

Introduction to the Collection

A parental diary is the recommended method to collect a naturalistic database of infrequent events in a developmental process during the period of early language acquisition. The production of emergent language—liberally and inclusively defined as an intentional new verbalization in its discourse and situational context of use—was the only criterion for recording an entry in L's diary from 8-to-27 months of age.¹ Consequently, the first five data files in this collection are impartial and free of a priori theoretical expectations about either the process of language acquisition or the linguistic organization of early child language. Unusual and informative details in these early data accrue to delineate an incremental progression and to suggest hypotheses about the developing mental foundation of the longitudinal advances in L's language production.²

1 Language Development

As a parent diarist, Braunwald's goal was to observe and record the process of language acquisition so she methodically entered data into the diary whenever and wherever she and L happened to be together. To her knowledge, the diary study on L is the most complete naturalistic database of the same child's acquisition of American-English, and the information in the data files should be useful to any researcher in the multifaceted discipline of child language.

1.1 Description of the Original Handwritten Diary

The nine volumes of handwritten data represent a serious effort to design and to keep conscientiously a naturalistic record of one child's acquisition of language. Braunwald kept the diary from October 20, 1971 through May 24, 1975. The diary spans the period from L's late

¹ As L became increasingly verbal, the criterion of emergent language was modified to include 4 important categories. See the introductory volume for additional information.

² Braunwald found these examples in the course of many years of work with the early data in L's diary.

infancy (0;8.0) through early childhood (4;2.24). There are daily diary entries between L's first (1;0.1) and fourth birthdays (4; 0.16). Table 1 describes the scope of the daily diary data in this collection from a methodological perspective.

TABLE 1
THE DURATION IN MONTHS OF THE DAILY DIARY ENTRIES IN JOURNALS 1-9

<u>Characteristics of the Journal</u>				<u>Summation of the Daily Entries</u>				
J(n) ³	Date	Age	Duration	Pages	Days With No Entry	Days With Entries	Ratio ⁴ Entries/Days	% of Possible Entries
1	February 21 — May 20, 1972	1;0.1 — 1;3.0	3 months	85	15	75	75/90 ⁵	83% (.833)
2	May 21 — August 20, 1972	1;3.1 — 1;6.0	3 months	126	9	83	83/92	90% (.902)
3	August 21 — November 20, 1972	1;6.1 — 1;9.0	3 months	154	4	88	88/92	96% (.957)
4	November 21, 1972 — February 20, 1973	1;9.1 — 2;0.0	3 months	133	3.5	88.5	88.5/92	96% (.961)
5	February 21 — May 20, 1973	2;0.1 — 2;3.0	3 months	135	8	81	81/89	91% (.910)
6	May 21 — November 20, 1973	2;3.1 — 2;9.0	6 months	143	20.5	163.5	163.5/184	89% (.888)
7	November 21, 1973 — July 20, 1974	2;9.1 — 3;5.0	8 months	154	41	201	201/242	83% (.830)
8	July 21 — December 20, 1974	3;5.1 — 3;10.0	5 months	120	22	131	131/153	86% (.856)
9	December 21, 1974 — March 8, 1975	3;10.1 — 4;0.16	2 months & 16 days	47	15	63	63/78	81% (.807)
		1;0.1 — 4;0.16	36 Months 16 Days	1,097	138	974	974/1,112	88% (.875)

As Table 1 indicates, Braunwald entered these daily entries consistently (e.g., 92%, 89% and 82% of the days in each respective year). In fact, just four months account for the majority of the missing entries that lower the percentage of the daily diary entries per year.⁶

³ J(n) refers to the journal number.

⁴ The ratio represents the number of daily entries per the number of days possible in the month.

⁵ There were 29 days in February 1972 since it was a leap year.

⁶ There were four months (5/21-6/20 1973, 2/21-3/20 1974, 11/21-12/20 1974 and 1/21-2/20 1975) when the percentage of the daily entries was exceptionally low. Two of them occurred as the diary was ending, and M was in a doctoral program. The other two were months when M was ill or was separated from L.

Table 2 summarizes the breadth of the content in the 9 files of diary data in this collection.

TABLE 2
THE CONTENT OF THE DIARY DATA AND ADDITIONAL INFORMATION IN JOURNALS 1-9

<u>Journal Content</u>				
J(n)	Date	Age	Diary Data	Additional Information
1	February 21 — May 20, 1972	1;0.1 — 1;3.0	Developmental asynchrony, protolanguage, qualitatively continuous prelinguistic communication	Detailed descriptive organization of vocabulary development and protolanguage
2	May 21 — August 20, 1972	1;3.1 — 1;6.0	Disruption of protolanguage, transitional overlap to English, etiology of verbs, vocabulary spurt	Analysis of the etiology of verbs, evidence of vocabulary spurt, of qualitative shift to English at L,1;5.28
3	August 21 — November 20, 1972	1;6.1 — 1;9.0	Emergence of basic English word combinations of increasing length and variety, includes all verbs and other types of word combinations	Continued analysis of verbs, spreadsheet of verb productivity by month, 16-24 months, all verb utterances at 20-21 months coded for quantitative analysis
4	November 21, 1972 — February 20, 1973	1;9.1 — 2;0.0	Emphasis on verbs, pervasive child-specific error from 23-24 months, production of basic structures of English in multi-word utterances by 24 months	All verb utterances from 21-24 months coded for quantitative analysis, spreadsheets downloadable to any researcher
5	February 21 — May 20, 1973	2;0.1 — 2;3.0	Emergence of complex sentences, of derivational and inflectional morphology, and of culture-specific vocabulary	L is subject of graduate seminar at UCLA, appendix contains transcriptions of audio recorded home observations
6	May 21 — November 20, 1973	2;3.1 — 2;9.0	Verbs in variety of interclausal relations, conceptual and language development intersect bi-directionally, modification of criterion of all emergent language	Two replications of Brown's Imitation of Spoken Sentences at L,2;4.16 and 2;8.24, transcriptions and comparisons to Brown's subjects
7	November 21, 1973 — July 20, 1974	2;9.1 — 3;5.0	Fluent language reveals child-like misconceptions of real world understanding, content interesting for psychological and linguistic reasons	Appendix includes a long transcription at L,3;4.12 that shows L's alternation between social and private speech (a project for Elinor Och's transcription as theory seminar at USC)
8	July 21 — December 20, 1974	3;5.1 — 3;10.0	Semantic complexities of word meaning and the cognitive complexities of thought introduce the problem of the production of abstract language	Appendix contains unpublished research showing how Vygotsky's and Piaget's definitions of egocentric speech are complementary
9	December 21, 1974 — March 8, 1975	3;10.1 — 4;0.16	A new and abstract developmental asynchrony occurs involving language and thought, words fail to evoke shared conceptual meanings, expression of internal states can be shared	Transcription of L's and M's conversation about the Vietnam War illustrates success of language to share affect and its failure to bridge the gap between L's and M's conceptual understanding

Table 2 shows that Braunwald intentionally planned the diary to include information that grounded her observations of language acquisition in the broader developmental context of a growing child who experienced a personal life in the real-world.

1.2 Interface with the CHILDES Version

A digitized version of the diary study on L, The Braunwald-Max Planck corpus, already exists in CHILDES (MacWhinney 2000, <http://childes.psy.cmu.edu>). The CHILDES version contains L's speech in Journals 2 – 8 and transcriptions of audio-recorded data that are linked to sound files. One important reason for creating these pdf files is to enhance the usefulness of the version of the diary data in CHILDES. The richness of the contextual and developmental information and the methodological safeguards included in the original handwritten diary are missing in the CHILDES version but can be retrieved. Information on the chat transcription can be used to locate a specific utterance in the files of Journals 2 - 8 of the handwritten diary. The notation in this randomly selected utterance in chat leads to its exact location by using L's age, the date and %sit beneath an utterance:

L's age 01;10.21 Date 10 – Jan –1973 *CHI Are you coming down? %sit 881

Figure 1. Example CHILDES transcription entry from the Braunwald-Max Planck corpus.

Following the notation above leads to the location of the example in Journal 4, p.68, #881.

Thus, the CHILDES version can be easily linked to this collection.

Braunwald's carefully prepared transcriptions of audio-recordings, which varied in the reasons why they were of interest and in their duration from a few words to long

conversations, are missing from the audio-recorded transcriptions in CHILDES. Braunwald has placed these handwritten transcriptions by date into the appropriate journal files. Journals 1 and 9—that is to say Braunwald’s descriptions of the beginning and the end of an inclusive developmental process—are also omitted in CHILDES but included in this collection. Thus, researchers interested in the process of language development will find additional and valuable information in these files of the original handwritten version of the diary study on L that can augment the data in CHILDES.

1.3 Longitudinal Data from the Same Subject

It is important to differentiate between an actual longitudinal progression in a real-world toddler and a conjectural pieced together description of a theoretically likely progression. The term *composite toddler* (Braunwald, 2011) refers to a method of deriving a sequential description of the process of language acquisition that extrapolates and integrates data from unrelated studies of many subjects across a range of different ages into a quasi-longitudinal progression. This progression perforce lacks the explanatory longitudinal details found in the daily diary on L. The data in this collection contain observations of the ebb and flow of a sequential developmental process that actually happened in a maturing toddler who was experiencing a real-world life.

2 Developmental Narrative

Language acquisition occurs as one important aspect of a general developmental sea change from the dependency of late infancy to the competence of early childhood. Paradoxically, the development of language is at once embedded in and necessary to this transition. As a result of

this paradox, the diary of L's emergent language production is perforce a developmental narrative.

Example 1

L, 2;6.5, woke up crying. As M held her she spoke rather conversationally to L.

M was amazed by L's answer.

M: I can't remember what it feels like to be 2 ½.

M: Is 2 ½ a hard age?

L: Two-and-a-half makes me cry.

L: I wanna go back to 2.

M: You can't go back.

M: You can only grow to 3. (J6, p.76, #505)

As example 1 illustrates, the detailed observations in the diary data reveal a rare glimpse into a time of life that adults cannot consciously remember well, if at all.

Because Braunwald wrote down her daughter's speech together with copious contextual and developmental notes, L shares her personal understanding of her life as if she were capable of keeping a daily journal or notes for a memoir. This serendipitous description of L's experience of being very young is fascinating and should interest researchers across a broad spectrum of academic disciplines from science to the humanities.

3 Preparation of the Collection

This collection includes the nine files of the handwritten diary data on L's acquisition of American-English. Braunwald also prepared an *Introductory Volume* and this *Introduction to the Collection* to help other researchers take advantage of the rich longitudinal data in L's diary. These additional files create an organizational framework that makes this database searchable and comprehensible. Additional information is available at three distinct levels in the database: (i) on the actual diary pages, (ii) in the individual data files of the nine journals, and (iii) from the

longitudinal perspective of an overview of a developmental process that actually happened in one child's life. Braunwald recommends that researchers take advantage of this supplementary information to determine the relevance and location of the topics in the data files that relate to their own academic interests.

3.1 Data Files

The content of Journals 1 – 9 in the data files is an exact replica of the entries that Braunwald entered into the hard-bound handwritten diary in the early 1970s. The original diary pages were copied, redacted⁷ and then scanned to create the PDF data files of the individual diary journals. The format of the diary entries and the variation in the appearance of the pages reflect the limitations of this old fashioned method of collecting data.⁸ Nevertheless, the content of the diary retains its relevance, and 21st century technology makes the world-wide dissemination of all of the data in the diary possible.

Braunwald created a system of formatted, initialed and dated comments to highlight post hoc information that she added on a diary page. This format clearly differentiates the annotations from the original data. The content and the quantity of the annotation in the data files vary longitudinally. For instance, Journals 1 – 4 are highly annotated as Braunwald guides other researchers through the thicket of L's child-specific version of American-English. An underlined gloss of the meaning of an unusual word in her vocabulary is a dated comment (e.g., pipit = L's word for her special blanket SRB 2004). A paraphrase and explanation of the content of L's utterance "Mommy say my older my drive" is a boxed and dated comment (e.g., *Mommy*

⁷ A complete alphabetized list of the redactions by journal is included in the Introductory Volume.

⁸ An explanation of the diary format is included in the *Introductory Volume* and in the front matter of Journals 2-8.

said when I'm older I'll drive—from a conversation about driving cars at Disneyland yesterday SRB 2013). Importantly, Braunwald's post hoc system of formatted annotations is informative without altering the integrity of the original diary data on a page.

3.2 Introductory Files

Braunwald created two introductory files in order to guide another researcher through the substantial database in this collection and to provide background information that a parent-diarist presupposes. The *Introductory Volume* makes the content of the naturalistic longitudinal data files accessible and user-friendly for other researchers. The *Introduction to the Collection* contains the organizational framework to access the theoretical content of the data files.

A two-tiered system of key words on the major themes, language development and developmental narrative, functions as a quasi-index to access the theoretical content in the data files. The first tier of this system consists of the two inclusive master lists of alphabetized key words in this introduction. The column headings J1 – J9 on each list of key words refer to the nine redacted journals from the original diary. Therefore, these master lists of key words serve as a guide to the overall theoretical content of the longitudinal data in L's diary.

The individual journals constitute the second tier of this system of key words. The content of each journal is an extensive data file, and the subsets of key words and their definitions in it are a function of L's age and competence in a longitudinal process. To summarize, the master lists and their journal specific subsets work together as two tiers of key words to search for specific topics in the data files.

The *Introductory Volume* contains a methodological description of the design of the diary on L and the background information to clarify the presupposed lacunae in a parental

diary. This volume also includes a host of child-specific information and practical tools so that other researchers can become acquainted with L and her experiences as a developing person.

Braunwald created the following materials:

- (1) a pictorial timeline of the process of L's language development
- (2) an alphabetical list of all the redacted names by journal and a brief description of each person's role in L's life
- (3) a color-coded guide to the data files on a Microsoft Publisher Calendar from October 1971 through May 1975
- (4) a detailed longitudinal and cumulative record of L's vocabulary from nine-to-eighteen months of age
- (5) a number of visual and written aids to the environments mentioned in the context notes

In conclusion, Braunwald hopes that this *Introductory Volume* will help other researchers to share her sense of amazement at how much a young human being accomplishes during the first four years of life.

4 Privacy Notice

Diary data depict the reality of family life. The truth is that young children are extremely interested in and discuss with their parents and each other many "socially undesirable topics." Even reasonably stable families are periodically dysfunctional. Toddlers throw tantrums that defy the goodwill of their parents. Siblings torment each other with words and actions. Parents behave as if they were children. And if everyone is overtired and grouchy, there is outright chaos. Nonetheless, to borrow the words "good enough" from Winnicott, the data show that L's emergent language production coincided with the life she led in a "good enough" family.

L and her family made a tradeoff so that her mother—in her simultaneous role as a parent-diarist—could collect naturalistic longitudinal data that are ecologically valid. Please read and respect the privacy restrictions that L and her sister, J, have requested.

5 Longitudinal Perspective

Figure 2 and the two sets of key words provide a longitudinal view of the content in the data files. Figure 2 shows the location in the diary journals that coincides with Braunwald's identification of a major developmental changes in the process of L's language production. This process is explained in greater detail in the pictorial timeline and on the color-coded calendar in the Introductory Volume.

The two sets of key words provide an extensive list of the developmental topics that struck Braunwald as important after a lifetime's exploration of these data. In particular, she has tried to provide other researchers with a guide to the-needle-in-a-haystack examples that are a major theoretical strength of diary data. Researchers can look through the master lists of key words and the detailed color-coded calendar to follow Braunwald's guided tour of a fascinating developmental journey.

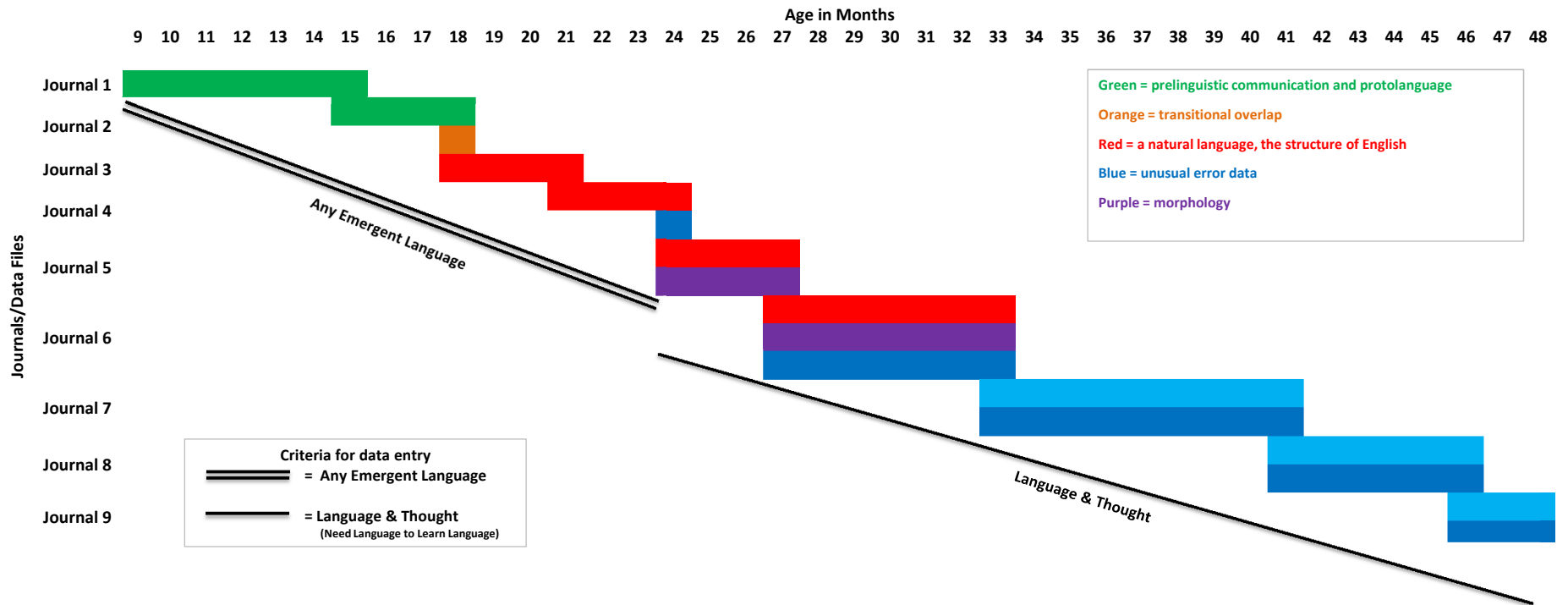


Figure 2. - Developmental Relation of the Data in Journals 1-9

Key Words by Topic - Language Development

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Acts of Meaning	Baby-games and routine events provide predictable formats in which shared understanding scaffolds emergent communication	+								
Argument Structure	A property of verbs that refers to the number of grammatical slots that need to be filled to express a proposition (i.e. a complete meaning).			+	+	+	+	+	+	+
Babbling	Infant vocalizations of English consonants and vowels— A small repertoire of babbled syllables become context-dependent proto-words	+								
Baby Talk	Conventional speech register adressed to babies (e.g; <i>bow-wow, bye-bye, uh-oh</i>)	+	+							
Biological Readiness	The emergence and development of an unknown human mental potential to acquire a natural language			+	+	+	+	+	+	+
Bootstrapping	A linguistic process in which one component of language facilitates the development of an emergent advance in another one		+	+	+	+	+	+	+	+
Child-Directed Speech	Refers to speech directed specifically to infants, toddlers and young children.	+	+	+	+	+	+	+	+	+
Child-Invented Speech	A child-specific form or function; an invented usage not found in language input	+	+	+	+	+	+	+	+	+
CHILDES	Child Language Data Exchange System		+	+	+	+	+	+	+	
Communicative Intention	Intentional communication emerges in late infancy many months prior to a natural language and pragmatic intentions in speech acts.	+	+							
Communication Skills	An ability to convey interpretable context-dependent intentions emerges many months prior to natural language	+	+							
Comprehension	Subjectively, comprehension of a natural language seems to be more advanced than production.	+	+	+	+	+	+	+	+	+
Concept-Related Words	The link between a form and a conceptual meaning is hard to learn; it is a slow error-prone process (e.g., <i>weekday, weekend</i>).			+	+	+	+	+	+	+

Key Words by Topic - Language Development

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Colors	Color is part of a single identity (e.g., <i>white cat</i> , <i>blue car</i>) before it is a descriptive adjective applicable to any noun. (Many examples in database. See J5 in particular.)				+	+	+	+	+	+
Kinship	L uses kinship terms words but doesn't understand their meanings (e.g. she can't comprehend how the same woman could be a daughter, a mother and a grandmother).					+	+	+	+	+
Numbers	Many numerical examples in data (L says <i>two</i> appropriately very early in process of language production. See J3)			+	+	+	+	+	+	+
Time	Learning conceptual words that refer to time is a trial-and-error process (e.g., <i>yesterday</i> , <i>today</i> , <i>tomorrow</i>).					+	+	+	+	+
Contextual Associations	L's production of a consistent form in a recurrent context is source of meaning of proto-words. Later meaning involves words that occur together (e.g., <i>bread and butter</i>).	+	+	+					+	
Decontextualization	Two meanings of this term	+	+	+	+	+	+	+	+	+
General Meaning	A context-specific use of a form transfers to another linguistic context or to a new situation of use.	+	+	+	+	+	+	+	+	+
Specific Meaning	Language conveys context-free information—i.e. the meaning is unknown and cannot be derived from a shared understanding of the context of use. (Same as <i>displacement</i>).		+	+	+	+	+	+	+	+
Developmental Asynchrony	The timing of the emergent components in a developmental process are out of sync.	+	+		+				+	+
Developmental Constraints		+	+	+	+	+	+	+	+	+
Complexity	The linguistic and/or cognitive complexity of an utterance exceeds L's current developmental level in the process of language production.			+	+	+	+	+	+	+
Length	Increasing the number of words in an utterance exceeds L's developmental ability to produce it in a single sentences.			+	+	+	+	+	+	+
Developmental Plateau	Emergent advance is slow in comparison to periods of rapid change.	+	+			+				

Key Words by Topic - Language Development

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Developmental Spurt	M mentions periods of an unusual acceleration in L's production of emergent language.			+	+	+				
Discourse				+	+	+	+	+	+	+
Content	Complexity of topic influences success of L's participation in discourse.			+	+	+	+	+	+	+
Context	A linguistic term — refers to anchoring language in shared cultural activities			+						
Displacement	A common language is the only expression of an unknown meaning; becomes problematic as word meanings start to be abstract. (Same as specific meaning of <i>decontextualization</i>)				+	+	+	+	+	+
Dyadic Interaction		+	+	+	+	+	+	+	+	+
Father-Child		+	+	+	+	+	+	+	+	+
Mother-Child		+	+	+	+	+	+	+	+	+
Sibling-Child		+	+	+	+	+	+	+	+	+
Adult-child	Adults other than parents				+	+	+	+	+	+
Child-Child					+	+	+	+	+	+
Error Data	Errors occur throughout this database and provide clues to the developmental problem L is focused on in a longitudinal process of language production.		+	+	+	+	+	+	+	+
Expletives	Preschool-expletives (e.g., <i>pooh-pooh head</i>) emerge before conventional ones.					+	+	+	+	+
Expressive Language	Same as <i>language production</i>			+	+	+	+	+	+	+
Gestures		+								
Idioms	L produces contextually appropriate idioms (e.g., <i>early birds</i>) as a unit.				+	+	+	+	+	+
Imitation	The early and developing ability to imitate many human behaviors is in advance of the readiness to imitate the speech from natural language input needed to produce language.	+	+	+	+	+	+	+	+	+
Deferred Imitation		+	+	+	+	+	+	+	+	+
Infant Development	8 to 12 Months	+								

Key Words by Topic - Language Development

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Intrapersonal Speech	<i>Private Speech</i> — Speech for oneself is interesting for multiple developmental reasons (e.g., language development, play and thinking out loud.). It provides clues to a mental process.	+	+	+	+	+	+	+	+	+
Interpersonal Speech	<i>Social Speech</i> — Speech is intentionally directed to a listener (begins with use of intentional babble to communicate).	+	+	+	+	+	+	+	+	+
Intersubjectivity	Mutual understanding of participating in a jointly shared experience; (Shared experiences become representational meanings in common especially in J8 & 9.)	+	+	+	+	+	+	+	+	+
Language Acquisition or Language Development	The naturalistic diary data in this collection are an ecologically valid, longitudinal description of L's language development.			+	+	+	+	+	+	+
Language and Thought	The interaction between language and thought is bi-directional and fluctuates longitudinally.					+	+	+	+	+
Learning about Language by Using Language	Basic knowledge of language is a necessary tool to enrich the power and creativity of a natural language.						+	+	+	+
Lexicon	Word -meanings are conventional and evoke a jointly known representation.			+	+	+	+	+	+	+
Literacy	L's interest stems in part from imitating J who is becoming literate.				+	+	+	+	+	+
Longitudinal Diary Data	Daily Entries—12 to 48 Months	+	+	+	+	+	+	+	+	+
Metalinguistic Knowledge	L knows when she doesn't understand a language (e.g., <i>Spanish</i>) and when she can't produce an intended word (e.g., <i>avocado</i>) and that she talks to herself. .					+	+	+	+	+
Morphology	There are fluke instances of the use of morphemes that then disappear and become productive later (e.g., <i>a</i> and <i>the</i>).				+	+	+	+	+	+
Natural Language	Any language with the power and infinite creativity of a human language			+	+	+	+	+	+	+
Nature/Nurture	These data illustrate this interaction but are theoretically agnostic about the interpretation of it.	+	+	+	+	+	+	+	+	+
Negation	Syntactic development can be traced in these data. (L also uses pragmatics to get her own way.)			+	+	+	+	+	+	+
Overgeneralization	Linguistic term with a focus on semantics and word meaning					+	+	+	+	+

Key Words by Topic - Language Development

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Overregulations	Linguistic term with a focus on a type of syntactic error					+	+	+	+	+
Parts of Speech	Syntactic categories of words			+	+	+	+	+	+	+
Phonology	L uses phonological forms to implement a production strategy of language development.	+	+	+			+			+
Piaget	Data confirm an impasse at the juncture of language and thought (i.e. <i>cognitive egocentrism</i>).						+	+	+	+
Possessive			+	+			+			
Pragmatics	L relies on pragmatics as a strategic solution to every day interpersonal problems once she starts to produce her native language.			+	+	+	+	+	+	+
Prelinguistic Communication	Communication during late infancy that develops into a child-specific protolanguage	+								
Productivity	Data show a productive process but are agnostic about the mental foundation of its development.					+	+	+	+	+
Proper Nouns	An easy way to indicate a non-present topic well in advance of the grammatical ability to do so			+			+			
Proto-Conversation	Vocal and/or gestural turn-taking exchanges that occur prior to pragmatic discourse in natural language	+	+							
Protolanguage	A context-dependent linear system of communication; lacks the power and creativity of a natural language	+	+							
Proto-Words	Context-dependent meanings; differ from the semantic representational meanings of a natural language	+	+							
Quantified Expressions						+	+	+	+	+
Receptive Language	Same as <i>language comprehension</i>	+	+	+	+	+	+	+	+	+
Repair	L's repairs vary in their linguistic outcome during periods of transitional overlap.				+	+	+	+	+	+
Representation	The data show the interface between language and the development of other forms of representation.		+	+	+	+	+	+	+	+

Key Words by Topic - Language Development

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Scaffolding	Effectiveness of this child-directed assistance to language production varies developmentally.		+	+	+	+	+	+	+	+
Self-Reference	L produces a verbal reference to herself in every journal.	+	+	+	+	+	+	+	+	+
Affective Internal State	Adjectives and verbs express emotions.			+	+	+	+	+	+	+
Cognitive Internal State	Verbs express cognitive states (e.g., percepts, wanting, certainty-uncertainty, and like-dislike etc.).				+	+	+	+	+	+
Semantics	Developmental changes in word-meaning from concrete-to- abstract ratchet up the difficulty of becoming a full-fledged language-user.			+	+	+	+	+	+	+
Sentence Structure				+	+	+	+	+	+	+
Complex Sentences						+	+	+	+	+
Simple Sentences				+	+	+	+	+	+	+
Sibling-Interaction	Examples address the issue of birth order as a variable; longitudinal examples illustrate the modifications of J's role in response to L's increasingly competent language production.	+	+	+	+	+				
Social Formulas	L uses cultural expressions to negotiate routine social events (e.g., <i>be right back</i> to indicate leaving and returning).			+	+	+	+	+	+	+
Speech Act	Pragmatic unit of an intentional utterance.			+	+	+	+	+	+	+
Speech Event	Pragmatic unit of multiple speech acts by one or more speakers on a topic; often involves turn-taking in discourse.			+	+	+	+	+	+	+
Strategies	Children learning the same language exhibit individual differences in strategies of language development.			+	+	+	+	+	+	+
Comprehension	J used a comprehension strategy—a covert mental process preceded her initial competent language production at 18 months.									
Production	L relies on a production strategy— i.e., an audible process of trial-and-error, of self-practice and of thinking aloud is overt.			+	+	+	+	+	+	+
Syntax				+	+	+	+	+	+	+

Key Words by Topic - Language Development

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Theory of Mind	The insight during late infancy that an intention requires overt expression to be known by another person. Interesting naturalistic data on longitudinal developmental advances at the interface between language and thought	+	+	+	+	+	+	+	+	+
Transitional Overlap	The simultaneous use of an old and an emergent form is a recurrent process in the data.	+	+	+		+	+			+
Verbs	Data are a rich source of emergent developmental changes in L's production of verbs.		+	+	+	+	+	+	+	+
Vocabulary	Used as a term to differentiate early context-dependent proto-words from a semantic lexicon of representational meanings	+	+							
Vocabulary Spurt	Begins during 18th; rapid acceleration in cumulative lexicon continues.		+	+						
Verbal Ability	Verbal and gestural communication prior to production of a natural language.	+	+							
Vygotsky	<i>Private Speech</i> is comparable to Vygotsky's descriptive definition of <i>egocentric speech</i> . His discussion of <i>scaffolding</i> and a <i>zone of proximal development</i> is relevant to examples of how M assists L as she starts to produce a natural language (See J3).			+	+	+	+	+	+	+
WH-Questions				+	+	+	+	+	+	+
Words			+	+	+	+	+	+	+	+
Word Associations	qualitative changes in production from protolanguage to natural language			+	+		+		+	
Word Combinations	Refers to L's early attempts to produce different two-word utterances using nouns, verbs and adjectives.			+	+					
Word Meaning				+	+	+	+	+	+	+
Word Recognition		+	+	+	+	+	+	+	+	+

Key Words by Topic - Developmental Narrative

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Affiliation Motivation	The need for social participation is a developmental constant but its age-appropriate expression changes in these longitudinal data.	+	+	+	+	+	+	+	+	+
Attachment	Longitudinal changes occur in the form of expression. A leitmotif in the data due to an "experiment in nature" during L's late infancy (See J1, p. 8)	+	+	+	+	+	+	+	+	+
Separation Anxiety	Brief separations provoke anxiety, but a verbal routine and J's presence make them easier.		+	+	+	+	+	+	+	
Separation Reactions	Some of L's negative behaviors strike M as a response to past and present separations between them.		+	+	+	+	+	+	+	+
Transitional Objects	A special blanket is a source of comfort well into early childhood.	+	+	+	+	+	+	+	+	+
Childrearing Practices	Reflect a style of parenting in the 70s and a response to L's temperament.	+	+	+	+	+	+	+	+	+
Communication	The need for interpersonal contact is a developmental constant. There are dramatic longitudinal changes in the diversity and complexity of the symbolic forms of contact.	+	+	+	+	+	+	+	+	+
Father-Child		+	+	+	+	+	+	+	+	+
Mother-Child		+	+	+	+	+	+	+	+	+
Sibling-Child		+	+	+	+	+	+	+	+	+
Adult-Child				+	+	+	+	+	+	+
Child-Child				+	+	+	+	+	+	+
Conceptual Errors	Any type of conceptual error				+	+	+	+	+	+
Developmental Limitations	One reason why conceptual errors occur.					+	+	+	+	+
Incorrect Associations	An experientially derived misinterpretation of a concept.			+	+	+	+	+	+	+
Concept Formation	Longitudinal data on complex interaction between conceptual development and language			+	+	+	+	+	+	+
Colors	Initially colors appear to be included as a part of a name (e.g., <i>white cat</i>) or object (e.g., <i>blue car</i>) The shift to a concept of color occurs in J5 (e.g., <i>purple</i> is L's first favorite color.)			+	+	+	+	+	+	+
Conservation	L fails task involving conservation of liquid.									+
Developing a World View	The world according to L (e.g., fear of going down drain with bath water)			+	+	+	+	+	+	+

Key Words by Topic - Developmental Narrative

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Kinship	L uses kinship terms without an understanding of their definitions (i.e., she is confused about how the same man could be a <i>husband, father, and grandfather</i>).					+	+	+	+	+
Numbers	Many types of numerical examples			+	+	+	+	+	+	+
Time	Learning about time and the words to describe it is a confusing process of trial and error.				+	+	+	+	+	+
Conversations	An important activity especially at family meals and at "special time," a bedtime routine alone with a parent.		+	+	+	+	+	+	+	+
Present Situation	A perceptual cue in the situation is the basis of a joint focus of attention.			+	+	+	+	+	+	+
Cue in Ambient Language	A salient cue occurs in the ambient language. The cue may or may not be in child-directed speech or in discourse.			+	+	+	+	+	+	+
Decontextualized or Displaced	Language refers to an internal state or a thought unrelated to a perceptible cue in the "here-and-now."			+	+	+	+	+	+	+
Curiosity About:	L expresses an interest in or notice of these general topics.	+	+	+	+	+	+	+	+	+
Gender	physical and social differences between males and females, procreation			+	+	+	+	+	+	+
Human Body	The names of the parts of her body and their functions.	+	+	+	+	+	+	+	+	+
Life and Death	The meaning of being <i>alive or dead</i>					+	+	+	+	+
Unusual Event	Any unusual event (e.g., seeing a car accident)		+			+	+	+	+	+
Unusual Words	Words are unfamiliar (e.g., artichoke) or abstract (e.g., <i>God, divorce</i>)					+	+	+	+	+
Dreams	Development of the ability to recall and to recount the memory of a dream.			+	+	+	+	+	+	+
Early Childhood Development	Types of development during toddlerhood and preschool Years	+	+	+	+	+	+	+	+	+
Cognitive Development	Language reveals childlike reasoning.	+	+	+	+	+	+	+	+	+
Emotional Development	Communication of affect is an important longitudinal theme.	+	+	+	+	+	+	+	+	+
Language Development	The naturalistic dairy data in this collection are an ecologically valid, longitudinal description of L's language development.			+	+	+	+	+	+	+
Moral Development						+	+	+	+	+

Key Words by Topic - Developmental Narrative

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Perceptual Development	L attends to auditory as well as visual referents. Data contain limited mention of perception and language (e.g., verbs of perception <i>see, hear, smell, taste</i>)	+								
Personality Development	L's unique personality permeates these data. (See M's descriptions in Developmental Summaries from J6 on.)			+	+	+	+	+	+	+
Psychosocial Development	Same as Social Development	+	+	+	+	+	+	+	+	+
Psychosexual Development	Topics related to gender differences and sexuality recur in these data.					+	+	+	+	+
Early Experiences	See J1 for an "experiment in nature" and a possible preverbal memory of an emotionally marked experience.	+		+			+			
Family Structure		+	+	+	+	+	+	+	+	+
Father-Child	F talks about his work and about current events at family meals—Why L speaks about some unusual topics.	+	+	+	+	+	+	+	+	+
Mother-Child	M's concern for L's well-being was her first priority in her dual role as a parent-diarist.	+	+	+	+	+	+	+	+	+
Parent-Child	Parents act jointly in response to L's positive or negative behavior.					+	+			
Sibling- Child	J is a role model, a playmate, a caregiver, and a source of security in L's life but also of sibling rivalry.	+	+	+	+	+	+	+	+	+
Imitation	L's ability to imitate language differs in its timing and difficulty in contrast to the ease of her imitation of other human behaviors.	+	+	+	+	+	+	+	+	+
Deferred Imitation		+	+	+	+	+	+	+	+	+
Infant Development	8 to 12 Months	+								
Intersubjectivity	The mutual understanding of the meaning of a shared experience.	+	+	+	+	+	+	+	+	+
Learning	Language becomes a social tool to participate in a culture (i.e., to inquire about and to comment on personal experiences of a cultural environment).				+	+	+	+	+	+
Abstract Knowledge	The teacher and the learner must both have the developmental ability to use displaced language to evoke joint representational meanings							+	+	+
Concrete Knowledge	Language and a jointly understood experience suffice to teach and to learn this type of information					+	+	+	+	+
Longitudinal Diary Data	Daily Entries 12 to 48 months	+	+	+	+	+	+	+	+	+

Key Words by Topic - Developmental Narrative

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Memory—Types of Memory		+	+	+	+	+	+	+	+	+
Declarative Memory	An implicit theme but hard to recognize until language makes it explicit							+	+	+
Episodic Memory	The data contain rare examples of verifiable explicit memories of events. (See the calendar in the Introductory Volume.)	+	+	+	+	+	+	+	+	+
Preverbal Memory	One amazing example of language about a preverbal memory in response to a retrieval cue, and a few other possible examples.			+						
Procedural Memory	The longitudinal data contain examples of L's explicit learning of tasks (e.g., riding a trike, tying a shoe) that become implicit as she develops.						+	+	+	+
Verbal Memory	There are a few examples in which language is the only source of a verifiable memory. (The most interesting is L's preverbal memory of C's fall from a second story window).				+	+	+	+	+	+
Long Term Memory	There are a few verifiable examples of L's memory of an unusual event. Long Term memory is an implicit variable in this database.									
Short Term Memory	There are no explicit examples, but short term memory is an implicit developmental variable in language production.	+	+	+	+	+	+	+	+	+
Memory—Retrieval	The ability to retrieve a memory is implicit in all of these longitudinal developmental data.	+	+	+	+	+	+	+	+	+
Cued Recall	The entry includes a description of a retrieval cue that prompts L's memory.	+	+	+	+	+	+	+	+	+
Free Recall	There are two examples in which the contextual information in the entry mentions the absence of an overt retrieval cue.					+			+	
Names	Developmental changes occur in L's psychological understanding of the function of a name to identify a person..			+	+	+	+	+	+	+
Nature/ Nurture		+	+	+	+	+	+	+	+	+
Piaget	The data contain observations comparable to <i>cognitive egocentrism</i>						+	+	+	+
Play		+	+	+	+	+	+	+	+	+
Peer Play				+	+	+	+	+	+	+
Pretending				+	+	+	+	+	+	+

Key Words by Topic - Developmental Narrative

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Role Playing					+	+	+	+	+	+
Sibling Play			+	+	+		+	+	+	+
Solitary Play		+	+	+	+	+	+	+	+	+
Symbolic Play					+	+	+	+	+	+
Possession			+	+		+				
Reading readiness					+	+	+	+	+	+
Recognitory Gestures		+								
Representation	Symbolic forms of expression in addition to language.		+	+	+	+	+	+	+	+
Art	L describes her scribbling as if it were representational to her before art actually becomes a recognizable form of representation.			+	+	+	+	+	+	+
Literacy	J is a positive influence on L's interest in becoming literate.						+	+	+	+
Metacognition	L acquires many words which refer to different mental states.				+	+	+	+	+	+
Music	L's enjoyment of music precedes her production of a natural language.	+	+	+	+	+	+	+	+	+
Sense of Self	Longitudinal changes in the process of separation and individuation and its behavioral expression	+	+	+	+	+	+	+	+	+
Agency	The preference for self-action develops into an important personality trait.	+	+	+	+	+	+	+	+	+
Emotional Regulation	The data contain a longitudinal description of the developmental interface between language and affect.			+	+	+	+	+	+	+
Motivation and Goals	L's determination to reach a goal is an intrinsic positive source of developmental advances, but if she becomes frustrated it causes a self-critical reaction.	+	+	+	+	+	+	+	+	+
Negativity	L's use of language includes many different means to assert herself and to express autonomy.			+	+	+	+	+	+	+
Self-Control	Effectiveness of language to resist an action changes longitudinally.		+	+	+	+	+	+	+	+
Self-Reference	L is a second child and develops a repertoire of skills to get attention.	+	+	+	+	+	+	+	+	+
Self-Regulation	As L develops language, she becomes able to use it to inhibit a personal action (e.g., telling herself "Don't wiggle" as she tries to hold still)					+	+	+	+	+

Key Words by Topic - Developmental Narrative

Key Word	Note	J1	J2	J3	J4	J5	J6	J7	J8	J9
Theory of Mind	Longitudinal advances involve cognitive and emotional development (e.g, ability to express empathy).	+	+	+	+	+	+	+	+	+
Social Cognition	As L develops language, she becomes aware of and learns about her cultural environment.					+	+	+	+	+
Socialization	L's daily life exemplifies the cultural definition and behavioral expectations of childhood in an American upper-middle class family in the 1970s.			+	+	+	+	+	+	+
Television	L is a devoted fan of Mr. Rogers. TV as a form of representation befuddles her. People on TV live inside the set and can see her.					+	+	+	+	+
Temperament	Parenting techniques which worked well with J's high energy threshold of arousal upset L who has less stamina and is shy.	+	+	+	+	+	+	+	+	+
Vygotsky	His theory describes a process of cultural transmission, a way to scaffold language development and a definition of <i>egocentric speech as private speech</i> (i.e., external thoughts that in time occur mentally as inner speech).			+	+	+	+	+	+	+