1989

A Comparison of pragmatic and linguistic skills in normal and language-impaired children

Julianne Brian
San Jose State University

Follow this and additional works at: https://scholarworks.sjsu.edu/etd_theses

---

Recommended Citation

Brian, Julianne, "A Comparison of pragmatic and linguistic skills in normal and language-impaired children" (1989). *Master's Theses*. 3056.
DOI: <https://doi.org/10.31979/etd.3z5z-ck86>
https://scholarworks.sjsu.edu/etd_theses/3056

This Thesis is brought to you for free and open access by the Master's Theses and Graduate Research at SJSU ScholarWorks. It has been accepted for inclusion in Master's Theses by an authorized administrator of SJSU ScholarWorks. For more information, please contact scholarworks@sjsu.edu.

INFORMATION TO USERS

The most advanced technology has been used to photograph and reproduce this manuscript from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book. These are also available as one exposure on a standard 35mm slide or as a 17" x 23" black and white photographic print for an additional charge.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

University Microfilms International
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

Order Number 1337789

**A comparison of pragmatic and linguistic skills in normal and
language-impaired children**

Brian, Julianne, M.A.

San Jose State University, 1989

U·M·I

**300 N. Zeeb Rd.
Ann Arbor, MI 48106**

**A COMPARISON OF PRAGMATIC AND LINGUISTIC SKILLS
IN NORMAL AND LANGUAGE-IMPAIRED CHILDREN**

A Thesis

Presented to

The Faculty of the Division of

Special Education and Rehabilitative Services

Program in Communication Disorders and Sciences

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

By

Julianne Brian

May, 1989

APPROVED FOR THE DIVISION OF SPECIAL EDUCATION
AND REHABILITATIVE SERVICES PROGRAM IN
COMMUNICATION DISORDERS AND SCIENCES

Alvirda Farmer, Ph.D

Kay A. Armstead, Ed.D

Jean M. Jackson, M.A.

APPROVED FOR THE UNIVERSITY

ACKNOWLEDGMENTS

The help I have received while completing this thesis has been not only tangible and visible but also intangible and unseen yet distinctly felt. Though these words of thanks cannot reciprocate the value of the help I have received, I hope they express the appreciation I feel.

I thank friends Maura Morey and Lynne Johnson for their expert help in proofreading and editing, friend and colleague Debra Webster for her selfless donation of time and effort in testing subjects, thesis committee members Jean Jackson and Kay Armstead for their patience and help with writing, and thesis chair and advisor Alvirda Farmer for her example of scholarship and commitment to helping me. I am also grateful to friend and mentor Mary Ann Christman-Phelps for her invaluable advice and constant support; thanks also to her husband, Rich, for the generous loan of their printer.

Particular thanks are extended to LuAn Johnson, friend and companion, who personifies excellence and thus inspires me to achieve my highest potential. Her impeccable standards and limitless understanding truly marked the path and led the way to the completion of this goal.

Finally, thanks to my wonderful parents, Jen and Frances Brian, for the enormous amount of very tangible support they provided and for their consistent expressions of confidence in my abilities.

TABLE OF CONTENTS

CHAPTER		PAGE
I	INTRODUCTION.	1
	Statement of the Problem.	4
	Purpose of the Study.	4
	Hypotheses.	5
II	REVIEW OF THE LITERATURE.	6
	Pragmatics.	6
	Assessing Pragmatic Abilities.	7
	Relationship Between Pragmatics and Linguistics.	13
	Pragmatic Abilities of Language-Impaired Children.	18
III	METHODOLOGY.	28
	Subjects.	28
	Procedure.	29
	Materials.	29
	Statistical Measure.	33
IV	RESULTS.	34
V	DISCUSSION.	37
VI	SUMMARY.	40
REFERENCES	.....	42
APPENDICES	.....	49
	Appendix A. Age, Sex and Raw Scores on the <i>TofPS</i> and the <i>TOLD-2</i> for Each Subject.	50
	Appendix B. Raw Scores for Each Subject on the <i>TofPS</i> and the <i>TOLD-2</i>	51
	Appendix C. Ranking by Each Subject on the <i>TofPS</i> and the <i>TOLD-2</i>	53

LIST OF TABLES

TABLE	PAGE
1. Mean raw scores and standard deviations for language-normal and language-impaired subjects.	34

LIST OF FIGURES

FIGURE	PAGE
1. Mean raw scores on <i>TOLD-2</i> and <i>TofPS</i> for language-impaired and normal language groups.	35

CHAPTER I

INTRODUCTION

Today, the study of child language by speech and language pathologists includes the study of semantics, syntax, and pragmatics. These terms have also been called content, form, and use (Bloom & Lahey, 1978). Common synonyms for semantics and syntax are word meaning and grammar. The third term, pragmatics, may require more explanation before it is commonly understood.

Elizabeth Bates introduced the word pragmatics into the field of speech and language pathology in 1976. She defined pragmatics as "rules governing the use of language in context" (Bates, 1976a, p. 420). The key word in this definition is *context*. Context is the core of pragmatics (Prutting, 1982). A dictionary will tell you that context, in its broadest sense, is "the interrelated conditions in which something exists or occurs: environment" (*Webster's New Collegiate Dictionary*, 1975, p. 245). Another dictionary definition provides a more concrete understanding of pragmatics in saying that context is "the parts of a discourse that surround a word or passage and can throw light on its meaning" (*Webster's New Collegiate Dictionary*, 1975, p. 245).

Pragmatic ability, then, can be partially described as the ability to monitor changes in context and alter language accordingly. This ability is in addition to semantic and syntactic (linguistic) abilities. There are those who choose correct words and use correct grammar yet do not say the correct thing for the context of the moment. Naremore (1985) stated:

Language users must not only know how to construct grammatical sentences, but also how to take turns in a conversation, how and whether to request or command, and much more. The skills that make language users effective go far beyond their capacities to construct grammatical sentences (p. 67).

The capacity to construct grammatical sentences was, however, the only concern of early language study. Later, semantics became a concern as well, but not pragmatics. Tests of syntax and semantics were developed and standardized for use in diagnosing language disorders. But it became apparent that this formal testing did not elicit the most representative sample of a child's language abilities. Collecting and analyzing a spontaneous language sample became a widely accepted method of evaluating language abilities.

Analysis of these language samples called for the meticulous transcription of everything the child uttered. However, no report was made of what had been said to the child, nor any physical gestures the child might have used, nor with whom the child was speaking. In other words, pragmatics was "everything we [threw] out when we analyzed language" (Ervin-Tripp, 1978 in Prutting, 1982, p. 122).

Evaluating language performance without pragmatic analysis removes the language from its context. Lund and Duchan (1983) stated that "language is woven into the fabric of the event that is occurring as the language is used, [and separating language from its context] distorts its nature and obscures its communicative function" (p. xi).

Language assessment today no longer removes language from its context. Despite its previous exclusion from language study, pragmatics is now recognized as an important feature of language (Prutting, 1987). It is further acknowledged that much of language is affected by pragmatic factors (Prutting, 1982; Wollner, 1983).

To understand the influence pragmatic factors have upon language, it is important to look at the basis for pragmatic development. Wollner (1983) stated that pragmatic skills develop from linguistic, cognitive, and social foundations. If pragmatic development arises partially from linguistic skills, children with linguistic impairments may exhibit pragmatic impairments. If pragmatic ability also develops from cognitive and social bases, children with intact linguistic systems may have pragmatic deficits which impair their communicative competence. Conversely, linguistically impaired children may be able to compensate for their linguistic deficiencies by relying on pragmatic strengths. It is clear that a linguistic profile alone cannot predict communicative competence.

When discussing language impaired or language disordered children, there are two broad groups to be specified: language-impaired (LI) and specifically-language-impaired (SLI). SLI children have a developmental disorder characterized by severe problems of comprehension and/or expression of spoken language in the absence of hearing loss, mental retardation, or emotional disorder (Stark & Tallal, 1981). LI children are characterized by severe problems of comprehension and/or expression of spoken language with concomitant diagnoses of hearing loss, mental retardation, or emotional disorder (Wollner, 1983). Throughout this paper, the terms LI and SLI will be used according to the specifications set forth in the reviewed literature.

Studies of specific areas of pragmatic ability have been conducted with SLI and LI children. Most of these studies have occurred with very young children (ages 1:8 to 5:0) (Curtiss, Prutting, & Lowell, 1979; Fey, Leonard, Fey, & O'Connor, 1978; Gallagher & Darnton, 1978; Geller & Wollner, 1976; Leonard, Camarata, Rowan, & Chapman, 1982; Rom & Bliss, 1981; Rowan & Leonard, 1981; Snyder, 1975). There

have been few studies of the pragmatic/linguistic skills discrepancy in children older than 5:0. It is not yet known if the pragmatic skills of older SLI children are better than their linguistic skills. This paper will compare the overall linguistic and pragmatic skills of SLI children, ages 6:7 to 8:3.

Statement of the Problem

Pragmatic abilities can be separate and distinct from linguistic abilities (Wollner, 1983). With regard to communicative competence, pragmatic abilities may be more important than linguistic abilities. In studying developmentally delayed adults, Mueller (1983) found that overall societal likability ratings correlated +.80 with pragmatic abilities, +.40 with semantic abilities, +.20 with phonologic abilities, and .00 with syntactic abilities. Prutting and Kirchner (1983) commented: "These results suggest that the pragmatic aspects of language are intimately linked to judgments of a perceived level of social competence" (p. 115). If pragmatic skills have a greater influence on perception of social competence than linguistic skills, remediation of pragmatics should perhaps be a higher priority than remediation of linguistics.

The literature shows us that some LI populations (i.e., autistic, hearing impaired, psychotic) and some very young SLI populations have pragmatic skills which are either more or less sophisticated than their linguistic abilities. Research is needed to determine if the pragmatic skills of older SLI children differ from their linguistic skills. If they are different, it will be important to know if they are better or worse than the linguistic skills of these SLI children.

Purpose of the Study

The purpose of this study was to discover if the pragmatic skill level of SLI

children is different than their linguistic skill level. Two standardized tests were used to make this determination. The *Test of Language Development-2, Primary (TOLD-2)* (Newcomer & Hammill, 1988) was used to assess the linguistic skills of normal-language and LI children. The *Test of Pragmatic Skills-Revised (ToFPS)* (Shulman, 1986) was used to measure the pragmatic skills of the two groups of children.

Hypotheses

Hypothesis 1: The language-impaired group will score significantly lower than the language-normal group on the pragmatic test.

Hypothesis 2: The language-normal group's linguistic test scores will not be significantly different from their pragmatic test scores.

Hypothesis 3: The language-impaired group's linguistic test scores will not be significantly different from their pragmatic test scores.

CHAPTER II

REVIEW OF THE LITERATURE

Pragmatics

A “pragmatics revolution” (Duchan, 1984) has taken place within the field of speech and language pathology. Duchan traced three different time periods in the history of this revolution. In 1957, Chomsky began what Duchan called the “Linguistic Assessment Period.” This time period of language study emphasized analyses of syntax, relational semantics, and phonology. Next came the “Cognitive Assessment Period” of the 1970’s. This era focused on many of the integral issues in pragmatics today: presupposition, speech acts, and intentionality, although at the time they were studied as cognitive factors. In the “Social Assessment Period” of today, language study looks not only at the impaired child and his knowledge of language, but also at the *interaction* between conversation partners.

In 1983, Prutting and Kirchner announced a similar shift in the field of child language. They stated that language study has gone from: “viewing syntax as central to seeing pragmatics as the overall framework from which to study syntax and semantics” (p. 30). According to Prutting and Kirchner (1983), the social and cognitive contexts in which linguistic structures develop and are used have replaced grammar as the main concern of language study. They alluded to the previously questionable status of pragmatics study and stated that “pragmatics should not be dealt with as peripheral, global, or nebulous. Indeed, it is a pervasive aspect of language which affects the entire communicative system. Pragmatics need no longer be

considered the weak sister to syntax and semantics" (p. 60).

Further proclaiming the legitimacy of pragmatics as a key feature of language study, Dollaghan & Miller (1986) wrote:

Some of the available data concerning the pragmatic domain have been characterized by a less than impeccable record in relation to the dual demands of validity and reliability... [This] can probably be attributed to the eclectic nature of the construct of communicative competence, its relatively recent emergence on the empirical scene, and its position at the confluence of a number of disparate aspects of communicative skill. However, *there is nothing inherent in the pragmatic domain that exempts it from the demands of scientific respectability*; claims that communicative competence is somehow less amenable to the techniques of careful observational methodology are indefensible as well as counterproductive. (italics added) (p. 127).

In language analysis, pragmatics has come from being "thrown out" to being viewed as the centerpiece of language development. Before the importance of pragmatic skill can be determined, however, reliable and valid methods of sampling and assessing pragmatic ability must be established.

Assessing Pragmatic Abilities

Theoretical models. As with any other component of language, pragmatic assessment should be based on a theoretical model; there have been several models developed for pragmatic analysis. McTear (1985) organized his model into two categories: interactional and transactional. The interactional component is concerned with turn-taking, illocutionary acts, and exchange structure, or the way the speakers cooperate in the conversation. The transactional component involves the propositional content such as relevance, cohesion, appropriateness, and communicative intentions.

Roth and Spekman (1984a) outlined a framework for pragmatic assessment that included three primary areas: communicative intention, presupposition, and

social organization of discourse. Communicative intention describes the intentions of the speaker (illocutionary act) and the effect those intentions have on the listener (perlocutionary act). Presupposition is the information shared by the communicators, and includes the ability to infer what the listener's needs are and what knowledge is shared. Social organization of discourse involves the communicator's ability to contribute to the ongoing stream of conversation. He must be able to alternately assume the role and responsibility of speaker and listener.

Lund and Duchan (1983) organized their chapter on pragmatic assessment into four aspects of context. They stated that each of these contexts has an influence on the language produced in them. The four contexts they outlined are: situational (social rules), intentional (illocution), listener (presupposition), and linguistic (rules of social discourse, linguistic cohesion). These contexts were written as a guide for analyzing child language within each context. When analyzing situational context, the following are considered: physical setting, speech event and frame, and topic. When analyzing intentional context, illocutionary force and agenda are considered. Listener context looks for evidence of listener perspective taking. And, linguistic context is concerned with discovering discourse cohesion devices. They recommended both elicitation and spontaneous sampling as methods of gathering data.

Dollaghan and Miller (1986) considered the issue of taxonomies in deciding which features to observe in setting up approaches to measurement. They pointed out that a general taxonomy could be constructed from existing pragmatics or speech act theory, but that it might not be valid for a given observer and a particular child. Instead of proceeding from a fixed taxonomy, they recommended the observation of variances of the child under study. A special observational period can be used in

identifying the observation issues for each child. To facilitate the measurement, Dollaghan and Miller suggested three broad clusters of pragmatic issues in the observation of the child.

The first cluster includes the child's intentions and the communicative functions used by the particular child in expressing these intentions. The second cluster includes rules for sequencing communicative acts and reflects the child's competency in using the structures and specific functions of language. The third cluster includes ways in which the speaker or listener is able to integrate linguistic and nonlinguistic information in presupposing or foregrounding necessary information for selecting appropriate devices in speaking. Although the authors recognized overlap among these clusters, they nevertheless provided general guidelines for selecting categories of particular interest for a young child. They stated that each assessor must learn to be a good observer and provide necessary observation plan steps in order to arrive at valid data.

Assessment recommendations. Building on their assessment framework (Roth & Spekman, 1984a), Roth and Spekman (1984b) outlined some guidelines, considerations, and specific evaluation procedures for pragmatic assessment. They advocated providing meaningful and variable contexts for assessment. While other authors have recommended gathering a language sample in the most naturalistic settings possible, Roth and Spekman stated that some situations have to be contrived in order to assess a particular pragmatic skill. Contrived assessment tasks should be conducted in addition to collecting a spontaneous language sample.

"Spontaneous language sampling is the centerpiece of child language assessment" (Gallagher, 1983, p. 2). Experts agree that several samples need to be

collected to adequately assess language use (Bloom & Lahey, 1978; McLean & Snyder-McLean, 1978; Miller, 1981; Muma, 1978). Gallagher (1983) recommended that a pre-assessment questionnaire be filled out by the parent describing the child's best and most frequent communicative interactions as a guide to obtaining the most representative sample of a child's communicative competence.

Johnson, Johnston, and Weinrich (1984) referred to the pragmatic language sample as a "dialogue sample" and emphasized the importance of gathering a spontaneous language sample which includes a transcription of the speaker and listener's utterances as well as context. They recommended that each utterance be analyzed semantically, syntactically, and pragmatically.

Use of nonstandardized assessment tools. Leonard, Prutting, Perozzi, and Berkley (1978) wrote an early article on nonstandardized approaches to assessing language. They stated that nonstandardized measures were essential in obtaining sufficient information about a child's ability to communicate. They provided three rationales for using nonstandardized measures (in addition to standardized tests): to further explore abilities which seemed suspect in standardized testing, to explore abilities not checked in standardized testing, and to ascertain why a particular feature was difficult in standardized testing.

Developing her own informal pragmatic assessment tool, Simon (1984) gathered 18 tasks from already standardized measures of language assessment for the purpose of evaluating "functional-pragmatic" communication skills in school-aged children. The tasks covered both expressive and receptive language abilities with an emphasis on functional abilities. Some of the tasks included: asking for name and address, comprehending details in paragraphs, interpreting sequential picture stories,

detecting absurdities, solving riddles, and giving directions. The procedure was designed to gather descriptive information about a child's functional communication abilities.

Another informal pragmatic assessment tool was designed at the Georgia Retardation Center in Athens, Georgia. Blue (1975) wrote that a more thorough understanding of pragmatic ability can be obtained through extended observation in different settings. He recommended six 30-minute observation periods each day (three hours per day) over 10 consecutive days (total of 30 hours observation). He suggested students be observed in three different types of communicative interaction and rated on a scale of zero to eight, with zero being no opportunity to observe the communicative interaction and eight indicating that the child spontaneously informs, promotes conversational give-and-take, and interactively directs the behavior of others.

Perhaps the best known nonstandardized pragmatic assessment tool is Prutting's pragmatic protocol. Developed in 1982, the protocol covers four broad areas of language use: the utterance act, the propositional act, the illocutionary act, and the perlocutionary act. Thirty-two pragmatic behaviors are listed. Through observation of spontaneous language, each behavior is checked as either appropriate or inappropriate.

Prutting's revised pragmatic protocol was published in 1983 (Prutting & Kirchner, 1983). Prutting and Kirchner stated that one of the problems with the pragmatic profiles that had been developed, including the first version of Prutting's protocol, was that they separated intentionality from presuppositions, propositional knowledge, and social rules of discourse. These authors quoted Searle (1969) in

saying that while performing one speech act, several others may also be performed, thus there can be no distinct boundaries between these parameters.

Prutting's revised pragmatic protocol (Prutting & Kirchner, 1983) consists of 30 pragmatic aspects of language and is intended for use with children five years of age or older and adults. Further, it was designed for use with English-speaking subjects from monolingual homes.

There are three major categories within the protocol: verbal, paralinguistic, and nonverbal. Within each of these three categories, the author incorporated the following qualities: 1) broadness of scope - the protocol covers a wide range of behaviors, 2) homogeneity - each parameter represents a logical relationship to communicative competence and to each other, 3) mutual exclusiveness - each item can only be classified in one category, and 4) usefulness - each parameter serves to identify a communicative ability.

The pragmatic protocol is completed after observing the subject in spontaneous conversation with a familiar partner for 15 minutes. The relationship between the partners should be positive or neutral. Each parameter is judged as appropriate if it facilitates the interaction or is neutral, inappropriate if it detracts from the exchange and penalizes the individual, or no opportunity to observe if there is not enough information from the observation to make a judgment. The authors (Prutting & Kirchner, 1987) commented that when judging a behavior as inappropriate, it is "not [just] because [the behavior] is different but because [that] difference makes a difference in the interaction [penalizes the communicator]" (p. 109).

There are only two standardized tests of pragmatic abilities currently available (*Test of Pragmatic Abilities-Revised*, Shulman, 1986; *Interpersonal Language Skills*

Assessment, Blagden & McConnell, 1985). It seems for now that the use of nonstandardized measures for pragmatic assessment is unavoidable.

Relationship Between Pragmatics and Linguistics

The distinction between a pragmatic perspective of language and a linguistic perspective has long been acknowledged and debated. Lyons (1968) reported that in the second century B.C., a pragmatic view of language was supported by a group called the "functionalists," while the linguistic view of language was endorsed by the "formalists." Formalists believed that the function of language was to express thought and that knowledge of language was more important than its use. The functionalists maintained that language's main purpose was to communicate, and that the use of language was paramount to knowledge of it (Lyons, 1968).

This ancient debate between pragmatists and linguists has resolved itself in today's practice of speech and language pathology. Professionals agree that their purpose ultimately centers on helping communicatively impaired individuals function successfully in a social world (Wollner, 1983). The functionalist/formalist debate may continue on how to bring that success about, but the goal of functionality is common to both sides.

Newhoff and Browning (1983) referred to the difficulty in separating syntax, semantics, and pragmatics in the study of language. The nature of pragmatic disabilities and their relation to other language disorders is still not clearly understood (Fey & Leonard, 1983). Developmental theories say that pragmatics, syntax, semantics, and phonology are "interrelated ... and operate synergistically" (Prutting, 1982, p. 125). Leonard et al. (1978) also commented on the synergistic nature of language components stating that "their combined effect on a child's

linguistic system is greater than the sum of their effects taken independently" (p. 372).

Prutting and Kirchner (1987) described three different (but not mutually exclusive) models of pragmatics and linguistics. The first is a pragmatics-as-separate model in which language use is described as separate from syntax or semantics. The second is pragmatics-as-perspective model (Bates, 1976b, 1979). This model proposes that pragmatics provide functional constraints on various outcomes at other language levels. The third model is supported by Prutting and Kirchner (1987) and is a pragmatics-as-cause-effect. This model concerns itself with the communicative effects that linguistic and cognitive deficits have on human interaction. The principle behind this model is that our conception of pragmatics is based upon our understanding of its effects. The pertinent literature will be reviewed here in terms of these three models.

Pragmatics-as-separate. Blank, Gessner, and Esposito (1979) studied a three-year-old boy whose linguistic abilities were age appropriate, but his interpersonal communication abilities were almost completely ineffective. They suggested that the linguistic and pragmatic (structural and communicative) aspects of language are based upon different sets of skills which may function independently of one another, particularly in cases of language disorder.

In a study contrasting pragmatic and semantic use of the same word, Peterson (1986) studied the use of 'but' in children aged 3:6 to 9:6 and discovered that the semantic/syntactic function of 'but' increased in complexity as the children grew older. The significant result of her study was that all of the children were using 'but' to signal pragmatic relationships, and there were no developmental changes in the use

of this word for pragmatic purposes. The pragmatic purpose of 'but' was to interrupt, monitor listener attention, or change topic.

Pragmatics-as-perspective. In the communication literature, Ellis and Hamilton (1985) discussed the use of pragmatic and syntactic codes in interpersonal communication. Their research is based on the linguistic mediation assumption that language reflects and mediates the social world. They stated that "we perceive reality through linguistic lenses that are responsible for an assortment of meanings" (p. 265). They compared and contrasted oral versus written communication and likened syntactic code use to written communication and pragmatic code use to oral communication.

In oral communication, meaning resides in the situation and is dependent on the expectancies of the communicators. Ellis and Hamilton (1985) extended the comparison between oral/written and pragmatic/syntactic by noting that oral-pragmatic language is most like "unplanned discourse" (Ochs, 1979a, b), and written-syntactic is like "planned discourse." Referring to the general developmental pattern of child language, Ellis and Hamilton stated that children begin with oral, unplanned pragmatic communication and develop into more written, planned syntactic usages. As the child acquires more of the syntactic code, he still retains the pragmatic code and uses both skills (Ochs, 1979a).

Pragmatics-as-cause-effect. Levinson (1983) stated that Pragmatic features exist on a continuum and include both linguistic context-dependent aspects of language (e.g., topic) as well as linguistic context-independent aspects of language (e.g., eye gaze) (Levinson, 1983). Campbell and Shriberg (1982) studied

pragmatics in a linguistic context-dependent setting. They found that pragmatics and the suprasegmental feature of linguistic stress were significantly associated with phonological performance. Both the type of pragmatic function and the level of linguistic stress were associated with reduction in the occurrence of natural phonological processes.

Wollner (1983) described the relationship between linguistic structure and speech acts (a pragmatic ability). First, the function that a sentence serves is often independent of its syntactic structure or literal meaning (e.g., "Are you going to finish your drink?" is syntactically a question, but it can function as a request -- "Give me your drink.") Second, the same sentence often serves different intentions (e.g., "I'm thirsty," could be a request or a comment). Third, the same intention can be conveyed with a variety of syntactic forms (e.g., "Give me a drink," "I'm thirsty," and "My mom always lets me drink Coke," all serve as requests, some more direct than others).

Gallagher (1983) stated that pragmatic theories of language characterize linguistic elements and contextual elements as forming an interactive communicative whole. The goal is to characterize communicative competence, not simply linguistic competence.

Philosophical relationship. Duchan (1984) provided a graphic illustration of how the study of pragmatics fits in with linguistics. Comparing pragmatics to Buffalo chicken wings, Duchan described hot, medium, and mild versions of pragmatics. The mild version looks at pragmatics as a new aspect of language to be assessed along with semantics and syntax, hopefully via standardized tests. The mild pragmatist still sees linguistic rules as the main assessment concern. Medium pragmatics maintain that language is the object of study and context is what is

influencing it. Linguistic rules are seen in a linguistic context and function to carry out the communicative intent and build discourse. Hot pragmatics calls for looking at communication and context first and then the language within. Linguistic rules are seen not as fixed rules but rather as guides for making sense in communication.

Wollner (1983) reviewed the literature on various LI populations and their ability to communicate intentions as compared to their linguistic capabilities. Three subgroups emerge: 1) those whose speech act ability is commensurate with their linguistic abilities, 2) those whose speech act ability is superior to their linguistic abilities and, 3) those whose speech act ability is inferior to their linguistic abilities.

The group with similar speech act and linguistic ability included: LI preschoolers at the one-word stage of development (Rowan & Leonard, 1981), LI children with MLUs of 3.09 (Rom & Bliss, 1981), and SLI children with MLUs ranging from 3.0 to 4.8 (Fey et al., 1978). In all three of these studies, the LI children were deficient in speech act ability when compared to chronological age peers, but there was no difference between their speech act abilities and that of their linguistic age peers. It should be noted that the LI children whose speech act ability equaled their linguistic ability were without significant cognitive, emotional, or sensory impairment, i.e., SLI children.

There were three LI populations identified as having speech act abilities superior to their linguistic abilities. They included: hearing-impaired (Curtiss, Prutting, & Lowell, 1979), Down syndrome children (Halfond & Tamari, 1980), and autistic children (Prizant & Duchan, 1981).

The third group, those whose speech act ability was demonstrated to be worse than their linguistic ability, also included some of the populations from the previous

two groups. Snyder (1975) identified 20 to 30 month old LI children at the one-word stage who fit into this category. Psychotic mentally retarded children also showed speech act abilities poorer than their linguistic skill level (Cunningham, 1968; Schecterman, Wollner & Geller, 1978). Other populations in this third category included: SLI children ages 3:6 to 9:6 (Morehead & Ingram, 1973), and learning disabled children (Donahue, Pearl, & Bryan, 1980).

Pragmatic Abilities of Language-Impaired Children

The term specific language impairment has been used to refer to children with a deficit in the comprehension and/or production of language in the absence of significant cognitive, emotional and sensory impairment. Other LI populations include the mentally retarded, autistic, and hearing impaired. In studying the pragmatic abilities of these LI children, three groups have emerged: 1) those whose pragmatic abilities are better than their linguistic abilities, 2) those whose pragmatic and linguistic abilities parallel each other, and 3) those whose pragmatic abilities are worse than their linguistic abilities (Wollner, 1983).

Wollner (1983) provided some insight into why a LI child's pragmatic abilities may differ from his linguistic skill level:

A child's understanding of and experience with the world, which depends to some degree on chronological age, may affect his or her communicative skills. Although language-impaired children may not have been learning language [as] their normal peers [have], they may have been learning how one functions in a social environment or, of potentially more significance, how one functions in a social world when one does not talk so well. The positive effects of having experienced life and the negative effects of having experienced life as a poor communicator undoubtedly influence pragmatic abilities (p. 5).

Fey and Leonard (1983) reviewed the studies of LI children and five areas of pragmatics: conversational participation, discourse regulation, speech acts, code-

switching, and referential skills. The authors concluded that LI children are just as heterogeneous pragmatically as they are syntactically, semantically, or phonologically. Fey and Leonard (1983) identified three possible patterns to describe the pragmatic impairments of language disordered children.

The first pattern includes those children who are unresponsive in all types of social interaction. Their unwillingness or inability to converse has a profound influence on all areas of language use. This particular pattern is not as well documented as the second pattern.

This second pattern outlined by Fey and Leonard (1983) describes children as responsive but nonassertive. They frequently use specific behaviors to maintain social contact and at the same time avoid taking conversational responsibility. These children have selective pragmatic deficits which reflect their syntactic impairments.

The third and pragmatically most sophisticated pattern includes children who assume conversational roles similar to normal language children but are limited in the frequency and types of pragmatic behaviors they may use. These children may use more nonverbal means of encoding, fewer revision types, and a smaller range of speech acts. Their limitations, however, seem to come from their lack of specific linguistic forms required to produce those pragmatic behaviors. When compared to normal language children with similar linguistic abilities, this third group of language impaired children displays equivalent pragmatic skill (Fey & Leonard, 1983).

Six years ago, Fey and Leonard (1983) wrote that the study of pragmatic skills in SLI children was in its infancy. Since that time, many studies have been conducted with conflicting results. Following Wollner's (1983) categorization, the following literature is reviewed.

Pragmatic ability inferior to linguistic ability. Loveland, Landry, Hughes, Hall, and McEvoy (1988) studied the speech act usage of autistic children (mean age of 5-6) compared to their mental-age matches with developmental language delay and to normally developing two-year-olds. All subjects were observed in free-play situations with a parent. The autistic children showed more incidents of no response, produced fewer affirming, turn-taking, and gestures, and were less likely to initiate communication than other children. The authors concluded that autistic children's language can serve many useful functions but that their pattern of language function is different from that of nonautistic LI children and normal children of similar language level.

A study by Brinton and Fujiki (1982) found that LI children did poorer than their age matched peers in request-response tasks in conversation. Several types of request-response sequences were considered: choice questions, product questions, and requests for clarification. Results showed that normal children were much more aware of the interactive nature of discourse than the LI children. The normal language children usually responded within the boundaries of an acceptable adult response. The LI children frequently ignored or responded inappropriately to requests. Their responses were occasionally contrary to fact or totally unrelated to the expected information. Some LI subjects also demonstrated linguistic strategies that facilitated the flow of conversation but showed no understanding of the content of the conversation

Pragmatic ability superior to linguistic ability. SLI children and their language-age (LA) matches were investigated regarding their conversational replies in conversation with adults (Leonard, 1986). Results showed that the SLI children produced a greater number and variety of replies to both questions and

statements than the normal-language children. The findings suggest that SLI children can serve as responsive conversationalists when syntactic skill is not a factor, and that comprehension, world knowledge, and/or experience with conversations allow considerable variability of conversational skill even within the same level of expressive language ability.

MacLachlan and Chapman (1988) investigated language learning-disabled (LLD) fifth graders and normal language children matched for chronological age (CA) and mean length of communication unit in conversation (MLCU, morphemes per communication unit). They looked at two samples from each subject, one of conversation and one of narration, and analyzed the number and type of communication breakdowns. Breakdowns included stalls, repairs, and abandoned utterances. They found that all groups had similar rates of breakdowns in both conditions. The LLD group had more breakdowns in narration than in conversation as compared to the control groups. All groups had more breakdowns in longer samples. The groups did not differ in the types of breakdowns.

Fey and Leonard (1984) conducted a study which revealed that in the pragmatic area of speech act pair analysis (their ability to adjust their conversation according to who their listener is), SLI children modified their language in the same manner and to the same extent as their CA and LA matches in seven out of ten measures. Further, their ability to adapt to various partners appeared even better than their LA matched peers. Fey and Leonard (1984) stated that "the often superior performance of the [LI children] supports the hypothesis that certain social-pragmatic skills and expressive syntactic skills may develop independently, to some extent" (p. 422).

Meline and Meline (1983) looked at the way 7- to 11-year-old LI children respond when faced with a communication obstacle. The LI subjects were matched to two different control groups - one by age and the other by language ability. All subjects were told to describe an object to an adult who could not see the object being described. The adult was then to pick out which object had been described. After the child's initial attempt to describe, the adult responded with "I don't understand." The child's first and second responses were analyzed. Results indicated that the LI children communicated less effectively than the age matched peers and more effectively than their language matched peers. The authors attributed the better performance to more "worldly experience" and the poorer performance to the LI children's language difficulties.

Pragmatic ability commensurate with linguistic ability. Prutting and Kirchner's (1987) study included 42 children with language disorders. These children were observed in conversation for 15 minutes. Prutting's (1983) pragmatic protocol was then filled out for each child. Results showed that as a group, the language disordered children were pragmatically appropriate 96% of the time. Areas where they were judged to be inappropriate (with interobserver reliability between 93%-100%) included specificity-accuracy, cohesion, repair/revision, quantity-conciseness, and intelligibility. Those areas that interfered with their communicative competence were, in general, the result of "linguistic deficits related to the semantic and syntactic aspects of expressive language" (p. 110).

The role that a highly frequent repeated utterance ('It's gone') played in the conversation of an SLI four-year-old boy, Clark, was studied by Gallagher and Craig (1984). Clark was observed in conversation with his mother, and four partners, two

of whom were matched to his chronological age and two matched to his expressive language ability. Analysis revealed that Clark's excessive use of "it's gone" served as an interactive bid for his partners to engage in a game of hide and show, a game frequently employed by mothers with their 8 to 18 month old babies (Bruner, 1974, 1975, 1977; Ratner & Bruner, 1978; Snow, 1978). Gallagher and Craig (1984) stated that perhaps this phrase was used by Clark to "mediate his social interactions with unfamiliar communicative partners" (p. 374).

Gallagher and Darnton (1978) examined conversational revision behaviors of LI children at Brown's stages I, II, and III (Brown, 1973). During a one-hour spontaneous language sample, the examiners pretended not to understand something the child had said and asked, "What?" 20 different times. The authors reported that more revision behaviors and less repetition behaviors were used at each succeeding stage. Although normal language peers were not directly compared to the LI children in this study, the authors cited earlier research and stated that the revision patterns used by the LI children were qualitatively different than those used by normal language children.

Conversation repair strategies were also examined by Brinton, Fujiki, and Sonnenberg (1988). Their subjects included SLI children and their chronological age (CA) and linguistic age (LA) matches. The SLI children studied were receiving speech-language and learning disability services. The SLI subjects were without hearing loss, mental retardation, behavioral disturbance, neurological impairment or severe phonological impairment. During a 30-minute conversational sample, each subject was asked for clarification ten times using the following sequence each time:

Child: initial statement

Examiner: Huh?

Child: response

Examiner: What?

Child: response

Examiner: I didn't understand that.

Results showed that all subjects recognized the need for repair and were able and willing to change their contributions according to listener feedback most of the time. While the SLI and CA often changed the form of the message, the older normal subjects supplemented the message with additional information. They concluded that the SLI subjects did not lack the strategies to repair, but rather that they lacked persistence in applying them. It was noted also that the SLI subjects did not appear to compensate for their difficulties by increasing the use of paralinguistic or gestural means.

Liles (1985) compared cohesion in the narratives of normal language and LI children. Twenty normal and 20 LI children, aged 7:6 to 10:6, each produced two narratives, one for an adult listener who had seen a movie with the child and one who had not. Results demonstrated that both groups changed their use of cohesion as a function of the listener's needs in the same way, but the groups differed in their manner of cohesive organization, their cohesive adequacy, and their comprehension of the story.

Twenty-four LI children and their peers matched by MLU ranging from 2.8 to 6.0 were examined in a study by Skarakis and Greenfield (1982). They analyzed the way these children marked new and old information in conversation. They discovered that the LI children marked new information just as normal children did, and that they showed the same developmental sequence for deemphasizing old information. Both groups of children used the same verbal strategies, but over half of the LI children

showed a different combination of language features than would be expected at their MLU level.

Van Kleeck and Frankel (1981) studied three LI children and their use of two specific discourse devices -- focus and substitution. Focus operations repeat a previous utterance, and substitution operations repeat, but also alter, part of the previous utterance. Their research indicated that the three LI children followed the same developmental trend as normal children in the use of these devices. The authors concluded that LI children are not qualitatively different from normally developing children in their ability to use these devices in conversation.

McTear (1985) performed an in-depth pragmatic analysis on the language of a 10-year-old language disordered boy whose conversation was reported to be "bizarre and confused," and "stilted and formal." McTear analyzed four 15-minute conversational samples and concluded that the child had deficiencies in both transactional (relevance, cohesion, appropriateness) and interactional (turn-taking, illocutionary acts, and exchange structure) components. He concluded that this child's main problem appeared to be his inability to integrate the two areas and deal with their competing constraints. McTear reported that the child used coping strategies in order to maintain a semblance of interactional competence. This was well described as the child recognized the obligation to take his conversational turn, but this pressure to respond conflicted with the requirement of appropriate content - that the turn should be relevant, informative and truthful. McTear stated that the following set of ordered strategies were seen in this child's discourse (1985, p. 141):

- 1) If the demands of informativeness and accuracy cannot be easily fulfilled, then give any answer which is potentially appropriate.

- 2) If no such answer can be given, then fulfill the requirements of interaction by using a non-elliptical response and/or a stereotype acknowledgment.
- 3) If more is required, then repeat your own preceding utterance.
- 4) If all else fails, then retreat by saying *don't know* or by changing the topic.

The majority of studies of pragmatic abilities of LI children say that they follow the same developmental sequence and exhibit the same range of pragmatic strategies as do normal children in a *comparable linguistic stage* (Bricker & Carlson, 1980; Fey, Leonard, & Wilcox, 1981; Gaines, 1981; Gallagher & Darnton, 1978; Shatz, Shulman, & Bernstein, 1980; Skarakis & Greenfield, 1982; Snyder, 1975; Van Kleeck & Frankel, 1981). This is also true for hearing impaired children (Curtiss, Prutting, & Lowell, 1979). Some researchers have found that language disordered children may use pragmatic strategies differently than normal children (Gallagher & Darnton, 1978; Skarakis & Greenfield, 1982). These studies and Gaines' (1981) study of Down syndrome infants suggest that language disordered children may use pragmatic behaviors which are qualitatively different, not just delayed from normal development (Prutting & Kirchner, 1983).

This review includes two studies which found pragmatic abilities of LI children to be inferior to their linguistic abilities, four studies which discovered pragmatic abilities of LI children to be superior to their linguistic abilities, and eight studies which found the two abilities to be commensurate with each other. This proportion coincides with the three patterns of pragmatic disability identified by Fey and Leonard (1983), except that Fey and Leonard did not identify any children with pragmatic abilities superior to their linguistic abilities. They found children whose pragmatic ability was adversely influenced by their linguistic disability, but none whose

pragmatic ability exceeded their linguistic ability. This study attempted to replicate that pattern.

CHAPTER III

METHODOLOGY

Subjects

Subjects for this study were selected from two elementary schools in the same school district in Santa Clara County, California. Ten children were selected for the experimental (specifically-language-impaired) group and 10 for the control (normal language) group. All 20 subjects spoke English as their only language. All subjects were between the ages of 6:7 and 8:3 (M = 7 years, 4 months).

The specifically-language-impaired (SLI) children were selected according to the following criteria:

1. Each SLI subject was enrolled in a special day class for the communicatively handicapped. The child was placed in this class after having met the severe disorders of language eligibility criteria of Title 5 of the California Administrative Code, Article 3.1, Section 3030.
2. Each SLI subject had normal hearing as determined by a hearing screening test given within the last six months.

Normal language (LN) subjects were matched to the LI subjects for age and sex and then selected according to the following criteria:

1. Each LN subject was considered by his or her classroom teacher to be within the normal range of intellectual ability.
2. Each LN subject had normal hearing as determined by a hearing screening test given within the last year.

3. None of the LN subjects was receiving language remediation services.

Procedure

Each subject was given the *Test of Language Development-2, Primary (TOLD-2)* (Newcomer & Hammill, 1988) and the *Test of Pragmatic Skills-Revised (TofPS)* (Shulman, 1986). One half of each group was given the *TOLD-2* first and the other half was given the *TofPS* first. To guard against fatigue, the tests were administered on different days, with the exception of one LN subject who was given both tests on the same day with two hours between administrations. One half of each group was tested by the author. The other half of each group was tested by another examiner, a graduate student in Communication Disorders and Sciences at San Jose State University.

All seven subtests of the *TOLD-2* were administered. However, since this study was measuring language abilities (not speech abilities), the scores for subtest VII, word articulation, were not included in the result totals.

The *TofPS* was administered with the examiner and each subject sitting at a table. Testing was audio tape recorded, then transcribed and scored after all *TofPS* testing had been completed.

Materials

Test of Language Development-2 (TOLD-2). The *TOLD-2* (Newcomer & Hammill, 1988) was used to assess the linguistic skill level of each subject. The *TOLD-2* is a norm-referenced test of expressive and receptive language using a linguistic model as its theoretical base. The test was designed for use with children ages 4:0 to 8:11.

The *TOLD-2* has four primary uses: (1) to identify children who are significantly below their peers in language proficiency, (2) to determine children's

strengths and weaknesses, (3) to document children's progress in language as a consequence of intervention programs, and (4) to measure language in research studies. The norms for the *TOLD-2* were based on the test performance of 2,436 children residing in 29 states.

The internal consistency of the *TOLD-2* was found to be sufficiently reliable based upon the collective results of five studies. The stability reliability was found to be sufficiently high (.80 or above) for both the subtests and the six composites. The standard error measurement for the test was satisfactorily reliable.

The content validity of the *TOLD-2* was found to be satisfactory based upon a study designed by the authors. A satisfactory criterion-related validity was supported by many studies. To check the construct validity, the authors suggested eight hypotheses which are attainable.

The seven *TOLD-2* subtests encompass the linguistic features of phonology, syntax, and semantics. The subtests are: picture vocabulary, oral vocabulary, grammatic understanding, sentence imitation, grammatic completion, word discrimination, and word articulation.

The picture vocabulary subtest consists of 35 items and measures the ability to understand the meaning of individual words when spoken in isolation. The oral vocabulary subtest consists of 30 items and measures the ability to define individual stimulus words precisely. The grammatic understanding subtest consists of 25 items and measures the ability to comprehend sentences having differing syntactic structures. The sentence imitation subtest consists of 30 items and measures the ability to repeat complex sentences accurately. The grammatic completion subtest consists of 30 items and measures the ability to complete a partially formed sentence

by supplying a final word that has proper morphological form. The word discrimination subtest consists of 20 items and measures the ability to discern subtle phonological differences between two words spoken in isolation. The word articulation subtest consists of 20 items and measures the ability to verbally produce a series of single words correctly. The *TOLD-2* yields four types of scores: raw scores, percentiles, and standard scores for the subtests, and quotients for the composite scores in the areas of spoken language, speaking, listening, semantics, syntax, and phonology.

Test of Pragmatic Skills, Revised (TofPS). To assess the pragmatic skill level of all subjects, the *TofPS* (Shulman, 1986) was used. The *TofPS* was the only standardized, norm-referenced test of pragmatic ability available for use with children under eight-years-old. The test was designed to assess the ability of children (ages 3:0 to 8:11) to use language to signify conversational intent.

Four structured play tasks are presented to all subjects, regardless of age. Task one involves playing with puppets, task two involves using a paper and pencil, task three calls for using play telephones, and task four requires playing with blocks. Each task is designed to elicit certain conversational intentions from the child. The following is a list of the ten conversational intentions probed in the *TofPS*.

1. Requesting information	6. Informing
2. Requesting action	7. Reasoning
3. Rejection/denial	8. Summoning/calling
4. Naming/labeling	9. Greeting
5. Answering/responding	10. Closing conversation

(Shulman cited Bates, 1976b; Coggins & Carpenter, 1981; Dore, 1975; Halliday,

1975; and Roth & Spekman, 1984, as the sources for this list.)

Each task elicits from seven to ten of these intentions. The examiner sits on the floor to facilitate a nontesting environment and to function as a playmate, rather than an examiner. The probes are given verbatim from the test protocol. The testing is most effective when the interaction is audio or video taped. The child's responses to each probe are then scored according to the following scale:

Score   Description

0	No response
1	Contextually inappropriate response
2	Contextually appropriate nonverbal/gestural response only
3	Contextually appropriate one-word response without elaboration
4	Contextually appropriate response with minimal elaboration (two or three words)
5	Contextually appropriate response with extensive elaboration (more than three words)

Normative data are provided to analyze each subject's response and assign a percentile ranking to their results. The *ToIPS* was normed on 650 Anglo middle-class children between the ages of 3:0 and 8:11.

The test-retest reliability of the *ToIPS* was examined in a sample of 120 children ranging in age from 3:0 through 8:11. The test was administered by the same examiner to the same children on two occasions approximately three weeks apart. The Pearson Product Moment Coefficient of Correlation yielded a test-retest reliability coefficient of .96, thus indicating that the *ToIPS* is consistent or stable in evaluating children's pragmatic skills over a short period of time. Interexaminer reliability testing yielded a combined correlation coefficient of .92.

In an effort to establish concurrent validity for the *TofPS*, clinician judgments were used since no other validated pragmatic assessment instruments were available. Two clinicians, each with five years of post-Master's experience, scored language samples from two children aged 3:2 and 8:9. The clinicians rated each utterance according to the 0 to 5 point scale used in the *TofPS*. Correlation coefficients were used to quantitatively determine concurrent validity inherent in clinician judgments. Correlation coefficients of .68 and .64 were noted for each clinician.

No formal procedures were undertaken to quantitatively describe predictive validity of the *TofPS*; however, the author stated that the four *TofPS* tasks could be used to guide the examiner in spontaneous language sampling. Supplemental information for this purpose is included in the test manual.

Statistical Measure

A one-tailed *t*-Test of Independent Measures (Bolding, 1984) was used to test Hypothesis 1, that the SLI children would score significantly lower on the pragmatic measure than the LN children. Hypotheses 2 and 3 were tested by the application of a two-tailed *t*-Test of Dependent Measures (Bolding, 1984) to determine that the linguistic test scores would not be significantly different than the pragmatic test scores for either group.

CHAPTER IV

RESULTS

Results for all subjects include raw scores, percentiles, and standard test scores from the *TOLD-2* and raw scores, mean composite scores, and percentiles from the *TofPS*. The raw scores for all subjects on both tests are presented in Appendix A. Appendix B lists the raw scores by subtest for all subjects on both tests. A list of the ranking of subjects on both tests is provided in Appendix C. Table 1 shows the mean raw scores and standard deviations for each group on each test.

Table 1

Mean Raw Scores and Standard Deviations for
Language-Normal and Language-Impaired Subjects

Group	N	<i>TOLD-2</i> Raw Scores		<i>TofPS</i> Raw Scores	
		Mean	SD	Mean	SD
Language-normal	10	125.70	16.10	121.70	7.26
Language-impaired	10	76.30	26.03	114.60	12.94

As a group, the SLI children scored more than three standard deviations below the mean for the LN group on the *TOLD-2*. By contrast, the group score for the SLI children on the *TofPS* was less than one standard deviation below the mean for the LN group. Further statistical measures were applied to these results to establish the significance of the differences within and between the two groups of children. Figure 1

provides an illustration of these differences.

FIGURE 1. Mean raw scores on *TOLD-2* and *ToiPS* for language-impaired and normal language groups.

Hypothesis 1 was tested using the application of the *t*-Test for Independent Measures. This hypothesis stated that the SLI group would score significantly lower than the LN group on the pragmatic test. Statistical analysis of the raw scores of the pragmatic test, however, failed to show any significant difference between the two groups, $t(18) = 1.51$, $p > .05$. Hypothesis 1 was rejected.

Hypothesis 2 stated that the linguistic test scores of the LN group would not differ significantly from their pragmatic test scores. This was verified by a *t*-Test for Dependent Measures which showed no significant difference between the two test scores for the LN group, $t(9) = 1.19$, $p > .05$. Hypothesis 2 was supported by these results.

Hypothesis 3 stated that the linguistic test scores of the SLI group would not differ significantly from their pragmatic test scores. Application of a *t*-Test for Dependent Measures did, however, indicate a difference between these two tests with the pragmatic test scores proving to be significantly higher than the linguistic scores

for the SLI group, $t(9) = 6.52$, $p < .01$. Hypothesis 3 was rejected by this finding.

CHAPTER V

DISCUSSION

The results of this study suggest two conclusions about the pragmatic abilities of some SLI children. First, the pragmatic abilities of some SLI children are significantly more sophisticated than their linguistic abilities. Second, despite the significant linguistic difference between SLI and LN children of the same age, their pragmatic abilities are not significantly different from each other.

It can be interpreted from the results that the pragmatic skills of these SLI children are not bound by their linguistic deficiencies. This is especially important in light of the confirmation that the pragmatic test scores of the LN children were commensurate with their linguistic test scores. With the LN children scoring the same on both tests, it can be speculated that their linguistic abilities and their pragmatic abilities developed from the same foundation(s).

Questions about the development of pragmatic ability arise from these findings. Unlike the SLI children, the pragmatic skill level and the linguistic skill level of the LN children are similar. What has caused the SLI children's pragmatic skills to develop beyond their linguistic abilities?

Further research could be conducted regarding SLI children's acquisition and awareness of pragmatic competence. It would be appropriate to investigate the social, emotional, and cognitive backgrounds of SLI children who have varying pragmatic skill levels in an attempt to discover what causes pragmatic ability to develop beyond linguistic ability. A comprehensive case history questionnaire might be helpful in

discovering what events may have stimulated pragmatic development.

Perhaps the most useful knowledge to seek would be the possible compensatory strategies used by SLI children to accommodate a poor linguistic base. How do they acquire pragmatic skills more advanced than their linguistic skills? Are their pragmatic skills being used to strengthen their weaker linguistic skills? Answers to these questions have important theoretical implications regarding the independence of linguistic and pragmatic abilities in language-impaired children.

This research design contains some possibilities for error and confounding of results. One research violation is that the author of this study is also the test examiner for half of the subjects. Given additional time and funds, test administrators independent of the author and blind to the purpose of the study would be ideal.

Further confounding effects may be found in the variation of testing location. Subjects were split between two schools and tested at their own schools, but not always in the same room and not always under the same conditions. There were potential distractions during testing when someone would enter or leave the testing room, and when this occurred, each subject's attention was reacquired before testing continued.

Beyond the procedural limitations of this study is a theoretical limitation. The title of this investigation stated that the pragmatic skills and linguistic skills of LI children would be compared. A comparison of these two broad aspects of language was desired but, to date, there are no standardized tests that cover the range of pragmatic skills identified in the literature. The most comprehensive pragmatic assessment tool available is Prutting's (Prutting & Kirchner, 1983) pragmatic protocol. This has shown to be 93%-100% reliable (Prutting & Kirchner, 1987) but has yet to be standardized. The instrument used to measure pragmatic skills in this study is

standardized (*Test of Pragmatic Skills-Revised*, Shulman, 1986) and is titled a test of "pragmatic skills," but it actually only probes the ability to communicate intentions. Communicative intentions are a major portion of pragmatic study, but they do not represent the entire scope of pragmatic abilities. It would be appropriate to compare the SLI population to the LN population utilizing Prutting's pragmatic protocol. This would allow for a overall comparison of pragmatic skills and linguistic skills to be made.

CHAPTER VI

SUMMARY

The pragmatic abilities and linguistic abilities of 10 SLI and 10 normal children were compared. Subjects were matched according to age ($M = 7:4$) and sex (16 males and 4 females). The *Test of Language Development-2 (TOLD-2)* (Newcomer & Hammill, 1988) was used to make the linguistic comparison, and the *Test of Pragmatic Skills, Revised (TofPS)* (Shulman, 1986) was used to make the pragmatic comparison.

Results indicated a significant difference between the two groups on the linguistic measure, but no significant difference between the groups on the pragmatic measure. Further, there was no significant difference between the linguistic test scores and the pragmatic test scores within the normal group. There was a significant difference, however, between the linguistic test scores and the pragmatic test scores within the SLI group; their pragmatic test scores were significantly higher than their linguistic test scores.

The results of this study indicate that the SLI children studied were not pragmatically constrained by their linguistic deficiencies. The SLI children have somehow compensated for their weak linguistic base and developed pragmatic skills not unlike those of normal language children. The word "compensated" is used because the LN children did not show a pragmatic skill level beyond their linguistic abilities. Had the pragmatic test scores of the LN group been similarly elevated beyond their linguistic test scores, the pattern displayed by the SLI children could be seen as a

delayed, but normal developmental trend. This was not the case, and thus the pattern may be viewed as unique to these SLI children.

The results of this research are particularly interesting when considered with Mueller's (1983) finding that societal likability correlated higher to pragmatic ability than to other language parameters (semantic, phonologic, and syntactic). Whether through social learning, trial and error, and/or deliberate compensatory effort, these SLI children have found a way to rise above a substantial social deficit and communicate competently. To their credit, they have learned that "appropriate communication is not always the production of the most advanced language" (Leonard, 1983, p. 29).

REFERENCES

- Bates, E. (1976a). Pragmatics and sociolinguistics in child language. In M. Morehead & A. Morehead (Eds.), *Language deficiency in children: Selected readings* (pp. 411-463). Baltimore: University Park Press.
- Bates, E. (1976b). *Language and context: The acquisition of pragmatics*. London: Academic Press.
- Bates, E. (1979). *The emergence of symbols*. New York: Academic Press.
- Blagdon, C., & McConnell, N. (1985). *Interpersonal Language Skills Assessment*. Moline, IL: LinguSystems.
- Blank, M., Gessner, M., & Esposito, A. (1979). Language without communication: a case study. *Journal of Child Language*, 6, 329-352.
- Bloom, L., & Lahey, M. (1978). *Language development and language disorders*. New York: John Wiley & Sons.
- Blue, C.M. (1975). The marginal communicator. *Language Speech and Hearing Services in Schools*, 6, 32-38.
- Bolding, J. (1984). *Statistics with finesse*. AR: Fayetteville.
- Bricker, D., & Carlson, L. (1980). *The relationship of object and prelinguistic social-communicative schemes to the acquisition of early linguistic skills in developmentally delayed infants*. Paper presented at the Conference on Handicapped and At-Risk Infants: Research and Application, Asilomar, CA.
- Brinton, B., & Fujiki, M. (1982). A comparison of request-response sequences in the discourse of normal and language-disordered children. *Journal of Speech and Hearing Disorders*, 47, 57-62.
- Brinton, B., Fujiki, M., & Sonnenberg, E.A. (1988). Responses to requests for clarification by linguistically normal and language-impaired children in conversation. *Journal of Speech and Hearing Disorders*, 53, 383-391.
- Brown, R. (1973). *A first language: The early stages*. Cambridge, MA: Harvard University Press.
- Bruner, J. (1974). Organization of early skilled action. In M. Richards (Ed.), *The integration of a child into a social world* (pp. 167-184). London: Cambridge University Press.
- Bruner, J. (1975). The ontogenesis of speech acts. *Journal of Child Language*, 2, 1-20.

- Bruner, J. (1977). Early social integration and language acquisition. In H. Schaffer (Ed.), *Studies in mother-infant interaction* (pp. 271-289). London: Academic Press.
- Campbell, T.F., & Shriberg, L.D. (1982). Associations among pragmatic functions, linguistic stress, and natural phonological processes in speech-delayed children. *Journal of Speech and Hearing Research*, 25, 547-553.
- Chomsky, N.A. (1957). *Syntactic structures*. The Hague: Mouton.
- Coggins, T.E., & Carpenter, R.L. (1981). The communicative intention inventory: A system for coding early children's intentional communication. *Applied Psycholinguistics*, 2, 235-252.
- Cunningham, M. (1968). A comparison of the language of psychotic and non-psychotic children who are mentally retarded. *Journal of Child Psychology and Psychiatry*, 9, 229-244.
- Curtiss, S., Prutting, C., & Lowell, E. (1979). Pragmatic and semantic development in young children with impaired hearing. *Journal of Speech and Hearing Research*, 22, 534-553.
- Donahue, M., Pearl, R., & Bryan, T. (1980). Learning disabled children's conversational competence: Response to inadequate messages. *Applied Psycholinguistics*, 1, 387-403.
- Dore, J. (1975). Holophrases, speech acts and language universals. *Journal of Child Language*, 2, 21-40.
- Dollaghan, C., & Miller, J. (1986). Observational methods in the study of communicative competence. In R.L. Schiefelbusch (Ed.), *Language competence: Assessment and intervention* (pp. 99-129). San Diego: College-Hill Press.
- Duchan, J.F. (1984). Language assessment: The pragmatics revolution. In R.C. Naremore (Ed.), *Language science*. San Diego: College-Hill Press.
- Ellis, D.G., & Hamilton, M. (1985). Syntactic and pragmatic code usage in interpersonal communication. *Communication Monographs*, 52, 264-279.
- Fey, M.E., & Leonard, L.B. (1983). Pragmatic skills of children with specific language impairment. In T.M. Gallagher, and C.A. Prutting (Eds.), *Pragmatic assessment and intervention issues in language* (pp. 65-82). San Diego: College-Hill Press.
- Fey, M.E., & Leonard, L.B. (1984). Partner age as a variable in the conversational performance of specifically language-impaired and normal-language children. *Journal of Speech and Hearing Research*, 27, 413-423.

- Fey, M., Leonard, L., Fey, S., & O'Connor, K. (1978, October). *The intent to communicate in language-impaired children*. Paper presented at the Third Annual Boston University Conference in Language Development, Boston.
- Fey, M., Leonard, L., & Wilcox, K. (1981). Speech-style modification of language-impaired children. *Journal of Speech and Hearing Disorders*, 46, 91-97.
- Gaines, B. (1981). *Nonsocial and social tool use ability of Down's syndrome and normal infants at the prelinguistic stage of development*. Unpublished master's thesis, University of California, Santa Barbara.
- Gallagher, T.M. (1983). Pre-assessment: a procedure for accommodating language use variability. In T.M. Gallagher, and C.A. Prutting (Eds.), *Pragmatic assessment and intervention issues in language* (pp. 1-28). San Diego: College-Hill Press.
- Gallagher, T.M., & Craig, H.K. (1984). Pragmatic assessment: analysis of a highly frequent repeated utterance. *Journal of Speech and Hearing Disorders*, 49, 368-377.
- Gallagher, T.M., & Darnton, B.A. (1978). Conversational aspects of the speech of language-disordered children: revision behaviors. *Journal of Speech and Hearing Research*, 21, 118-135.
- Geller, E., & Wollner, S.G. (1976, April). *A preliminary investigation of the communicative competence of three linguistically impaired children*. Paper presented at the annual meeting of the New York State Speech and Hearing Association, New York.
- Halfond, P., & Tamari, P. (1980). *A method of pragmatic analysis for a Down's syndrome child*. Working Papers in Experimental Speech-Language Pathology and Audiology, Queens College, New York, Vol. 9, pp. 1-20.
- Halliday, M.A.K. (1975). *Learning how to mean*. New York: Elsevier North-Holland.
- Johnson, A.R., Johnston, E.B., & Weinrich, B.D. (1984). Assessing pragmatic skills in children's language. *Language Speech and Hearing Services in Schools*, 15, 2-9.
- Leonard, L.B. (1986). Conversational replies of children with specific language impairment. *Journal of Speech and Hearing Research*, 29, 114-119.
- Leonard, L., Camarata, S., Rowan, L., & Chapman, K. (1982). The communicative functions of lexical usage by language impaired children. *Applied Psycholinguistics*, 3, 109-127.

- Leonard, L.B., Prutting, C.A., Perozzi, J.A., & Berkley, R.K. (1978, May). Nonstandardized approaches to the assessment of language behaviors. *Asha*, 371-379.
- Levinson, S. (1983). *Pragmatics*. Cambridge: Cambridge University Press.
- Liles, B.Z. (1985). Cohesion in the narratives of normal and language-disordered children. *Journal of Speech and Hearing Research*, 28, 123-133.
- Loveland, K.A., Landry, S.H., Hughes, S.O., Hall, S.K., & McEvoy, R.E. (1988). Speech acts and the pragmatic deficits of autism. *Journal of Speech and Hearing Research*, 31, 593-604.
- Lund, N.J., & Duchan, J.F. (1983). *Assessing children's language in naturalistic contexts*. San Diego: College-Hill Press.
- Lyons, J. (1968). *Introduction to theoretical linguistics*. New York: Cambridge University Press.
- MacLachlan, B.G., & Chapman, R.S. (1988). Communication breakdowns in normal and language learning-disabled children's conversation and narration. *Journal of Speech and Hearing Disorders*, 53, 2-7.
- McLean, J., & Snyder-McLean, L. (1978). *A transactional approach to early language training*. Columbus, OH: Charles E. Merrill.
- McTear, M.F. (1985). Pragmatic disorders: a case study of conversational disability. *British Journal of Disorders of Communication*, 20, 129-142.
- Meline, T., & Meline, N. (1983). Facing a communicative obstacle: pragmatics of language-impaired children. *Perceptual and Motor Skills*, 56, 469-470.
- Miller, J. (1981). *Assessing language production in children: Experimental procedures*. Baltimore: University Park Press.
- Morehead, D., & Ingram, D. (1973). The development of base syntax in normal and linguistically deviant children. *Journal of Speech and Hearing Research*, 16, 330-352.
- Mueller, S. (1983). *An investigation in social competence using clinical and societal profiles*. Unpublished master's thesis. University of California, Santa Barbara.
- Muma, J. (1978). *Language handbook: Concepts, assessment and intervention*. Englewood Cliffs, NJ: Prentice-Hall, Inc.

- Naremore, R.C. (1985). Explorations of language use: pragmatic mapping in L1 and L2. *Topics in Language Disorders*, 5(4), 66-79.
- Newcomer, P.L., & Hammill, D.D. (1988). *Test of Language Development-2, Primary*. Austin, TX: Pro-Ed.
- Newhoff, M., & Browning, J. (1983, December). Interactional variation: a view from the language-disordered child's world. *Topics in Language Disorders*, 49-60.
- Ochs, E. (1979a). Planned and unplanned discourse. In T. Givon (Ed.), *Syntax and semantics* (pp. 51-80). New York: Academic Press.
- Ochs, E. (1979b). Social foundations of language. In R. Freedle (Ed.), *New directions in discourse processing* (pp. 207-221). Norwood, NJ: Ablex.
- Peterson, C. (1986). Semantic and pragmatic uses of 'but.' *Journal of Child Language*, 13, 583-590.
- Prizant, B., & Duchan, J. (1981). The functions in immediate echolalia in autistic children. *Journal of Speech and Hearing Disorders*, 46, 241-250.
- Prutting, C.A. (1982). Pragmatics as social competence. *Journal of Speech and Hearing Disorders*, 47, 123-134.
- Prutting, C.A., & Kirchner, D.M. (1983). Applied pragmatics. In T.M. Gallagher, and C.A. Prutting (Eds.), *Pragmatic assessment and intervention issues in language* (pp. 29-64). San Diego: College-Hill Press.
- Prutting, C.A., & Kirchner, D.M. (1987). A clinical appraisal of the pragmatic aspects of language. *Journal of Speech and Hearing Disorders*, 52, 105-119.
- Ratner, N., & Bruner, J. (1978). Games, social exchange and the acquisition of language. *Journal of Child Language*, 5, 391-401.
- Rom, A., & Bliss, L.S. (1981). A comparison of verbal communicative skills of language impaired and normal speaking children. *Journal of Communication Disorders*, 14, 133-140.
- Roth, F.P., & Spekman, N.J. (1984a). Assessing the pragmatic abilities of children: Part 1. Organizational framework and assessment parameters. *Journal of Speech and Hearing Disorders*, 49, 2-11.
- Roth, F.P., & Spekman, N.J. (1984b). Assessing the pragmatic abilities of children: Part 2. Guidelines, considerations, and specific evaluation procedures. *Journal of Speech and Hearing Disorders*, 49, 12-17.

- Rowan, L., & Leonard, L. (1981, November). *Performative and presuppositional skills in language disordered and normal children*. Paper presented at the annual meeting of the American Speech-Language-Hearing Association, Los Angeles.
- Schechterman, B., Wollner, S.G., & Geller, E. (1978). *The pragmatic development of an emotionally disturbed child: Are there any comments?* Working Papers in Experimental Speech Pathology and Audiology, Queens College, New York, Vol. 7, pp. 38-56.
- Shatz, M., Shulman, M., & Bernstein, D. The responses of language disordered children to indirect directives in varying contexts. *Journal of Applied Psycholinguistics*, 1, 295-306.
- Shulman, B. (1986). *Test of Pragmatic Skills (Revised)*. Tucson, AZ: Communication Skill Builders.
- Simon, C.S. (1984). Functional-pragmatic evaluation of communication skills in school-aged children. *Language Speech and Hearing Services in Schools*, 15, 83-97.
- Skarakis, E., & Greenfield, P.M. (1982). The role of new and old information in the verbal expression of language-disordered children. *Journal of Speech and Hearing Research*, 25, 462-467.
- Snow, C.E. (1978). The conversational context of language acquisition. In R.N. Campbell & P.T. Smith (Eds.), *Recent advances in the psychology of language: Language development and mother-child interaction* (pp. 253-269). New York: Plenum Press.
- Snyder, L. (1975). *Pragmatics in language disabled children: Their prelinguistic and early verbal performatives and suppositions*. Unpublished doctoral dissertation, University of Colorado.
- Stark, R.E., & Tallal, P. (1981). Selection of children with specific language deficits. *Journal of Speech and Hearing Disorders*, 46, 114-122.
- Van Kleeck, A., & Frankel, T.L. (1981). Discourse devices used by language disordered children: a preliminary investigation. *Journal of Speech and Hearing Disorders*, 46, 250-257.
- Webster's New Collegiate Dictionary*, (1975). Springfield, MA: G. & C. Merriam Company
- Wollner, S.G. (1983). Communicating intentions: how well do language-impaired children do? *Topics in Language Disorders*, December, 2-14.

APPENDICES

Appendix A

Age, Sex and Raw Scores on the *TOLD-2* and the *TofPS* for Each Subject.*

SLI Subjects					LN Subjects			
Sex	Subject	Age	<i>TOLD-2</i> Raw Score	<i>TofPS</i> Raw Score	Subject	Age	<i>TOLD-2</i> Raw Score	<i>TofPS</i> Raw Score
F	E1	6-7	36	98	C1	6-8	99	110
F	E2	6-9	68	106	C2	6-9	100	113
M	E3	7-2	62	109	C3	7-2	119	115
M	E4	7-2	74	115	C4	7-4	147	126
M	E5	7-3	63	96	C5	7-4	124	128
M	E6	7-4	58	114	C6	7-4	136	122
M	E7	7-6	99	130	C7	7-5	124	119
M	E8	7-6	78	120	C8	7-6	132	124
M	E9	7-11	96	136	C9	7-11	136	128
M	E10	8-2	129	122	C10	8-3	140	132

- * Subjects are labeled "E" for experimental and "C" for control. Numbering is by age: 1 is the youngest, 10 is the oldest.

Appendix B

Raw Scores By Subtest and Total for Each Subject on the *TofPS*.*

Test of Pragmatic Skills-Revised (Shulman, 1986)

<u>Subject</u>	<u>Task 1</u>	<u>Task 2</u>	<u>Task 3</u>	<u>Task 4</u>	<u>Total</u>
E1	31	19	25	23	98
C1	33	18	34	25	110
E2	28	26	25	27	106
C2	31	22	30	30	113
E3	36	27	19	27	109
C3	36	24	35	20	113
E4	36	25	30	24	115
C4	35	29	32	30	126
E5	35	22	27	12	96
C5	37	26	34	31	128
E6	33	19	28	34	114
C6	38	24	29	31	122
E7	37	27	32	34	130
C7	35	26	30	28	119
E8	34	24	30	32	120
C8	34	27	31	32	124
E9	39	28	33	36	136
C9	35	25	35	33	128
E10	35	24	33	30	122
C10	38	28	31	35	132

* Subjects are labeled "E" for experimental and "C" for control. Numbering is by age: 1 is the youngest, 10 is the oldest.

Appendix B Cont.

Raw Scores by Subtest and Total for Each Subject on the *TOLD-2*. *

Test of Language Development-2 (Newcomer & Hammill, 1988)

Subject	Picture Vocab.	Oral Vocab.	Grammatical Understand.	Sentence Imitation	Grammatical Understand.	Word Discrim.	TOTAL
E1	4	0	17	2	3	106	36
C1	17	15	21	10	6	20	99
E2	7	6	21	10	6	18	68
C2	22	12	21	7	22	16	100
E3	15	6	14	3	12	12	62
C3	23	23	23	9	21	20	119
E4	18	9	15	3	13	16	74
C4	28	22	25	25	26	20	147
E5	6	1	18	12	9	17	63
C5	20	20	21	20	23	20	124
E6	12	3	19	6	7	11	58
C6	25	23	21	20	27	20	136
E7	24	14	21	11	14	15	99
C7	26	16	21	17	24	20	124
E8	15	11	18	4	14	16	78
C8	25	15	23	22	27	20	132
E9	18	10	22	6	22	18	96
C9	21	17	25	26	28	19	136
E10	27	19	21	19	24	19	129
C10	27	19	23	24	27	20	140

- * Subjects are labeled "E" for experimental and "C" for control. Numbering is by age: 1 is the youngest, 10 is the oldest.

Appendix C

Ranking By Each Subject on *TofPS* and *TOLD-2*. *

All Subjects - Test of Pragmatic Skills

All Subjects - Test of Language Development

<u>Ranking</u>	<u>Subject</u>	<u>TofPS</u>	<u>Ranking</u>	<u>Subject</u>	<u>TOLD-2</u>
1.	E9	136	1.	C4	147
2.	C10	132	2.	C10	140
3.	E7	130	3.	C6, C9	136
4.	C9, C5	128	4.	C8	132
5.	C4	126	5.	E10	129
6.	C8	124	6.	C5, C7	124
7.	C6, E10	122	7.	C3	119
8.	E8	120	8.	C2	100
9.	C7	119	9.	C1, E7	99
10.	C3, E4	115	10.	E9	96
11.	E6	114	11.	E8	78
12.	C2	113	12.	E4	74
13.	C1	110	13.	E2	68
14.	E3	109	14.	E5	63
15.	E2	106	15.	E3	62
16.	E1	98	16.	E6	58
17.	E5	96	17.	E1	36

- * Subjects are labeled "E" for experimental and "C" for control. Numbering is by age: 1 is the youngest, 10 is the oldest.