won't you say, 'Dad?'	INTER/ HEUR
1064	F: ((loudly)) tosan to itte,	F: ((loudly)) Say, 'Dad!'	REG
1065	H: ((whispered)) [ta]	H: ((whispered)) [ta]	Inter
1066	M: a, moikai tosan, totan to itte,	M: Ah, once more, 'Dad.' Say, 'Dad.'	REG
1067	H: ((whispered)) [ta]	H: ((whispered)) [ta]	Inter
1068	M: ((chuckles)) moikai iutte, motto okii koe de,	M: ((chuckles)) Say it once more. In a louder voice.	REG
1069	F: ((loudly)) tosan to okii koe de,	F: ((loudly)) Say, 'Dad' in a loud voice!	REG
1070	M: totan,	M: Dad.	INTER
1071	F: itte,	F: Say (it.)	REG
1072	H: ((whispered)) [ta]	H: ((whispered)) [ta]	Inter
1073	M: doiu, sore museion de iuwake, itsumo iutterunja, totan,	M: What's that? That's voiceless! You are always saying, Dad.	HEUR/ INFORM
1074	H: ((whispered)) [ta]	H: ((whispered)) [ta]	Inter
1075	M: so so, totan, totan wa,	M: That's right. Dad. Dad?	INTER/REG
1076	H: ((grunts))	H: ((grunts))	
1077	M: a, ittakatta? ja otosan ni douzo to iutte kore. douzo te agete?	M: Ah, did it hurt? Well then, say, 'Here you go' to Father. Say, 'Here you go.'	HEUR/ REG
1078	F: dame kyo wa kore de owarinishimasu.	F: It's no good. That's all for today.	INFORM

1079	H: [tʌ] (.) [ʤi]? [ʤa]. [ʤi]? [ʤa]. [doʔ].	H: [tʌ] (.) [ʤi]? [ʤa]. [ʤi]? [ʤa]. [doʔ].	Pers
1080	M: ((coughs))	M: ((coughs))	
1081	F: owaro to shitara chotto shaberihajimeimashita.	F: When we decided to stop, he began to talk.	INFORM
1082	M: iyaiya ((coughs))	M: 'iyaiya' ((coughs))	REG
1083	H: ((hums)) [hai] [do] [iu]	H: ((hums)) [hai] [do] [iu]	Pers/Inter
1084	M: ((coughs))	M: ((coughs))	
1085	F: zatsuon ga oii desu. ((pause)) owarimasu.	F: There is a lot of noise. ((pause)) That's all.	INFORM
1086	((short break))	((short break))	
1087	H: [uwa uwa uwa]	H: [uwa uwa uwa]	Pers
1088	F: hai, iiyo to itte hikaru chan.	F: Yes, say, 'OK,' Hikaru.	REG
1089	H: [ijo].	H: [ijo].	Inter
1090	F: hai, jozu jozu iiyo to itte, hai. so so.	F: Yes, very good! Say, 'OK.' Yes. That's right.	INTER/ REG
1091	H: [ijo].	H: [ijo].	Inter
1092	F: owaro to omottara mata shaberihajimemashita.	F: Just when we think it's over, he begins talking again.	INFORM
1093	H: ((loudly,)) [ijo].	H: ((loudly,)) [ijo].	Inter
1094	M: iiyo.	M: '[ijo]'	INTER
1095	H: ((laughs,)) [ijo ijo] (X3) (laughs,)) [ijo] (X5) [a].	H: ((laughs,)) [ijo ijo] (X3) (laughs,)) [ijo] (X5) [a].	Inter/Pers
1096	F: kore nani, hikaru chan. kore nani,	F: What's this, Hikaru? What's this?	HEUR
1097	M: papi.	M: papi.	INFORM
1098	H: [pa pi].	H: [pa pi].	Inter
1099	M: papi ne, papi.	M: Its' papi, isn't it? Papi.	HEUR/INTER
1100	H: [papi].	H: [papi].	Inter
1101	M: iko iko, iko iko, papi kun naiteruyo.	M: Nice boy. Nice boy. Papi is crying.	INTER
1102	F: kore nani, kore,	F: What's this? This.	HEUR
1103	H: ((laughs.))	H: ((laughs.))	

	(16th Data set, 8/30/98, Later that evening) H: 1;10.10.	(16th Data set, 8/30/98, Later that evening) H: 1;10.10.	(16th Data set)
1104	M: totan to itte,	M: Say, 'Dad.'	REG
1105	H: ((high-pitched,)) [to ta].	H: ((high-pitched,)) [to tan].	Inter
1106	M & F: moikai.	M & F: Once more.	REG
1107	H: [to taʔ]	H: [to taʔ]	Inter
1108	F: totan to itte,	F: Say, 'Dad.'	REG
1109	H: [to ta a a a a a] (.) [to ta, to ta],	H: [to ta a a a a a] (.) [to ta, to ta],	Inter
1110	F: hai.	F: Yes.	INTER
1111	H: [to ta],	H: [to ta],	Inter
1112	F: hai.	F: Yes.	INTER
1113	H: ((laughs.))	H: ((laughs))	
1114	F: takun wa,	F: What about (saying), 'Takun?'	INTER/REG
1115	H: [aʔn]	H: [aʔn]	Inter
1116	F: hai, moikai,	F: Yes, once more.	REG
1117	H: [aʔn]	H: [aʔn]	Inter
1118	F: hai.	F: Yes.	INTER
1119	M: okasan wa,	M: What about (saying), 'Mother?'	INTER/ REG
1120	F: okasan wa,	F: What about (saying), 'Mother?'	INTER/ REG

	(17th Data set, 9/8/98, 9:40 PM) H: 1;10.19.	(17th Data set, 9/8/98, 9:40 PM) H: 1;10.19.	(17th Data set)
1121	F: otosan sukiyo to itte,	F: Say, 'Father, I like/love you.'	REG
1122	M: hikaru chan, otosan no koto suki?	M: Hikaru, do you like Father?	HEUR
1123	H: [kja]	H: [kja]	Inter
1124	M: otosan de totan to itte,	M: For Father say, 'Dad.'	REG
1125	F: tosan sukiyo,	F: Daddy, I like you.	INTER
1126	M: totan wa, totan.	M: What about (saying), 'Dad' 'Dad?'	REG/ INTER
1127	F: totan to itte,	F: Say, 'Dad.'	REG
1128	H: (do da) ((too close to mic, so this is quite distorted.))	H: (do da) ((too close to mic, so this is quite distorted.))	Inter
1129	F: hai. sukiyo,	F: Yes, I like you.	INTER
1130	H: [ski jo]	H: [ski jo]	Inter
1131	F: hai.	F: Yes.	INTER
1132	M: totan wa,	M: What about, 'Dad?'	REG/INTER
1133	F: tosan, sukiyo,	F: Dad, I like you.	REG
1134	H: [dowa, duwa],	H: [dowa, duwa],	Inter
1135	F: sukiyo to itte,	F: Say, 'I like you.'	REG
1136	H: [kjo:]	H: [kjo:]	Inter
1137	F: dai suki to itte,	F: Say, 'I really like you!'	REG
1138	H: [aɪʧ]	H: [aɪʧ]	Inter
1139	M: ya, yatta? to itte,	M: OK, say, 'Hooray!'	REG
1140	H: [ɾata]	H: [ɾata]	Inter
1141	M: yatta? to itte,	M: Say, 'Hooray!'	REG
1142	H: [jata]?	H: [jata]?	Inter
1143	M: he-?	M: Well!	
1144	F: jozu jozu	F: Very good!	INTER
1145	M: hikaru chan tsugi wa rakki to iutte?	M: Hikaru, next say, 'lucky.'	REG
1146	S: ((in background says,)) rakki.	S: ((in background says,)) Lucky.	INTER
1147	F: ((to S,)) achan, shizukanishite.	F: ((to S,)) Achan, be quiet.	REG
1148	M: hikaru chan moikai [ɾak:i],	M: Hikaru, once more, '[ɾak:i],'	REG
1149	S: rakki,	S: Lucky.	INTER
1150	F: hikaru chan [ɾak:i] to itte,	F: Hikaru, say, '[ɾak:i].'	REG
1151	M: hikaru [ɾak:i] to itte,	M: Hikaru, say, '[ɾak:i].'	REG
1152	H: [ɾaʧɪ]	H: [ɾaʧɪ]	Inter

1153	M: he--, dekita dekita dekita. ja hikaru chan, one? two? three? to itte,	M: Well, you did it, you did it, you did it. OK then, Hikaru say, 'one? two? three?'	INTER/ REG
1154	H: [i]?	H: [i]?	Inter
1155	M: jozu desune, ((spoken very enthusiastically.))	M: Very good, aren't you? ((spoken very enthusiastically.))	INTER
1156	F: ((telling B to be quiet.))	F: ((telling B to be quiet.))	
1157	M: one, two, three,	M: One, two, three,	REG
1158	H: ([i]?)	H: ([i]?)	Inter
1159	M: four, five, ((to S,)) matte. ja, hikaru chan ni one two three to iutte agete,	M: Four, five, ((to S,)) Wait. OK then, say 'one two three' for him.	REG
1160	F: ichi ni san de iindayo. (i.e. in Japanese).	F: It's OK to count one, two, three (in Japanese).	INTER
1161	S: one two three. one two three four five wa irenaikana.	S: One two three. I wonder if we can't put in 'One two three four five.'	INTER
1162	M: hikaru chan, ichi ni san shi, ((to S,)) a, nani yattenno, ((to H)) a, hikaru nani kore,	M: Hikaru, 'one two three four' ((to S,)) Ah, what are you doing? ((to H)) Ah, Hikaru, what's this?	REG/ HEUR
1163	F: hikaru chan, sukiyo to itte,	F: Hikaru, say, 'I like you.'	REG
1164	H: ([i])[jo]	H: ([i])[jo]	Inter
1165	M: daisuki to itte,	M: Say, 'I really like you.'	REG
1166	H: [ʧa]	H: [ʧa]	Pers/Inter
1167	M: cha, cha, abu,abu,abu, abunai	M: cha, cha, (stuttering) Dangerous.	INFORM/ INTER
1168	S: a abura	S: Ah, oil.	INTER
1169	M: abu abu te iute	M: Say, 'abu abu.'	REG
1170	S: abui.	S: 'abui.'	INTER
1171	M: abu abu	M: 'abu abu'	REG
1172	F: achan shizukani	F: Achan, be quiet.	REG
1173	H: [u u u]	H: [u u u]	Pers
1174	M: bua bua to itten saki	M: Just before you were saying, 'bua bua.'	INTER
1175	H: [hu hu]	H: [hu hu]	Inter
1176	M: hora bua bua, abu abu te, abu abu to iutte? abu abui abui abui to iutte? abui abui.	M: See? 'bua bua.' Say, 'abu abu,' say, 'abu abu.' Say, 'abu abui abui abui.' 'abui abui.'	REG
1177	S: abui.	S: 'abui.'	INTER
1178	F: ((unclear)) abui abui to itte	F: ((unclear)) Say, 'abui abui.'	REG
1179	H: [waʔ]	H: [waʔ]	Pers

1180	M: a? moikai abui abui. abui abui.	M: Ah? Once more, 'abui abui. abui abui.'	REG
1181	H: ((laughs))	H: ((laughs))	
1182	F: [ɾakːi] to itte hikaru chan, yatta? to itte,	F: Say, '[ɾakːi],' Hikaru. Say, 'Hooray.'	REG
1183	H: [da da].	H: [da da].	Inter
1184	F: [ɾakːi] wa,	F: What about, '[ɾakːi]?'	REG/INTER
1185	H: [ʌʧi].	H: [ʌʧi].	Inter
1186	M: achi,	M: That way.	REG
1187	F: dai suki wa,	F: What about, 'I really like you?'	REG/ INTER
1188	M: dai suki.	M: I really like you.	REG
1189	F: hikaru chan, sukiyo.	F: Hikaru, I like you.	REG
1190	H: [ʧio]	H: [ʧio]	Inter
1191	F: dai suki.	F: I really like you.	REG
1192	H: [ʧio]	H: [ʧio]	Inter
1193	M & F: sukiyo ka,	M & F: 'I like you,' is it?	INTER/HEUR
1194	F: dai suki,	F: I really like you.	REG
1195	M: hikaru, takun wa, takun	M: Hikaru, what about 'Takun, Takun?'	REG/ INTER
1196	H: [aʔn],	H: [aʔn],	Inter
1197	M: takun,	M: Takun,	REG
1198	H: [aʔn],	H: [aʔn],	Inter
1199	F: takun sukiyo te.	F: Say, 'Takun, I like you.'	REG
1200	H: [ijo], [tijo]	H: [ijo], [tijo]	Inter
1201	M: dai? suki,	M: I really like you.	INTER/REG
1202	H: [ijo ijo skijo],	H: [ijo ijo skijo],	Inter
1203	M: hikaru chan, uma to ienai ne, uma.	M: Hikaru, can't you say, 'horse, horse?'	INTER/ HEUR/REG
1204	H: [pua].	H: [pua].	Inter
1205	M: pua janai, uma.	M: Not 'pua,' 'horse.'	INTER/REG
1206	H: [pua].	H: [pua].	Inter
1207	M: uma.	M: Horse.	REG/INTER
1208	H: [pua].	H: [pua].	Inter
1209	M: ja, poppo wa	M: OK then, what about, 'poppo?'	INTER/ REG
1210	H: [papa]	H: [papa]	Inter
1211	M: poppo, poppo,	M: 'poppo, poppo,'	REG
1212	H: [popo]	H: [popo]	Inter
1213	M: kisha poppo,	M: The train says, 'poppo.'	INFORM

1214	F: haro wa, haro, haro to itte,	F: What about 'hello?' (X2) Say, 'hello, hello.'	INTER/ REG
1215	H: [hado:].	H: [hado:].	Inter
1216	F: haro wa,	F: What about, 'hello?'	INTER/REG
1217	H: [halo].	H: [halo].	Inter
1218	F: a, jozu jozu. sukiyo,	F: Ah, very good! I like you.	INTER
1219	H: [dʒa].	H: [dʒa].	Pers
1220	F: dai suki, dai suki, hikaru chan dai suki wa, hikaru chan, dai suki to ittegoran, dai suki,	F: I really like you (X2). Hikaru, can you say, 'I really like you?' Say, 'I really like you. I really like you.'	INTER/ REG
1221	H: [n]? [n]?	H: [n]? [n]?	Heur
1222	F: sukiyo. sukiyo.	F: I like you. (X2)	INTER/REG
1223	H: [n]?	H: [n]?	Heur
1224	F: moii?	F: Is that/Have you had enough?	HEUR
1225	H: [n].	H: [n].	Inter
1226	F: owari?	F: Finished?	HEUR
1227	H: [n].	H: [n].	Inter
1228	M: hai to iutte	M: Say, 'yes.'	REG
1229	H: [hai]	H: [hai]	Inter
1230	F: ja owarinishimasu.	F: OK then, we're finished.	INFORM

	(18th Data set, 9/15/98, 8:40 PM) H: 1;10.26.	(18th Data set, 9/15/98, 8:40 PM) H: 1;10.26.	(18th Data set)
1231	((nearby M is reading a book to B & S))	((nearby M is reading a book to B & S))	
1232	F: hikaru chan, kore nani,	F: Hikaru, what's this?	HEUR
1233	H: [baʔ].	H: [baʔ].	Inter
1234	F: bo desuka,	F: It's 'bo,' is it?	HEUR
1235	H: [n].	H: [n].	Inter
1236	F: so desuka.	F: Is that right?	HEUR
1237	M: baibai to iutte,	M: Say, 'baibai.'	REG
1238	H: [baʔ ba:]	H: [baʔ ba:]	Inter
1239	M: chigau chigau, kyo ietajanai.	M: No, No! Today you said it.	INTER/ INFORM
1240	F: jozu jozu, baibai to ittegoran,	F: Very good! Say, 'baibai.'	INTER/REG
1241	M: bai?	M: Bai?	REG
1242	F: bai bai wa,	F: What about,'bai bai?	INTER/REG
1243	H: [n]? [n]? [baʔ] [n]? [n]? ((excited?))	H: [n]? [n]? [baʔ] [n]? [n]? ((excited?))	Inter/Pers
1244	F: n, ba ba ne? hikaru chan, haro to itte, haro wa,	F: Uh huh, it's 'ba ba,' isn't it? Hikaru, say, 'hello.' 'Hello?'	HEUR/ REG
1245	H: [ʌʔ wɪ]	H: [ʌʔ wɪ]	Pers
1246	F: hikaru chan haro wa?	F: Hikaru what about, 'hello?'	REG/HEUR
1247	H: [aʔ pi]	H: [aʔ pi]	Pers
1248	F: sore bun bun,	F: That's bun bun,	INFORM
1249	H: [ba ba bo]	H: [ba ba bo]	Inter
1250	F: baibai to itte (.) hikaru chan, baibai to itte?	F: Say, 'bye-bye.' (.) Hikaru, say, 'bye-bye?'	REG
1251	M: ((reading a book, she addresses H,)) hikaru chan sa, chikin to itte, chikin,	M: ((reading a book, she addresses H,)) Um, Hikaru, say, 'chicken, chicken.'	REG
1252	F: ima chotto nodo ga kawaite, jusu o nondeimasu.	F: Now he is a bit thirsty. He is drinking some juice.	INFORM
1253	M: ((continues reading the book))	M: ((continues reading the book))	
1254	F: baibai to itte, mada jusu nomuno? chikin to itte,	F: Say, 'bye-bye.' Do you still want to drink some juice? Say, 'chicken.'	REG/ HEUR
1255	H: [di].	H: [di].	Inter
1256	F: moikai, chikin,	F: Once more, 'chicken.'	REG
1257	H: [ʤi ʤi]	H: [ʤi ʤi]	Inter

1258	F: a jozu jozu. moikai, chikin,	F: Ah, very good! Once more, 'chicken.'	INTER/ REG
1259	H: [ʤi ʤi]	H: [ʤi ʤi]	Inter
1260	F: hai hai, jozu jozu, ja, baibai wa	F: Yes, yes. Very good! Then, 'bye-bye.'	INTER/ REG
1261	H: [baʔ ba]	H: [baʔ ba]	Inter
1262	F: baibai.	F: Bye-bye.	REG
1263	M: baibai to itteru.	M: You are saying, 'bye-bye.'	INTER
1264	H: [ba baɪ]	H: [ba baɪ]	Inter
1265	M: so. babai ne, babai moikai itte, babai, babai. doshite hikaru chan, tsukaretano?	M: Right. Bye-bye. Say, 'bye-bye' once more. 'Bye-bye. Bye-bye.' What's wrong, Hikaru? Are you tired?	INTER/ REG/ HEUR
1266	((M continues reading a book to the other children for a while then turns back to H,))	((M continues reading a book to the other children for a while then turns back to H,))	
1267	F: hikaru chan, haro wa?	F: Hikaru, hello?	INTER/REG/ HEUR
1268	H: [haui] ((loud gruff growl.)) (X2)	H: [haui] ((loud gruff growl.)) (X2)	Pers?
1269	F: nani sore, hai wa?	F: What's that? Yes?	HEUR/REG
1270	H: [haɪ] (high-pitched) (X3) ((laughs,)) [aɪ] ((laughs.))	H: [haɪ] (high-pitched) (X3) ((laughs,)) [aɪ] ((laughs.))	Inter
1271	F: poppo to itte hikaru chan, poppo? hikaru chan, poppo wa, hikaru chan, poppo wa,	F: Say, 'poppo,' Hikaru, 'poppo.' Hikaru, 'poppo?' Hikaru, 'poppo?'	REG
1272	M: ((continues reading.))	M: ((continues reading.))	
1273	F: hikaru chan, haro to itte, haro. (.)	F: Hikaru, say, 'hello, hello.' (.)	REG
1274	M: hikaru chan, papa to itte, papa	M: Hikaru, say, 'papa, papa.'	REG
1275	H: [haɪ] ((laughs,)) [aɪ]	H: [haɪ] ((laughs,)) [aɪ]	Inter
1276	M: hikaru chan,	M: Hikaru.	INTER
1277	H: [a ta],	H: [a ta],	Inter
1278	S: achan to itta mitai.	S: It seems he said, 'Achan.'	INFORM
1279	F: takun wa,	F: Takun?	REG
1280	H: [aʔn].	H: [aʔn].	Inter
1281	F: takun.	F: Takun.	INTER
1282	H: [aʔn].	H: [aʔn].	Inter
1283	F: achan,	F: Achan,	INTER
1284	H: ((laughs between drinks of juice.))	H: ((laughs between drinks of juice.))	

1285	M: totan sukiyo to itte, totan sukiyo to itte mata, hikaru chan.	M: Say, 'Dad, I like you.' Again, say, 'Dad, I like you,' Hikaru.	REG
1286	H: [aʔn] ((the final [n] is held for some time giving the overall utterance a gruff quality.))	H: [aʔn] ((the final [n] is held for some time giving the overall utterance a gruff quality.))	Inter
1287	M: [aʔn] janai, totan,	M: Not [aʔn], 'Dad.'	INTER/REG
1288	H: [aʔn]. ((again, [n] held for a long time.))	H: [aʔn]. ((again, [n] held for a long time.))	Inter
1289	M: totan	M: Dad.	INTER/REG
1290	H: [to ta]	H: [to ta]	Inter
1291	M: totan sukiyo	M: Dad, I like you.	INTER/REG
1292	H: [to ta ʃi]	H: [to ta ʃi]	Inter
1293	F: sukiyo	F: I like you.	INTER/REG
1294	H: [ʃi jo]	H: [ʃi jo]	Inter
1295	M: dandan chigattekitane. a, mata nonderu. totan, sukiyo, (.)	M: It's gradually getting different, isn't it? (.) Dad, I like you.	HEUR/ REG
1296	M: hikaru chan, chizu to itte, chizu, hikaru chan ga suki na mono,	M: Hikaru, say, 'cheese, cheese.' The thing that Hikaru likes.	REG/ INTER
1297	H: [i] ((this sound is held for quite a long time, then he squeals.))	H: [i] ((this sound is held for quite a long time, then he squeals.))	Pers
1298	M: chigau.	M: No/That's wrong.	INTER
1299	F: chizu wa, chizu,	F: Cheese? Cheese.	REG
1300	M: chizu to itte, chiya desho, chiya. chiya iutte, hikaru chan, chizu,	M: Say, 'cheese.' It's 'chiya', right? 'chiya.' Say, 'chiya.' Hikaru, 'cheese.'	REG
1301	H: ((laughs.))	H: ((laughs.))	
1302	F: chiya,	F: 'chiya.'	REG
1303	H: [a ja ta].	H: [a ja ta].	Pers
1304	M: nani iutteno.	M: What are you saying?	HEUR
1305	F: nani iutteno ima,	F: What are you saying now?	HEUR
1306	H: ((squeals,)) [da], [a]? [a].	H: ((squeals,)) [da], [a]? [a].	Pers
1307	M: jizasu to itte, jizasu,	M: Say, 'Jesus, Jesus.'	REG
1308	F: hikaru chan, jizasu to itte, jizasu,	F: Hikaru, say, 'Jesus, Jesus.'	REG
1309	M: hikaru chan, nan no hon to ikuno, poppo no hon to iku no, poppo no hon,	M: Hikaru, which book do you want to take with you? Do you want Poppo's book? Poppo's book?	HEUR
1310	H: [po] ((whispered.))	H: [po] ((whispered.))	Inter

1311	M: poppo no hon o mottekite ja. soko janai desho, kochi desho. poppo no hon wa soko ni aru ja nai. haiyaku tottekite,	M: Then bring Poppo's book. Not over there. This way, right? Poppo's book is not there. Hurry up and get it.	REG
1312	H: [n].	H: [n].	Inter
1313	M: bideo janai. hon. (.)	M: Not the video, the book. (.)	INTER/REG
1314	H: ((grunts and squirms a bit))	H: ((grunts and squirms a bit))	
1315	M: hikaru chan, poppo no hon wa,	M: Hikaru, where's Poppo's book?	HEUR
1316	F: hikaru chan, pappa wa, haro wa, hikaru chan, haro.	F: Hikaru, 'pappa? Hello?' Hikaru, 'hello?'	REG
1317	H: [ba], [n]?	H: [ba], [n]?	Heur?
1318	M & F: ((simultaneously,)) a, hikoki ne.	M & F: ((simultaneously,)) Ah, an airplane, isn't it?	INTER
1319	M: bun dane, [buːn]?	M: It goes 'bun,' doesn't it? [buːn]?	INTER
1320	H: [n] [ba]? [n] [bu:]?[n]?	H: [n] [ba]? [n] [bu:]?[n]?	Inter
1321	M: bun dane, [buːn]?	M: It goes 'bun,' doesn't it? [buːn]?	INTER
1322	F: jozu jozu.	F: Very good!	INTER
1323	M: hikoki [buːn]? dane,	M: The airplane goes '[buːn]?' doesn't it?	INTER
1324	((at this point M begins reading S a book about butterflies (chocho, in Japanese), and after reading about 20 seconds and saying the word 'chocho' several times, H says...))	((at this point M begins reading S a book about butterflies (chocho, in Japanese), and after reading about 20 seconds and saying the word 'chocho' several times, H says...))	
1325	H: [ʤoʤo]	H: [ʤoʤo]	Inter
1326	M & F: ((M & F simultaneously shout,)) a? chocho desuka? jozu.	M & F: ((M & F simultaneously shout,)) What? Is it a butterfly? Very good!	HEUR/ INTER
1327	S: moikai iute,	S: Say it again.	REG
1328	M & F: chocho,	M & F: Butterfly.	INTER
1329	H: ((laughs,)) [doᵘ doᵘ] ((spoken slowly.))	H: ((laughs,)) [doᵘ doᵘ] ((spoken slowly.))	Inter
1330	M & F: ((laugh.))	M & F: ((laugh.))	
1331	M: kyo hajimete ittene, chocho wa ne.	M: Today is the first time he's said butterfly.	INFORM
1332	H: [doː doː doː] ((shouts many times then,)) [do doː].	H: [doː doː doː] ((shouts many times then,)) [do doː].	Inter
1333	M: chocho ne,	M: A butterfly, isn't it?	INTER

1334	H: [ʤoʤo] ((high pitched,))	H: [ʤoʤo] ((high pitched,))	Inter
1335	F: kore ga chocho.	F: This is a butterfly.	INFORM
1336	H: [ʤoʤo] ((softly,)) (.) [aʔ] [ʤoʤo] (X3) ((loudly,))(.)	H: [ʤoʤo] ((softly,)) (.) [aʔ] [ʤoʤo] (X3) ((loudly,))(.)	Inter
1337	((M keeps reading a book for several minutes.))	((M keeps reading a book for several minutes.))	
1338	F: hai. kyo de kore owarinishimasu.	F: OK, that's all for today.	INFORM
1339	H: ((squirms and fusses.))	H: ((squirms and fusses.))	
1340	F: mada yaruno,	F: You want to do more?	HEUR
1341	H: [n].	H: [n].	Inter
1342	F: ja, chocho.	F: OK then, (say), 'butterfly.'	REG
1343	H: [ʤoʤo] [aʔ].	H: [ʤoʤo] [aʔ].	Inter

	(19th Data set, 9/20/98, 6:00 PM) H: 1;11.00.	(19th Data set, 9/20/98, 6:00 PM) H: 1;11.00.	(19th Data set)
1344	F: ((comments that H is eating grapes. F is trying to get H to say various words)) hikaru chan, oishi? oishi? oishi desuka, hikaru chan, takun to itte, takun wa,	F: ((comments that H is eating grapes. F is trying to get H to say various words)) Hikaru, is it delicious? Is it delicious, Hikaru? Say, 'Takun. Takun?'	HEUR/ REG
1345	H: [aʔn],	H: [aʔn],	Inter
1346	F: akun, hai. ja otosan wa,	F: Yes 'akun.' OK then, 'Father.'	INTER/REG
1347	H: [to ta],	H: [to ta],	Inter
1348	F: hai, hai, jozu, okasan wa,	F: Yes, yes, very good! 'Mother?'	INTER/ REG
1349	H: [to ta],	H: [to ta],	Inter/Pers
1350	F: tosan desuka. achan wa,	F: It's 'Father,' is it? 'Mother?'	INTER/REG
1351	H: [ti da͡ʊ]	H: [ti da͡ʊ]	Inter/Pers
1352	F: achan sukiyo to ittano, hai, tosan, sukiyo.	F: Did you say, 'I like Achan'? Yes, 'Dad, I like you.'	HEUR/ REG
1353	H: [to ta tsi jo],	H: [to ta tsi jo],	Inter
1354	F: hai jozu jozu, jozu jozu (.) totte to ittegoran, totte.	F: Yes, very good, very good! (.) Say, 'take it, take it.'	INTER/ REG
1355	H: [totan],	H: [totan],	Inter/Pers
1356	F: chocho ieru, chocho. chocho iitakunai?	F: You can say butterfly, butterfly. Don't you want to say, 'butterfly?'	INTER/ HEUR
1357	H: [n].	H: [n].	Inter
1358	F: so. hikaru chan nansai,	F: I see. Hikaru, how old are you?	INTER/ HEUR
1359	H: [n]	H: [n]	Pers
1360	F: issai. haro to itte, hikaru chan, haro wa, (.) hikaru chan, haro wa, (.) hikaru? haro wa, haro. haro. ((F comments that H is playing with some blocks.)) hikaru chan, haro wa, haro.	F: One year. Say, 'hello,' Hikaru, 'hello.' (.) Hikaru, 'hello?' Hikaru? 'Hello?' 'Hello, hello.' ((F comments that H is playing with some blocks.)) Hikaru, 'hello?' 'Hello.'	REG
1361	H: [n], ((held for a long time with falling intonation.))	H: [n], ((held for a long time with falling intonation.))	Pers
1362	F: otosan to itte, poppo wa, poppo, poppo.	F: Say, 'Father.' 'Poppo?' 'Poppo, poppo.'	REG
1363	H: [n]? [n]? [ba].	H: [n]? [n]? [ba].	Pers
1364	F: oishi?	F: Is it delicious?	HEUR

1365	H: [n]? [n]? [do]. [n]? [n]? [n]? ((excitedly.))	H: [n]? [n]? [do]. [n]? [n]? [n]? ((excitedly.))	Reg/Pers
1366	F: budo oishi ne?	F: Grapes are delicious, aren't they?	HEUR/ INTER
1367	H: [n]? [n]? [n]? [n]?	H: [n]? [n]? [n]? [n]?	Reg/Pers
1368	F: budo oishi?	F: Are the grapes delicious?	HEUR
1369	H: [n]? [do o i]	H: [n]? [do o i]	Heur/Inter
1370	F: toreta. toreta. oishi? haro to itte, haro. hai wa, hai. haro wa, haro. poppo wa,	F: I took it off (X2). Delicious? Say, 'hello, hello.' 'Yes? Yes.' 'Hello? Hello.' 'Poppo?'	INFORM/ REG
1371	H: [pa] ((squeals)) [ɵ] (X3)	H: [pa] ((squeals)) [ɵ] (X3)	Pers
1372	((short pause here.))	((short pause here.))	
1373	F: oishi? maiku wa budo o tabemasen. oishi? oishi to itte, hikaru chan, oishi?	F: Delicious? The mic doesn't eat grapes. Delicious? Say, 'delicious,' Hikaru. Delicious?	HEUR/ INFORM/ REG
1374	H: [n].	H: [n].	Inter
1375	F: so. takun to itte, takun. sore tofu, mabodofu. atsuiyo. [atʃiː] to ittegoran,	F: I see. Say, 'Takun, Takun.' That's tofu. Mabodofu (Chinese dish). It's hot! Say, '[atʃiː].' (hot)	INTER/ REG/ INFORM
1376	M: ch(i), taberu no, chotto matene, hikaru.	M: 'ch(i),' (hot). Will you eat? Just a minute, Hikaru.	INFORM/ HEUR/REG
1377	F: tabetai? ja fufushiyo, fufu,	F: Do you want to eat? OK then, let's blow on the food (to cool it). Blow.	HEUR/ INTER/ REG
1378	H: ((squirms then cries.))	H: ((squirms then cries.))	
1379	F: kochi, kochi, kochi, (.) hai ja iesusama gohan arigato? amen.	F: This way (X3) (.) OK then, Jesus, thank you for this food. Amen.	REG
1380	H: ((begins eating.))	H: ((begins eating.))	
1381	F: oishi? oishi? oishi? oishi desuka. a, takun ga kita, takun to itte,	F: Delicious? (X4) Ah, Takun came. Say, 'Takun.'	HEUR/ REG
1382	H: [aʔn].	H: [aʔn].	Inter
1383	F: hai, jozu. achan wa, iyo to itte hikaru chan.	F: Yes, very good! 'Achan?' Say, 'iyo (OK)' Hikaru.	INTER/ REG
1384	H: [n].	H: [n].	Inter
1385	F: hikaru chan, iyo te,	F: Hikaru, say, 'OK.'	REG
1386	H: [ijo],	H: [ijo],	Inter
1387	F: hai, jozu, moikai, iyo te,	F: Yes, very good! Once more, say, 'OK.'	INTER/ REG

1388	H: [i jo:] ((much louder and clearer than the previous one.))	H: [i jo:] ((much louder and clearer than the previous one.))	Inter
1389	F: hai, jozu jozu, (.) hikaru chan, hai to itte, hai, (.) hikaru chan, hai, hai,	F: Yes, very good! (.) Hikaru, say, 'Yes, yes.' (.) Hikaru, 'Yes, yes.'	INTER/ REG
1390	H: [haɪ:].	H: [haɪ:].	Inter
1391	F: a, jozu jozu, haro wa, haro,	F: Ah, very good! 'Hello?' 'Hello.'	INTER/ REG
1392	H: [a o]	H: [a o]	Inter
1393	F: hao natchaoka,	F: It became 'hao,' did it?	HEUR
1394	H: [ha o:].	H: [ha o:].	Inter
1395	F: halo wa muzukashika.	F: Is 'Hello' difficult (to say)?	HEUR
1396	M: takun datte, hado to itteta.	M: In Takun's case, he said, 'hado.'	INFORM
1397	S: hado.	S: 'hado.'	INFORM
1398	M: a achan ga hado to,	M: Ah, it was Achan who said that.	INFORM
1399	F: hikaru chan, hikaru chan, [halo].	F: Hikaru, Hikaru, [halo].	REG
1400	H: [ha oɛ]	H: [ha oɛ]	Inter
1401	F: a, so narimasuka,	F: Ah, is that what it becomes?	HEUR
1402	M: hikaru chan, budo?	M: Hikaru, 'grapes?'	REG
1403	F: [bu do:]	F: [bu do:]	REG
1404	H: [ba ba]	H: [ba ba]	Inter
1405	F: baba janaino, budo, budo. hikaru chan, budo.	F: Not 'baba,' 'grapes, grapes.' Hikaru, 'grapes.'	INTER/REG
1406	M: ((to H,)) hikaru chan, kore shita de, oisu no shita ni okundayo. wakatta ne? isu no shita ne (.) datte, koko ni oitoittara gohan taberenaijanai. koko ni itsumo onechan oiterudesho?	M: ((to H,)) Hikaru, under this, put it under the chair. You understand, right? Under the chair (.) But, if you put it here, you can't eat. Sister always put it/hers here, right?	REG/ INTER/ HEUR
1407	H: ((whines a bit then cries.))	H: ((whines a bit then cries.))	
1408	F: hikaru chan, budo wa, budo,	F: Hikaru, 'grapes, grapes.'	REG
1409	H: ((whines.))	H: ((whines.))	
1410	F: hikaru chan, iyo,	F: Hikaru, 'OK.'	REG
1411	H: ((softly,)) [ijo]	H: ((softly,)) [ijo]	Inter
1412	F: oishi? iyo (.) hikaru chan, takun,	F: 'Delicious?' 'OK' (.) Hikaru, 'Takun.'	REG
1413	H: [aʔn].	H: [aʔn].	Inter
1414	F: otosan	F: 'Father.'	REG

1415	H: [o to to:], ((the last 'to' is held much longer than the first.))	H: [o to to:], ((the last 'to' is held much longer than the first.))	Inter
1416	F: otosan to itterun desuka.	F: Are you saying, 'Father?'	HEUR
1417	M: okasan wa,	M: 'Mother?'	REG
1418	F: tosan suki yo (X3) hikaru chan. sukiyo te.	F: 'Dad, I like you.' (X3) Hikaru, say, 'I like you.'	REG
1419	H: ((laughs.))	H: ((laughs.))	
1420	F: ba to itte, ba. baba to itte, baba	F: Say, 'ba, ba.' Say, 'baba, baba.'	REG
1421	H: [baʔ baɪ]	H: [baʔ baɪ]	Inter
1422	F: hai jozu jozu, sukiyo te,	F: Yes, very good! Say, 'I like you.'	INTER/ REG
1423	H: [ki jo] ((high-pitched.))	H: [ki jo] ((high-pitched.))	Inter
1424	F: hikaru chan, oishi?	F: Hikaru, 'delicious?'	HEUR
1425	H: [n].	H: [n].	Inter

	(20th Data set, 9/28/98, 10:00 PM) H: 1;11.08.	(20th Data set, 9/28/98, 10:00 PM) H: 1;11.08.	(20th Data set)
1426	H: ((laughing.))	H: ((laughing.))	
1427	M: iyaiya.	M: 'iyaiya.'	REG
1428	H: ((laughs))	H: ((laughs))	
1429	M: iyaiya to itte?	M: Say, 'iyaiya.'	REG
1430	F: otosan to itte,	F: Say, 'Father.'	REG
1431	H: [do da] ((then laughs a little))	H: [do da] ((then laughs a little))	Inter
1432	F: hai jozu jozu, hai to itte,	F: Yes, very good! Say, 'Yes.'	INTER/REG
1433	H: [haɪ],	H: [haɪ],	Inter
1434	F: haro wa, haro.	F: 'Hello? Hello.'	REG
1435	H: [aʊʧ].	H: [aʊʧ].	Pers
1436	M: auch. hikaru chan, 'auch' toka ne, 'yak' toka iuyo.	M: Ouch! Hikaru says words like 'ouch' and 'yuck.'	INFORM
1437	F: kochi to itte,	F: Say, 'This way.'	REG
1438	H: [ʊʧɪ].	H: [ʊʧɪ].	Inter
1439	F: achi?	F: That way?	HEUR
1440	M: hikaru chan, dochi. kochi? achi? kochi achi, dochi.	M: Hikaru, which way? This way? That way? This way, that way. Which way?	HEUR
1441	H: [hn:],	H: [hn:],	Heur
1442	F: dochi,	F: Which way?	HEUR
1443	M: kochi?	M: This way?	HEUR
1444	((The first minute and a half of this part of the tape is distorted due to tape or battery problems. Through the distortion Hikaru can be heard saying what appear to be a few words he has already uttered: pipi, Takun ([aʔn]), and a new word, tofu [ohu]. He uses the toilet at this point. When he returns, his father begins to speak.))	((The first minute and a half of this part of the tape is distorted due to tape or battery problems. Through the distortion Hikaru can be heard saying what appear to be a few words he has already uttered: pipi, Takun ([aʔn]), and a new word, tofu [ohu]. He uses the toilet at this point. When he returns, his father begins to speak.))	
1445	F: chotto, oshigoto ga owarimashite, e- oshiri o arattekita tokoro desu. hai, hikaru chan ittekudasai, unchi, unchi. hikaru chan, unchi to itte,	F: Well, he has finished his job! Um, he is wiping his bum right now. Yes, Hikaru say, 'poop, poop.' Hikaru, say, 'poop.'	INFORM/ REG
1446	H: [ʊʧɪ].	H: [ʊʧɪ].	Inter

1447	F: unchi, hai, unchi ga demashita moikai, unchi.	F: 'Poop,' yes. You pooped. Once more, 'poop.'	INTER/ REG
1448	H: [ʊˈʧɪ].	H: [ʊˈʧɪ].	Inter
1449	F: unchi.	F: 'Poop.'	INTER/REG
1450	H: [ʊˈʧɪ].	H: [ʊˈʧɪ].	Inter
1451	F: hai, unchi to itte,	F: Yes, say, 'poop.'	INTER/REG
1452	H: [ʊˈʧɪ].	H: [ʊˈʧɪ].	Inter
1453	F: hai, unchi ga demashita, hai.	F: Yes, you pooped. Yes.	INTER
1454	M: deta to itte, deta,	M: Say, 'It came out. It came out.'	REG
1455	F: ja, deta to itte, deta, deta, ienai?	F: OK then, say, 'It came out, (X2)' Can't you say, 'It came out?'	REG/ HEUR
1456	H: ((squirms and fusses a bit.))	H: ((squirms and fusses a bit.))	
1457	F: sonnakoto ienai?	F: Can't you say that?	HEUR
1457	H: [n]. ((this sounds very much like a typical Japanese adult agreeing with the previous statement, in essence meaning 'No, (I can't say 'it.).'))	H: [n]. ((this sounds very much like a typical Japanese adult agreeing with the previous statement, in essence meaning 'No, (I can't say 'it.).'))	Inter
1458	((brief pause here.))	((brief pause here.))	
1459	F: unchi.	F: 'Poop.'	INTER/REG
1460	H: [ʧɪ] [ʧɪʧɪ ɪ].	H: [ʧɪ] [ʧɪʧɪ ɪ].	Inter/Pers
1461	M: hikaru chan, kochi, kochi to…	M: Hikaru, this way, that way…	INTER/REG
1462	H: [oʧɪ].	H: [oʧɪ].	Inter
1463	M: achi.	M: That way.	INTER/REG
1464	H: [aʧɪ].	H: [aʧɪ].	Inter
1465	M: kochi.	M: This way.	INTER/REG
1466	H: [ʊʧɪ].	H: [ʊʧɪ].	Inter
1467	M: sore wa unchi.	M: That's 'poop.'	INTER
1468	H: [ʧɪ ʧɪ],	H: [ʧɪ ʧɪ],	Inter
1469	M: chocho wa.	M: 'Butterfly?'	INTER/REG
1470	H: [do do].	H: [do do].	Inter
1471	M: chocho?	M: 'Butterfly?'	HEUR
1472	H: [(ʧo) ʧo]	H: [(ʧo) ʧo]	Inter
1473	M: hocho ka,	M: A large kitchen knife, is it?	INTER/HEUR
1474	H: [ʧɪ ʧɪ]	H: [ʧɪ ʧɪ]	Inter
1475	M: dai-sukiyo,	M: I really like you.	INTER
1476	H: [ʧɪ ʧɪ],	H: [ʧɪ ʧɪ],	Inter

1477	M: hikaru chan, dai-suki te,	M: Hikaru, say, 'I really like you.'	REG
1478	H: [ʧɪ ʧɪ],	H: [ʧɪ ʧɪ],	Inter
1479	M: iyaiya?	M: 'iyaiya?'	INTER/HEUR
1480	H: [ʧɪʧɪ].	H: [ʧɪʧɪ].	Inter/Pers
1481	M: chinchin te iitaino?	M: Are you trying to say, 'penis?'	HEUR/ INTER
1482	H: [n].	H: [n].	Inter
1483	M: [n]? hikaru chan, ba ba i-? to iuwanaino,	M: Really? Hikaru, won't you say, 'ba ba i-?'	INTER/ HEUR
1484	H: [baʔ ba],	H: [baʔ ba],	Inter
1485	M: bai bai,	M: 'bai bai.'	INTER/REG
1486	H: [ba ba].	H: [ba ba].	Inter
1487	M: bai bai,	M: 'bai bai.'	INTER/REG
1488	H: [ba ba]	H: [ba ba]	Inter
1489	M: bai bai,	M: 'bai bai.'	INTER/REG
1490	H: [ba ba]	H: [ba ba]	Inter
1491	M: totan sukiyo to itte,	M: Dad, I like you.	INTER/REG
1492	H: [tijo].	H: [tijo].	Inter
1493	M: haro wa,	M: 'Hello?'	INTER/REG
1494	H: [dodo:]	H: [dodo:]	Inter
1495	M: haro,	M: 'Hello.'	INTER/REG
1496	H: [dodo].	H: [dodo].	Inter
1497	M: hikaru chan, auch to iudesho?	M: Hikaru, you can say, 'ouch,' right?	HEUR/ INTER
1498	H: [doda] [tota].	H: [doda] [tota].	Inter/Pers
1499	M: totan, totan suki janaino?	M: Don't you like Dad, Dad?	HEUR
1500	H: [n].	H: [n].	Inter
1501	M: ara.	M: (A statement of surprise such as 'Oh my!' or 'What?')	INTER
1502	S: ara.	S: ((S repeats M's utterance.))	INTER
1503	H: ((laughs.))	H: ((laughs.))	
1504	M: igai na hakken o.	M: What an unusual discovery!	INFORM
1505	((short pause.))	((short pause.))	
1506	M: hikaru chan, [ʤija], [ʤi:zʌs] to ittegoran, hikaru chan.	M: Hikaru, '[ʤija],' say, '[ʤi:zʌs], Hikaru.	REG
1507	H: [ʤija].	H: [ʤija].	Inter
1508	M: jizasu	M: Jesus.	INTER/REG
1509	H: [ʤia].	H: [ʤia].	Inter
1510	M: chizu wa?	M: 'Cheese?'	HEUR/REG

1511	H: [ʤa] [ʤia]	H: [ʤa] [ʤia]	Inter
1512	M: [ʧija ʧija] wa chizu no koto ne?	M: '[ʧija ʧija]' means cheese, right?	HEUR/ INTER
1513	H: [ʧiʊ].	H: [ʧiʊ].	Inter
1514	F: hai, jizasu.	F: Yes, Jesus.	INTER
1515	H: [ʤi ʌ]	H: [ʤi ʌ]	Inter
1516	F: hai, jizasu.	F: Yes, Jesus.	INTER
1517	H: [ʤi aʔ].	H: [ʤi aʔ].	Inter
1518	F: hai, [ʤiaʔ].	F: Yes, '[ʤiaʔ].'	INTER
1519	M: chizu wa [ʧija] nandayo,	M: Cheese is '[ʧija],'	INFORM
1520	F: n.	F: Uh huh.	INTER
1521	M: ima hikaru chan ne otosan ne, n n ((unclear))	M: Right now, Hikaru, Father... ((unclear))	INFORM
1522	H: [ʤi a], [ʤi a], [ʤi a].	H: [ʤi a], [ʤi a], [ʤi a].	Inter/Pers
1523	F: otosan suki?	F: Do you like Father?	HEUR/INTER
1524	H: [ʤi aɪ], [ʤi aɪ], [ʤi aɪ].	H: [ʤi aɪ], [ʤi aɪ], [ʤi aɪ].	Inter/Pers
1525	F: otosan suki?	F: Do you like Father?	HEUR/INTER
1526	H: [ʤi aɪ],	H: [ʤi aɪ],	Inter/Pers
1527	F: [ʤi aɪ], janakute.	F: Not '[ʤi aɪ].'	INTER
1528	H: [ʧi aɪ],	H: [ʧi aɪ],	Inter/Pers
1529	F: otosan to itte, hai, otosan to itte,	F: Say, 'Father,' yes, say, 'Father.'	REG
1530	H: ([to taʔ]) ((unclear.))	H: ([to taʔ]) ((unclear.))	Inter
1531	F: a, okisugi okisugi, otosan te,	F: Ah, that's too loud, that's too loud! Say, 'Father.'	INTER/ REG
1532	H: [to ta].	H: [to ta].	Inter
1533	F: sukiyo te	F: Say, 'I like you.'	REG
1534	H: [to ta].	H: [to ta].	Inter
1535	F: sukiyo,	F: Say, 'I like you.'	REG
1536	H: [ʧi a].	H: [ʧi a].	Inter
1537	F: aishiteruyo te,	F: Say, 'I love you.'	REG
1538	H: [ʧi a].	H: [ʧi a].	Inter
1539	F: aishiteru te,	F: Say, 'I love you.'	REG
1540	H: [ʤi a].	H: [ʤi a].	Inter
1541	F: aishiteru,	F: 'I love you.'	INTER/REG
1542	H: [ʧi a].	H: [ʧi a].	Inter
1543	F: aishiteru?	F: Do you love me?	HEUR/INTER
1544	H: [ʤi a].	H: [ʤi a].	Inter

1545	F: aishiteru to iu to kubi o futteimasu. suki dakedo aishiteinai so desu.	F: When he says, 'I love you,' he shakes his neck (head.) It appears he likes (me) but doesn't love (me.)	INFORM
1546	H: ((laughs.))	H: ((laughs.))	
1547	F: aishiteru?	F: Do you love me?	HEUR/INTER
1548	H: [ʧi a].	H: [ʧi a].	Inter
1549	F: ((laughing,)) chigau. sukidakedo, aishitenai.	F: ((laughing,)) No! (You) like me but (you) don't love me.	INTER
1550	H: [ʧi a].	H: [ʧi a].	Inter
1551	F: kubi o furinagara (kuchi ga) aitteimasu. okasan to itte,	F: While he shakes his neck (head), (his mouth) is open. Say, 'Mother.'	INFORM/ REG
1552	H: [uwa uwa wa wa wa].	H: [uwa uwa wa wa wa].	Pers
1553	F: hai to itte,	F: Say, 'Yes.'	REG
1554	H: ((squirms a bit))	H: ((squirms a bit))	
1555	F: kore shitemo ii desuka. iiyo to itte,	F: Is it OK if I do this? Say, 'It's OK.'	HEUR/ REG
1556	H: ((squeals and fusses.))	H: ((squeals and fusses.))	
1557	F: mo nemukunattekitaka. hai, iiyo te	F: Well, he is getting sleepy. Yes, say, 'It's OK.'	INFORM/ REG
1558	H: ((whimpers))	H: ((whimpers))	
1559	F: hai, iiyo	F: Yes, 'Its' OK.'	INTER
1560	H: ((whimpers))	H: ((whimpers))	
1561	F: mo dame, mo nerumitaidesu, owarimasu.	F: It's no good. It seems he is going to sleep. That's all (for today).	INFORM

	(21st Data set, 10/2/98, 12:50 PM) H: 1;11.12.	(21st Data set, 10/2/98, 12:50 PM) H: 1;11.12.	(21st Data set)
1562	B: ((humming in background))	B: ((humming in background))	
1563	F: hikaru chan saki to itta. totai, totai. totai to itte,	F: Hikaru, did you say, 'before?' Say, 'totai, totai, totai,'	HEUR/ REG
1564	H: [tʊtaɪ].	H: [tʊtaɪ].	Inter
1565	F: hai jozu jozu. kawaii to itte,	F: Yes, very good! Say, 'cute.'	INTER/REG
1566	H: ((squeals))	H: ((squeals))	
1567	F: kawaii,	F: 'Cute.'	REG
1568	H: ((squeals))	H: ((squeals))	
1569	F: kawaii to itte,	F: Say, 'Cute.'	REG
1570	M: kawaii mono minakya kawai to ienaiyone.	M: You must show him a cute thing if you want him to say 'cute.'	INFORM
1571	F: soka soka. kore kawaii? kore.	F: That's right, that's right. Is this cute? This.	INTER/ HEUR
1572	H: [n].	H: [n].	Inter
1573	F: kawaii? kawaii? kawaii to itte, hikaru chan, kawaii.	F: Cute? Cute? Say, 'cute.' Hikaru, 'cute.'	REG
1574	M: dore ga kawaii,	M: Which one is cute?	HEUR
1575	H: [mi]. (X2)	H: [mi]. (X2)	Pers
1576	F: haro wa, haro, poppo wa, poppo,	F: 'Hello? Hello.' 'Poppo, poppo?'	REG
1577	M: poppo wa naine,	M: Poppo is not there, is it?	INTER/HEUR
1578	H: [aʔ papa aʔ ba].	H: [aʔ papa aʔ ba].	Inter
1579	M: ita?	M: Was it there?	INTER/HEUR
1580	H: [n].	H: [n].	Inter
1581	M: kore wa?	M: What about this?	INTER/HEUR
1582	H: [dʌʔ] [n]? [aʔ]	H: [dʌʔ] [n]? [aʔ]	Inter/Pers
1583	M: wonwon iru?	M: Is there a dog?	INTER/HEUR
1584	H: [po po po] ((whispered.))	H: [po po po] ((whispered.))	Pers
1585	F: papai te,	F: Say, 'papai.'	REG
1586	H: ((grunting))	H: ((grunting))	
1587	F: haro te. honyubin de jusu o nondeimasu. haro to itte,	F: Say, 'hello.' He is drinking juice from a baby bottle. Say, 'Hello.'	REG/ INFORM
1588	H: [otota].	H: [otota].	Pers/Inter
1589	F: otata to iutano? soka soka, otosan.	F: Did you say, 'Dad?' Is that so, is that so? Father.	HEUR/ INTER
1590	H: [oto:],	H: [oto:],	Inter

1591	F: oto desuka?	F: It's 'oto,' is it?	HEUR
1592	M: okasan wa?	M: What about, 'Mother?'	REG/HEUR
1593	F: okasan wa,	F: What about, 'Mother?'	REG/HEUR
1594	H: [ta] [ta], ((spoken gruffly.))	H: [ta] [ta], ((spoken gruffly.))	Inter
1595	F: okasan,	F: 'Mother.'	REG
1596	H: [dota],	H: [dota],	Pers
1597	F: totan, takun wa, takun,	F: 'Dad.' What about, 'Takun? Takun.'	REG
1598	H: [aʔn].	H: [aʔn].	Inter
1599	F: takun,	F: Takun,	REG
1600	H: [aʔn]. ((spoken with a growl.))	H: [aʔn]. ((spoken with a growl.))	Inter
1601	F: achan wa?	F: What about, 'Achan?'	REG/HEUR
1602	H: [atʃn].	H: [atʃn].	Inter
1603	F: akun. kore jusu.	F: 'Takun.' This is juice.	INTER/ INFORM
1604	H: [tu].	H: [tu].	Inter
1605	F: kore maiku, maiku. kore nani, kore jusu.	F: This is a mic, a mic. What's this? This is juice.	INFORM/ HEUR
1606	H: [dʒiː].	H: [dʒiː].	Inter
1607	F: hikaru chan te, haro, hikaru chan, haro.	F: Hikaru, 'Hello.' Hikaru, 'Hello.'	REG
1608	H: [baʔ baʔ bwe o aʔ]	H: [baʔ baʔ bwe o aʔ]	Pers
1609	F: sore kukki, kukki to ittegoran, oishi? oishi? oishi? kawai to itte,	F: That's a cookie. Say, 'cookie.' Delicious? (X3) Say, 'cute.'	INFORM/ REG
1610	H: [uiː] [wiʔ]? [n]? (.) ((gives F a cookie.))	H: [uiː] [wiʔ]? [n]? (.) ((gives F a cookie.))	Inter
1611	F: hai, arigato.	F: Yes, thank you.	INTER
1612	H: [aʔ aʔ aʔ i]	H: [aʔ aʔ aʔ i]	Inter
1613	F: kora kora kora hikaru chan dashite dame dayo. ((unclear)) hai haro,	F: Hey hey hey! Hikaru, take it out! That's bad! ((unclear)) Yes, 'hello.'	REG
1614	H: [tu taː]	H: [tu taː]	Pers
1615	F: hai. ((said as if respond to H's calling him.))	F: Yes. ((said as if respond to H's calling him.))	INTER
1616	H: [hau tutaː]	H: [hau tutaː]	Inter
1617	F: hai. tosan sukiyo te.	F: Yes. Say, 'Dad, I like you.'	INTER/REG
1618	H: [tʃi auː],	H: [tʃi auː],	Inter
1619	F: aishiteru,	F: 'I love you.'	REG
1620	H: [tota tʃiao:]	H: [tota tʃiao:]	Inter

1621	F: aishiteru,	F: 'I love you.'	REG
1622	H: [n] [ʧia] [n].	H: [n] [ʧia] [n].	Inter
1623	F: aishiteru janaino,	F: Don't you love me?	HEUR/INTER
1624	H: [ʧi ja],	H: [ʧi ja],	Inter
1625	F: suki ya,	F: I like you.	INTER
1626	M: aishitenai kedo sukiyo, (.) aishiteru to sukiyo wa chigau yo ne, hikaru chan.	M: He doesn't love you, but he likes you. (.) 'I love you' and 'I like you' are different, aren't they, Hikaru?	INFORM/ HEUR
1627	F: ne.	F: Aren't they though?	INTER
1628	M: hikaru chan, okasan no koto wa? aichi dayone?	M: Hikaru, what about Mother? You love her (i.e. me), don't you?	HEUR/ INTER
1629	H: [aʧi].	H: [aʧi].	Inter
1630	M: hora, minasai.	M: Aha! See?	INTER
1631	F: aishiteru,	F: I love you.	INTER
1632	M: okasan wa aichi nandayone. otosan wa sukiyonano.	M: Mother is loved, but Father is liked.	INFORM
1633	H: [n]? [aʔ pi aʔ]	H: [n]? [aʔ pi aʔ]	Pers
1634	F: pipi, oishi?	F: 'Pipi.' Delicious?	HEUR
1635	H: [aʔ piʔ] [aʔ]	H: [aʔ piʔ] [aʔ]	Pers
1636	F: kukki o tabeteiru oto desu. oishi?	F: This is the sound of cookies being eaten. Delicious?	INFORM/ HEUR
1637	H: [aʔ pipi aʔ]	H: [aʔ pipi aʔ]	Pers/Reg
1638	F: pipi.	F: 'Pipi.'	REG
1639	H: ((squirms a bit)) ([pipi])	H: ((squirms a bit)) ([pipi])	Reg
1640	M: hikaru chan rakki to itte,	M: Hikaru, say, 'lucky.'	REG
1641	H: [a pipi:]	H: [a pipi:]	Reg
1642	M: rakki, happi,	M: 'Lucky. Happy.'	REG
1643	H: [n n n hap:i n hap:i n]	H: [n n n hap:i n hap:i n]	Inter/Pers
1644	F: happi janaino,	F: Not happy?	HEUR/INTER
1645	M: happi janaino, ((M sounds very sleepy here))	M: He is not happy. ((M sounds very sleepy here))	INFORM
1646	((short break))	((short break))	
1647	H: [tuta].	H: [tuta].	Inter
1648	F: hai, (.) hikaru chan, domo arigato to ieru, domo te. ((H gives him a cookie)) hai, arigato.	F: Yes. (.) Hikaru, you can say, 'Thank you very much.' Say, 'Thanks.' ((H gives him a cookie)) Yes, thank you.	INTER/ REG
1649	H: [n]? [pappa]?	H: [n]? [pappa]?	Heur/Pers

1650	F: okasan ni ageyoka, okasan. dobutsu kurakka o tabeteirunode,	F: Shall we give one to Mother? Mother? Because we are eating animal crackers.	HEUR/ INTER
1651	H: [a wa i]? [wa waʔ] (lion roar) (X2)	H: [a wa i]? [wa waʔ] (lion roar) (X2)	Inter
1652	F: wawa to dobustsu no nakigoe no mane o shiteimasu.	F: He is mimicking the cry of an animal, 'wawa.'	INFORM
1653	((at this time H is giving crackers to M and F who finally have had enough of them.))	((at this time H is giving crackers to M and F who finally have had enough of them.))	
1654	M: kore nani.	M: What's this?	HEUR
1655	H: [wo wo] ((spoken very loudly))	H: [wo wo] ((spoken very loudly))	Inter
1656	M: kore wonwon.	M: This is a dog.	INFORM
1657	H: [n]	H: [n]	Inter
1658	M: kore nani,	M: What's this?	HEUR
1659	H: [wo wo pi:]	H: [wo wo pi:]	Inter
1660	M: ((unclear)) mo okasan ga onakaipai ni nattekitane, (.) mada,	M: ((unclear)) Mother is getting full, (.) Another (cookie)?	INFORM/ INTER
1661	H: [n]	H: [n]	Inter
1662	M: ((unclear exactly what she is saying here, but it seems to be that she would like H to give cookies to F because she has had enough))	M: ((unclear exactly what she is saying here, but it seems to be that she would like H to give cookies to F because she has had enough))	
1663	F: oishi ne? (.) hikaru chan. onakaipai otosan, 'No thank you.' ((spoken in English.))	F: Delicious, isn't it? (.) Hikaru, Father is full. 'No thank you.' ((spoken in English.))	HEUR/ INTER
1664	H: ((laughs.))	H: ((laughs.))	
1665	F: mo 'enough, enough. OK'	F: Hey, 'enough, enough. OK'	INTER/ INFORM
1666	H: ((laughs.))	H: ((laughs.))	
1667	F: moiyo.	F: That's enough.	INTER/ INFORM
1668	((short break.))	((short break.))	
1669	F: oishi?	F: Delicious?	HEUR
1670	H: [n] (.) [aʔpipi], [aʔpipi] (X 3)	H: [n] (.) [aʔpipi], [aʔpipi] (X 3)	Pers/ Inter
1671	F: otosan moi moi, sore pipi ne?	F: Father's had enough, enough. That's Pipi, isn't it?	INFORM/ HEUR
1672	H: ([apuhi])	H: ([apuhi])	Inter
1673	F: ((repeats previous utterance by H))	F: ((repeats previous utterance by H))	

1674	F: moi otosan ii. arigato, moi, mo onakaipai mo, onakaipai? a, ((takes another cookie from H))	F: That's enough for Father. Thank you. Enough. I'm full. I'm full! Ah, ((takes another cookie from H))	INTER/ INFORM
1675	((pause while cookies were eaten by everyone; only the sound of crunching heard in background))	((pause while cookies were eaten by everyone; only the sound of crunching heard in background))	
1676	F: oishikatta?	F: Was it delicious?	HEUR
1677	H: [n],	H: [n],	Inter
1678	F: [ɾak:i]? [ɾak:i]? happi? (.) hai, [ɾak:i], happi,	F: 'Lucky? Lucky? Happy?' (.) Yes, 'Lucky, happy.'	REG
1679	H: [hapi] [pi]?	H: [hapi] [pi]?	Inter
1680	F: hapi?	F: Happy?	REG
1681	H: [pi pi]	H: [pi pi]	Inter/Pers
1682	F: hai, jizasu.	F: Yes, Jesus.	INTER
1683	H: [pipi] ((then laughing)) (X9)	H: [pipi] ((then laughing)) (X9)	Pers

	(22nd Data set, 10/12/98, 1:00 PM) H: 1;11.22.	(22nd Data set, 10/12/98, 1:00 PM) H: 1;11.22.	(22nd Data set)
1684	F: hikaru chan, totai to itte,	F: Hikaru, say, 'totai.'	REG
1685	H: [n] ((rising-falling-rising intonation.)) [dodaɛ]	H: [n] ((rising-falling-rising intonation.)) [dodaɛ]	Inter
1686	F: totai, pappa,	F: 'totai, pappa.'	REG
1687	H: [n]? ((seems uncomfortable))	H: [n]? ((seems uncomfortable))	Reg?/Heur?
1688	F: totai wa,	F: What about, 'totai?'	REG
1689	M: ((in background)) totai to iuwanai, totan,	M: ((in background)) Won't you say, 'totai?' 'Dad.'	HEUR/ REG
1690	F: totan, totan, totan, (.) kore nani ga haiteru, kore,	F: Dad, Dad, Dad. (.) What's in this? This.	REG/ HEUR
1691	H: [koaɪ]	H: [koaɪ]	Pers
1692	F: kore natto da, natto. haro wa,	F: This is 'natto (fermented soybeans).' 'Natto.' 'Hello?'	INFORM/ REG
1693	H: [to]	H: [to]	Inter
1694	F: haro to itte, haro wa, haro,	F: Say, 'Hello.' 'Hello? Hello.'	REG
1695	H: ((fusses)) [n:] ((still seems uncomfortable))	H: ((fusses)) [n:] ((still seems uncomfortable))	Pers/Reg
1696	F: kore omame, edamame, haro? totai,	F: These are beans, soybeans. 'Hello?'	INFORM/ REG
1697	H: [aʔ], [a]	H: [aʔ], [a]	Pers
1698	F: otosan,	F: 'Father.'	REG
1699	H: [do ta]? ((intonation goes up very high at the end of this word))	H: [do ta]? ((intonation goes up very high at the end of this word))	Inter
1700	F: haro.	F: 'Hello.'	REG
1701	H: [ata]? [tota]? [tuta]? [wa]? [to taɪ] ((high-pitched.))	H: [ata]? [tota]? [tuta]? [wa]? [to taɪ] ((high-pitched.))	Pers/Inter
1702	F: papai papai.	F: 'papai papai.'	REG
1703	H: [to]? [n to]?	H: [to]? [n to]?	Heur
1704	F: okasan wa, okasan,	F: What about, 'Mother?' 'Mother.'	REG
1705	H: [ɛ]?	H: [ɛ]?	Heur
1706	M: dame da, ((unclear))	M: That's no good… ((unclear))	INTER
1707	F: mama te ieru mama. hikaru chan, mama wa	F: Say, 'mama.' You can say, 'mama.' Hikaru, what about, 'mama?'	REG/ INTER
1708	M: dame da.	M: It's no good.	INTER

1709	H: [aʔ] [n to n] [totaɪ]? [daʊ]. [daʊ].	H: [aʔ] [n to n] [totaɪ]? [daʊ]. [daʊ].	Inter
1710	F: haro te,	F: 'Hello.'	REG
1711	H: [n]? [n to]? [to to to n to n to to]	H: [n]? [n to]? [to to to n to n to to]	Inter
1712	F: oishi?	F: Delicious?	HEUR
1713	H: [n]. ((fusses,))	H: [n]. ((fusses,))	Inter
1714	F: haro te.	F: 'Hello.'	REG
1715	H: [da] ((fusses,)) [da] ((almost crying here,)) [da]	H: [da] ((fusses,)) [da] ((almost crying here,)) [da]	Pers
1716	F: kore tabenaino kore,	F: Won't you eat this? This.	HEUR/INTER
1717	H: ((almost crying now))	H: ((almost crying now))	
1718	F: onaji dayo onaji.	F: It's the same. The same.	INFORM/ INTER
1719	H: [do] ((sounds more and more upset))	H: [do] ((sounds more and more upset))	Pers
1720	F: natto to ittegoran. natto.	F: Say, 'natto, natto.'	REG
1721	H: ((begins crying slightly))	H: ((begins crying slightly))	
1722	F: mo dame. (.) haro, hai, pappai, pappai, (.) hai pappai-, hai pappai- ((held for several seconds)) hai. iesusama gohan arigato? hikaru chan shukufuku shitekudasai iesusama no namae ni inotteimasu amen. hai, pappai. iiyo iiyo tebeteiiyo.	F: Well, it's no good. (.) 'Hello,' yes, 'pappai, pappai.' (.) Yes 'pappai-,' yes 'pappai-.' ((held for several seconds)) OK. Jesus, thank you for this food. Bless Hikaru, in Jesus's name we pray, Amen. Yes. 'pappai.' OK, OK, it's OK to eat.	INTER/ INFORM
1723	H: ((begins crying and squirming. F tries to get him to cheer up. H laughs a bit but then cries continuously.))	H: ((begins crying and squirming. F tries to get him to cheer up. H laughs a bit but then cries continuously.))	

	(23rd Data set, 10/15/98, 1:15 PM) H: 1;11.25.	(23rd Data set, 10/15/98, 1:15 PM) H: 1;11.25.	(23rd Data set)
1724	F: hikaru chan imasuka, hikaru chan, hai to itte, hikaru? hai to itte, asobi ni shuchushiteimasu.	F: Is Hikaru here? Hikaru, say, 'yes.' Hikaru? Say, 'yes.' He is concentrating on playing.	HEUR/ REG
1725	M: hikaru chan,	M: Hikaru.	INTER
1726	F: hai to itte,	F: Say, 'yes.'	REG
1727	M: hikaru chan doko ni iruno, hikaru chan,	M: Where is Hikaru? Hikaru.	HEUR/ INTER
1728	F: hai to itte,	F: Say, 'yes.'	REG
1729	M: wakkateru kedo damatteru, hai, ototo (.) hikaru chan kore nani, a a a, wonwon?	M: He understands but is not saying anything. (.) Hikaru, what's this? Ah, ah, ah. A dog?	INFORM/ HEUR
1730	H: [n].	H: [n].	Inter
1731	F: sore hitusji desho, hikaru, haro te, haro te.	F: It's a sheep, right? Hikaru, say, 'hello, hello.'	HEUR/ REG
1732	M: chita wa,	M: What about, 'cheetah?'	REG
1733	H: ((grunts.))	H: ((grunts.))	
1734	F: hai to itte, hikaru chan, haro wa,	F: Say, 'yes.' Hikaru, 'hello?'	REG
1735	M: poppo miru,	M: Let's look/Do you want to look at poppo?	INTER/ HEUR
1736	H: [hn:],	H: [hn:],	Inter
1737	F: poppo to itte,	F: Say, 'poppo.'	REG
1738	H: [baba] [ba]?	H: [baba] [ba]?	Inter/Heur
1739	F: haro wa, haro,	F: 'Hello? Hello.'	REG/HEUR
1740	M: bubu wa?	M: 'Bubu?'	INTER/REG
1741	H: [pa]?	H: [pa]?	Heur
1742	M: poppo wa dore,	M: Which one is poppo?	HEUR
1743	H: [popo:] [npa]?	H: [popo:] [npa]?	Inter
1744	M: hikaru chan, dochi ga suki, dochi ga suki,	M: Hikaru, which one do you like, which one do you like?	HEUR
1745	H: [atʃɪ].	H: [atʃɪ].	Inter
1746	M: achi. hikaru chan, auch to itte, sore nani,	M: Over there? Hikaru, say, 'ouch.' What is it?	HEUR/ REG
1747	H: [papa].	H: [papa].	Inter
1748	M: papa na no,	M: It's Papa, is it?	HEUR
1749	H: [n].	H: [n].	Inter
1750	M: bu? te itte, hikaru chan, natto to itte. a tabechatta. (.) hikaru chan, natto to iutte.	M: Say, 'bu?' Hikaru, say, 'natto.' Ah, you ate it. (.) Hikaru, say, 'natto.'	REG

1751	H: [n].	H: [n].	Inter
1752	M: iuwanaino?	M: You won't say it?	HEUR
1753	H: [n].	H: [n].	Inter
1754	M: a, kore nani,	M: Ah, what's this?	HEUR
1755	H: [ba baʔ].	H: [ba baʔ].	Inter
1756	M: papa?	M: Papa?	HEUR/INTER
1757	H: [n].	H: [n].	Inter
1758	M: sore wa?	M: What is it?	HEUR
1759	H: [ba ba]?	H: [ba ba]?	Inter
1760	M: bubu wa dore,	M: Which one is 'bubu?'	HEUR
1761	H: [bubu]	H: [bubu]	Inter
1762	M: bubu sore ka. soka. wonwon doko ni iru, wonwon koko ni iru? sore wa uma. ((feeding H,)) hai, oishi? dochi, dochi ga suki nano?	M: So that's 'bubu.' I see. Where is the dog? Is the dog here? That is a horse. ((feeding H,)) Yes. Delicious? Which, which do you like?	INTER/ HEUR
1763	H: [ba] [ba ba]?	H: [ba] [ba ba]?	Inter
1764	M: papa ga suki nano?	M: Do you like Papa?	HEUR
1765	H: [n].	H: [n].	Inter
1766	M: hikaru chan, tofu to ieru,	M: Hikaru, you can say, 'tofu.'	INTER/ REG
1767	H: [fu] (.) [kotʃɪ].	H: [fu] (.) [kotʃɪ].	Inter/Reg
1768	M: kochi, sodane. kochi to moikai itte,	M: This way? That's right. Say, 'this way' once more.	HEUR/INTER/ REG
1769	H: [tʃɪ].	H: [tʃɪ].	Inter
1770	M: chigau. saki mitai ni iutte, kochi to itte,	M: No. Say it like you did before. Say, 'this way.'	INTER/ REG
1771	H: [ɔdʒi].	H: [ɔdʒi].	Inter
1772	M: sore wa ji ga kaitteiru ne. (.) sore wa nani?	M: It has letters written on it, doesn't it? (.) What is it?	HEUR
1773	H: [bo].	H: [bo].	Inter
1774	M: uma.	M: A horse.	INFORM
1775	H: [to].	H: [to].	Inter
1776	M: to, so, happi to itte,	M: 'to.' That's right. Say, 'happy.'	INTER/ REG
1777	H: [pi].	H: [pi].	Inter
1778	M: papi wa? sore nani?	M: What about, 'puppy?' What is it?	REG/ HEUR
1779	H: [i].	H: [i].	Inter
1780	M: onechan? e e to iutano? pan wa doko ni aru, pan.	M: Sister? Did you say, 'e e?' Where is the bread, the bread?	HEUR

1781	((M & F begin talking together in the background about what H says for certain things.))	((M & F begin talking together in the background about what H says for certain things.))	
1782	M: inu wa wanwan to iu, ne.	M: You say 'wanwan' for 'dog,' don't you?	HEUR/ INTER
1783	H: [aʔ] [daʔ].	H: [aʔ] [daʔ].	Inter
1784	M: atta? chita wa, chita iru? chita koko ni irunjanai. chita irukana? mite. chita iru. ((whispered,)) chita inaine. doko daro.	M: Was it there? Cheetah? Is cheetah there? Cheetah is not here. I wonder is there is a cheetah? Look. There is a cheetah. ((whispered,)) There is no cheetah. Where is it?	HEUR/ INTER
1785	H: ((whispered,)) [ʧɪta] [ʧɪta].	H: ((whispered,)) [ʧɪta] [ʧɪta].	Inter
1786	M: chita? atta? naine.	M: Cheetah? Was it there? It wasn't, was it?	HEUR
1787	H: [a], [ʧɪta]. ((spoken loudly.))	H: [a], [ʧɪta]. ((spoken loudly.))	Inter
1788	M: sore wa fusen.	M: It is a balloon.	INFORM
1789	F: ((laughs.))	F: ((laughs.))	
1790	M: ((laughs, too.))	M: ((laughs, too.))	
1791	((they attempt a new tack.))	((they attempt a new tack.))	
1792	M: ohana wa doko, (.) chocho iru kana, chocho. hikaru chan, chocho to ieru?	M: Where is the flower? (.) Is there a butterfly, a butterfly? Hikaru, can you say, 'butterfly?'	HEUR/ REG
1793	H: [aʔʧəʧə]	H: [aʔʧəʧə]	Inter
1794	M: moikai, chocho.	M: Once more, 'butterfly.'	REG
1795	H: [aʔ ʧoʧ]	H: [aʔ ʧoʧ]	Inter
1796	M: a, chocho da ne,	M: Ah, a butterfly, isn't it?	HEUR/INTER
1797	H: [ʤɪʔ]	H: [ʤɪʔ]	Inter
1798	M: sore wa ji da ne, ji.	M: It's [ʤɪ], isn't it? [ʤɪ].	HEUR/INTER
1799	H: [haʔ haʔ].	H: [haʔ haʔ].	Inter
1800	M: kochi oide, kochi. (.) chocho koko ni irun janai?	M: Come here, come here. (.) Isn't the butterfly here?	REG/ HEUR
1801	H: [ʤi].	H: [ʤi].	Inter
1802	M: chocho nai ne,	M: There is no butterfly, is there?	HEUR/ INTER
1803	H: [n] [ʤoʤo] [n].	H: [n] [ʤoʤo] [n].	Inter
1804	M: chocho.	M: Butterfly.	INTER
1805	H: [dʌʔ ʤoʤo]	H: [dʌʔ ʤoʤo]	Inter
1806	M: chocho, a, sore wa, sore wa poppo desho.	M: Butterfly. Ah, it's, it's poppo, right?	INTER/ HEUR
1807	H: [papa] [ə poʔ]	H: [papa] [ə poʔ]	Inter

1808	M: ushi.	M: A cow.	INTER
1809	H: [bəʔ]	H: [bəʔ]	Inter
1810	M: momo dayo.	M: It's a 'moomoo.' (cow)	INTER/ INFORM
1811	H: [mʊmʊ]	H: [mʊmʊ]	Inter
1812	M: momo.	M: 'Moomoo.'	INTER
1813	H: [momo: momo: momo:] ((each one louder than the previous.))	H: [momo: momo: momo:] ((each one louder than the previous.))	Inter
1814	M: momo, amyamyam myam myam, to tabeteiruyo. hora. amyam amyam amyam te tabeteruyone. oishi so dane.	M: Moomoo, it's eating, 'amyamyam myam myam.' Look. It's eating, 'amyam amyam amyam,' isn't it? It looks delicious, doesn't it?	INTER/ INFORM/ HEUR
1815	H: [mam mam] [ba ba]	H: [mam mam] [ba ba]	Inter
1816	M: babai.	M: Bye-bye.	INTER
1817	H: [ba baɪ]	H: [ba baɪ]	Inter
1818	M: babai.	M: Bye-bye.	INTER
1819	H: [ba baɪ]	H: [ba baɪ]	Inter
1820	M: [baba i].	M: [baba i].	INTER
1821	H: [aʔ poʔ]	H: [aʔ poʔ]	Inter
1822	M: [n]	M: [n] (Uh-huh.)	INTER
1823	H: [baʔ aʔ pipi]	H: [baʔ aʔ pipi]	Inter
1824	M: kore wa?	M: What's this?	HEUR
1825	H: 'myumyum myum myum' ((eating sound.))	H: 'myumyum myum myum' ((eating sound.))	Inter
1826	M: ((copies H, then she says,)) a. chocho dawa.	M: ((copies H, then she says,)) Ah! It's a butterfly.	INFORM
1827	H: [ʧ ʧ] ((whispered.))	H: [ʧ ʧ] ((whispered.))	Inter
1828	M: chocho.	M: A butterfly.	INTER
1829	H: [ʤoʤo] (.) [aʔ pipi pipi].	H: [ʤoʤo] (.) [aʔ pipi pipi].	Inter
1830	M: pipi ga itta ne. osakana da yo.	M: Pipi was there, right? It's a fish.	INTER/ INFORM
1831	H: [aʔ to]	H: [aʔ to]	Inter
1832	M: sa ka na.	M: A f-i-sh.	INTER
1833	H: [mmmm] ((eating sound.))	H: [mmmm] ((eating sound.))	Pers/Inter
1834	M: kore nani?	M: What's this?	HEUR
1835	H: [boː].	H: [boː].	Inter
1836	M: so. [bæ: bæ:] to nakune,	M: Right. It cries '[bæ: bæ:],' doesn't it?	INTER/ HEUR

1837	H: ((growls,)) [a a a]	H: ((growls,)) [a a a]	Pers/Inter
1838	M: kore wa osakana, sa ka na. ((each syllable emphasized,))	M: This is a fish, f-i-sh. ((each syllable emphasized,))	INFORM/ INTER
1839	H: [pipi pipi].	H: [pipi pipi].	Inter
1840	((S approaches and disturbs M who then asks S what this (picture) is. S replies.))	((S approaches and disturbs M who then asks S what this (picture) is. S replies.))	
1841	M: a, hikaru chan, kore nani?	M: Ah, Hikaru, what's this?	HEUR
1842	S: chita.	S: Cheetah.	INFORM
1843	H: [ʧita:]	H: [ʧita:]	Inter
1844	M: a, jozo da. ((short pause here.))	M: Ah, very good! ((short pause here.))	INTER
1845	H: [ʧita:] (.) [pipi]	H: [ʧita:] (.) [pipi]	Inter
1846	M: kore nani, nyanya nyanya.	M: What's this? A cat.	HEUR/ INFORM
1847	H: [ni] [bo: aʔ bo bo bo] ((looking at a book.))	H: [ni] [bo: aʔ bo bo bo] ((looking at a book.))	Inter
1848	((short pause.))	((short pause.))	
1849	M: kore wa hikaru. sore ga ii no, sono hon ga ii no,	M: What about this, Hikaru? Is it OK? Is that book OK?	HEUR
1850	H: [n].	H: [n].	Inter
1851	M: [n]?	M: [n]? (Really?)	INTER/HEUR
1852	H: [bo: i aʔ]	H: [bo: i aʔ]	Inter
1853	M: hikaru chan, kore suki?	M: Hikaru, do you like this?	HEUR
1854	H: [n].	H: [n].	Inter
1855	M: ja, sukiyo to iutte,	M: OK then, say, 'I like you.'	INTER/REG
1856	H: [aʔtuʔ]	H: [aʔtuʔ]	Inter
1857	M: suki yo to itte, hikaru chan, otosan no koto suki?	M: Say, 'I like you.' Hikaru, do you like Father?	REG/HEUR/ INTER
1858	H: [n],	H: [n],	Inter
1859	M: dame. a, kiraika.	M: Bad/No. Ah, you hate him?	INTER/HEUR
1860	H: [aʔ pipi].	H: [aʔ pipi].	Inter
1861	M: pipi da ne. pi pi pi te itteno?	M: It's pipi, isn't it? Are you saying, 'pi pi pi?'	HEUR
1862	H: [bi bi bi] [bi bi bi bi] ((uttered many times as the chirping sounds of a toy are heard nearby. S brings the toy closer))	H: [bi bi bi] [bi bi bi bi] ((uttered many times as the chirping sounds of a toy are heard nearby. S brings the toy closer))	Inter/Pers
1863	M: kore nani?	M: What's this?	HEUR
1864	H: [pipi]	H: [pipi]	Inter

1865	M: ((to S)) achan, sore urusai kara, dame da. achan, chotto otosan no tokoro ni itte.	M: ((to S)) Achan, it's noisy so don't do that. Achan, go over to where your Father is for a while.	REG
1866	H: [pipipipipipi] (X2)	H: [pipipipipipi] (X2)	Inter
1867	M: ((to S)) sore urusai kara, muko motteki ((to H)) hikaru chan, pipi suki?	M: ((to S)) It's noisy, so take it over there. ((to H)) Hikaru, do you like pipi?	REG/ HEUR
1868	H: [n].	H: [n].	Inter
1869	M: pipi sukiyo	M: I like pipi.	INTER
1870	H: [aʔ] [pipi]	H: [aʔ] [pipi]	Inter
1871	M: pappi wa iruyo, pappi. ((spoken while they begin looking at a picture book.))	M: There is a puppy. A puppy. ((spoken while they begin looking at a picture book.))	INFORM
1872	H: [papi]	H: [papi]	Inter
1873	M: [n].	M: [n]. (Uh-huh.)	INFORM/ INTER
1874	H: [papi papi api]	H: [papi papi api]	Inter
1875	M: kore pappi?	M: Is this a puppy?	HEUR
1876	H: [n]. [api aʔ api ʤoʤo]	H: [n]. [api aʔ api ʤoʤo]	Inter
1877	M: totto, totto dane. ((this could be 'chocho'/ butterfly)) a, kore nani?	M: It's 'totto, totto,' isn't it? ((this could be 'chocho'/ butterfly)) Ah, what's this?	HEUR
1878	H: [uːpiː]	H: [uːpiː]	Inter
1879	M: chu (.) hikaru chan, tofu to itte, tofu.	M: Kiss! (.) Hikaru, say, 'tofu, tofu.'	INTER/ REG
1880	H: [aʔ]	H: [aʔ]	Pers
1881	M: kore iruka.	M: This is a dolphin.	INFORM
1882	H: [aʔ babo]	H: [aʔ babo]	Inter
1883	M: n? komori ne,	M: What? A bat, isn't it?	INFORM
1884	H: [aʔ pipi]	H: [aʔ pipi]	Inter
1885	M: pipi dane. kyo pipi ga suki dane,	M: It's pipi, isn't it? Today you like pipi, don't you?	HEUR/ INTER
1886	H: [aʔ bibi pipi pipi]	H: [aʔ bibi pipi pipi]	Inter
1887	M: pipi iko iko shite, iko iko.	M: Do nice pipi, nice pipi.	REG
1888	H: [i: ui ui] (.) [baba:]	H: [i: ui ui] (.) [baba:]	Inter
1889	M: ja, babai to itte,	M: OK then, say, 'bye-bye.'	INTER/REG
1890	H: ((gruffly,)) [baba:]	H: ((gruffly,)) [baba:]	Inter/Pers
1891	M: babai. hikaru chan, babai to itte,	M: Bye-bye. Hikaru chan, say, 'bye-bye.'	REG
1892	H: [baba] ((pause.))	H: [baba] ((pause.))	Inter
1893	M: babai. (.)	M: Bye-bye. (.)	INTER

1894	H: [a] [pipi pipi]	H: [a] [pipi pipi]	Inter
1895	M: sore wa osakana. (.) totan to itte,	M: It's a fish (.) Say, 'Dad.'	INFORM/ REG
1896	H: [dʊda]	H: [dʊda]	Inter
1897	M: takun wa,	M: What about, 'Takun?'	REG
1898	H: [aʔn]	H: [aʔn]	Inter
1899	M: takun.	M: Takun.	INTER
1990	H: [aʔn] ((spoken gruffly.))	H: [aʔn] ((spoken gruffly.))	Inter
1901	M: ja, totan sukiyo to itte,	M: OK then, say, 'Dad, I like you.'	INTER/ REG
1902	H: [tʰio]	H: [tʰio]	Inter
1903	M: sukiyo,	M: I like you.	INTER
1904	H: [tʰio]	H: [tʰio]	Inter
1905	M: aishiteru,	M: I love you.	INTER
1906	H: [tʰio]	H: [tʰio]	Inter
1907	M: ja, aishiteru,	M: OK then, I love you.	INTER
1908	H: [tʰio]?	H: [tʰio]?	Inter
1909	M: suki, a, aishitenai, wakatta wakatta.	M: You like him. Ah, but you don't love him. I see, I see.	INFORM/ INTER
1910	H: [tʰio]	H: [tʰio]	Inter
1911	M: hai hai.	M: Yes, yes.	INTER
1912	H: [tʰio]	H: [tʰio]	Inter
1913	M: ja, jizasu to itte,	M: OK then, say, 'Jesus.'	INTER/REG
1914	H: [tʰio]	H: [tʰio]	Inter
1915	M: [dʒija]. ((laughs,)) chizu wa?	M: [dʒija]. ((laughs,)) What about cheese?	INTER/ REG/HEUR
1916	H: [n].	H: [n].	Inter
1917	M: hikaru chan ga sukinano wa nandake, (X2) hikaru chan, sore suki nano? chizu suki nandesho,	M: What was the thing that Hikaru likes? (X2) Hikaru, do you like it? You like cheese, right.	HEUR
1918	H: ((no response, then,)) [a a a]	H: ((no response, then,)) [a a a]	Pers
1919	M: hikaru chan, natto to itte,	M: Hikaru, say, 'natto.'	REG
1920	H: [ʌto].	H: [ʌto].	Inter
1921	M: natto moikai iutte, kore nani?	M: Say, 'natto' once more. What's this?	REG/ HEUR
1922	H: [bupi]	H: [bupi]	Inter
1923	M: otamajakushi, (X2), kore nani	M: Tadpoles. (X2) What's this?	INFORM/ HEUR

1924	H: [bobo]	H: [bobo]	Inter
1925	M: kore nani.	M: What's this?	HEUR
1926	H: [a] [pipi] [a] [pipi] [pipi] [pipi]?	H: [a] [pipi] [a] [pipi] [pipi] [pipi]?	Inter/Reg

	(24th Data set, 10/29/98, 9:15 PM) H: 2;0.09.	(24th Data set, 10/29/98, 9:15 PM) H: 2;0.09	(24th Data set)
1927	M: hai.	M: Yes.	INTER
1928	H: [haɪ].	H: [haɪ]. (Yes.)	Inter
1929	M: hai.	M: Yes.	INTER
1930	H: [papa] ((very loud and distorted; too close to the mic))	H: [papa] ((very loud and distorted; too close to the mic))	
1931	M: chotto chikasugiru chikasugiru, okasan to itte,	M: Hey, too close, too close. Say, 'Mother.'	REG
1932	H: [haɪ].	H: [haɪ]. (Yes.)	Inter
1933	M: hai, koko de koko, oide, oide, hikaru. kumo san, hai hai doko ni ittake. ((noise from siblings in background.)) hikaru chan, kore nani?	M: Yes. Here, here. Come here, come here, Hikaru. The bear. Yes, yes, where is he? ((noise from siblings in background.)) Hikaru, what's this?	REG/ HEUR
1934	H: [oe]?	H: [oe]?	Inter
1935	M: hae ne.	M: It's a fly, isn't it?	HEUR
1936	H: [oe]?	H: [oe]?	Inter
1937	M: hae.	M: A fly	INTER
1938	H: ((grunts.))	H: ((grunts.))	
1939	M: kore wa nani?	M: What's this?	HEUR
1940	H: [oe]?	H: [oe]?	Inter
1941	M: kore chigau. kore, kore,	M: No, that's wrong. This. This.	INTER/REG
1942	H: [pipi]	H: [pipi]	Inter
1943	M: pipi ne, kore nani? (X3)	M: It's pipi, isn't it? What's this? (X3)	HEUR
1944	H: [pipi]	H: [pipi]	Inter
1945	M: kore wa?	M: What's this?	HEUR
1946	H: [pipi]	H: [pipi]	Inter
1947	M: chigau, kochi no.	M: No, this one.	INTER
1948	H: [ae]?	H: [ae]?	Inter
1949	M: hae ne. kore wa, kore nani? ga ga. ((a sound?))	M: A fly, isn't it? What about this, what's this? Ga ga ((a sound?))	HEUR/ INFORM
1950	H: [pipi]	H: [pipi]	Inter
1951	M: ga ga ga	M: ga ga ga	INTER
1952	H: [ga ga ə ga]	H: [ga ga ə ga]	Inter
1953	M: a, kore wa? nyao to iune.	M: Oh. What about this? It says, 'meow,' doesn't it?	HEUR

1954	H: [nja͡ɪ] ((high pitched; squeals this a few times but not very clearly.))	H: [nja͡ɪ] ((high pitched; squeals this a few times but not very clearly.))	Inter
1955	M: nya nya ne. ja, hikaru chan kore nani,	M: It's a cat, isn't it? Well then, Hikaru, what's this?	INTER/HEUR
1956	H: [wa͡ʊ] ((a loud gruff growl.))	H: [wa͡ʊ]	Inter
1957	M: waw waw. kore wa?	M: Waw waw. ((growl?)) What about this?	INTER/ HEUR
1958	H: [ae]?	H: [ae]?	Inter
1959	M: hae ne? kore wa nani. bu bu.	M: A fly, isn't it? What's this? Bubu. (sound?)	HEUR/ INTER
1960	H: [bu:]	H: [bu:]	Inter
1961	M: bubu ne, moikai,	M: It's bubu, isn't it? Once more.	HEUR/ REG
1962	H: [ae]?	H: [ae]?	Inter
1963	M: hai, hae to bu bu ne. kore wa?	M: Yes, a fly goes 'bu bu,' doesn't it? What about this?	INTER/ HEUR
1964	H: [kɔ:]	H: [kɔ:]	Inter
1965	M: [me: me:] desho.	M: It's 'me me' (sound of a sheep or goat), right?	INTER
1966	H: [kɔ:]	H: [kɔ:]	Inter
1967	M: [kɔ] nano? ja, kore wa? [be:be:]	M: It's 'ko,' is it? Well then, what about this, '[be:be:]?'	HEUR/ INTER
1968	H: [bɛbɛ] [ae]?	H: [bɛbɛ] [ae]?	Inter
1969	M: hae koko irune.	M: A fly is here, isn't it?	HEUR/INTER
1970	H: [aʔ] [ae]?	H: [aʔ] [ae]?	Inter
1974	((M begins reading a book.))	((M begins reading a book.))	

	(25th Data set, 1/20/99, 9:15 PM) H: 2;3.00.	(25th Data set, 1/20/99, 9:15 PM) H: 2;3.00.	(25th Data set)
1975	F: hikaru chan, are pipi,	F: Hikaru, is that pipi?	HEUR
1976	H: [atʃi] ((spoken softly))	H: [atʃi] ((spoken softly))	Inter
1977	F: e?	F: What?	HEUR
1978	H: [atʃi]	H: [atʃi]	Inter
1979	F: achi?	F: That way?	HEUR
1980	H: [hatʃi]	H: [hatʃi]	Inter
1981	F: hachi?	F: A bee?	HEUR
1982	M: ((in background)) nyaki	M: ((in background)) 'nyaki'	
1983	F: a, nyaki? nyaki. nyaki to itte ja. (.) mata nyaki to itte (.) hikaru chan, haro (.) are mushi?	F: Ah, 'nyaki? nyaki.' Ok then, say, 'nyaki.' (.) Say, 'nyaki' again. (.) Hikaru, 'hello?' (.) Is that a bug?	REG/ HEUR
1984	H: [hai]	H: [hai]	Inter
1985	F: hai? kawaii? omoshiroi? zenzen shaberenai, ne shabetteyo. hikaru chan. (.) nani yatten are. oshaberi shiterunno? ne shabetteyo. hikaru chan, a doshitan are. itai itai? hikaru chan, (.) hikaru chan, nani kite are, are nani,	F: Yes? Cute? Interesting? He isn't talking at all. Hey, say something. Hikaru. (.) What are you doing with that? Are you talking to it? Hey, say something. Hikaru, ah what happened with that? Ouch, ouch? Hikaru. (.) Hikaru, what did you cut? What's that?	INTER/ INFORM/ HEUR
1986	H: [ʃi]	H: [ʃi]	Inter
1987	F: mushi? mushi to itte.	F: A bug? Say, 'a bug.'	HEUR/REG
1988	H: [ʃi]	H: [ʃi]	Inter
1989	F: are nani, mushi? hikaru chan, owarimasu.	F: What's that, a bug? Hikaru? The end.	HEUR

	(26th Data set, 2/8/99, 5:40 PM) H: 2;3.19.	(26th Data set, 2/8/99, 5:40 PM) H: 2;3.19.	(26th Data set)
1990	F: hikaru chan oishi?	F: Hikaru, is it delicious?	HEUR
1991	H: [n].	H: [n].	Inter
1992	F: oishi to itte, oishi to itte,	F: Say, 'delicious.' (X2)	REG
1993	H: [oʃi]	H: [oʃi]	Inter
1994	F: oishi, so. hikaru chan apu apu to itte,	F: Delicious, right. Hikaru, say, 'up up.' (English 'up.')	INTER/ REG
1995	H: [apu apu] ((spoken softly))	H: [apu apu] ((spoken softly))	Inter
1996	F: ue to itte, ue.	F: Say, 'Up, up.' (Japanese 'up.')	REG
1997	H: ((whispers something))	H: ((whispers something))	
1998	F: ue, oki koe de,	F: 'Up,' in a loud voice.	REG
1999	H: [ue]	H: [ue]	Inter
2000	F: shimauma,	F: Zebra.	REG
2001	H: [ʃimauma] ((whispered))	H: [ʃimauma] ((whispered))	Inter
2002	F: moto oki koe de, shimauma	F: In a louder voice, 'zebra.'	REG
2003	H: [ʃimama] ((softly))	H: [ʃimama] ((softly))	Inter
2004	F: shimauma, moto oki koe de.	F: 'Zebra,' in a louder voice.	REG
2005	H: [ʃimama]	H: [ʃimama]	Inter
2006	F: shimama so. sore ato hi-ka-ru chan te nani.	F: Zebra, right. And then, what is Hi-ka-ru?	INTER/ HEUR
2007	H: ((whispers something))	H: ((whispers something))	
2008	F: ((to someone playing piano in background)) ne chotto shizukanishite yo, ((to H)) moto oki koe de,	F: ((to someone playing piano in background)) Hey, please be quiet, ((to H)) In a louder voice.	REG
2009	H: [tota]	H: [tota]	Inter
2010	F: tota. totan gakko?	F: 'tota.' Dad, school?	REG/HEUR
2011	H: ((whispers something again))	H: ((whispers something again))	
2012	F: moto oki koe de,	F: In a louder voice.	REG
2013	H: [tota atʃi].	H: [tota atʃi].	Inter
2014	F: totan achi? takun wa.	F: Dad, that way? What about Takun?	HEUR/ REG
2015	H: [aʔn a],	H: [aʔn a],	Inter
2016	F: moto oki koe de,	F: In a louder voice.	REG
2017	H: ((whispers))	H: ((whispers))	
2018	F: so janakute ((chuckles)) moto oki koe de,	F: Not like that, ((chuckles)) in a louder voice.	REG

2019	H: ((whispers))	H: ((whispers))	
2020	F: chigau desho ((chuckles again)) ano saikin nanka iunno nandake, hikaru chan kaba, kaba, kaba to itte. hikaru chan, kaba to itte,	F: That's wrong, ((chuckles again)) Um, recently what is the thing he has been saying? Hikaru, hippo, hippo, say 'hippo.' Hikaru, say, 'hippo.'	INTER/ HEUR/ REG
2021	H: ((squirms))	H: ((squirms))	
2022	F: yada? ja kirin, raion, moto oki koe de, kirin, raion to itte,	F: You don't want to? OK then, giraffe. Lion. In a louder voice.	HEUR/ REG
2023	H: [raio]	H: [raio]	Inter
2024	F: raion so. ato wa baku baku, oki koe, baku.	F: Lion, right. Next, 'baku, baku' in a loud voice, 'baku.'	INTER/ REG
2025	H: [baku]	H: [baku]	Inter
2026	F: kaba, iitakunaika,	F: You don't want to say 'hippo,' eh?	HEUR
2027	M: konaida mina no owarishichatta kara iyananjattan, kaba wa.	M: A short while ago when he said 'hippo' everyone had a big laugh.	INFORM
2028	F: kizu tsuichattaka, ja ne, tora, tora, tora.	F: He was hurt by that, eh? OK then, tiger, tiger, tiger.	HEUR/ REG
2029	M: ieru jani, tora,	M: You can say that, tiger.	INTER/REG
2030	F: tora to itte, taberune janakute sa, tora. oki koe de, tora.	F: Say, 'tiger.' Not 'eat,' say, 'tiger.' In a loud voice, 'tiger.'	REG
2031	H: [towa]	H: [towa]	Inter
2032	F: towa, hai jozu jozu, hai, ja onaka, onaka to itte, onaka to oki koe de,	F: 'towa,' yes, very good! Yes, OK then, stomach, say, 'stomach, stomach,' in a loud voice.	INTER/ REG
2033	H: [oka]	H: [oka]	Inter
2034	F: oka? omizu, omizu. (.) ato nani ierun hikaru chan, uma.	F: 'oka?' Water, water. (.) What else can you say, Hikaru? Horse?	HEUR/REG/ HEUR
2035	H: [uma]	H: [uma]	Inter
2036	F: hai, oishi,	F: Yes, 'delicious?'	HEUR
2037	H: [ɔɪʃi],	H: [ɔɪʃi],	Inter
2038	F: pan oishi,	F: The bread is delicious.	REG
2039	H: [pa ɔɪʃi]	H: [pa ɔɪʃi]	Inter
2040	F: okasan arigato to itte, (.) okasan to itte, dame ka. ja onechan doko, onechan to itte,	F: Say, 'Thank you Mother.' (.) Say, 'Mother.' No good? OK then, where is Sister? Say, 'Sister.'	REG/ INTER
2041	H: ((whispers))	H: ((whispers))	
2042	F: nene to itte,	F: Say, 'nene.' (For Sister)	REG

2043	H: [nɛːnɛ]	H: [nɛːnɛ]	Inter
2044	F: nene doko, yubisasu ((chuckles)) nene, oki koe de, nene,	F: Where is Sister? You point your finger? ((chuckles)) Sister, in a loud voice, Sister.	HEUR/ REG
2045	H: [nɛnɛ oki]	H: [nɛnɛ oki]	Inter
2046	F: nene ouchi so. jozu jozu. hai sore ato hokani nanika gei ga dekimasuka?	F: Sister (is in the) house, right. Very good! Yes, besides this, are there any other tricks you can do?	INTER/ HEUR
2047	M: hikaru chan, hikaru chan, 'no' no iutte, 'no.'	M: Hikaru, Hikaru, 'no,' say, 'no, no.'	REG
2048	F: hikaru chan, 'no' wa, 'no' to itte,	F: Hikaru, 'no?' Say, 'no.'	REG
2049	H: ((whispers))	H: ((whispers))	
2050	F: moto oki koe de, 'no.'	F: In a louder voice, 'no.'	REG
2051	H: [no].	H: [no].	Inter
2052	M: moto oki koe de 'no.' hikaru chan itsumo iudesho oki koe de 'no' 'takun no' te iu desho.	M: In a louder voice, 'no.' Hikaru, you always say in a loud voice, 'no,' 'Takun, no,' right?	REG/ INTER
2053	F: 'no,' hikaru chan iya to itte,	F: 'no,' Hikaru, say 'iya (no).'	REG
2054	M: iya iuwanaiyo.	M: He doesn't say, 'iya.'	INFORM
2055	H: [ija] ((whispered))	H: [ija] ((whispered))	Inter
2056	F: iya te.	F: He just said 'iya.'	INFORM
2057	H: [ijaʔ]	H: [ijaʔ]	Inter
2058	M: iya to ieru kedo, iya to iuwanai	M: He can say 'iya,' but he doesn't say 'iya.'	INFORM
2059	F: iutta ima.	F: He just said it.	INFORM
2060	M: dakara ieru kedo, iya to iu imi no tsukau toki ni wa iya to iuwanai. 'no' to,...	M: Right. He can say it, but when he would use 'iya' for its meaning, he doesn't say 'iya.' He says, 'no.'	INFORM
2061	H: ((whispers))	H: ((whispers))	
2062	F: otosan no koto aishiteru? aishiteru? aishiteru to itte. oki koe de, aishiteru, aishiteru.	F: Do you love Father? Do you love me? Say, 'I love you.' In a loud voice, 'I love you, I love you.'	HEUR/ REG
2063	M: pipi achi ((unclear))	M: Pipi is over there ((unclear))	INFORM
2064	F: pipi achi itta to itte, oki koe de, pipi.	F: Say, 'Pipi went over there.' In a loud voice, 'Pipi.'	REG
2065	H: [pipi atʃI dʒa]	H: [pipi atʃI dʒa]	Inter

2066	F: a, jozu, pipi achi itta. moikai, pipi achi itta. oki koe de, pipi	F: Ah, very good! Pipi went over there. Once more, 'Pipi went over there.' In a loud voice, 'Pipi.'	INTER/ REG
2067	H: [pipi atʃI ita]	H: [pipi atʃI ita]	Inter
2068	F: a, jozu.	F: Ah, very good!	INTER
2069	M: ato pipi achi inai? no iu desho	M: And, you can say, 'Pipi is not over there.' Right?	HEUR/ INTER
2070	F: pipi, pipi achi inai? ja oki koe de, pipi.	F: 'Pipi, Pipi is not over there?' OK then, in a loud voice, 'Pipi.'	HEUR/ REG
2071	H: [pipi inaːi]	H: [pipi inaːi]	Inter
2072	F: pipi inai?	F: Pipi is not there?	HEUR
2073	((recording devolves into background noise.))	((recording devolves into background noise.))	

	(27th Data set, 2/10/99, 5:30 PM) H: 2;3.21.	(27th Data set, 2/10/99, 5:30 PM) H: 2;3.21.	(27th Data set)
2074	((F mentions that H has a slight case of pneumonia, so his throat is tender. H is drawing at the kitchen table.))	((F mentions that H has a slight case of pneumonia, so his throat is tender. H is drawing at the kitchen table.))	
2075	F: hikaru chan, nani yatteno? (X2) hikaru chan, sore nani?	F: Hikaru, what are you doing? (X2) Hikaru, what is it?	HEUR
2076	H: [(k/g)ami] ((weakly))	H: [(k/g)ami] (paper) ((weakly))	Inter
2077	F: kami ne? ka to iutte,	F: Paper, isn't it? Say, 'ka.'	INTER/REG
2078	H: [komi] ((weakly))	H: [komi] (paper) ((weakly))	Inter
2079	F: a?.a? shita ni kaitchatta. dame da, shita ni kaitchao. (.) hikaru chan, hikaru chan, kore janakute, ne, enpitsu de kaitte, enpitsu de, kore de kakina, kore de, (.) omoshiroi? hikaru chan, hikaru chan kyo doko ittekitano? hikaru chan, hikaru chan, kyo doko ittekitano? byouin, byouin, hikaru chan. dare to ittekita no byouin, dare to ittekita no.	F: Oh-oh! You wrote under (off the paper). That's bad. You will write (on the table). (.) Hikaru, Hikaru. Not this, eh, write with a pencil, a pencil. Write with this, this. (.) Interesting/Fun? Hikaru, Hikaru, where did you go today? Hikaru, Hikaru, where did you go today? The hospital? The hospital? Hikaru. With whom did you go to the hospital? Whom did you go with?	INTER/ REG/ HEUR
2080	H: [o ə] ((weakly))	H: [o ə] ((weakly))	Inter
2081	F: okasan.	F: Mother.	INTER
2082	H: [kəkə] ((weakly))	H: [kəkə] ((weakly))	Inter
2083	F: kaka ne, (.) hikaru chan (.) rajio keshitekudasai, hikaru chan. hikaru chan omoshiroi?	F: 'kaka (Mother),' right (.) Hikaru. (.) Please turn off the radio, Hikaru. Hikaru, is it interesting/fun?	INTER/ REG/ HEUR
2084	H: [n].	H: [n]. (Yes.)	Inter
2085	F: aka, aka to itte,	F: 'Red,' say, 'red.'	REG
2086	H: [ək oɛ]	H: [ək oɛ]	Inter
2087	F: sore aka,	F: Is that red?	HEUR
2088	H: [n].	H: [n].	Inter
2089	F: n, sore akai pen ne, sore nani, mushi? sore nani. ame?	F: Uh huh, it's a red pen, isn't it? What is it? What is it, rain?	INTER/ HEUR
2090	H: [n].	H: [n].	Inter
2091	F: nani sore.	F: What is it?	HEUR
2092	H: [amɛ]	H: [amɛ] (rain)	Inter
2093	F: ame.	F: Rain.	INTER

2094	((pause))	((pause))	
2095	F: hikaru chan nanka shabetekureyo,	F: Hikaru, say something for me.	REG
2096	H: [hapa]	H: [hapa] (leaf)	Inter
2097	F: hapa sore?	F: Is it a leaf?	HEUR
2098	H: [n].	H: [n].	Inter
2099	F: so?. hapa to itte, sore nani.	F: I see. Say, 'leaf.' What is it?	INTER/REG/ HEUR
2100	H: [pipi]	H: [pipi]	Inter
2101	F: pipi? so. sha sha kaitte. kikansha kaitte, kikansha. (.) sore nani,	F: Pipi? I see. Draw 'shasha' (a steam engine). Draw a steam engine, a steam engine. (.) What is it?	HEUR/ INTER/REG/ HEUR
2102	H: [ʃaʃa]	H: [ʃaʃa]	Inter
2103	F: so. kikansha.	F: Right. A steam engine.	INTER
2104	H: [ʃaʃa]	H: [ʃaʃa]	
2105	F: sha sha, so. bubu wa dore, bubu.	F: 'sha sha,' right. Which is 'bubu, bubu?'	INTER/ HEUR
2106	H: [oɛ bubu]	H: [oɛ bubu]	Inter
2107	F: sore nani, sore nani,	F: What is it? What is it?	HEUR
2108	H: [bubu]	H: [bubu]	Inter
2109	F: bubu	F: 'bubu.'	INTER
2110	H: [n].	H: [n].	Inter
2111	F: bubu achi itta?	F: Did the 'bubu' go that way?	HEUR
2112	H: [bubu] [bubu] [bubu]	H: [bubu] [bubu] [bubu]	Inter
2113	F: bubu achi?	F: Is 'bubu' that way?	HEUR
2114	H: [n]	H: [n]	Inter
2115	F: bubu ne ((to S)) ara kirei kirei.	F: 'bubu,' isn't it? ((to S)) Wow! Pretty, pretty.	HEUR/ INFORM
2116	((pause))	((pause))	
2117	F: achi ni bubu aru to itte, bubu achi ni aru to itte,	F: Say, '"bubu" is over there.' (X2)	REG
2118	H: [bubu atʃɪ] ((weakly))	H: [bubu atʃɪ] ((weakly))	Inter
2119	((F continue for the next 15 minutes to try to get H to say various words all of which are uttered very weakly and are difficult to make out clearly.))	((F continue for the next 15 minutes to try to get H to say various words all of which are uttered very weakly and are difficult to make out clearly.))	

	(28th Data set, 3/15/99, 11:30 AM) H: 2;4.23.	(28th Data set, 3/15/99, 11:30 AM) H: 2;4.23.	(28th Data set)
2120	M: ((to S)) sore nano? sore do suruno? chigau, saki ni dare no hon misete, kore dare no hon, hikaru hikaru? kore hikaru okasan ni yonde chodai, hai. oide, sore yonde, (.) kore nani,	M: ((to S)) Is that it? What will you do? No! First show (me/him?) the 'Who' book. Hikaru, Hikaru? This (one), Hikaru, read it to Mother, yes. Come here. Read it. (.) What is this?	HEUR/ REG
2121	H: [ʧipo]	H: [ʧipo]	Inter
2122	M: shippo dane, nani kore, hebi desho?	M: It's a tail, isn't it? What is this? A snake, right?	INTER/ HEUR
2123	H: ((utters something like [n]))	H: ((utters something like [n]))	
2124	M: dare dare to itte?	M: Say, 'Who, who.'	REG
2125	H: ((unclear)) [daɛ]	H: ((unclear)) [daɛ]	Inter
2126	M: dare,	M: 'Who.'	REG
2127	H: [daɛ] (.) [buta] (X7)	H: [daɛ] (.) [buta] (a pig) (X7)	Inter
2128	M: kore wa? kore wa dare, dare dare to itte?	M: What about this? Who is this? Say, 'Who, who.'	HEUR/ REG
2129	H: [dadɛ] [daɛ daɛ]	H: [dadɛ] [daɛ daɛ]	Inter
2130	M: kore dare,	M: Who is this?	HEUR
2131	H: [buta]	H: [buta] (a pig)	Inter
2132	M: chigau yo, kore kore, kore wa? kore buta janaidesho? kaba desho?	M: No! What about this, this, this? This isn't a pig, right? It's a hippo, right?	INTER/ HEUR/ INFORM
2133	H: [ka (w)a]	H: [ka (w)a]	Inter
2134	M: n. hikaru chan, denwa wa doko itchatta.	M: Uh huh. Hikaru, where did the telephone go?	HEUR
2135	H: [koʧi]	H: [koʧi] (this way)	Inter
2136	M: chotto denwa mottekite,	M: Well, bring the telephone here.	REG
2137	H: [n]. (.) ((some distance away)) [dɛnwa naɪ dɛnwa naɪ]	H: [n] (OK). (.) ((some distance away)) [dɛnwa naɪ dɛnwa naɪ]	Inter/Inform
2138	M: denwa nai?	M: There is no telephone?	HEUR/INTER
2139	H: [n].	H: [n]. (uh huh)	Inter
2140	M: ja chotto kite kochi, denwa nai to iutteyo. denwa atta?	M: OK then, come over here for a minute and say 'there is no telephone.'	REG
2141	H: ((clearly)) [dɛnwa naɪ]	H: ((clearly)) [dɛnwa naɪ] (there is no telephone)	Inter/Inform
2142	M: denwa nai?	M: There is no telephone?	HEUR/INTER

2143	H: [n].	H: [n]. (uh huh)	Inter
2144	M: are dare no denwa?	M: Whose telephone is that?	HEUR/INTER
2145	H: [dɛnwa ɔʧɪ]	H: [dɛnwa ɔʧɪ]	Inter
2146	M: denwa achi. dare, dare no denwa nano are,	M: The telephone is over there. Whose, whose telephone is it, that one?	INFORM/ HEUR/ INTER
2147	H: [koko dɛnwa]	H: [koko dɛnwa] (this {our?} telephone)	Inter
2148	M: chigau chigau, hikaru no denwa? takun no denwa,	M: No, no! Hikaru's telephone? Takun's telephone?	INTER/ HEUR
2149	H: [kao dɛnwa]	H: [kao dɛnwa] (Hikaru's telephone)	Inter
2150	M: hikaru no denwa dana?. baibai no denwa wa naino?	M: It's Hikaru's telephone, isn't it? Isn't there 'bye-bye's' (?) telephone?	INTER/ HEUR
2151	H: [n].	H: [n]. (uh huh)	Inter
2152	M: nande achi no ho mita yoku,	M: Why? Did you look carefully over there?	HEUR/ INTER
2153	H: [n].	H: [n]. (uh huh)	Inter
2154	M: mitekita,	M: You went to look?	HEUR/INTER
2155	H: [n].	H: [n]. (uh huh)	Inter
2156	M: n? ((quite long and rising intonation)) komattana.	M: Really? ((quite long and rising intonation)) That's a problem.	HEUR/ INFORM/ INTER
2157	H: [n].	H: [n]. (uh huh)	Inter
2158	M: doshioka.	M: What shall we do?	HEUR
2159	H: [n].	H: [n]. (uh huh)	Inter
2160	S: aru dayo.	S: It is there.	INFORM
2161	M: doko ni aru,	M: Where is it?	HEUR
2162	S: ((unclear))	S: ((unclear))	
2163	H: [naɪ] ((very loud))	H: [naɪ] (It's NOT there!) ((very loud))	Inter/Pers
2164	S: atta no	S: It was there.	INFORM
2165	H: [naɪ] ((very loud))	H: [naɪ] (It's NOT there!) ((very loud))	Inter/Pers
2166	S: usotsuki	S: Liar.	INTER
2167	M: denwa nai.	M: The telephone is not there.	INFORM
2168	H: [dɛnwa naɪ]	H: [dɛnwa naɪ] (The telephone is not there.)	Inter/Pers
2169	M: onechan ga mitekitekureru te	M: Sister will go take a look.	INFORM/ INTER

2170	H: [dɛnwa naɪ] (X3)	H: [dɛnwa naɪ] (The telephone is not there) (X3)	Inter/Pers
2171	M: nene ga mitekitekureru te yo.	M: Sister will go take a look!	INFORM/ INTER
2172	H: [dɛnwa naɪ]	H: [dɛnwa naɪ](The telephone is not there)	Inter/Pers
2173	M: a asoko made dame. hikaru chan dame desho sochi.	M: Ah, don't go that far. Hikaru, it's bad to go there/that way.	REG/INTER/ INFORM
2174	H: [dɛnwa naɪ] ((loudly))	H: [dɛnwa naɪ] (The telephone is not there) ((loudly))	Inter/Pers
2175	M: wakatta yo, nene nene ga mitekureru te, de, sono gohon nanno gohon?	M: OK, I understand. Sister, Sister, will go take a look. Bye the way, what kind of book is that book?	INFORM/ HEUR
2176	H: [nako]	H: [nako]	Inter
2177	M: nyanko ne,	M: (a book about) Cats, isn't it?	INTER
2178	H: [n].	H: [n]. (uh huh)	Inter
2179	M: keshite? o.	M: Turn it off? Oh!	REG
2180	H: [oʔ]	H: [oʔ]	Inter
2181	M: kawaii ne, ((whispered))	M: Cute, isn't it? ((whispered))	HEUR
2182	H: ((very loud and distorted)) [njako at:a].	H: ((very loud and distorted)) [njako at:a].	Inter/Inform
2183	M: nyanko atta ne,	M: A cat was there, wasn't it?	HEUR
2184	H: [njako at:a]	H: [njako at:a]	Inter/Inform
2185	M: nyanko atta ne, dochi ga kawai?	M: A cat was there, wasn't it? Which one is cute?	HEUR
2186	H: [kotʃigai:]	H: [kotʃigai:]	Inter/Inform
2187	M: kochi ga ii, so?.	M: This one is good (your choice)? I see.	INTER
2188	S: saki ga kochi no ho ga kawaii yo.	S: This one is cuter than the other one!	INFORM
2189	M: hora mite, umareta bakari, oppai nonderu.	M: Look! It's newborn. It is suckling.	REG/ INFORM
2190	S: misete,	S: Show me.	REG
2191	H: [a njɛnjɛ]	H: [a njɛnjɛ]	Inter/Inform
2192	M: nyanya shiterune.	M: It's mewing (?), isn't it?	HEUR
2193	H: [njako at:a] ((quite loud)) [njako at:a] [njako at:a] [njako at:a] [tonton]	H: [njako at:a] (A cat was there) ((quite loud)) [njako at:a] [njako at:a] [njako at:a] [tonton]	Inter/Inform

2194	M: tonton shiterune. ((M and S have a running discussion about something while H tries to say various things and have M respond to them.)) hikaru chan kore mitegoran,	M: It is thumping (on something), isn't it? ((M and S have a running discussion about something while H tries to say various things and have M respond to them.)) Hikaru, look at this.	HEUR/ REG
2195	H: [n] [piʔpiʔtaʔ].	H: [n] [piʔpiʔtaʔ].	Inter/Inform
2195	M: asobou to iuttenokana,	M: Are you saying, 'Let's play'?	HEUR
2196	H: [n]	H: [n] (uh huh)	Inter
2197	M: nyanko ga asobo to iutteno?	M: Is the cat saying, 'Let's play'?	HEUR
2198	H: [ʌʔ] ((loudly))	H: [ʌʔ] (Yes!) ((loudly))	Inter
2199	M: kore wa?	M: What about this?	HEUR
2200	H: [batɛtɛ]	H: [batɛtɛ]	Inter
2201	M: matete? chigau yo. nani shitenno nyanya unchi shiteruyo.	M: Wait? No! What (is it) doing? The cat is pooping.	REG/INTER/ HEUR/ INFORM
2202	H: [n] ((weakly))	H: [n] (uh huh) ((weakly))	Inter
2203	M: shikko shiteruyo.	M: It is peeing.	INFORM
2204	((pause; later on M, S, and H are involved in naming words in a book, but the sound is too distorted to be useful.))	((pause; later on M, S, and H are involved in naming words in a book, but the sound is too distorted to be useful.))	

	(29th Data set, 3/30/99, 6:40 PM) H: 2;5.10.	(29th Data set, 3/30/99, 6:40 PM) H: 2;5.10.	(29th Data set)
2205	((F comments that recently H has begun to talk a great deal))	((F comments that recently H has begun to talk a great deal))	
2206	F: hikaru chan, kyo dare to asondano dare, dare,	F: Hikaru, whom did you play with today, whom, whom?	HEUR
2207	H: ((mumbles something while sniggering))	H: ((mumbles something while sniggering))	
2208	F: e? dare to asondano? doko de asondano?	F: What? Whom did you play with? Where did you play?	HEUR
2209	H: [koko]	H: [koko] (Here)	Inter
2210	F: koko ne, dare to ((to B who is making disturbing noises)) takun yamete urusai ((to H)) soto de desho?	F: Here, wasn't it? With whom? ((to B who is making disturbing noises)) Takun, stop it, you're being noisy. ((to H)) Outside, right?	HEUR/ REG
2211	H: [toto]	H: [toto] (outside?)	Inter
2212	M: hikaru chan, kore nani,	M: Hikaru, what's this?	HEUR
2213	H: ((mumbles))	H: ((mumbles))	
2214	F: dare no are,	F: Whose is that?	HEUR
2215	H: [asu]	H: [asu]	Inter
2216	F: oisu ne?	F: It's a chair, isn't it?	INTER/ HEUR
2217	M & F: dare no isu,	M & F: Whose chair?	HEUR
2218	H: [kaoisu]	H: [kaoisu] (Hikaru's chair?)	Inter/Inform
2219	F: hikaru no isu to iimashita.	F: He said, 'Hikaru's chair.'	INFORM
2220	H: [kanoəsu kanoisu] (.) [kanoisu] ((all spoken softly))	H: [kanoəsu kanoisu] (.) [kanoisu] (Hikaru's chair?) ((all spoken softly))	Inter/Inform
2221	((pause))	((pause))	
2222	H: [atʃI atʃI]	H: [atʃI atʃI] (that way/over there)	Reg
2223	F: achi de asondane,	F: You played over there, didn't you?	INFORM/ HEUR
2224	H: [də to] ((laughs))	H: [də to] ((laughs))	Inter
2225	F: kore dare	F: Who is this?	HEUR
2226	H: [hanokono] ((weakly))	H: [hanokono] ((weakly))	Inter
2227	F: chigau chigau, kore dare, kore, konohito dare,	F: No, no! Who is this? This, who is this person?	INTER/ HEUR
2228	H: [kao]	H: [kao] (Hikaru)	Inter

2229	F: hikaru kore, otosan, hikaru no hana, (.) gohan oishikatta, oishi gohan to itte,	F: This is Hikaru? Father. Hikaru's nose. (.) Was the (food) rice delicious? Say, 'Delicious rice.'	HEUR/ INFORM/ REG
2230	H: [oɪʃi wawa]	H: [oɪʃi wawa]	Inter
2231	F: oishi gwanwan ne, oishi to itte,	F: (Something like) 'dewicious wice.' Say, 'delicious.'	INTER/ REG
2232	M: hikaru, kore taberu,	M: Hikaru, will you eat this?	HEUR
2233	H: [n].	H: [n]. (Yes)	Inter
2234	M: tabetai to iutte,	M: Say, 'I want to eat.'	REG
2235	H: [ba ta] ((very softly))	H: [ba ta] ((very softly))	Inter
2236	M: nani kyu ni...	M: What, all of a sudden...	HEUR
2237	H: [bataɪ] ((softly))	H: [bataɪ] ((softly))	Inter
2238	F: moikai.	F: Once more.	REG
2239	H: [bataɪ]	H: [bataɪ]	Inter
2240	F: tabetai, hai. a, otosan mo tabetaina,	F: 'I want to eat,' yes. Ah, Father wants to eat, too.	INTER/ INFORM
2241	H: ((loudly)) [batataɪ]	H: ((loudly)) [batataɪ]	Inter
2242	M: batatai.	M: 'batatai.'	
2243	F: kochi kite hikaru, kochi,	F: Come over here, Hikaru, over here.	REG
2244	H: ((squeals about something)) [kanoisu] (X2) ((shouted and unclear))	H: ((squeals about something)) [kanoisu] (X2) (Hikaru's chair) ((shouted and unclear))	Inter/Inform
2245	F: hikaru no isu to kogishiteimasu.	F: He is protesting that it is his chair.	INFORM
2246	M: chotto matte (X3) mada detenai, hikaru. ((M puts food in his plate))	M: Wait a minute! (X3) It has not yet come out. ((M puts food in his plate))	REG/ INFORM
2247	H: [ka madʒɛtɛ]	H: [ka madʒɛtɛ] (Hikaru wants to stir it?)	Reg
2248	M: chotto matte, ja hikaru mazete,	M: Wait a minute. OK then, Hikaru, stir it.	REG/ INTER
2249	H: [okini]? ((with a mouthful of food))	H: [okini]? ((with a mouthful of food))	Inter/Inform
2250	M: oki ne,	M: It's big, isn't it?	INTER/ HEUR
2251	H: [n] [otʃɪ]	H: [n] [otʃɪ] (Yes, it's big)	Inter
2252	M: chotto okasan saki ni mazesashite,	M: Wait, let Mother mix it first.	REG/ INTER
2253	H: [n:] ((seems unhappy about this))	H: [n:] ((seems unhappy about this))	Inter

2254	M: yoku mazete hikaru chan atsui kara tsugi, ne? hikaru chan no junban.	M: Stir it well, Hikaru. Because it is hot, you can be next (to stir), OK? Hikaru's turn.	REG/ INFORM/ INTER
2255	H: [aɾɛ]?	H: [aɾɛ]? (What?)	Heur
2256	M: n, sore ireta mo.	M: Uh huh, go ahead and put it in.	REG
2257	H: [koko i ka ban] ((high-pitched, somewhat unclear))	H: [koko i ka ban] ((high-pitched, somewhat unclear))	Inform/Reg
2258	M: hikaru no ban to iuttayone ima ne. hikaru otofu wa? tofu.	M: I just said it was Hikaru's turn, right? Hikaru, what about tofu? Tofu?	INTER/ HEUR/REG
2259	H: [ohʊ]?	H: [ohʊ]? (tofu?)	Heur
2260	M: n, oshimai, kore owari.	M: Uh huh. All finished. This is done.	INFORM
2261	H: [oʧɪ nɛ].	H: [oʧɪ nɛ]. (It's delicious, right?)	Inter
2262	M: ochi ne, (.) mazatta, ajimisete. ((they begin eating)) oishi yo, hikaru chan tabete, (.) n. chirasanaide, dou. oishi? taberu tsukete,	M: Delicious, right? (.) You mixed it. Taste it. ((they begin eating)) It's delicious. Hikaru, eat (it). (.) Uh huh. Don't throw it around. How is it? Delicious? Eat. Put (this) on.	HEUR/ REG/ INTER
2263	H: [n]. [a a a]	H: [n]. [a a a]	Inter
2264	F: hikaru chan, kore nani,	F: Hikaru, what's this?	HEUR
2265	H: [ʤəkɔ].	H: [ʤəkɔ].	Inter
2266	F: kore ninjin desho?	F: This is a carrot, right?	INFORM/ HEUR
2267	H: [oe niʧi]	H: [oe niʧi]	Inter
2268	F: ninjin. so so, kore nani kore.	F: A carrot. Right, right. What's this, this?	INTER/ HEUR
2269	H: [ʤɪnʧɪ]	H: [ʤɪnʧɪ]	Inter
2270	F: ichigo.	F: A strawberry.	INFORM
2271	H: [ɔɪʧɪgɔ].	H: [ɔɪʧɪgɔ].	Inter
2272	F: kore nani hikaru chan, kore.	F: What's this, Hikaru? This?	HEUR
2273	H: [ʃaju].	H: [ʃaju].	Inter
2274	F: so shyoyu, chanto iemashitane?	F: Right! Soy sauce! You could say it properly, couldn't you?	INTER/ HEUR
2275	M: shyoyu zuibun mae kara iutteta.	M: He could say 'soy sauce' from a long time ago.	INFORM
2276	F: kore yoguruto hai. yoguruto.	F: This is yogurt. Yes, 'yogurt.'	INFORM

2277	M: abunai yo? abunai yo hikaru chan. abunai yo iutte yo. abunai yo to itte, koboreru koboreru, abunai yo to itte,	M: It's dangerous! It's dangerous! Hikaru. Say, 'It's dangerous!'(X3) You're going to spill it, you're going to spill it... Say, 'It's dangerous!'	INFORM/ REG
2278	H: ((mumbles something))	H: ((mumbles something))	
2279	M: ne hikaru abunai yo to iutte yo,	M: Hey, Hikaru, say, 'It's dangerous!'	REG
2280	H: ((while giggling says)) [anaɪjo]	H: ((while giggling says)) [anaɪjo]	Inter
2281	M: moikai yo. abunai yo.	M: Once more. 'It's dangerous!'	REG
2282	H: [anaɪjo] ((clearly)) ((laughs)) (.) [oʃi]?	H: [anaɪjo] ((clearly)) ((laughs)) (.) [oʃi]? (Delicious?)	Inter
2283	M: mm. mo hitotsu chodai.	M: Mmm. Give me one more.	REG/INTER
2284	H: [opf opf opfpf] [oʃi]?	H: [opf opf opfpf] [oʃi]?	Pers/Heur
2285	M: mm.	M: Mmm.	
2286	H: [obo: pun ət:ə]	H: [obo pun ət:ə]	Pers
2287	M: pun? ((end of tape))	M: '[pun]?' ((end of tape))	HEUR

	(30th Data set, 5/14/99, 8:00 PM) H: 2;6.24.	(30th Data set, 5/14/99, 8:00 PM) H: 2;6.24	(30th Data set)
2288	F: hikaru, nani yattenno? hikaru chan, nani yattenno? nani yattenno, jiji shitenno? hikaru chan (X2), hikaru chan nani yattenno, nande shabenaino, nande shabenaino, kyo doko ittekitano, hikaru chan. misato chan uchi ni ittekitadesho? itte? misato chan no uchi.	F: Hikaru, what are you doing? Hikaru, what are you doing? Are you doing 'jiji'? Hikaru (X2). Hikaru, what are you doing? Why don't you speak? Why don't you speak? Where did you go today, Hikaru? You went to Misato's house, right? Say, 'Misato's house.'	HEUR/ REG
2289	H: ((says something weakly.))	H: ((says something weakly.))	
2290	F: mochotto oki koe de itte, hai.	F: Say it in a little louder voice. Yes.	REG
2291	H: [mitʃatʃantʃi]	H: [mitʃatʃantʃi]	Inter
2292	F: michachanchi itta no, omoshirokatta? so. sorekara? ato doko itta no kyo, soto de asonda? ja, soto de asonda to itte,	F: Did you say, 'michachanchi?' Was it fun? Is that right? Then? Afterwards, where did you go today? Did you play outside? Well then, say, 'I played outside.'	HEUR/ REG
2293	H: [tʃoto asonda]	H: [tʃoto asonda]	Inter
2294	F: soto de asondane, demo genki ga demasenne. nani yattenno hikaru chan.	F: You played outside, didn't you, but you don't sound very lively/excited about it. What are you doing, Hikaru?	INTER/ HEUR
2295	((there is a knock at the door.))	((there is a knock at the door.))	
2296	H: [aʔ]	H: [aʔ]	Pers
2297	F: a, donataka okyakusama desu.	F: Oh, someone's there, a guest.	INFORM
2298	((short pause.))	((short pause.))	
2299	F: okyakusama dewanakute, okasan deshita. hikaru chan, okasan ni bai bai itte.	F: It was not a guest, it was Mother. Hikaru, say, 'bye-bye' to Mother.	INFORM/ REG
2300	H: [okasan baɪ baɪ] ((weakly.))	H: [okasan baɪ baɪ] (Mother, bye-bye.) ((weakly))	Inter
2301	M: ((laughs.))	M: ((laughs))	
2302	H: [okasan baɪ baɪ] ((more loudly.))	H: [okasan baɪ baɪ] (Mother, bye-bye.) ((more loudly.))	Inter
2303	F: ((to Hikaru,)) matane te,	F: ((to Hikaru,)) Say, 'See you later.'	REG
2304	M: mata ne,	M: See you later.	INTER

2305	H: [okasan mata ne]	H: [okasan mata ne] (Mother, see you later.)	Inter
2306	M: mata ne. ((leaves))	M: See you later.	INTER

	(31st Data set, 5/20/99, 8:40 PM) H: 2;7.00.	(31st Data set, 5/20/99, 8:40 PM) H: 2;7.00.	(31st Data set)
2307	M: hikaru chan mo sutora to iutte, hikao mo sutora te iutte,	M: Say, 'A straw for Hikaru, too.' (X2)	REG
2308	H: [ka mo ta]	H: [ka mo ta]	Inter
2309	M: hikaru mo sutora to itteimasu. hikaru mo sutora hoshino, demo oniichan ga byoki dakara oniichan dake tsukattara hikaru chan nomashitekureru?	M: He is saying, 'A straw for Hikaru, too.' Does Hikaru want a straw, too? But, Brother is sick so only he is using (a straw). Will you let him use it?	INFORM/ HEUR/ INTER
2310	H: ((whines,)) [ka mo toa]	H: ((whines,)) [ka mo toa]	Inter/Reg
2311	M: hikaru mo sutora hoshino?	M: Hikaru wants a straw, too?	HEUR/INTER
2312	H: [n].	H: [n]. (Yes.)	Inter
2313	M: achan agetemoii. akachan dakara. dame. ii? sankyu arigato. hikaru chan, arigato iutte okasan ni.	M: Achan, it's OK to give him one. Because he is a baby. OK? Thank you, thank you. Hikaru, say thank you to Mother.	INFORM/ REG
2314	H: [atoto]	H: [atoto]	Inter
2315	M: moikai iutte, arigato te.	M: Say it again, say, 'thank you.'	REG
2316	H: [atoto]	H: [atoto]	Inter
2317	M: hai. ((to tape recorder,)) arigato to iimashita. ((to H)) oishi?	M: Yes. ((to tape recorder,)) He said, 'thank you.' ((to H)) Delicious?	INFORM/ HEUR
2318	H: ((makes some noises as if something is hurting him.))	H: ((makes some noises as if something is hurting him.))	
2319	M: doko ga ittakata, itai? doko misete, [a:] shite, [a:] shite, ((unclear)) ja yameru sore. orenji jusu yameru?	M: Where did you get hurt? Does it hurt? Where. Show me. Say ah, say ah. ((unclear)) OK then, do you want to stop? Stop drinking orange juice?	HEUR/ REG
2320	H: ((grunts,)) (.) [okasan kaɪta no]? ((Something was drawn on his paper which he did not want drawn there.))	H: ((grunts,)) (.) [okasan kaɪta no]? ((Something was drawn on his paper which he did not want drawn there.))	Heur
2321	M: n? okasan kaitanjanaiyo. hikaru chan kaitandesho kore. hikaru jozu dane,	M: What? Mother didn't write/draw anything. Hikaru drew it, right? Hikaru is very good!	INFORM/ HEUR/ INTER
2322	H: [n].	H: [n]. (Yes.)	Inter
2323	M: ima okasan kaitano to iimashitane?	M: You just said, 'Mother, did you draw this?' didn't you?	HEUR
2324	H: ((no response.))	H: ((no response.))	

2325	M: oishi, hikaru? ((he is drinking orange juice.))	M: Delicious, Hikaru? ((he is drinking orange juice.))	HEUR
2326	H: [n] [moi].	H: [n] [moi]. (Yes, that's enough.)	Inter/Inform
2327	M: moi no?	M: Is that enough?	HEUR
2328	H: [n].	H: [n]. (Yes.)	Inter
2329	M: konnani nokotteruyo.	M: (But) this is all that's left.	INFORM/ INTER
2330	H: [n]. [moi no].	H: [n]. [moi no]. (Yes. That's enough.)	Inter/Inform
2331	F: hikaru chan nani kaitteruno? omeme?	F: Hikaru, what are you drawing? Eye(s)?	HEUR
2332	H: ((while drawing says,)) [dʒadʒantʃi]	H: ((while drawing says,)) [dʒadʒantʃi]	Pers/Inform
2333	M: n?	M: What?	HEUR
2334	H: [dʒadʒantʃi]	H: [dʒadʒantʃi]	Pers/Inform
2335	M: [dʒadʒantʃi]?	M: [dʒadʒantʃi]?	HEUR/INTER
2336	S: jajan.	S: Tada!	INFORM
2337	M: jajan to iutano?	M: Did you say, 'Tada!'?	HEUR
2338	S: jajan to ittendayo.	S: He is saying, 'Tada!'	INFORM
2339	M: jozu yone.	M: Very good, isn't he?	INTER

	(32nd Data set, 6/21/99, 9:00 PM) H: 2;8.01.	(32nd Data set, 6/21/99, 9:00 PM) H: 2;8.01.	(32nd Data set)
2340	((F explains that H is eating some rice crackers.))	((F explains that H is eating some rice crackers.))	
2341	M: hikaru, oishi, bayuyu to itte bayuyu, kore bayuyu,	M: Hikaru, delicious, say, 'bayuyu, bayuyu.' This is 'bayuyu,'	REG
2342	H: [bajuju] ((said while eating crackers))	H: [bajuju] ((said while eating crackers))	Inter
2343	F: oishi to itte,	F: Say, 'delicious.'	REG
2344	H: [oʃɪ]	H: [oʃɪ] (delicious)	Inter
2345	F: batatai to itte,	F: Say, 'batatai.'	REG
2346	H: [batataɪ]	H: [batataɪ]	Inter
2347	M: osenbei batata desho?	M: You're eating a rice cracker, right?	INTER/ HEUR
2348	H: [osembei batata no]	H: [osembei batata no]	Inter/Inform
2349	F: batata no wa tabetano to iu imi desu.	F: 'batata' means 'tabeta.' (eat)	INFORM
2350	B: obaachan mitete,	B: Grandmother, look.	REG
2351	F: obaachan to itte,	F: Say, 'Grandmother.'	REG
2352	H: [batʃan]	H: [batʃan] (Grandmother)	Inter
2353	F: obaachan daisuki to itte,	F: Say, Grandmother, I really like you.'	REG
2354	H: [batʃan dakɪ]	H: [batʃan dakɪ] (Grandmother, I really like you.)	Inter
2355	F: obaachan daisuki to itte,	F: Say, Grandmother, I really like you.'	REG
2356	H: [batʃan daːkɪ]	H: [batʃan daːkɪ](Grandmother, I really like you.)	Inter
2357	B: ojiichan wa?	B: What about Grandfather?	HEUR/REG
2358	F: ojiichan suki?	F: Do you like Grandfather?	HEUR/INTER
2359	H: [ɔʤɪtʃandaːkɪ]	H: [ɔʤɪtʃandaːkɪ] (I really like Grandfather.)	Inter
2360	F: ojiichan daiksuki, so? otosan wa?	F: I really like Grandfather. I see, What about Father?	INTER/HEUR/ REG
2361	H: [otosandaːkɪ]	H: [otosandaːkɪ] (I really like Father.)	Inter
2362	F: so, okasan wa?	F: Right, What about Mother?	HEUR/REG
2363	H: [o, o, oka, oso, ok, okasanmodaːkɪ]	H: [o, o, oka, oso, ok, okasanmodaːkɪ] ((stutters a bit)) (I really like Mother, too.)	Inter

2364	F: okasan mo daisuki, hai, hai, achan wa?	F: I really like Mother, too. Yes, yes. What about Achan?	INTER/HEUR/ REG
2365	H: [atʃanmoda:kɪ]	H: [atʃanmoda:kɪ] (I really like Achan, too.)	Inter
2366	F: takun wa?	F: What about Takun?	HEUR/REG
2367	H: [taʔnmoda:kɪ]	H: [taʔnmoda:kɪ] (I really like Takun, too.)	Inter
2368	F: hikaru chan wa?	F: What about Hikaru?	HEUR/REG
2369	H: [kabodatʃɪ]	H: [kabodatʃɪ] (I really like Hikaru, too.)(?)	Inter
2370	F: hikaru mo daisuki.	F: I really like Hikaru, too.	INTER/ INFORM
2371	((short pause here))	((short pause here))	
2372	F: kore nani, hikaru chan kore,	F: What's this, Hikaru, this?	HEUR
2373	H: ((mumbles something))	H: ((mumbles something))	
2374	F: e?	F: What?	HEUR
2375	H: [utʃɪ].	H: [utʃɪ].	Inter/Inform
2376	F: kukki janai kore, osenbei.	F: This is not a cookie, it's a rice cracker.	INTER/ INFORM
2377	H: [osɛmpɛ]	H: [osɛmpɛ] (rice cracker)	Inter
2378	F: so.	F: Right.	INTER
2379	((pause))	((pause))	
2380	F: oishi?	F: Delicious?	HEUR
2381	H: [ɔɪʃɪ] ((softly))	H: [ɔɪʃɪ] ((softly))	Inter
2382	F: oishi ne. hoka ni kotoba ittekudasaiyo.	F: Delicious, isn't it? Please say some other words.	INTER/ REG
2383	M: hikaru chan, tonten mushi to iutte yo. tento mushi,	M: Hikaru, say, 'tonten mushi, tento mushi.'	REG
2384	F: tento, tento mushi.	F: Lady, lady bug.	INFORM/REG
2385	H: [tɛntɛntontɛnʃɪ]	H: [tɛntɛntontɛnʃɪ]	Inter
2386	F: tontenshi	F: 'tontenshi.'	INTER
2387	H: [tontɛnʃɪ]	H: [tontɛnʃɪ]	
2388	((M, F, and another person are talking about something in the background))	((M, F, and another person are talking about something in the background))	
2389	H: [məkoi]?	H: [məkoi]?	Heur
2390	F: oishi?	F: Delicious?	HEUR
2391	H: [ɔɪʃɪ].	H: [ɔɪʃɪ]. (delicious)	Inter
2392	F: oishi.	F: Delicious.	INTER

2393	M: oishi, yokatta ne, oishi to iutta? oishi to iutta?	M: Delicious. That's great, isn't it? Did you say, 'delicious?' (X2)	INTER/ HEUR
2394	H: [ɔɪʃɪ].	H: [ɔɪʃɪ]. (delicious)	Inter
2395	M: nani ga oishino?	M: What is delicious?	HEUR
2396	H: [kəʃa ɔɪʃɪ].	H: [kəʃa ɔɪʃɪ].	Inter/Inform
2397	F: nani ga oishino? kore nani, kore.	F: What is delicious? What's this, this?	HEUR
2398	H: ((unclear)) [osɛmpɛ].	H: ((unclear)) [osɛmpɛ]. (rice cracker)	Inter
2399	F: ojiichan nani yatteno? (X2)	F: Grandfather, what are you doing? (X2)	HEUR
2400	H: [nənkə jat:ɛʊ]	H: [nənkə jat:ɛʊ] (He's doing something)	Inter/Inform
2401	F: nanka yatteru datte, nanka yatteru? so.	F: 'He's doing something,' (he said). 'He's doing something.' Right.	INTER/ INFORM
2402	M: ojiichan doko ni iruno? hikaru. hikaru, ojiichan doko ni iruno?	M: Where is Grandfather? Hikaru. Hikaru. Where is Grandfather?	HEUR
2403	F: doko,	F: Where?	HEUR
2404	H: ((unclear))	H: ((unclear))	
2405	F: koko. obaachan wa?	F: Here. What about Grandmother?	INFORM/ HEUR/REG
2406	H: [obatʃan kɔk:ɔ]	H: [obatʃan kɔk:ɔ] (Grandmother here)	Inter/Inform
2407	((pause))	((pause))	
2408	F: hikaru chan nani yatteno? are nani, hikaru chan no nani?	F: Hikaru, what are you doing? What is that? It is Hikaru's what?	HEUR
2409	H: ((mumbles))	H: ((mumbles))	
2410	F: hikaru no kusuri.	F: Hikaru's medicine.	INFORM
2411	H: [kanosi] ((weakly))	H: [kanosi] ((weakly))	Inter
2412	F: kusuri.	F: Medicine.	INFORM
2413	H: [kanosi] ((weakly))	H: [kanosi] ((weakly))	Inter
2414	F: kusuri,	F: Medicine.	INFORM
2415	H: [ɔɪʃ]	H: [ɔɪʃ]	Heur?
2416	F: oishi kusuri,	F: Delicious medicine.	INFORM
2417	H: [ɔɪʃɪ a ki] (.)	H: [ɔɪʃɪ a ki] (.)	Inter

2418	M: hikaru oide kusuri ageru kara, kore peron to nametara owari.	M: Hikaru, come over here and I will give you your medicine. All you have to do is lick this (spoon) and it's done.	REG/ INTER
2419	F: oishi so iina hikaru chan,	F: It looks delicious. It's great, Hikaru.	INFORM/ INTER
2420	M: orenji no aji, ame no aji.	M: It's orange flavor, candy flavor.	INFORM/ INTER
2421	F: oishi so na aji da.	F: It's a delicious sounding flavor.	INFORM
2422	H: [amenoaji]?	H: [amenoaji]? (candy flavor?)	Inter/Heur
2423	F: so.	F: Right.	INTER
2424	M: ame no aji.	M: Candy flavor.	INFORM/ INTER
2425	H: [jada].	H: [jada]. (I don't want it)	Pers
2426	M: iyada kedo sa, tabenakucha dame nandane? a shite	M: You might not want it, but you have to (eat) take it. Say 'ah.'	INTER/ REG
2427	((H takes the medicine))	((H takes the medicine))	
2428	F: hai, erai (X7) a, erai nonda.	F: Yes, well done! (X7) Ah, well done! You drank it!	INTER
2429	H: [ɔɪʃɪ].	H: [ɔɪʃɪ]. (delicious)	Inter/Inform
2430	M: oishi ((laughs))	M: Delicious. ((laughs))	INFORM/ INTER
2431	F: oishikatta, ((chuckles)) oishikattane. desho? oishi desho? oishi desho? ((to M)) mizu agenai to, mizu, ((to H)) jusu nomina, oishikattane? hora minasai oishi kusuri damon, nihon mo dandan oishikunattan, kusuri ga	F: It was delicious, ((chuckles)). It was delicious, wasn't it? Right? It was delicious, right? (X2) ((to M)) Give him some water, water. ((to H)) Drink some juice. It was delicious, wasn't it? Look at that! It was delicious medicine! Japanese medicine has gradually become delicious.	INTER/ HEUR
2432	H: [moi].	H: [moi]. (enough)	Inter/Pers/ Inform
2433	M: mo yokunaindayo.	M: No, not enough.	INTER
2434	F: motto oishi nomenakya. hikaru sore nani? ima nani nonderuno hikaru, sore nani? hikaru. hikaru? hikaru?	F: You have to drink more delicious (medicine.). Hikaru, what is it? What are you drinking now? Hikaru, what is it? Hikaru. Hikaru? Hikaru?	INFORM/ HEUR

APPENDIX B

NON-JAPANESE WORDS FOUND IN THE DATA.

(* - not typically found in Japanese.)

Word/Phrase	Phonetic transcription (IPA)	Speaker	Date first noted in data	Position (#) in data
bye-bye	[baɪ baɪ]	F	6/9/98	41
cheetah	[ʧita]	F	6/13/98	45
pan ('bread' in some Romance languages)	[pan]	F	7/7/98	72
lucky	[ɾʌki] / [ɾakːi]	F	7/16/98	81
tape	[tepɯ]	M	7/18/98	129
tape recorder	[tepɯ ɾekoda]	M	7/18/98	131
*Pooh	[puː]	M	7/18/98	158
*Winnie the Pooh and the honey tree	[wɪniðəpuæn ðəhʌnitɹi]	F	7/18/98	159
balloon	[baɾɯn]	M	7/18/98	183
mic(rophone)	[maɪkɯ]	M	7/18/98	250
lion	[raɪon]	S	7/18/98	253
juice	[ʤɯsɯ]	M	7/22/98	326
*dressed up	[dorɛstapɯ	B	7/22/98	340
camp	[kjampɯ]	S	7/30/98	481
up	[apɯ]	M	7/30/98	487
bed	[bɛːdo]	M	7/30/98	499
thank you	[θæŋkju]	F	8/2/98	529
papa	[papa]	F	8/2/98	547
banana	[banana]	M	8/9/98	569
video	[bideo]	B	8/9/98	578
violin	[baɪoɾin]	F	8/9/98	659
power	[pawa]	B	8/9/98	686
baton	[batan]	F	8/21/98	714
hello	[hɛɾo] / [haɾo]	F	8/21/98	720
*Freidrich	[ɸɯridorihi]	F	8/21/98	722
curtain	[katɛn]	F	8/21/98	767
*chain	[ʧen]	B	8/21/98	781
*bring back	[bɯriŋɯgɯbakːɯ]	M	8/21/98	782
*promise	[pɯromisɯ]	M	8/21/98	784
cooler (air conditioner)	[kɯɾa]	F	8/24/98	813

*Restamin (medicine)	[ɾɛstamin]	M	8/30/98	835
dynamic	[da͡ɪnamikɯ]	F	8/30/98	846
*Moon	[mun]	M	8/30/98	891
*taking turns.	[tekin ta:nɯ]	B	8/30/98	965
cake	[keiki]	M	8/30/98	1027
one, two, three	[wan] [tsɯ] [sɯɾi]	M	9/8/98	1153
four, five	[fo:] [fa͡ɪv]	M	9/8/98	1159
chicken	[ʧikin]	M	9/15/98	1251
cheese	[ʧizɯ]	M	9/15/98	1296
*Jesus	[ʤizasɯ]	M	9/15/98	1307
*ouch, yuck	[a͡ʊʧi] [jak]	M	9/28/98	1436
cookie	[kɯk:i]	F	10/2/98	1636
happy	[hap:i]	F	10/2/98	1642
cracker	[kɯɾak:a]	F	10/2/98	1650
*No thank you	[no θæŋkju]	F	10/2/98	1663
*enough	[inʌf]	F	10/2/98	1665
*puppy	[pap:i]	M	10/15/98	1871
no	[no]	M	2/8/99	2047
pen	[pɛn]	F	2/10/99	2089
straw	[sɯtoɾa] / [sɯtoɾo]	M	5/20/99	2307
orange juice	[oɾɛnʤ ʤɯs]	M	5/20/99	2319

APPENDIX C
TABLES SHOWING ALL DATA SETS

Table Legend:

Speakers -	Functions -			
M – Mother	INST –	Instrumental	HEUR –	Heuristic
F – Father	REG –	Regulatory	IMAG –	Imaginative
B – Brother	INTER –	Interactional	INFORM –	Informative
S – Sister	PERS –	Personal		

The following examples from Table 1 show two important boxes.

1)

1) The upper left hand box in each table provides the following information:

a) data set number
b) date the data set was recorded
c) age of the subject, H, in years, months, and days.

2)

7

2) The lower right hand box gives the total number of utterances produced by the speakers in each data set.

Table A - Data set #1

Data #1 6/4/98 H: 1-7-15	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		4 (67%)	2 (33%)					6 (86%)
F			1 (100%)					1 (14%)
B								
S								
Totals/ Function		4 (57%)	3 (43%)					7

Summary: M dominates this data set. The regulatory function is most prominent, but there are very few data seen in this recording session.

Table B - Data set #2

Data #2 6/9/98 H: 1-7.19	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		1 (50%)	1 (50%)					2 (10%)
F		8 (44%)	5 (28%)		4 (22%)		1 (6%)	18 (90%)
B								
S								
Totals/ Function		9 (45%)	6 (30%)		4 (20%)		1 (5%)	**20**

Summary: F dominates this data set. The regulatory function is most prominent, but there are still very few data seen in this recording session.

Table C - Data set #3

Data #3 6/13/98 H: 1-7.23	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		5 (71%)	1 (14%)		1 (14%)			7 (54%)
F		2 (33.3%)	2 (33.3%)		2 (33.3%)			**6 (46%)**
B								
S								
Totals/ Function		7 (54%)	3 (23%)		3 (23%)			**13**

Summary: M dominates this data set but only by one utterance. The regulatory function is most prominent, but there are very few data seen in this recording session.

Table D - Data set #4

Data #4 7/7/98 41:1-8.17	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		1 (50%)	1 (50%)					2 (29%)
F		3 (60%)	1 (20%)		1 (20%)			5 (71%)
B								
S								
Totals/ Function		4 (57%)	2 (29%)		1 (14%)			**7**

Summary: F dominates this data set. The regulatory function is most prominent, but there are very few data seen in this recording session.

Table E - Data set #5

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M		3 (60%)	1 (20%)				1 (20%)	5 (45%)
F		5 (83%)					1 (17%)	6 (55%)
B								
S								
Totals/ Function		8 (73%)	1 (9%)				2 (18%)	**11**

Summary: F dominates this data set but only by one utterance. The regulatory function is most prominent, but there are very few data seen in this recording session.

Table F - Data set #6

Data #6 7/18/98 11:1-8:28	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		33 (22%)	41 (27%)		37 (25%)		39 (26%)	150 (81%)
F		14 (61%)	3 (13%)		3 (13%)		3 (13%)	23 (12%)
B								
S		1 (8.3%)	1 (8.3%)		1 (8.3%)		9 (75%)	12 (6%)
Totals/ Function		48 (26%)	45 (24%)		41 (22%)		51 (28%)	**185**

Summary: M dominates this early data set. The interactional function is most prominent, but there is a very close balance among the functions in M's speech. F's speech is dominated by the regulatory function.

Table G - Data set #7

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M		30 (31%)	32 (33%)		20 (21%)		15 (15%)	97 (78%)
F		13 (81%)	2 (12.5%)				1 (6%)	16 (13%)
B		2 (25%)					6 (75%)	8 (6%)
S		3 (75%)					1 (25%)	4 (3%)
Totals/ Function		48 (38%)	34 (27%)		20 (16%)		23 (18%)	**125**

Summary: M dominates this early data set as well. The interactional function is most prominent, but again there is a very close balance among the functions in M's speech. F's speech is dominated by the regulatory function again.

Table H - Data set #8

Data #8 7/29/98 H: 1-9:09	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		3 (33.3%)	2 (22.2%)		4 (44.4%)			9 (47%)
F		7 (70%)	1 (10%)				2 (20%)	10 (53%)
B								
S								
Totals/ Function		10 (53%)	3 (16%)		4 (21%)		2 (11%)	**19**

Summary: F dominates this data set but only by one utterance. The regulatory function is most prominent, but there are very few data. M once more exhibits relatively equal distribution of functions used.

Table I - Data set #9

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M		5 (36%)	6 (43%)		3 (21%)			14 (52%)
F		9 (90%)	1 (10%)					10 (37%)
B		1 (50%)	1 (50%)					2 (7%)
S		1 (100%)						1 (4%)
Totals/ Function		**16 (59%)**	**8 (30%)**		**3 (11%)**			**27**

Summary: M dominates this data set but only by four utterances. The interactional function is most prominent, but there are few data. F's speech is dominated by the regulatory function.

Table J - Data set #10

Data#10, 8/2/98 H: 1-9 T:	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M								
F		8 (38%)	3 (14%)		6 (29%)		4 (19%)	21 (100%)
B								
S								
Totals/ Function		8 (38%)	3 (14%)		6 (29%)		4 (19%)	**21**

Summary: F dominates this data set. The regulatory function is most prominent, but there are few data. F exhibits relatively more equal distribution of functions used than previously recorded.

Table K - Data set #11

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M		4 (15%)	12 (46%)		5 (19%)		5 (19%)	26 (27%)
F		33 (51%)	14 (22%)		13 (20%)		5 (8%)	65 (66%)
B		1 (17%)	1 (17%)		2 (33.3%)		2 (33.3%)	6 (6%)
S							1 (100%)	1 (1%)
Totals/ Function		38 (39%)	27 (28%)		20 (20%)		12 (12%)	**98**

Summary: F dominates this data set. The regulatory function is most prominent. M once more exhibits relatively equal distribution of functions used, though the interactional function is most prominent in her speech.

Table L - Data set #12

Data#12 8/12/98 H:1:9:23	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M								
F		5 (45%)	5 (45%)				1 (9%)	11 (100%)
B								
S								
Totals/ Function		5 (45%)	5 (45%)				1 (9%)	**11**

Summary: F dominates this data set. The regulatory and interactional functions are equally prominent, but there are very few data.

Table M - Data set #13

Data#13 8/21/98 H:1:10:01	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		14 (42%)	10 (30%)		3 (9%)		6 (18%)	33 (49%)
F		14 (54%)	3 (12%)		2 (7%)		7 (27%)	26 (39%)
B			5 (63%)				3 (37%)	8 (12%)
S								
Totals/ Function		28 (42%)	18 (27%)		5 (7%)		16 (24%)	**67**

Summary: M dominates this data set. The regulatory function is somewhat more prominent than the interactional function. F's speech is dominated by the regulatory function.

Table N - Data set #14

Data#14 8/24/98 H: 1:10.04	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M							1 (100%)	1 (3%)
F		9 (28%)	1 (3%)		10 (31%)		12 (38%)	32 (97%)
B								
S								
Totals/ Function		9 (27%)	1 (3%)		10 (30%)		13 (39%)	**33**

Summary: F dominates this data set. The informative function slightly dominates. There is relatively equal distribution among three functions, but the interactional function is seen in only one utterance.

Table O - Data set #15

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M		28 (22%)	48 (38%)		30 (23%)		22 (17%)	128 (53%)
F		23 (26%)	17 (19%)		29 (33%)		19 (22%)	88 (37%)
B		2 (10%)	12 (60%)		2 (10%)		4 (20%)	20 (8%)
S			4 (100%)					4 (2%)
Totals/ Function		53 (22%)	81 (34%)		61 (25%)		45 (19%)	**240**

Summary: M once again dominates this somewhat later data set. The interactional function is most prominent. M exhibits relatively equal distribution of functions used though the interactional function is still most common. F's speech is dominated by the heuristic function with the regulatory function the next most prominent.

Table P - Data set #16

Data#16 8/30/98 H: 1-10.10	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		3 (75%)	1 (25%)					4 (29%)
F		5 (50%)	5 (50%)					10 (71%)
B								
S								
Totals/ Function		8 (57%)	6 (43%)					**14**

Summary: F dominates this data set. The regulatory and interactional functions are equally prominent, but there are very few data. M exhibits more regulatory function utterances more than interactional ones.

Table Q - Data set #17

M		29 (60%)	13 (27%)		4 (8%)		2 (4%)	48 (52%)
F		20 (53%)	13 (34%)		4 (11%)		1 (3%)	38 (41%)
B								
S			6 (100%)					6 (7%)
Totals/ Function		49 (53%)	32 (35%)		8 (9%)		3 (3%)	**92**

Summary: Again, M dominates this data set. The regulatory function is most prominent. F's speech is dominated by the regulatory function.

Table R - Data set #18

M		17 (39%)	18 (41%)		7 (16%)		2 (5%)	44 (49%)
F		19 (43%)	11 (25%)		10 (23%)		4 (9%)	44 (49%)
B								
S		1 (50%)					1 (50%)	2 (2%)
Totals/ Function		37 (41%)	29 (32%)		17 (19%)		7 (8%)	**90**

Summary: Interestingly, M and F have equal dominance in this data set. The interactional function is most prominent (though only by one utterance) in M's speech while F's speech is dominated by the regulatory function.

Table S - Data set #19

M		4 (40%)	1 (10%)		2 (20%)		3 (30%)	10 (14%)
F		30 (48%)	14 (23%)		15 (24%)		3 (5%)	62 (85%)
B								
S							1 (100%)	1 (1%)
Totals/ Function		34 (46.5%)	15 (20.5%)		17 (23%)		7 (10%)	**73**

Summary: F dominates this data set. The regulatory function is most prominent. M once more exhibits relatively equal distribution of functions used, though she only produces ten utterances during this data set.

Table T - Data set #20

Data#20 9/28/98 H: 11:08	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		17 (33%)	20 (38%)		11 (21%)		4 (8%)	52 (49%)
F		21 (39%)	19 (35%)		9 (17%)		5 (9%)	54 (50%)
B								
S			1 (100%)					1 (1%)
Totals/ Function		38 (36%)	40 (37%)		20 (19%)		9 (8%)	**107**

Summary: F dominates this slightly later data set but only by two utterances. The regulatory function is most prominent in F's speech but only by two utterances. M' speech is slightly more dominated by the interactional function, whereas F's speech is slightly more dominated by the regulatory function. In general, however, the interactional function is the slightly more prominent function in this data set.

Table U - Data set #21

Data#21 10/2/98 H: 11:12	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		3 (12%)	7 (28%)		9 (36%)		6 (24%)	25 (27%)
F		23 (34%)	19 (28%)		16 (24%)		10 (15%)	68 (73%)
B								
S								
Totals/ Function		26 (28%)	26 (28%)		25 (27%)		16 (17%)	**93**

Summary: F dominates this data set. The regulatory function is most prominent, though other functions have relatively more prominence than in many of the previous data sets. M once more exhibits relatively equal distribution of functions used.

Table V - Data set #22

Data#22 10/12/98 H: 1:11:22	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M			2 (100%)					2 (7%)
F		16 (57%)	4 (14%)		4 (14%)		4 (14%)	28 (93%)
B								
S								
Totals/ Function		16 (53%)	6 (20%)		4 (13%)		4 (13%)	**30**

Summary: F dominates this data set. The regulatory function is by far the most prominent, though other functions have equal prominence. M only produces two utterances, but both are of the interactional type.

Table W - Data set #23

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M		28 (20%)	50 (35%)		48 (34%)		16 (11%)	142 (93%)
F		7 (70%)			3 (30%)			10 (6.5%)
B								
S							1 (100%)	1 (0.5%)
Totals/ Function		34 (22.5%)	50 (32.6%)		51 (33.3%)		17 (11%)	**153**

Summary: M clearly dominates later this data set. The interactional function is most prominent, but only by two utterances over the heuristic function. F's speech is still prominently weighted toward the regulatory function, though he only produces ten utterances here.

Table X - Data set #24

Data#24 10/24/98 H: 2:0.09	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		4 (13%)	13 (42%)		13 (42%)		1 (3%)	31 (100%)
F								
B								
S								
Totals/ Function		4 (13%)	13 (42%)		13 (42%)		1 (3%)	**31**

Summary: M dominates this data set. The interactional and heuristic functions have equal prominence.

Table Y - Data set #25

Data#25 1/20/99 H: 2:3.00	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M								
F		2 (17%)	1 (8%)		8 (67%)		1 (8%)	12 (100%)
B								
S								
Totals/ Function		2 (17%)	1 (8%)		8 (67%)		1 (8%)	**12**

Summary: F dominates this data set. The heuristic function is most prominent, but there are very few data. The regulatory function is still more prominent than the interactional function.

Table Z - Data set #26

Data#26 2/8/99 H: 2:3.19	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		3 (25%)	3 (25%)		1 (8%)		5 (42%)	12 (17%)
F		31 (53%)	9 (16%)		16 (28%)		2 (3%)	58 (83%)
B								
S								
Totals/ Function		34 (49%)	12 (17%)		17 (24%)		7 (10%)	**70**

Summary: F dominates this data set. The regulatory function is by far the most prominent. Once again M exhibits relatively equal distribution of functions used.

Table AA - Data set #27

Data#27 2/10/99 H: 2:3.21	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M								
F		8 (23%)	11 (31%)		15 (43%)		1 (3%)	35 (100%)
B								
S								
Totals/ Function		8 (23%)	11 (31%)		15 (43%)		1 (3%)	**35**

Summary: F dominates this data set. The heuristic function is most prominent with the interactional function second in prominence, but there are few data.

Table BB - Data set #28

Data#28 3/15/99 H: 2:4.23	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		11 (17%)	17 (26%)		27 (41%)		11 (17%)	66 (93%)
F								
B								
S		1 (20%)					4 (80%)	5 (7%)
Totals/ Function		12 (17%)	17 (24%)		27 (38%)		15 (21%)	**71**

Summary: M dominates this data set. The heuristic function is most prominent with the interactional function next. M once more exhibits relatively equal distribution of functions used.

Table CC - Data set #29

Data#29 3/30/99 H: 2:5.10	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		12 (38%)	7 (22%)		8 (25%)		5 (16%)	32 (48%)
F		5 (15%)	6 (18%)		15 (44%)		8 (24%)	34 (52%)
B								
S								
Totals/ Function		17 (25%)	13 (20%)		23 (35%)		13 (20%)	**66**

Summary: F dominates this data set but only by two utterances. The heuristic function is most prominent. M once more exhibits relatively equal distribution of functions used, though the regulatory function is most prominent in her speech.

Table DD - Data set #30

Data#30 5/14/99 H: 2:6:24	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		1 (25%)	2 (50%)		1 (25%)			4 (31%)
F		4 (44%)	1 (11%)		2 (22%)		2 (22%)	9 (69%)
B								
S								
Totals/ Function		5 (39%)	3 (23%)		3 (23%)		2 (15%)	**13**

Summary: F dominates this data set. The regulatory function is most prominent, but there are very few data. M once more exhibits relatively equal distribution of functions used.

Table EE - Data set #31

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M		4 (15%)	6 (23%)		11 (42%)		5 (19%)	26 (90%)
F					1 (100%)			1 (4%)
B								
S							2 (100%)	2 (6%)
Totals/ Function		4 (14%)	6 (21%)		12 (41%)		7 (24%)	**29**

Summary: M dominates this data set. The heuristic function is most prominent, but there are few data. The other functions seen have relatively equal distribution.

Table FF - Data set #32

Data#32 6/21/99 H: 2:8.01	INST	REG	INTER	PERS	HEUR	IMAG	INFORM	Totals/ Speaker
M		4 (19%)	8 (38%)		5 (24%)		4 (19%)	21 (27%)
F		14 (25%)	14 (25%)		17 (30%)		12 (20%)	57 (72%)
B			1 (100%)					1 (1%)
S								
Totals/ Function		18 (23%)	23 (29%)		22 (28%)		16 (20%)	**79**

Summary: F dominates this final data set. The heuristic function is most prominent, though the other functions are seen in relatively equal distribution. M once more exhibits relatively equal distribution of three functions used, though the fourth function, the interactional function, is quite prominent in her speech.

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