

THE DEVELOPMENT OF SPEECH ACTS BY A BLIND CHILD
AND HIS SIGHTED IDENTICAL TWIN

by

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ABSTRACT

The current study compares the types of speech acts used by a blind child and his sighted identical twin. To describe the children's speech acts, a taxonomy was developed based on Searle & Vanderveken's (1985) Speech Act Theory. The taxonomy incorporated categories from Ninio & Wheeler's taxonomy of speech acts in mother-child interactions.

The children who participated in the study were a pair of identical twin boys, one of whom is blind due to retinopathy of prematurity, and one of whom has functionally normal vision. Data for this study were obtained from audio-videotapes of the twins interacting with family members at home, and transcripts of these interactions. The twins' utterances were coded for speech act types. Speech act types and frequency were analyzed for each child at four different ages: 2 years 3 months (2;3), 3;0, 3;6 and 4;0.

Results indicate that the order of emergence of speech acts was essentially the same for both boys. The main difference in the twins' speech act use was in the relative frequency with which each twin used particular speech act types. The blind twin produced more requests for action, information and clarification than the sighted twin, suggesting strategic use of language to manipulate others in his environment and to gain some control in social interaction. His tendency to refer to others' activities was lower than his sighted brother's tendency to do so. In addition, temporal reference in the assertions of the blind child was predominantly to ongoing events; he referred to future, past and make-believe events less often than his sighted twin. These differences may be attributable to the blind child's inability to perceive events occurring around him that do not involve him or that cannot be perceived auditorily.

The current taxonomy succeeded in describing children's early speech acts in accordance with the principles of Speech Act Theory presented by Searle & Vanderveken (1985). The taxonomy facilitated description of the children's speech act development better than previous taxonomies because it maintained the integrity of discourse and illocutionary levels of language.

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CHAPTER I:
INTRODUCTION AND REVIEW OF THE LITERATURE

Introduction

In recent years, the literature on child language acquisition has exhibited a growing interest in the language development of blind children. An increasing number of studies are now concerned with describing the blind child's acquisition of a first language, with an emphasis on determining the extent of the role of vision as a necessary condition for normal language acquisition. Such studies have been motivated in part by the need for language intervention with young blind children, made apparent by the number of referrals of blind children for speech-language services in both clinical and school settings. Standardized assessment often reveals that formal language skills are essentially normal, suggesting that problems may lie in areas not typically measured by standardized tests; pragmatic development is one of these areas. While previous researchers have examined the blind child's syntactic and lexical development to some extent, an equally important aspect of language acquisition has been virtually neglected: the developing ability to use language as a social instrument to affect and act on the world, and ultimately, to become an active part of the world. There exists, therefore, a major need for research whose purpose is to describe the early language use of blind children.

The goal of this study is to contribute to the expanding knowledge base on language acquisition by blind children by describing a blind child's early use of language as it compares with that of his sighted identical twin. Of particular interest is the evolution of the different ways in which the blind child employs language to achieve various communicative goals. Speech Act Theory, as it has been elaborated by Searle (1969, 1979) and Searle and

Vanderveken (1985) provides the framework for just such an examination of the developing form-function relations of communicative language. The categorization scheme and system of logico-semantic rules which combine to form the essence of Speech Act Theory have been adapted for the purposes of the current investigation, permitting an established and principled means of describing the early language use of the children in this study.

Chapter I provides a brief review of relevant current research, and presents an approximate profile of language acquisition in blind children. Its purpose is to provide an idea of the types of differences that have been observed in blind children acquiring language, and to establish the lack of homogeneity in the existing profiles of language acquisition by blind children, as portrayed in the results of current research. Also presented in Chapter I are the factors motivating this study, and the research questions on which it is founded. It is beyond the scope of this paper to offer a comprehensive account of the differences between blind and sighted children's language development, or to provide an indepth discussion of the proposed difficulties faced by blind children acquiring a first language. For a more complete consideration of these aspects of language development in blind children, the reader is referred to Mulford, 1988; Dunlea, 1989; Landau & Gleitman, 1985; and Urwin, 1984.

Chapter II reviews Speech Act Theory, its origins and current form, as well as its application to language acquisition research examining communicative language in both blind and sighted children.

Chapter III describes the methods used for the collection and analysis of data, and introduces the identical twin boys - one blind, one sighted - whose language was studied. It also explicates the speech act taxonomy employed to chart the twin's speech act development.

Chapter IV describes the results in terms of patterns of speech act use observed in the data. In Chapter V the findings are discussed in relation to (1) current knowledge about language acquisition by blind children, and (2) the application of Speech Act Theory to

investigation of the development of pragmatic language skills in children acquiring a first language.

Language Acquisition by Blind Children: A Review of the Literature

Needs and Limitations

In spite of the abundance of research on child language acquisition, many questions remain regarding the natural ability of young children to acquire the language spoken in their environment, a task that requires them to learn numerous intricate rules governing the phonologic, semantic, syntactic and pragmatic aspects of conventional language use. As though it were not already extremely impressive that the child guides his own transformation into an adult speaker of a single language, many children encounter bilingual and even trilingual environments and demonstrate the same capacity for acquiring the basic tools, and learning the rules of linguistic communication in their environment. It is more amazing still, that children whose experience of the world is modified by physical and/or perceptual handicaps may still attain success in the immense task of first language acquisition. Their achievement is especially outstanding given what we now know about the significance of the early stages of communicative development through research into the prerequisites and corequisites, role and "shape" of normal, preverbal communication. This research highlights the importance of sustained and/or mutual eye gaze, gesture, facial expression, and active exploration of the environment (Sugarman 1984; Bates 1979; Bates, Benigni, Bretherton, Camaioni & Volterra 1977).

It is not unreasonable to ask whether language acquisition occurs in the same manner for these children, whose experience and perceptions of the world may be quite distinct from those of their normally-developing peers. Hence, there exists a growing body of research on language acquisition in children who are deaf or blind, or whose path to normal language acquisition is blocked by other, similar obstacles. In studying the language development of such children, much is learned not only about the patterns of acquisition and factors

contributing to successes or failures in language acquisition by “challenged” children, but also about the processes of successful language development in typically-developing children. Examining the effects of lack of vision on language acquisition by blind children may reveal the true extent to which vision contributes to normal language development. Similarly, the literature on language acquisition by children without handicaps can be used (with caution) to guide consideration of language development in children who are in some way handicapped. Sugarman provides an eloquent explanation of the application of studies in normal language acquisition to intervention with challenged children:

Ultimately one wants to know what skills to cultivate in order to facilitate the development of language in problem cases. This task is greatly aided by knowing what skills are necessary, or likely to be necessary, to the development of language in nonproblem cases. (1984:25)

Thus, there is great value and benefit in continued, detailed exploration of the development of language by both, typically-developing and challenged children. However, while the need for such research is apparent, it is only recently that language acquisition by blind children has been accorded significant research attention. Consequently, the accumulated information/knowledge is somewhat sparse, constraining our understanding of language acquisition by blind individuals. In addition, the early approach to studying blind children’s language was decidedly quantitative rather than descriptive, painting a picture in which only ‘deficits’ and diversions from the norm were highlighted. A further weakness is that the results of various studies are often not comparable due to differences in the degree and cause of visual impairment of the children studied, and differences in the standards against which progress and development are measured, usually the milestones documented for normal children’s development (Mulford, 1988). The heterogeneity of the blind population and difficulty in locating blind children to participate in studies also present somewhat of a challenge to sturdy research design and to the validity and reliability of results. The use of unsuitable subjects for matches or controls of variables such as age, socioeconomic status, parent education level, parental reaction to having a blind child, and etiology of blindness, for

example, is a product of the scarcity of appropriate experimental subjects (these being children who are essentially normal, with the exception of vision, Mulford 1988:297). The figures cited by Jan, Freeman & Scott (1977) suggest that the number of blind children without concomitant handicaps may be quite small indeed. They estimated that 50 - 90% of all blind children in North America experienced multiple handicaps in addition to blindness. The above factors, paired with the extremely small numbers of subjects in most studies (usually one or two children), further compromise an already insufficient body of literature. It is within the confines of these limitations that the following brief review is presented.

Early Lexical Development

The first words of the blind child have been a topic of much interest and controversy in the literature to date, both in terms of when they first occur, and what they express. In regard to the former, there is little consensus as to whether blind children display delayed lexical acquisition, or whether the appearance of their first words falls within the same age range as that of normal children. Studies have yielded results to support both sides of the argument; however, the popular conclusion is that blind children in general do show some delay in producing their first words, but that the extent of this delay is much smaller than was originally suspected. For example, early data on blind infants' first words provided by Norris, Spaulding & Brodie (1957) suggested an eight to twelve month delay in the blind child's acquisition of a two-word vocabulary, which they found to occur between 1;6 and 2;0. Norris et al. based their conclusion on a comparison of their "blind" data with Lenneberg's (1967) norms for sighted children, which placed the acquisition of a two-word lexicon between 0;10 and 1;0. Fraiberg (1977), however, found an average delay of only four months when she applied norms from the Bayley Scales of Infant Development to her data on the early words of ten blind infants. The age at which her subjects had acquired two words ranged from 1;0 to 2;8, with a median of 1;6, and a median delay of six months. Landau & Gleitman (1985) identified an average delay of twelve months in their study; however, they cautioned that the

influence of prematurity figured significantly in their findings. They determined that, for their subjects at least, the initial delay in two-word combinations was not indicative of a trend of general developmental language delay and proposed that once initial milestones, such as first words and first two-word combinations were attained, development progressed according to the same relative schedule as for normally developing children. Furthermore, they stressed that the onset of first words in the normal (sighted) population is similarly highly variable, quoting the norms from the Bayley Scales as permitting a range from 0;10 to 1;11 as normal for this milestone. Mulford (1988) reexamined the results of several studies, and determined from the data on fifteen blind subjects, that the children in those studies did not show a significant delay in the onset of first words. Like Landau & Gleitman, Mulford concluded that the delays observed by other researchers were more likely a function of prematurity than of blindness per se (Mulford 1988:303). Indeed, research suggests that once first words have been acquired, the blind child builds a vocabulary of 50 words in the usual time period recorded for sighted children (Dunlea, 1989).

Results obtained in studies examining the *content* of the blind child's early vocabulary are as inconclusive as those for onset of lexical development. The majority of these studies have employed linguistically defined categories of word types (i.e., specific nominal, general nominal, function word, etc.) to analyze the early lexical items of their subjects. Landau (1983), Landau and Gleitman (1985), Bigelow (1982) and Urwin (1978) found essentially no difference between the first words of blind and sighted children. While Landau & Gleitman did note a relative lack of adjectives and verbs in the blind children's vocabularies, they dismissed it as insignificant on the basis that a similar pattern was recognized in the lexica of normally developing children. Using a compilation of data from Bigelow (1981, 1982), Landau (1982, 1983), Andersen, Dunlea & Kekelis (1984), and Wilson (personal communication cited in Mulford, 1988), and Nelson's (1973) classificatory categories for the emerging lexicon of sighted children, Mulford (1988) compared the vocabulary items of blind and sighted children. Her consideration of data from nine blind children led her to conclude that

the blind individuals had a significantly greater proportion of specific nominals and action words, and notably fewer general nominals than the sighted children. She also found that function words were virtually unattested in the blind children's lexical inventories. Among those researchers who suggest that such differences are either nonexistent or unimportant, the general consensus appears to be that blind children talk about the same things as do their sighted peers (e.g., objects, people, actions and events, as per Landau & Gleitman, 1985). Slight discrepancies in proportion, when observed, are considered to be attributable, in large part, to differences in experience, and in the objects and events, etc., that are most salient to each population. Here, the blind child encounters a more limited range of experience and objects/events because the visual perception of intangible or untouchable objects and activities is not a possibility. The blind child's emerging lexicon reflects the things with which he comes into daily contact (furniture or the family pet, for example), early social routines and language, and important, usually biologically-motivated, activities or states; a repertoire similar to that in Nelson's (1973) description of the early lexicon of sighted children. The difference between the two is derived from the limitations on the quality and variety of 'daily contacts' imposed on the blind child's experience by lack of vision. Thus, the blind child is most apt to 'comment' on the aspects of his day that he can hear, encounter through haptic exploration, or which are felt internally, such as emotional or physical states.

Some notable differences in the *patterns* or *processes* of early acquisition have been brought to light in various investigations of blind children's language development. Here, as in other areas, results reflect a persistent lack of agreement across studies. Questions revolve around the purported absence of certain processes that are well documented in the literature on normal acquisition: extension and generalization of lexical items, use of idiosyncratic forms, and temporary loss of early acquired forms.

In studies of extension and overextension (also *overgeneralization*), both Bigelow (1982) and Andersen et al. (1984) found that the five blind children they studied were restricted in their use of general nominals, often using them to mark a single referent (similar

to the function of a specific nominal). Bigelow suggested that this limited reference might be due to an absence of opportunities to apply a given word to other appropriate instances within the same general category. Andersen et al. found that the two blind children in their study did not extend reference of nominals even when provided ample opportunity to do so, and argued that this restrictive use of nominals was a direct effect of visual impairment on the ability to form the conceptual and semantic categories underlying early words. However, Johnson & Kearns (1991) have obtained observational and experimental evidence that four blind children they studied readily extended and overextended general nominals, a finding also attested to some degree in Urwin (1978). As well, Landau & Gleitman (1985) have documented evidence of *haptic* overgeneralization by one blind child. Once more, they were prompted to emphasize the high degree of variability within both the blind and sighted populations when interpreting the findings of their research.

Andersen et al. (1984) observed that blind children in their study did not produce idiosyncratic words, even though this is a familiar phenomenon for sighted children. They took their finding as an indication of blind children's less active participation in their own lexical development. Andersen et al. also found the typical pattern of temporary loss of early words to be absent in the acquisition profiles of their two blind subjects. Urwin (1978) found evidence to the contrary, reporting instances of both idiosyncratic word forms and the loss of early acquired forms. Mulford (1988) also cited data that suggests the presence of idiosyncrasy in blind children's lexical development, but conceded that such findings are not frequent, and that the blind children who are observed to produce idiosyncratic forms do not use them to the same extent as normal children do. Her discussion ends with a caveat about the possible significance of idiosyncrasy and lexical mortality in early vocabulary development, significance which has yet to be ascertained.

Other areas of acquisition claimed to disclose discrepancies between the language development of blind and sighted children include phonetic and phonologic development (Mills, 1983), emergence of the first person singular pronoun *I*, self representation in

language use and shifting word meanings (Urwin, 1984), and late acquisition of auxiliary verbs due to differences in maternal input (Landau & Gleitman, 1985).

Early Language Use and Pragmatic Skills

Another area of difference in language acquisition by blind children is seen in the early use of the language they have acquired. One such dissimilarity is the young blind child's restricted use of action words to describe only self-actions and initiate familiar verbal routines (Dunlea, 1982; Urwin, 1978; and Andersen et al., 1984). While the original use of action words by sighted children is similar to that of blind children in this respect, sighted children start to verbalize about the actions of others much earlier than do blind youngsters. Dunlea (1984) showed that even beyond the one word stage, blind children capable of two or three-word combinations commented on the agency of others only rarely, if ever. This is ostensibly due to their inability to observe agency that doesn't affect them immediately. Dunlea (1989) also discussed the difficulty blind children encounter in acquiring and using the fourteen earliest grammatical morphemes (Brown, 1973) and various semantic problems, for example, mapping the semantic roles of action, agent and object.

Apparently, blind children also differ from sighted children with respect to naming behaviours. Whereas a large proportion of the early utterances of the normally developing sighted child function as efforts to *name* objects, or to comment on them by *labeling*, blind children do not appear to engage in naming for the sole purpose of doing so (Mulford, 1988). Mulford noted that "young blind children do not use the object words they have, general or specific, unless they are in physical contact with the object or, more rarely, unless they recognize and respond to its sound" (1988:313). Blind children also reportedly do not use relational terms (e.g., *more*, *again*, *gone*) to comment on changes of state (Dunlea, 1989). However, here once again, data across subjects reveals that some blind children may, in fact, exhibit such an ability (Dunlea, 1989). This discrepancy in results across studies reiterates the need to be mindful of the small number of children studied when considering these reports.

Consideration of pragmatic language development in the blind population yields an interesting communicative profile that is quite distinct from that of the sighted population in some ways, and rather similar in others (again, based on vanishingly small numbers). Some of the more striking contrasts may be divided into two groups for consideration: those pertaining to communicative style, and those which reflect the various motivations underlying the early communicative utterances of blind children. In other words, how do blind children use the language they have acquired, and what are the intentions expressed by their verbal communication?

As previously mentioned, a small number of studies report that blind children rarely engage in the naming behaviour that is so typical of sighted children. For what purposes, then, do blind children use language to communicate? In actuality, the blind child's communicative intents are not dissimilar from those of their sighted peers. The major difference lies in the extent to which certain motives prevail. For example, in her work on the development of illocutionary acts in the blind, Dunlea (1989) identified the main communicative use of language by her subjects as one of drawing attention to themselves in order to involve others in social interaction. The sighted child has several other means available to him to achieve this end, including gesture, sustained gaze at an object or person, and moving closer to the coparticipant, for example. In addition, a child who sees has the benefit of knowing when others are near and visually monitoring his actions. The blind child, on the contrary, needs to verify the presence and attention of others through verbal means. This dependence on language suggests that it is in the best interests of the blind child to quickly learn and fully exploit possibilities for making language work for him.

Studies of *illocutionary* (or *speech act*) development are concerned with the child's evolving abilities to use language in conventional communicative ways. Dunlea's research has provided the most comprehensive account of the emergence of illocutionary language in blind children, even though her study includes only two totally blind and two severely visually impaired children. Using a categorical coding system of speech act behaviours based on

Searle's (1979) version of Speech Act Theory, she determined that the order of acquisition of illocutionary acts (by general categories) was essentially the same for both the blind and sighted children in her study. The key difference between them was in their relative frequency of use of the various act types. (Her overall results will be discussed in more detail in Chapter II.) Finally, Rowland (1983) provided an account of the relative success with which her blind subjects communicated affective state, and other personal and social interests and messages. Presumably, these would include satisfying biological needs, and initiating and maintaining interactive contact with others, hence the early importance of requests and questions in the language of blind children.

Dunlea (1989) and Urwin (1978) have observed an interesting pattern of language use, wherein the four totally blind children they studied produced a notably larger proportion of noncommunicative utterances in the one-word stage than did their sighted peers. They found that the children engaged in noncommunicative verbal behaviours even when in situations with high interactive potential. This tendency, however, was followed by a trend to produce an increasing number of communicative utterances as the children reached the two-word stage, the blind subjects eventually surpassing the sighted children in their ratio of communicative to noncommunicative utterances. (Dunlea identified this "communicative threshold" as early as 1;5;8 for one of her totally blind subjects, and as late as 1;11;14 in the other.) The initial delay in lexical acquisition by blind children may be a contributing factor to this pattern. Some of the factors influencing the blind child's relative indifference to naming (discussed in a previous section) may also be involved. Whether such noncommunicative 'talk' represents a misguided, early attempt to enter into social 'conversation,' or whether it indicates true noncommunicative behaviour born of linguistic and social limitations is rendered irrelevant by the fact that these children rapidly become 'communicative' once they reach the two-word stage. A blind child who does not notice gestural or visual securing of attention and focus may well conclude that one simply has to talk in order to enter a conversation or get a topic on the floor. Perhaps as the blind child learns what an invaluable tool his language

provides for accessing the social environment and for maintaining some degree of control in social interactions, motivation to use that tool, and to strive for greater efficiency in its use, undergoes a considerable (and appropriately adaptive) increase.

Other characteristics noted in blind children's early language use may equally be attempts to adapt to their disadvantaged situation for language and social development. These include the use of imitation, and reliance on verbal routines to initiate and maintain interaction. In some severe cases, a tendency to imitate may evolve into echolalia. However, as Mulford (1984) pointed out, imitation may play a highly functional and varied role in the language development of the blind child:

Imitation allowed parent and child to convey the fact that they were attending to one another, and it also ensured that a topic of conversation could be kept alive when cues from the supporting context were minimal. Finally, at least in Jerry's case, imitation appeared to aid the child's mobility because he used the parent's voice as a reference point. (Urwin 1984:511)

Another important form of early linguistic communication in blind children is their adherence to ritualized verbal routines (Urwin, 1978). The routines consist of exchanges of preestablished roles of interaction, and are most often family-specific. As such, they provide both parent and blind child with organized frames of reference that can be used to anticipate subsequent roles in an ongoing interaction. First, the child becomes aware that he can ensure sustained social contact with another by executing particular verbal (and often gestural) 'moves' in response to verbal cues from the adult participant. Soon thereafter, he learns that by producing the appropriate moves, especially the first moves or 'turns' of a routine, he can *initiate* interaction. Routines thus provide the blind child with a certain measure of control over social interchange. Furthermore, early use of routines is considered a useful and effective means for the blind child's acquisition of various discourse skills, such as turntaking. The tendency of blind children to engage in verbal routines and to use them as a bridge to social interaction is not unique to the blind population. However, while sighted children exhibit similar use of routines, their dependence on them is apparently less long-lived

than among the blind. Blockberger & Johnson (1985) examined the use of routines by a set of twins, one sighted and one blind, between 1;0 and 1;10. On the basis of the previous research of others, they tested several predictions about blind children's use of routines. They predicted that the mother of a blind child would engage her child in more situation-independent routines than situation-dependent ones, a prediction that was subsequently borne out in their observations. They found, in fact, that the mother in their study generally employed routines in interactions with her blind son with somewhat greater frequency than in interactions with the sighted boy, although this effect was diminished by both twins' tendency to join in interactions originally addressed to the co-twin. Furthermore, while the sighted twin displayed an overall decrease in participation in family routines, the blind child continued to participate, and did so with increasing success, even in routines that were situation-dependent. In addition to the apparent benefits of routines to the language development of the blind child, the predictable framework inherent in routines is thought to contribute to, or facilitate subsequent increases in flexibility, which allow the blind child to exercise control over similar interactions across varying contexts.

Yet another source of success in early communication is the blind child's command and exploitation of interrogative form (Urwin, 1984). Blind children quickly discover that asking questions affords them direct control and an active role in conversation. Requesting is also of great functional consequence to young children; however, there is less agreement in the literature as to when and how requests emerge. Dunlea (1989) reported a predominance of requests for objects, actions and routines in the early utterances of her blind subjects relative to those of her sighted subjects. Urwin (1978), however, found that requests (for objects) appeared relatively later among her subjects.

Subsequent Development

Most of the current research on blind children's language has concentrated on the development of preverbal communication, and changes and differences that become apparent as the child reaches the 50-word vocabulary and two-word combination stage. Research beyond this point is even more scant than the literature on early blind children's language acquisition. Many investigators have suggested that by the age of 3;0, the language of most blind children is normal, if not identical to that of sighted children of the same age (Norris et al., 1957; Burlington, 1961; Bigelow, 1986; Landau & Gleitman, 1985). This conclusion, however, is often based on measures pertaining to the content of the lexicon, knowledge of semantic relations, mean length of utterance (MLU), and other quantitative observations. Dunlea warns against a simplistic interpretation of such data, stating that "the presence or absence of words and phrases tells us little about whether the blind children's use and knowledge of them is comparable to sighted children's" (1989:20). In addition, Mulford (1988) points out that while certain of the problems of language acquisition by blind children may be resolved over time, one cannot conclude that all blind children will finish by being able to use language as naturally and efficiently as do sighted children. Some children may exhibit further delays in acquiring various language structures, while the language of others will continue to be 'different' in ways that do not easily submit to description or alteration. Urwin (1984), whose results have typically downplayed the significance of the differences observed in blind children's language acquisition, was similarly prompted to conclude that the pattern of language ability at and beyond age 3;0 remains largely heterogeneous. While some children may enter the preschool and school age years using language effectively, others may be more limited in their ability to use language as a social tool and, therefore, have less success in communicative interactions. Both Mulford and Urwin were forced to concede that the variability of results in the current literature precludes a decisive generalization about the course of language acquisition among blind children and the absolute limits of normal language they may attain.

Need for Further Research

The above represents only a portion of the findings on blind children's language development to date. The possibility that many of the differences observed in blind children's language may be attributed to individual variation in the blind population suggests that visual impairment may not be the lone source of variation in the processes of acquisition among these children (Mulford 1986:326). Unfortunately, there is little consensus in the research on language acquisition by blind children. The resulting picture of the ontogenesis of language in the blind population therefore remains unclear, and conclusions about the nature of language acquisition are necessarily speculative. The main issue of debate continues to be whether or not blind children (who are otherwise normally developing) acquire language in the same way and to the same level of competence as do typically-developing children. Both Mulford (1988) and Dunlea (1989) advocate a change in perspective in research in language acquisition by blind children that entails greater attention to the pragmatic and social aspects of language use. Such studies should examine the discourse skills of blind children as they approach, and progress through, the school years. Qualitative observations of the possible differences in the development of pragmatic, social language may yield new insight into the role of vision in language acquisition in general. It is the purpose of this study to respond to this need for research directed at the blind child's development and use of pragmatic skills, with focus on development of illocutionary (also *speech*) acts. In order to ascertain whether speech act development proceeds differently in blind children than it does in the sighted population, speech acts are tracked from emergence to the later stages of development.

Issues

The intent of this study, then, is to determine the role of vision in the development and use of conventional speech acts as defined by current Speech Act Theory (which will be elaborated in Chapter II). The investigation that follows is a description of the development of illocutionary acts by a young blind boy and a well-matched, sighted control, his identical twin brother. In studying the emergence and development of speech act behaviours in the two brothers, the underlying question of interest was:

To what extent does the speech act development of the blind child resemble that of the typically-developing, sighted child?

In order to respond to this question, a number of specific questions were posed:

- (1) To what degree is the order of emergence of early speech acts similar for the blind child and his sighted twin?
- (2) Are there differences in distribution in speech act types employed by each child?
 - (a) Does the blind child use proportionately more requests for objects and attention than his sighted twin? (Dunlea, 1989)
 - (b) Does the sighted twin use relatively more assertions, requests for activities, and offer/show utterances than the blind twin? (Dunlea, 1989)

Answers to these questions will help to clarify some of the claims that appear contradictory in existing research about language acquisition by blind children. An additional goal of this study was to devise a taxonomy of children's speech acts that maintains the integrity of illocutionary and discourse levels of language use, and adheres to the constructs of Speech Act Theory as defined by Searle and Vanderveken (1985).

CHAPTER II: SPEECH ACT THEORY

Origins

Speech Act Theory began with the posthumous publication in 1962 of J. L. Austin's How To Do Things With Words. Austin's work signalled a substantial change of direction in the philosophy of language at the time. Prior to Austin's innovative attempt to explain how people use language to 'do' things, the prevalent approach to the philosophical study of language centered on determining the truth value of utterances. Austin, however, was more interested in the apparently immense potential of language to achieve various effects within the context of the speaker and hearer of an utterance. Austin termed such use of language *illocutionary*, and called illocutionary utterances *illocutionary acts*. In identifying and listing the numerous possible illocutionary acts, Austin observed, and consequently drew attention to, what he considered to be the fundamental rules governing their conventional use. Austin's early explications in this regard would eventually undergo considerable alteration and expansion at the hands of his student, J. R. Searle; nevertheless, his conceptions contributed the basic principles of modern Speech Act Theory. In particular, Austin's distinction of five principal categories of illocutionary (also *speech*) acts, and necessary conditions for the successful performance of speech acts were to provide the foundation for Searle's subsequent elaboration of the theory. Acting on his own and others' criticisms of the theory, Searle has persisted in his attempts to clarify and specify the conditions, components and consequences of successful illocutionary acts (Searle 1969, 1979; Searle & Vanderveken, 1985). The following review of Speech Act Theory is based on Searle's most recent (collaborative) version of the theory (Searle & Vanderveken, 1985). Although the

principles of the theory are related with infrequent mention of Austin, the significance of his role in its development holds.

Current Speech Act Theory

The Illocutionary Act

In his introduction to *Expression and Meaning* (1979), Searle explained that there are a limited number of things we can do with language:

We tell people how things are (Assertives), we try to get them to do things (Directives), we commit ourselves to doing things (Commissives), we express our feelings and attitudes (Expressives), and we bring about changes in the world through our utterances (Declaratives). (Searle 1979:viii)

The above five uses of language comprise the basic categories of illocutionary acts. According to Speech Act Theory, the illocutionary act constitutes the basic or minimal unit of human communication (Searle 1969:16). What features, then, characterize the illocutionary act? An utterance is said to be an illocutionary act (or speech act) when its speaker utters it as a sentence in an appropriate context with an underlying intent (Searle & Vanderveken 1985:1). The main components of an illocutionary act are its *force* and its *propositional content*.

Although they used different terms, both Austin and Searle recognized three distinct acts within each act of uttering a sentence: (1) the *utterance* act, which is the act of uttering or saying the words that make up the sentence; (2) the *propositional* act, which consists of referring and predicating; and (3) the *illocutionary* act, which occurs at the level of promising, asserting, suggesting and accepting, for example. A fourth type of act, the *perlocutionary* act, is also described. The perlocutionary act refers to the effect caused by the utterance of an illocutionary act. For example, when one asks a question such as "Have you gained weight?," the intended effect on the part of the Speaker may be to ascertain whether or not the Hearer has indeed gained weight since their last meeting; however, the perlocutionary

(actual) effect of such a question may be that, instead of providing a *yes* or *no* response, the Hearer gives the Speaker a firm slap across the face. Unlike locutionary and illocutionary acts, perlocutionary acts do not have direct “conventional connections to linguistic expression” (Griffiths 1985:88). Thus, a perlocutionary act may achieve either conventional or nonconventional effects, and may do so either intentionally or unintentionally.

The five categories of illocutionary acts identified by the theory are distinguished on the basis of the five types of illocutionary force that are recognized as the underlying forces of all possible illocutionary acts. The force of an illocutionary act may be used to differentiate utterances with the same propositional content, but which serve different communicative intentions or purposes. Searle and Vanderveken’s example of the two utterances, “You will leave the room” and “Leave the room,” nicely illustrates the difference between two types of illocutionary force -- here, between the force of a prediction and that of an order, respectively. Force may be conveyed in various ways in the syntactic structure of an utterance, including the use of mood (imperative, interrogative, declarative), punctuation, word order, intonation contour, and stress. Syntactic means that denote force *literally* are known as *illocutionary force indicating devices*. The specific illocutionary forces will be described in greater detail following a consideration of the major components of illocutionary force in general.

The Components of Illocutionary Force

Searle and Vanderveken (1985) identify eight principal dimensions along which illocutionary forces may differ: *illocutionary point*; *degree of strength of illocutionary point*; *mode of achievement*; *propositional content conditions*; *preparatory conditions*; *sincerity conditions*; *degree of strength of sincerity conditions*; and *direction of fit between the world and the words of the utterance*. Each aspect of force is briefly described below.

Illocutionary Point

Differences in point or purpose of the act are known as differences in the illocutionary point. The characteristic of illocutionary point allows differentiation between a description (whose purpose it is to say how things are) and a declaration (which functions to somehow alter the way things are), for example. The illocutionary point of an utterance is generally distinct from its propositional content, allowing individual interpretations of two utterances with the same propositional content. Consider the following example: "I'm the principal," uttered by the principal at a PTA meeting, functions as an *assertive* statement; that is, it asserts that X is the case, where X means "I am employed as the principal of this school." In the context of imaginary play, however, when uttered by one child to his play partner, "I'm the principal" assumes a *declarative* point: the utterance serves to make X so in the world of the utterance, i.e., "I declare that I'm going to play the principal in our game of school."

The illocutionary point of an utterance reflects the internal purpose of the speech act. When an illocutionary act is performed successfully, it achieves its purpose and does so "in virtue of being an act of that type" (Searle & Vanderveken 1985:14). Illocutionary point is the single most important component of illocutionary force; that it is not the only component is demonstrated in the potential for different illocutionary forces to share the same illocutionary point, as in the pairs *assertion/testimony* and *order/request* (Searle & Vanderveken 1985:14). The remaining components of illocutionary force are related to illocutionary point as further specifications, alterations or consequences of point (Searle & Vanderveken 1985:14).

Degree of Strength of Illocutionary Point

Degree of strength of illocutionary point refers to the possible differences in the strength of acts having the same point. Differences in strength may be realized in various ways, reflecting the intensity of the underlying intent of the act (e.g., the difference between asking and begging or pleading), or drawing varying degrees of strength from the role of the speaker as determined by positions of authority or power, or subjugation, for example (e.g.,

the differences between recommending, advising and exhorting). To recognize varying degrees of strength suggests that each act possesses a typical or unmarked strength, known as the *characteristic* degree of strength.

Mode of Achievement

Mode of achievement is determined by a set of special conditions pertaining to each type of act which determine, in turn, the achievement of the particular illocutionary point. Utterances may share a common illocutionary point but realize it through different means, usually pertaining to positions of relative authority or status. For example, while a teenager may *tell* her sibling to clean up her half of the room, their mother might *order* the teenager to clean up her half of the room, whereas a General in the army would *command* a Sargeant to clean up his quarters. As with degree of strength of point, the typical mode of achievement for an act is the characteristic mode.

Propositional Content Conditions

Propositional content conditions are imposed by certain illocutionary forces. For example, the commissive acts of *promising* and *threatening* require that the propositional content of the utterance make reference to a future course of action by the Speaker, usually with some consequence for the Hearer. Violations of the propositional content condition result in odd or anomalous sentences. For example, "I promise to do it tomorrow" is well-formed and counts as a promise, whereas "I promise to do it yesterday" is anomalous, and "I promise that I did it yesterday" is at least nonstandard; neither of the last two examples counts as a promise.

Preparatory Conditions

Preparatory conditions are those which govern the *successful, nondefective* performance of an illocutionary act. Each act has certain states which must be observed in

order to be a successful act. Preparatory conditions are internalized, conventional rules presupposed by both Speaker and Hearer in the performance of an illocutionary act. They are often determined by the given illocutionary point. Examples of preparatory conditions are: (1) knowing that the Hearer is capable of fulfilling a request, (2) knowing that one is capable of performing an act to which one commits oneself, and (3) understanding that a given act may only be performed by someone who possesses the requisite authority or power, as in pronouncing legal declarations such as “I now pronounce you husband and wife.” The last example also illustrates that certain preparatory conditions are tied to a characteristic mode of achievement in order for an act to be successful, i.e., the declarative act of marrying two people requires religious authority.

Sincerity Conditions

The performance of an illocutionary act entails the simultaneous expression of an internal psychological state. This principle is known as the *sincerity condition*. The psychological state expressed is dependent on the illocutionary force, and vice versa. Assertive acts express the psychological state of *belief*, for example, while commissive acts express *intention* to do the action expressed in the proposition. The psychological state must agree with the propositional content of the utterance for the act to be sincere; for example, if the Speaker promises to clean up his room, he must sincerely *intend* to do so. Generally, the propositional content of an act and the psychological state expressed within the act are identical; however, it is possible to misrepresent psychological state by expressing a state insincerely. When the Speaker performs an act expressing a psychological state that he does not have, he performs an *insincere* act.

Degree of Strength of Sincerity Condition

Degree of strength of sincerity condition, as the name suggests, refers to the possible varying degrees of strength with which the psychological state (expressed as part of the

sincerity condition) is realized. Thus, the acts of *requesting* and *pleading* both have the sincerity condition of *desire*, but obvious differences exist in their degrees of strength. Degree of strength of sincerity condition usually (but not always) varies with degree of strength of illocutionary point. As with degree of strength of illocutionary point and mode of achievement, there is a characteristic degree of strength of sincerity conditions for various acts and forces.

Direction of Fit

A final dimension along which Searle and Vanderveken classify illocutionary forces (but separate from the seven components of force) is the difference in direction of fit between the words of an utterance and the world. To be successful, an illocutionary act must achieve the direction of fit that characterizes the category of force to which it belongs. This characteristic describes the variability of illocutionary forces that (1) make the words of the utterance reflect the world of the utterance, (2) make the world of the utterance match the words (proposition) of the utterance, or (3) alter the world to fit the proposition expressed in the utterance by representing the world as altered within the utterance. The first condition represents a *word-to-world direction of fit*. This direction of fit is achieved in assertive acts (whose purpose is to say how things are). The second condition describes the *world-to-words direction of fit*, effected in acts with directive and commissive forces. The third condition, the *double direction of fit*, occurs in declarative speech acts (which change the world by saying so). A fourth direction of fit, the *null or empty direction of fit* applies to expressive acts, whose success of fit is presupposed by the performance of the utterance (i.e., if the Speaker succeeds in performing the illocutionary act, direction of fit is understood).

Searle & Vanderveken invoke the above components of illocutionary force to describe the five illocutionary forces mentioned earlier. These are briefly outlined in the following section.

The Five Illocutionary Forces

Assertives

The Assertive class of speech acts has the *assertive* illocutionary force, which is to state or describe how things are, or to “present a position as representing an actual state of affairs in the world of the utterance” (Searle & Vanderveken 1985:37). Utterances with assertive force necessarily have the words-to-world direction of fit. There are no general conditions governing the propositional content of assertives, but there is a general preparatory condition that the Speaker must have reason to believe in the truth value of the proposition. Accordingly, assertives express the psychological state of belief: the fulfillment of the sincerity condition requires that the Speaker believe what he asserts in the proposition. The assertive force may vary in its degree of strength of illocutionary point and sincerity condition, its propositional content and preparatory conditions, and its mode of achievement.

Directives

In Directive speech acts the Speaker “attempts to get the hearer to carry out the course of action represented by the propositional content” (Searle & Vanderveken 1985:37). Directives thus have the directive point, and the world-to-words direction of fit. They may vary in mode of achievement, propositional content conditions, preparatory conditions, sincerity conditions, and the degree of strength of sincerity conditions and illocutionary point. The major propositional content condition is that the proposition must represent a future course of action or behaviour of the Hearer, with the preparatory condition that the Hearer must be capable of doing the act he is directed to do. The directive force expresses the psychological state of desire. The general sincerity condition is that the Speaker must sincerely desire the Hearer to do the action in the proposition.

Commissives

The Commissive force is expressed by utterances in which the Speaker “commits himself to carrying out the course of action represented by the propositional content” (Searle & Vanderveken 1985:37). Commissives thus have the world-to-words direction of fit; the world is altered to fit the proposition of the utterance by virtue of speaking a commissive act. Commissive force may vary in its mode of achievement, degree of strength of illocutionary point and sincerity condition, propositional content and preparatory conditions. A general constraint on the propositional content of a commissive is that it must represent a future course of action on the part of the Speaker with some consequence for the Hearer. The preparatory condition is that the Speaker must be capable of performing the act to which he commits himself. A commissive expresses the psychological state of intention, with the general sincerity condition that the Speaker must intend to do the act to which he commits himself.

Declaratives

In an utterance with the Declarative force, the Speaker “brings about the state of affairs represented by the propositional content” simply by uttering the act (Searle & Vanderveken 1985:37). Declaratives thus have the double direction of fit. Two psychological states are expressed by a declarative act: desire (to bring about the change expressed in the proposition) and belief (that the Speaker has the power to bring about the change with a simple utterance). The sincerity condition of declarative acts is generally fulfilled (i.e., the Speaker both desires the change, and believes in his ability to effect it); however, it is possible for a declarative to be insincere. The declarative force also differs from forces previously described in that it permits no variation in degree of strength: the Speaker is either wholly ‘sincere’ or wholly ‘insincere’ (i.e., he either has the desire and belief expressed by a directive, or does not), with no intermediate levels of sincerity. A declarative is only successful if the Speaker brings about the change expressed in the propositional

content. Usually, success hinges on the mode of achievement, which is almost always through use of a power or granted authority to perform the declaration. This power is often derived from extralinguistic institutions, such as law or religion, but need not be, as in the case of purely linguistic declarations (such as “I am representing ‘illocutionary force’ as ‘IF’”; Searle & Vanderveken 1985:57). While there is no general constraint on the propositional content of declaratives, there is a limited range of variation because of the restrictions on preparatory conditions and mode of achievement.

Expressives

A Speaker invokes the Expressive force when he “expresses some psychological attitude about the state of affairs represented by the propositional content” (Searle & Vanderveken 1985:38). Different expressive forces express different attitudes toward the same propositional content (e.g., I can *congratulate* or *console* a friend on the birth of triplets). Because expressives relate various psychological states, and because all psychological states can vary in intensity, expressive forces have variable degrees of strength of illocutionary point and sincerity conditions (which are usually identical because the successful performance of an expressive is achieved by expressing its sincerity conditions). There are no general constraints on propositional content; however, individual expressive forces may have their own particular constraints. The general preparatory condition of an expressive act is that the propositional content must be true in the world of the utterance. Expressives have the null or empty direction of fit. Table 2.1 provides a summary of illocutionary forces, components of force and directions of fit.

Table 2.1 Summary of Illocutionary Forces, Components of Force and Directions of Fit, based on Searle & Vanderveken 1985

| Illocutionary Force: | Assertive | Directive | Declarative | Commissive | Expressive |
|--|--|---|---|---|--|
| Illocutionary Point | Assertive; 'to say how things are' | Directive; to try to get the Hearer to do something | Declarative: to bring about a change in the state of affairs | Commissive; to commit the Speaker to a future course of action | Expressive; to express personal attitude or psychological attitude about a state of affairs |
| Degree of Strength of Illocutionary Point | (+) Insist, argue (=) Say, assert (-) Suggest, imply, guess | (+) Command, plead (=) Request, direct (-) Suggest, ask | Tied to position of authority to make declaration, e.g. name v.s. appoint | (+) Vow, pledge (=) Commit (-) Consent, accept | Vary in intensity of psychological state (+) lament (=) thank, congratulate (-) complain, express |
| Mode of Achievement | Variable according to context, e.g. testify, confess vs. assert, claim | Variable according to position of authority, e.g. beg vs. request vs. command | Tied to positions of authority, usually religious or institutional, but also linguistic | E.g. vow vs. promise, bid vs. offer | Different illocutionary forces convey different attitudes; e.g. thank, boast, condole |
| Propositional Content Conditions | None | Future course of action of Hearer | 'True' propositional content; no general conditions but range is restricted | Future course of action of Speaker | No general condition; certain forces have constraints, e.g. condole-unhappiness of Hearer |
| Preparatory Conditions | Speaker is justified in making statement and believing in proposition | Speaker believes Hearer is capable of doing act, A | Speaker must possess requisite power to the perform declaration | Speaker is/believes he is capable of fulfilling commitment | Propositional content is true in the world of the utterance |
| Sincerity Conditions | Psychological state= belief; Speaker believes what he asserts | Psychological state= desire; Speaker desires Hearer to do act, A | Psychological states= desire (to change) and belief (in ability to bring it about) | Psychological state= intention; the Speaker intends to do the act to which he commits | Psychological state= state or attitude expressed; Speaker must have the expressed state |
| Degree of Strength of Sincerity Conditions | (+) Assure, confirm (=) Assert, claim (-) Suppose, suspect | (+) Beg, beseech, implore (=) Request (-) Ask, suggest | No variation | (+) Vow, pledge (=) Commit, promise (-) Consent, accept | Identical to degree of strength of illocutionary point |
| Direction of Fit | Words-to-world | World-to-words | Double | World-to-words | Null or empty |

Speech Act Theory and Language Acquisition

Studies of Sighted Children's Speech Acts

Speech Act Theory as a theory of language development has precedents in studies involving both sighted and blind children's language acquisition. Such studies represent a trend to investigate the communicative intentions of infants and very young children. Speech Act Theory is the basis of Dore's (1973) doctoral dissertation, in which he described the development of early speech acts out of the preverbal communicative behaviours of two infants from the age of 1;3. Dore adapted the theory to accommodate prelinguistic and early linguistic behaviours that he identified as precursors of conventional, adultlike speech acts. He termed these original behaviours "primitive speech acts," and described four stages in the course of their development into adultlike acts, during which illocutionary force evolved out of *orectic attitudes*, and proposition developed out of early cognitive *schemas*. Dore's major task was to describe the children's speech acts at the one-word stage and prior, with the intention of determining the changing relationships of form and function as the children's speech acts approximated conventional form. He concluded that illocutionary and propositional development proceeded independently, prelinguistically and through the one-word period. For each of the two children he studied, one of these systems was well in advance of the other; the order was different for the two children.

Bates (1976) assumed a speech act approach in her attempt to relate pragmatic development to Piaget's stages of cognitive development. Like Dore (1973), she focused primarily on the development of form-function relationships in children's emerging pragmatic language use. Using data on three Italian children (collected by Bates, Camaioni & Volterra, 1973), Bates traced illocutionary development through three stages: perlocutionary, illocutionary and locutionary. She concluded that the earliest forms of children's communication (e.g., crying, smiling) are perlocutionary because they achieve an effect without the child's consciously intending to do so and are bereft of conventional linguistic form. Next, the child begins to use illocutions, which achieve an effect intentionally but

continue to lag in development of conventional form (e.g., throwing a temper tantrum in protest). Finally, in the locutionary stage, form and function meet as recognizable (and more or less conventional) speech acts. Bates' reasoning, although superficially convenient and attractive, conflicts with the principles of Speech Act Theory which, by virtue of its name, dictates consideration of acts which are, at very least, *linguistic*, as well as simultaneously conveying perlocutionary, illocutionary and locutionary force. Furthermore, she betrays the original theory with her idiosyncratic use of the terminology.

Griffiths (1985) incorporated data from six studies of early language acquisition (Leopold 1939, 1949; Halliday 1975; Greenfield & Smith 1976; Dore 1974, 1975; Carter 1974, 1978, 1979; and Scollon 1976) in an attempt to interpret the illocutionary force of children's one-word utterances according to Speech Act Theory. He based his interpretations on Bates' (1976) criteria for identifying communicative intent in the utterances of typically-developing infants. These criteria include: (1) alternation between eye contact with the Hearer and eye gaze toward an object of interest, (2) persistence of utterances until illocutionary uptake occurs, and (3) confirmation of uptake when it does occur. To these, Griffiths added the prelinguistic communicative behaviours of gesture, intonation or 'tone of voice', smiling and crying (Griffiths 1985:94). Based on his interpretations of the illocutionary forces of the children's utterances in the above studies, Griffiths proposed the following order of acquisition of speech act categories in the holophrase (one-word) period: (1) directives and expressives, (2) assertives, and (3) commissives and declaratives. He also noted that questions were unattested in the language samples for this period.

Finally, Ninio & Wheeler (1984) appealed to Speech Act Theory to design a framework for the study of mother-infant interactions. They developed a classification system that bears somewhat more resemblance to taxonomies of adult speech acts as defined by Searle's (1979) version of the theory, but altered it to fit both their particular research issue and their assessment of the illocutionary forces that typify children's language use. Ninio & Wheeler's specific taxonomy descriptors were used as far as possible in the present study

(which sometimes reorganizes them radically according to superordinate illocutionary category, however, to conform to Searle & Vanderveken's 1985 version of the theory).

Because Ninio & Wheeler focused on mother-child interactions, their taxonomy contains behaviours that apply uniquely to maternal or caregiver utterance types, such as "Elicit onomatopoeic or animal sounds" (p. 92) and "Praise for motor acts, i.e., for nonverbal behaviour" (p. 93), in addition to speech acts typical of children. For this reason, the taxonomy in the present study omits certain of Ninio & Wheeler's original coding categories. In the present study, new categories are added that reflect (1) the most recent modifications of Speech Act Theory by Searle & Vanderveken (1985), and (2) children's speech act use, as well as specific areas of interest relating to speech act use by blind children (as identified by Dunlea, 1989). Such modification is in the spirit of Ninio & Wheeler's system, which is meant to be adapted to support specific research questions.

Speech Act Development by Blind Children

The application of Speech Act Theory to language development has limited precedents in research on blind children's language acquisition. An in-depth account was provided by Dunlea (1989), who compared the early language use of two completely blind, two visually impaired, and two sighted children.

Dunlea collected data on the distribution and relative frequency of the early speech acts of her subjects up to approximately two years of age. She observed that the pattern of development of illocutionary skills was considerably more similar between the blind and sighted children than she had expected. In particular, the order of emergence of early speech acts was strikingly similar for both groups, while the main distinguishing factor between groups consisted of the relative frequency of use of various acts. Dunlea's data revealed different profiles of speech act use by the two groups: the blind children produced a significantly greater number of requests for objects and attention than did the sighted children. In contrast, the latter group made more assertions and requests for action, and

demonstrated more offer/show types of behaviour. Dunlea also noted a general developmental trend among the blind children to make significantly fewer utterances without illocutionary force (i.e., noncommunicative), beginning around the time the children started to combine words for short utterances. The data for the sighted children disclosed a similar pattern, but to a lesser extent: the sighted children continued to produce more utterances lacking illocutionary force, despite having reached the same threshold of lexical and syntactic development.

Dunlea concluded that the blind children were more motivated to use language because of their special need to communicate, their motivation and communicative ability serving to 'equalize' some of the other linguistic and experiential restrictions on their ability to participate in their respective social contexts. She considered the blind subjects' more frequent use of directive acts (i.e., requests) an adaptive strategy, useful to blind children as a means of securing access to, and participation in, their environment.

Problems in Applying Speech Act Theory to Children's Language Acquisition

An inherent weakness of Dunlea's study, although well-motivated to adhere to Speech Act Theory, is her confounding of the levels of discourse and illocutionary language use in the taxonomy she devised for coding the children's utterances. For example, she included *Response* as a speech act category, which is, rather, a discourse level behaviour (1989:129). One *responds* to a question in conversation, but one *asserts, directs, declares, commits* or *expresses* at the level of the illocutionary act. Coding an utterance as a response either (1) loses the illocutionary force or intention from the utterance, therefore rendering such utterances useless in a consideration of speech act use, or (2) requires double coding of some single utterances, in a manner incompatible with Speech Act Theory.

The taxonomies devised by Dore (1975) and Ninio & Wheeler (1984), and to a certain extent the coding criteria employed by Griffiths (1985) also contain confusions of level between the discourse and illocutionary functions of utterances. For example, Dore coded

practising and *answering* as illocutionary acts, when they are, rather, discourse acts (1975:33). Similarly, Ninio & Wheeler included both *answer* and *ask question* in their taxonomy, and included *responses* in all of their categories (1984:15-16). Griffiths and Ninio & Wheeler also confused speech act categories, misinterpreting the illocutionary forces of various act types (perhaps motivated by the desire to keep discourse-relevant contingency pairs together). For example, Ninio & Wheeler considered the behaviour *Agree to carry out act requested or proposed by other* a directive act. This behaviour, however, refers to a future course of action by the Speaker, not the Hearer, fulfilling the propositional content condition of the commissive, not the directive, class. Such categorizations (incompatible with the criteria for assigning illocutionary force) are relatively frequent in their taxonomy (see appendix C). Griffiths made a similar error in construing Carter's (1979) David's use of *there* (upon completing or succeeding at some task) as an expressive act. According to the theory, the expressive point is to express personal feeling or attitude toward a proposition; it is more likely that David used *there* to *assert* that he had finished or succeeded (i.e., "There, I'm done"). Such errors in interpreting and applying Speech Act Theory to children's early language are not wholly due to the misconceptions of the investigators: these studies were completed before publication of the most recent and well defined version of the theory (Searle & Vanderveken, 1985). The aim of the current study is to describe the speech act development of a young blind child and his sighted identical twin, making use of current Speech Act Theory to (1) accurately assign illocutionary force and (2) maintain the distinction between illocutionary act and discourse function

CHAPTER III:
METHODOLOGY AND SPEECH ACT TAXONOMY

Method

Subjects

The data for this study are longitudinal and observational, and provide information on the illocutionary roles of the early utterances of a pair of twin brothers from approximately two to four years of age. The boys are the subjects of an ongoing, longterm study of language acquisition initiated by Johnson & Blockberger (1985) when the twins were thirteen months of age.

B and G are identical twins, born at 27 weeks gestation (approximately three months premature). As is common in infants born prematurely, their abbreviated term resulted in several medical complications during the neonatal period. Both boys suffered hypocalcemia, pneumothorax, hyaline membrane disease and retinopathy of prematurity (ROP). G (born first), incurred stage 3 ROP which was initially thought to have spared his vision. At approximately two and a half years of age, however, it was discovered that G's vision was normal in one eye only, and that his sight in the other eye was limited to a distance of 15 centimeters. G's vision has since been corrected with the use of prescription glasses, which he does not always wear. B, the second born child, suffered stage 4 ROP, culminating in bilateral retinal detachments and total blindness. (B is suspected to have a very small degree of light sensitivity, which was observed in his blinking reaction to a camera flash fired at close range on several occasions.)

The twins remained in hospital for their first three months of life, until they reached normal term. In regular visits to a neonatal follow-up clinic they displayed essentially normal

neurological and medical development, with the exception of visual impairment. Both boys uttered their first words at age 1;7, and their attainment of linguistic milestones was normal.

The twins are the only children of a couple in their late twenties. The father works in a rental firm for construction equipment. The mother previously held a position as a clerk, but has remained at home fulltime with the children since their discharge from hospital. The twins' parents have demonstrated very positive acceptance of B's blindness, and have put much effort into providing both children with a stimulating and encouraging environment in which to develop. The family also receives much support from members of their extended family, who live nearby and visit frequently.

Control Condition

The sighted twin control condition of this study exemplifies a rare but extremely desirable situation. The validity of studies comparing any two populations is negatively affected by the presence of variables that cannot easily be controlled, such as differences in parenting styles, interactions with relatives and the presence of siblings (Dunlea alludes to this problem in her own study, 1989:22). The twin control within this study, however, ensures that the children will be as equivalent as is naturally possible on the basis of their being identical twins who share physical, cognitive, environmental and (possibly) personality characteristics. While differences may exist in the nature of some of the interactions in which each child participates, or in some of the language input addressed to each child, the fact that the children are virtually always in close proximity strongly suggests that they are each exposed to a full range of both social interactions and language input. This being the case, the children are essentially equivalent in every aspect but visual ability, the blind child lacking any functional vision, and the sighted child having functionally normal vision. The presence of an almost perfectly matched control approximates the ideal study situation and permits the conclusion that any dissimilarities observed between the subject and the control may be credited to the independent variable, in this case, the ability to see. Thus, potential

differences observed between the blind and sighted twin's language and language use in this study may almost certainly and exclusively be attributed, either directly or indirectly, to the presence or absence of a visual-perceptual window onto the world.

Procedures for Data Collection and Analysis

The data used in the current investigation were obtained from a library of video and audio cassette recordings and accompanying transcripts of the twins engaged in regular daily activities and interactions at home and in their kindergarten classroom. Each recorded session of home interactions involves the twins, their mother and a researcher. On occasion, other family members (usually the twins' father or grandmother), friends, and additional researchers were included in the recording session. The recordings were obtained as part of Johnson's longitudinal study. Videotapes were made with professional Panasonic equipment (Panasonic WV-3240 videorecorder). Audio recordings were made on a Marantz PMD430 stereo taperecorder with Samson SR-2/ST-2/ECM 144 remote (wireless) microphones. A research assistant transcribed the taped interaction after each visit. Johnson subsequently transcribed 20% of the corpus to ensure reliability. Initially, the children were observed and recorded once a month, with the interval period becoming longer as the children approached school age. During particularly dynamic periods of development, however, visits were made more frequently, in an attempt to capture the transient aspects of the children's evolving linguistic abilities. Thus, the tapes chronicle the twins' early language development in a variety of social and conversational situations, and across a span of several years and developmental periods. For the purposes of this study, four sessions at approximately six month intervals (from age 2;3 to 4;0) were examined to sample the development of speech act use.

Each recorded session was analyzed for the types, and frequencies (by type) of illocutionary acts performed by each child. The taxonomy of speech act types was based on Searle & Vanderveken's (1985) version of speech act theory. Once identified, the speech

acts (where compatible) were coded according to the terminology of an abbreviated version (CHILDES, 1991) of Ninio & Wheeler's (1984) taxonomy of illocutionary acts. To allow comparison of the developmental timelines of speech act use by the blind and the sighted twin, age, approximate MLU stage, and a general description of each child's formal language system are provided for each session used to analyze speech act data.

The study is descriptive in nature. Quantitative results are reported for type and frequency of the speech acts described. The resulting 'profiles' of speech act development serve as a basis for answering the questions posed within this study.

Speech Act Taxonomy

General Problems in Devising and Using Taxonomies

A speech act taxonomy has been defined to adhere to the principles of Speech Act Theory. The task is a difficult one in many respects: the goals are generally to identify and describe language use in a principled way. The realities of children's language, however, are such that the very points of interest provide the most challenge in keeping with these goals. For example, the study of children's acquisition of conventional speech act form is made difficult by the very absence of conventional linguistic expression in early language use. Also, children may state or query conditions without understanding what they are doing, achieving certain perlocutionary effects without intending to do so. Finally, children may 'understand' speech acts in a pragmatic sense without having equivalent or requisite syntactic understanding.

These conditions may lead to a good deal of confusion in efforts to describe children's language behaviours and use, and in devising whole systems for this purpose. As was described in Chapter II, many problems arise due to confusions between the illocutionary and discourse levels of speech. A frequent manifestation of this type of error is the inclusion of an *answer* or *response* category in speech act taxonomies. Level confusions also occur between the utterance level and the illocutionary levels, e.g., considering the request, "can you get me

a glass of water," as a question because of its interrogative mood. Another difficulty which undermines the value of a taxonomy or coding system is inferring too much communicative intent on the behalf of young children. It is very tempting to describe an utterance as a sentence which says or does things in the same way an adult's does, but often there is no principled way of supporting such claims. A conservative approach should be taken in interpreting children's early utterances to avoid imputing too much communicative intent, semantic and/or syntactic structure. Context should be considered a valuable resource for disambiguating the communicative intents of young children's utterances.

Perhaps one of the most intimidating problems of assembling a taxonomy is achieving a reliable system of categorization. It is quite a formidable task to write down, in absolute terms, the particular behaviours that specify one or another type of utterance or speech act, especially those pertaining to the earlier stages of language acquisition. The task is particularly difficult when it is applied to a categorization scheme that must span several stages of language development.

Introduction to the Taxonomy and Considerations for Use

The following taxonomy was motivated by the principles of Speech Act Theory as elaborated by Searle & Vanderveken (1985), and Ninio & Wheeler's (1984) taxonomy of illocutionary acts. It is described in terms of the theory's seven components of illocutionary force, and four directions of fit. These are, respectively:

- (1) illocutionary point
 - (2) degree of strength of illocutionary point
 - (3) mode of achievement
 - (4) propositional content conditions
 - (5) preparatory conditions
 - (6) sincerity conditions
 - (7) degree of strength of sincerity conditions;
- and
- (1) words-to-world direction of fit
 - (2) world-to-words direction of fit
 - (3) double direction of fit
 - (4) null or empty direction of fit.

In addition, the perlocutionary effects of speech acts are considered. While perlocutionary effect is not a direct means of determining the illocutionary force of an utterance, it may yield clues useful in the task of differentiating one speech act from another, by virtue of the perlocutionary effects to which particular acts give rise. This is in line with Searle & Vanderveken's position that various types of obligations are incurred between speech acts, meaning that certain speech acts influence what the next Speaker says, or what the present Speaker says in his next turn. This renders the consideration of previous and subsequent utterances a useful and justified source of coding information.

In keeping with Searle & Vanderveken's (1985) version, illocutionary acts are sometimes defined in relation to other speech acts (this is because some speech acts set up obligations for the next act; e.g., a request for clarification requires the next utterance to

provide clarifying information). This is not to be confused with defining them as a second part to a first speech act. For example, “response” is not a possible speech act category, but “agree with a proposition” (AP) is.

Speech acts may be performed directly or indirectly. In an indirect speech act, all requirements for successful performance of the literal act are satisfied (i.e., of the utterance act); however, the Speaker makes use of contextual factors, presupposed speech act rules and the principles of conversation to ensure that the Hearer recognizes the true, implicit intentional force of the utterance (Searle & Vanderveken 1985:23).

While meeting the seven characteristics of each illocutionary type, the categories within each type to some degree reflect the particular focus of this study. To meet this need some categories are split more finely than others, and the level of subcategories is not always equivalent. For example, although QI and QC are both listed as categories of RP, QC is actually a subcategory of QI. This hierarchical arrangement is shown in the summary of speech act categories provided in appendix A. In all cases, if there is insufficient evidence to categorize an act in a subcategory, the act is classified in the superordinate category which also serves as a default category.

In addition to coding the illocutionary force of each of the boys’ utterances, an attempt was made to capture, to some extent, the varying degrees of strength of illocutionary point and sincerity conditions underlying the illocutionary acts the boys performed. Because one of the primary pitfalls in studying young children’s speech acts is dividing categories too finely, differences in degree of strength of force and sincerity were marked in a nonspecific manner, noting only whether the utterance was judged to be representative of *weak* (-), *neutral* or *characteristic* (=) or *strong* (+) force and sincerity. This avoids questionable decisions, such as whether a 3-year-old’s utterance is a suggestion, a description or a claim.

During initial coding sessions, a problem was identified in coding the children’s first person plural commissive and declarative utterances. Searle & Vanderveken’s (1985) elaboration of the theory describes illocutionary acts in terms of a singular Speaker and a

singular Hearer; the consequences of multiple Speakers or of a Speaker performing an illocution on behalf of others as well as himself are not even implicit. Thus, when confronted with utterances like B's "Now we hafta make a house!" it was difficult to confidently assign the commissive illocutionary force, even though the use of the auxiliary *have* to clearly suggested an obligation to a future course of action. Because the current theory relies on describing acts and conditions as applied to single Speakers, it was difficult to know how to treat *we*, especially when it was feasible that the Speaker performed an illocutionary act on another persons's behalf, without his knowing about or consenting to that act. In order to resolve this inability of Searle and Vanderveken's explication of illocutionary theory to account for such utterances, and to justify the existence of first person plural commissives and declaratives, an appeal was made to Hancher's (1979) critique of the weaknesses of the current theory.

In brief, Hancher proposed that Speech Act Theory should account for *singular*, *multiple* and *collective* speech acts. Singular speech acts are uttered in the first person singular. Multiple acts involve two or more individuals simultaneously uttering an identical first-person-singular speech act, an example of which occurs when new citizens swear an oath of allegiance in Canada. Collective speech acts involve one or more Speakers simultaneously uttering identical first-person-plural utterances, as in the singing of "O Canada." In this taxonomy, application of Hancher's terminology is implicit only, and differs somewhat from Hancher's intended use. It is adopted as a means of justifying the acceptability of first-person-plural speech acts spoken by a single Speaker on behalf of at least one other individual.

Taxonomy of Speech Acts:
Category Descriptions for Coding Purposes

Assertives

General Characteristics

The point or purpose of an assertive illocution is to say how things are (or are not). The direction of fit is words to world, and the psychological state expressed is one of belief. The sincerity condition is that the Speaker must believe what he asserts in the propositional content of his utterance. Degree of strength of point and degree of strength of the sincerity condition may vary in the degree of confidence or belief with which the assertion is made. Examples from an adult taxonomy would be *suggesting* (a weak degree of confidence) vs. *claiming* (a strong degree of confidence). The preparatory condition is that the Speaker is justified in making the assertion, and for believing in the truth value of the proposition. There are no particular propositional content conditions governing assertive acts.

Assertives include the following categories:

- ST Descriptive utterance relating to an activity or event, object or a state of affairs
- IL Identification/labelling (includes listing and counting)
- AP Agree with proposition expressed by previous Speaker
- DW Disagree with proposition expressed by previous Speaker

Assertive acts (A)

- ST Counts as an utterance with descriptive or assertive value; child attempts to say 'how things are'

Coding criteria and contextual clues: Direction of fit is words to world; the Hearer is often able to judge the words-to-world direction of fit of the utterance. Sincerity and preparatory conditions require that the child have reason to believe what he asserts. There is no

particular propositional content condition; the proposition may relate to the child's "real world reality" or a state of affairs within a "make believe reality." ST acts have no particular perlocutionary effects or indicators of illocutionary uptake, although a conversational partner may acknowledge or elaborate on an assertive speech act. Examples of assertions with characteristic degrees of strength are B's utterance of "bike" while sitting on his bike (2;3), and G's assertion "I throw them" (3;0).

In order to test other researchers' hypotheses regarding the topics about which blind children communicate, propositional content is further categorized to denote comment about a self activity (S), joint participation in an activity (J), a third party's activity (O), or an environmental event (E). (*Environmental* signifies 'things' outside the immediate environment of the interaction, such as the postman arriving outside, a truck or plane passing nearby, etc.; environmental events are not linked to any of the participants in the interaction or immediate vicinity.)

A second initial is used to code assertions about past (P), future (F), and hypothetical or conditional (C) states of affairs or events, and those currently in progress (N), or which hold in a make-believe reality (M). (ST acts therefore have four-initial codes; for example, a comment about a self-activity in the past, such as "I went swimming yesterday" would be coded STSP.) Note that the last two coding places are not illocutionary act designators; in a multitier coding scheme they would be on a separate tier. To avoid overinterpreting syntactic or semantic form to the child's early utterances, the code ST is used without third and fourth initials where the content of the assertion is unclear (e.g., G's "man" in response to the question "Is he driving?" while playing with toy cars and little figures at age 2;3).

IL Counts as an attempt to label or list (i.e., child asserts that an object, X, is a member of the class of Y)

Coding criteria and contextual clues: IL includes listing (e.g., naming toys as they are being put away) and counting (e.g., counting all of the like objects on a page in a picture book). It differs from ST only in that the IL act consists of sequences or series of like objects (including numbers, days of the week, etc.) that are not linked syntactically. Gesturing, such as pointing at each instance of an item, may accompany the utterance act. Propositional content usually involves objects, but is not highly constrained. It is unlikely that the propositional content will be new information for the listener. The sincerity condition is belief in the proposition (i.e., X is a member of the class of Y), and the preparatory condition is that the child has reason to believe so.

This act may be elicited by adults, or by certain activities. It may be elicited by another speaker's uttering "What's that?," or some variation thereof. It often accompanies routinized activities like book-reading or clean-up time without instigation by an adult. If this activity is elicited by an adult Hearer, the child may look at the adult after each utterance for confirmation or approval. The Hearer's response of repeating and/or praising correct identifications, or correcting or prompting further attempts may indicate illocutionary uptake, although -- as for ST -- illocutionary uptake may not be indicated. In order to be an instance of communicative identification/labelling, the utterance must occur within a potentially interactive context, i.e., the child must be in proximity to the Hearer, and must not be engaged in noninteractive play. A typical IL utterance is B's "one, two, three" as he picks out large Lego blocks for building stairs (3;6).

AP Counts as an attempt to agree with a proposition expressed in a previous utterance

Coding criteria and contextual clues: The child asserts that a previous utterance is true; this includes providing confirmation of one's own assertions, and affirmation of others' assertions. The direction of fit is words-to-world. The sincerity condition is that the child believes the previous proposition to be true. There are no particular indications of illocutionary uptake.

Another Speaker may elicit agreement with tag questions (e.g., *don't you? didn't we?*). The child may use explicit, moodless forms of agreement such as *yes*, *yeah* and *mhm*, or express agreement/confirmation through partial or complete repetitions, mitigated repetitions, and/or paraphrase. Verbal expression may be accompanied by appropriate gesture (e.g., nodding the head up and down).

Adult and both boys are playing cars:

A: B smashed in, didn't he?

G: yeah (3;0)

(same context)

A: do you have to start it?

G: yup, start it (3;0)

(Note: *mhm* employed as a back-channel response is coded as an expressive illocutionary act, Discourse Function, DF.)

DW Counts as an attempt to disagree with, negate or deny the proposition of a previous utterance

Coding criteria and contextual clues: The child asserts that the proposition of a previous utterance is not true; the utterance has the words-to-world fit. Sincerity and preparatory conditions are that the child believes, and has reason to believe, that the previous utterance is inaccurate. Strength of sincerity may be expressed by emotional reaction. There are no particular indicators of illocutionary uptake, and no particular perlocutionary effects.

The child may use explicit, moodless forms of negation (e.g., *no*, *uh-uh* and *not me*), accompanying gestures (head shaking), mitigated repetition, or a combination of these. As well, the child may offer a contrary explanation or assertion, or counter suggestion, or respond to a disputed proposition as an *indirect* denial or negation. Probable contexts include when

the child is being teased, confronted with a suspected mischief, or when a false claim has been uttered.

An example of characteristic strength in a DW is B's "No" in response to his mother's question "Does Grandma have an elevator?" (3;6). An example of (+) strength of sincerity is B's emphatic "I don't eat soap!" when asked "do you like eating soap?" (3;6).

An indirect DW is uttered by G in the following example:

B and G are building together with Lego blocks:

B (to G): well, we have to get the roof

G: after (4;0)

Directives

General characteristics

The point of a directive force is to try to get the Hearer to do something. As such, directive acts assume the world-to-words direction of fit. The propositional content of a directive must include a future course of action of the Hearer. A directive illocutionary act expresses the psychological state of desire or need to have the Hearer perform the act in question. The preparatory condition underlying a directive act is that the Hearer is capable of doing what he is requested to do. The sincerity condition is that the Speaker believes that the Hearer is indeed capable of complying with his request.

Directives include the following categories

- RP Request to do an act, A; specific request types include:
 - RO Request to engage in family verbal/ritual routine
 - GO Request to give object
 - CL Request to attend, pay attention
 - WD Warn of danger
 - PF Prohibit/protest/forbid action of Hearer
 - FP Request to give permission

- QI Request to provide information; and a subtype of QI,
 QC Request to provide clarification

Directive acts (R)

RP Counts as an attempt to get the Hearer to do something (i.e., "Request for action")

Coding criteria and contextual clues: RP serves as a superordinate category for specific requests, including attention, permission, information and specific actions/activities. I have defined six specific 'requests to do' based on empirical knowledge about the typical behaviours of blind and sighted children. Some of the subcategories represented are included on the basis of claims made by researchers in previous studies regarding the relative abundance or paucity of specific request behaviours in the early language of blind children. RP is a default category which is used to mark any requests for things other than those identified by the six subcategories; however, directive speech acts recorded within these subcategories also necessarily fall into the superordinate category of RP.

Propositional content must involve a future act, A, of the Hearer. Direction of fit is world-to-words; the Hearer is not doing or has not done what is expressed in the propositional content. The sincerity condition is that the child wants Hearer to do A; the preparatory condition is that the child believes that Hearer can do A. The perlocutionary effect of the Hearer's 'acting' on the child's utterance may indicate illocutionary uptake. The child's utterance may include gesture and/or reaching. A clear indication that an utterance was intended as a request behaviour is that the child waits for a response, either verbal or behavioural, from the Hearer, and is likely to repeat the request if the Hearer does not respond as desired. If the intended perlocutionary effect is achieved, the child may be satisfied by Hearer's response and cease 'requesting'.

B, G and mother are playing with Lego blocks:

B (to mother): you just make stairs (4;0)

(same context, indirect RP)

G (to mother): mom, can you get this part on? (4;0)

Subtypes of Requests

RO Counts as an attempt to get Hearer to participate in a ritualized, verbal or verbal/gestural family routine (i.e., “How big are you today?” “This big!”), or as an attempt to secure participation in an ongoing routine involving the other twin or at least one adult

Coding criteria and contextual clues: The child tries to influence the Hearer’s behaviour; the utterance has the world-to-words fit. The sincerity and preparatory conditions are fulfilled when the child wants to do the routine, and believes that the Hearer knows the routine and how to participate, respectively. A critical preparatory condition is that the participants are not already engaged in performing the routine. The child may either say the beginning words or sounds of the routine and perform the accompanying gestures. Often, the child performs the adult’s first line of the routine. Because routines are initiated so often in this manner, it has been marked as the typical form (=) of this request.

The best indication of a request for routine (in addition to knowledge of the family routines) is provided by the Hearer’s reaction; the intended perlocutionary effect and indication of uptake are that the Hearer respond by performing the routine. Many family routines are idiosyncratic, and without the researcher’s prior knowledge of these, RO acts may be miscoded. Researchers can ask the child’s parents when in doubt about possible family routine status.

B, who is sitting beside G and adult but has not been involved in an ongoing conversation about birthday cards:

B: what’s a cow say? (3;0)

GO Counts as an attempt to get the Hearer to give an object

Coding criteria and contextual clues: The child attempts to get the Hearer to provide an object; the utterance has the world-to-words direction of fit. The sincerity condition is that the child wants the object, and the preparatory condition is that he believes he can and should have it, and that the Hearer can give it to, or get it for, him. The Hearer indicates illocutionary uptake either by performing the intended perlocutionary act of giving the child the object, or by explaining why the child cannot have it. The child's utterance may take the form of a single word or longer utterance, naming or indicating the desired object, and may be accompanied by reaching or pointing. Generally the child waits for the desired response, and may persist in requesting if it is not obtained. Explicit markers of this request are "give me" and "I want."

G is looking at his mother expectantly while B rides his bike, to which his mother responds by pulling his bike down from the couch.

G: bike (2;3)

FP Counts as an attempt to get the Hearer to give permission for the Speaker to do an act, A

Coding criteria and contextual clues: The fit is world to words; the child is not already doing A. The child's psychological intent is the desire to perform A. Sincerity conditions are that the child is not performing A, and believes that he cannot perform A without permission from the Hearer. Behaviourally, this means that the child should not do A until permission is granted. Whining indicates a stronger than characteristic sincerity condition. The preparatory condition is that the child believes that the Hearer has the ability and power to grant permission to do A.

Illocutionary uptake may be indicated by the Hearer's granting permission (the intended perlocutionary effect), or perhaps by the Hearer explaining why permission is being

withheld or attempting to distract the child from his request. Explicit force indicators are *may I...*, *can I...*, and rising intonation, but these are not essential for performance of FP, or for uptake, to occur. An example of an FP utterance is G's "mom, can I get my detneer" (3;6), to which his mother responded "no." A problematic example of FP is in the boys' asking each other's permission by tagging "kay?" or "okay?" to indirect directive utterances, e.g., G's "we could build them now, kay B?" (4;0) while involved in collaborative play with Lego blocks. G's utterance in this case, however, violates the preparatory and sincerity conditions of the act: G does not likely believe that he requires his brother's permission in the context of collaborative play (if in any), or that B possesses a power of authority over him. When FP-resembling utterances occur in co-twin directed speech, the context and utterance must indicate genuine preparatory and sincerity conditions for the utterance to be considered an act of FP. If not, markers like *kay?* may serve as discourse functions to signal completion of the Speaker's turn, or -- as in the example above -- may function to "soften" a directive to gain compliance.

CL Counts as an attempt to get the Hearer to attend to the Speaker

Coding criteria and contextual clues: The child addresses a proximal or nonproximal Hearer with the intention of getting the Hearer to pay attention or participate in interaction; direction of fit is world to words. The sincerity condition is that the child wants the Hearer to pay attention. The preparatory condition is that the child believes the Hearer is not attending or nearby, but that he is capable of hearing and fulfilling the request. The child may use the Hearer's name to elicit attention. The utterance may have increased loudness and syllabic lengthening. The child waits for a response from the Hearer (Dunlea 1989:125). Illocutionary uptake may be indicated by the Hearer's verbal or behavioural acknowledgement of the child's request; the Hearer may move closer to the child or signal physically that he is nearby

and attending. If the Hearer does not attend, the child is likely to continue to request attention.

Both B and G used Hearer's name and/or "lookit" to direct attention to themselves and to each other while playing.

G: oh lookit B's doing it again (3;0)

B: oh look at me (3;0)

PF Counts as an attempt to protest/prohibit/refuse the actions or remarks of the Hearer (i.e., a request to *stop doing A*)

Coding criteria and contextual clues: The child attempts to stop the Hearer from doing A; direction of fit is world to words. Preparatory and sincerity conditions are that the child believes that the Hearer is doing A, and sincerely wants him to stop. Early forms of protest may involve the child yelling "No!" and pushing away or hitting out in an attempt to interrupt the action or utterance of the Hearer. Later in development the child may say "Don't do that!" or "Stop it!" PF acts may be uttered with increased volume, and the child's facial expression (grimacing or frowning) often reveals anger, agitation or distress. Generally, the child's protest is immediately preceded by the undesired event or utterance, however the child may suddenly protest or prohibit an ongoing activity that he has been enjoying up to that point. The Hearer may respond by discontinuing the activity or action (the intended perlocutionary effect); however, this is not a necessary indication of illocutionary uptake (i.e., the Hearer may not terminate certain events, such as when the child is receiving medicine or being punished). The Hearer may indicate uptake by explaining why the activity is necessary, or offer an apology for acts that have been terminated or that must be continued against the child's will.

G keeps pushing B's hand away from a pile of blocks:

B (reaching again for the blocks): but I want to feel it! (4;0)

WD Counts as an attempt to warn Hearer of danger or undesirable consequences (i.e., a request to be alert, be careful or watch out)

Coding criteria and contextual clues: The child attempts to cause a future action of the Hearer; direction of fit is world-to-words. The sincerity condition is that the child wants the Hearer to beware. There is no particular preparatory condition except that the child believe there is just cause to warn the Hearer. The intended perlocutionary effect is to get the Hearer to look around, become more alert, or move out of the way, for example, or to stop an ongoing action (this differs from a PF because a WD benefits the Hearer rather than the Speaker). The child may achieve this by uttering imperatives such as *watch out!* or *be careful*, or some variation thereof. Earlier forms may include *no!* and *don't!* The child may simultaneously gesture for the Hearer to move away or to look for the source of 'danger.' The Hearer may demonstrate illocutionary uptake by acknowledging the child's warning, or by explaining that there is no real threat. (See Commissives' TD for a contrast of warning and threatening.)

G is carrying a chair through the play area:

G: watch out! (3;6)

Note: This category was motivated by the CHILDES taxonomy; it represents a behaviour expected to be rare among children.

QI Counts as an attempt to get the Hearer to provide information

Coding criteria and contextual clues: The child attempts to get the Hearer to say X; direction of fit is world to words. QI classification requires that the sincerity condition be met; the child is sincere in a request for information only when he does not know, or has forgotten, the answer to the question he asks. Often, utterances that appear to be requests for information (by virtue of syntax, and semantic and propositional content) are actually indirect requests for

attention or attempts to maintain one's turn in a conversational situation. It is important, then, to distinguish between real questions, in which the child honestly seeks the information requested, and 'imposter' questions, which look like the real thing but serve some function other than to request information. An example that illustrates an imposter question is when the sighted twin, G, holds up a green block and says "What's this?" (2;3). A few seconds later, having not received an answer, G responds to his own question with "a green block." The fact that G knew the answer to his question suggests that he was eliciting attention or attempting to take a turn in the ongoing interaction, rather than actually seeking the name of the object in his hand. The child indicates sincerity by acknowledging or commenting on the Hearer's response, or by persisting if the desired perlocutionary effect is not achieved. QI questions are generally answerable with propositional content, or affirmation/negation. Rising terminal intonation, Wh-words and pronoun-auxiliary inversion are function-indicating devices for QI acts. The Hearer may indicate perlocutionary uptake by answering the child either verbally or gesturally (e.g., by pointing).

B and G are looking at and asking about the movie camera; B's questions are not being answered:

B: no, what is?

B: what's this?

B: what's that? (3;6)

QC Counts as an attempt to request clarification or repetition from the Hearer; a subcategory of QI (above)

Coding criteria and contextual clues: The child attempts to get the Hearer to say X again, or to explain X; the utterance has a world-to-words fit. As with QI, the sincerity condition is particularly strong that the child have a sincere desire or need for clarification or repetition, i.e., that he didn't hear correctly the first time or wants to make sure he heard correctly. The

child may explicitly request clarification by saying *what?* or *huh?* or *say it again*, or may signal his request by repeating the prior utterance in whole or in part with a rising terminal intonation. A quizzical or confused facial expression may aid in interpreting the sincerity of a QC request. The child generally waits for a response from the Hearer, and may persist in requesting if one is not given. The Hearer responds to a successful QC by repeating, explaining or expanding on Hearer's prior utterance. In a well-formed QC sequence, once the query has been answered, the interlocutors return to the main conversation.

B and G have moved into their room to play:

G (to B): let's drive the car (a motorized play dashboard)

B: drive the car?

G: yeah (3;0)

Declaratives (D)

General Characteristics

By uttering a declarative illocutionary act, the Speaker brings about a state of affairs represented by the propositional content. Declaratives have a double direction of fit. A declarative act is considered to be successful only if the Speaker succeeds in bringing about the change or state of affairs expressed in the propositional content. A declarative act must have "true propositional content," and fulfill the general preparatory condition that the Speaker possess appropriate or requisite power to perform the act. The psychological states expressed are desire and belief: desire to bring about a change in the state of affairs, and belief that the utterance will succeed in achieving the desired change. Mode of achievement is always through applying proper authority in performing a declaration, whether this power is derived from within an extralinguistic institution, or whether it is drawn from linguistically determined properties. There is no variability in degree of strength of point or mode of achievement because the performance of a declarative results in either a complete success, or

a complete failure. Declaratives are generally sincere, although it is possible for them to be otherwise.

Declaratives include the following categories

- DC Declare a new state of affairs
- DP Regulation of pretend play/games
- DG Regulation of other games
- DN Regulation of social interactions
- YD Acceptance/approval of another's declaration
- ND Refusal/rejection of another's declaration
- DA Appropriation

Declarative acts (D)

- DC Counts as an attempt to make a declaration

Coding criteria and contextual clues: The child's utterance is intended to declare a new reality; the utterance has the double direction of fit. The sincerity conditions are that the child has the desire to change a state of affairs, and believes he can do so in uttering a declaration. The preparatory condition is that the child be in a position where he has the requisite type of authority to effect a change in the state of affairs; for children, this authority is usually derived in play situations, or in interaction with peers or siblings. The intended perlocutionary effect is that the Hearer accepts the declaration (and thus acknowledges the change in the state of affairs). Illocutionary uptake and perlocutionary effect may not be indicated outwardly; the Hearer may accept the declaration silently, or may verbally or gesturally accept or reject the declaration.

As for the category of declaratives, previous research has suggested that certain declarative acts are more frequent than others in children's speech. Specific declarative behaviours are included in this taxonomy to reflect these predictions. Thus, the category, DC

serves as a default (as well as superordinate) category for declarative acts which are not specified in the categories below. Note that DP, DG, and DN are not, strictly speaking, differentiated on the basis of illocutionary type; the context in which the declaration is made would be made at a different level of analysis in a more complex coding scheme.

DP Counts as an attempt to establish or change “reality” within the context of make-believe games or play

Coding criteria and contextual clues: The utterance is used to direct play or details of the play; direction of fit is double. The child believes that he has a certain amount of authority or ‘say’ in determining the script and/or details of play. Furthermore, he believes that his utterance has the power to effect the change described by the proposition. The child may use particular syntactic structures to make explicit the declarative power of his utterance, such as *this is/will be the... or I’m the...*, for example.

While DP utterances may occur at any time in the play situation, one may generally expect to see the largest concentration of such utterances at or near the beginning of the play episode, as children attempt to establish roles and settings, etc. As well, they usually precede a change in the play situation, or the coming into existence of new “characters.” Children often step outside of the play situation to act on it, using declaratives to form or alter the make-believe storyline, characters and/or setting. In so doing, children may abandon the voices they have assumed for roleplay, and return to their natural voices to utter declarative directions, i.e., “From now on, you’re the king, and I’m the queen.” Perlocutionary effect and illocutionary uptake are indicated by others’ compliance with the changes effected by the declaration; successful performance precipitates a change in the state of affairs.

B and G are building with large Lego blocks:

G: here’s a tree, a yellow tree (3;6)

DG Counts as an attempt to declare the reality within the context of playing a conventional game, i.e., one that includes rules and set procedures

Child's utterance and behaviour: The child uses a declarative act to control reality by virtue of power derived from the game-playing situation; the utterance has the double direction of fit. The same conditions hold as for DP, but the propositional content is constrained to details typical of organized or conventional games, e.g., the child may declare "I'm first," "I'm blue" or "First one home wins," for example. Similar to DP, DG acts may occur at any point in the game, but because of conventions associated with organized games, the majority of declarative acts will be performed at or near the beginning of play. Perlocutionary effect and illocutionary uptake, which coincide, are indicated by others' compliance with the changes effected by the declaration.

DN Counts as an attempt to control an aspect of social interaction

Coding criteria and contextual clues: The child declares a new reality within a social interaction; direction of fit is double. Examples include declaring membership "We're partners this time," and organization "You're the leader." In short, acts that fall into this category are similar to those which qualify as DG acts with the constraints, however, that they do not occur in the context of an organized game, and do not occur as part of make believe play. While this category is relatively limited in range of use, certain information about the evolution and generalization of declaratives in various situations might be obtained through observation of children's use of specific declarative act subtypes. The sincerity and preparatory conditions, and indications of illocutionary uptake and intended perlocutionary effect are identical to those for DG.

YD Counts as an attempt to accept or approve a declaration made by another Speaker

Coding criteria and contextual clues: The child agrees to a change of state of affairs declared by another Speaker; direction of fit is double. Acceptance of another's declaration is justified as a declarative act because it is often a necessary factor in the process of changing the state of affairs. It can be seen as a co-declaration. Because declaratives are achieved only when the Speaker has a recognized power of authority to bring about a change, they are negotiable to a certain extent: if the Hearer does not recognize unquestioned authority on the part of the Speaker, and if, on that basis, he does not accept or acknowledge the declaration, the declaration cannot succeed. Therefore, in situations where there is questionable authority (as in the play context of two siblings), a declaration must receive acceptance (explicit or implicit) from the Hearer in order for it to succeed in bringing about the new state of affairs. Furthermore, the double direction of fit of an attempted declarative act precludes its classification as an assertive AP (agree with proposition) by virtue of the direction of fit of that act; namely, words-to-world, which asserts a truth judgement about the proposition of the previous utterance. Similarly, the commissive act, PA, cannot be used to accept a declaration because of its sincerity and propositional content conditions: the Speaker must commit himself to doing an act which he intends to do and which he believes himself capable of doing. Permitting the change of reality achieved by a declaration does not easily qualify as expressing an intent to perform an act. In addition, the double direction of fit also creates a mismatch between YD and PA, whose fit is world-to-words.

YD occurs only after a declarative illocution has been performed by a previous Speaker. The child may express acceptance verbally, or verbally and gesturally; he may use moodless utterances such as "okay" or "alright," and may nod his head for "yes." There are no particular perlocutionary effects or indicators of illocutionary uptake. Because a speech act is, by definition, a *verbal* act of communication, this category includes only those acceptances which are expressed verbally. This poses the problem that purely gestural or

“silent” acceptances are excluded, misrepresenting the total frequency of occurrence of the sighted child’s approvals/acceptances of others’ declarations.

ND Counts as an attempt to reject or refuse a declarative illocution performed by a previous Speaker

Coding criteria and contextual clues: (See discussion above for justification of this category.)

The direction of fit, conditions for successful performance, and indications of perlocutionary effect/illocutionary uptake are identical to those for YD. ND occurs only in response to a declarative performed by a previous Speaker. The child expresses his rejection or refusal of the preceding declaration verbally, or verbally and gesturally. Because this act may also be performed nonverbally or nonvocally, misrepresentation of the frequency of the general behaviour is anticipated for the sighted twin.

G and B are building together with large Lego blocks:

G: here’s a tree, a yellow tree

B: no, no, no

G: green, this is a green tree

B: no, no, no

G: a white tree then (3;6)

DA Counts as an attempt to appropriate an object by virtue of declaring ownership

Coding criteria and contextual clues: The child utters a word or words to declare ownership (e.g., mine!, or that’s my X); direction of fit is double. Sincerity and preparatory conditions, and illocutionary uptake are identical to those for the above categories of declaratives. The utterance may be accompanied by reaching for the object or holding it close to the child’s own body, or holding it out of reach of the person competing for ownership. The child may appear

agitated and upset. In other situations, the child may be indicating his choice of objects, for example, by saying “this is my piece of pie” or “this is my seat.”

G climbs onto B’s bike, B starts to cry:

G: mine (2;3)

Commissives

General Characteristics

The point of a commissive act is to commit the Speaker to some future course of action represented in the propositional content of the utterance. The direction of fit is world-to-words. The psychological state expressed is that of intention, with the general sincerity condition that the Speaker intends to do what he commits himself to doing. The propositional content condition is that the act must express a future course of action of the Speaker, with the preparatory condition that the Speaker be capable of fulfilling the act. The act usually has some consequence for the Hearer.

In terms of the applicability of current theory to coding the actual illocutionary acts of children, the general category of commissives has provided the least satisfactory framework. Although it has changed for the positive in many ways with each updated version of the theory, the class of commissives remains problematic in both its elaboration and application to studies of speech act use. Of particular concern is the inability of the theory to adequately define the class of commissive speech acts, and to provide a comprehensive and reliable list of characteristics and conditions for the purpose of identifying illocutions having the commissive point. As a result, even the most well-intentioned attempts to represent commissive acts in speech act taxonomies have resulted in contradictions or abuses of the theory.

One problem encountered in devising the present taxonomy is the apparent inequality of positive and negative commissive acts (negative in the sense that the future action to which the Speaker commits has negative consequences for either the Speaker or the Hearer;

positive acts denote desirable consequences). As mentioned above, the point of a commissive act is to commit the Speaker to a future action, commitment implying obligation to perform the stated action. However, while Searle and Vanderveken include the act of *threatening* in the commissive class, they add that one of the differences between threatening (negative) and promising (a positive commissive) is the absence of obligation to carry out a threat, whereas the Speaker is bound to fulfill a promise, pledge or vow (1985:193). To say that a commissive act does not entail obligation, however, denies, by definition, its identity as a member of the commissive class, so the authors have seemingly contradicted themselves in their own attempts to elucidate the commissive category. For this reason, Hancher (1979) and Fraser (1975) both posit that threats are not commissive acts, even though they may appear as such.

While the problem is easily recognized, the solution is somewhat more elusive. Current theory recognizes the psychological state of a commissive as that of intention, but the present condition doesn't permit a satisfactory distinction between an assertive statement about a future self-action (e.g., I'm going swimming tomorrow) and a commissive statement of intention, positive or negative. For the purposes of this study, it is assumed that the definition of conditions governing the commissive class is in need of revision, perhaps to include a specified minimum degree of obligation that must be present in order to judge an illocution as commissive. Whether or not this proves to be a functional means of characterizing commissives, and whether or not it provides an adequate account of threats, they remain most appropriately within the commissive framework by virtue of the process of elimination, at least for the time being. It is here that they are presented in the present taxonomy, along with these few words of caution about the theoretical implications of coding commissive speech acts.

Commissives include the following categories:

- PD Promise
- TS Threaten to do

- PA Agree to do or let do
 RD Refuse to do or let do
 OS Offer/show

Commissive acts (C)

PD Counts as an attempt by the Speaker to promise to do a future act

Coding criteria and contextual clues: The child commits himself to doing a future act, A; direction of fit is world-to-words. This act differs from other commissives in the following respects: (1) the act of promising requires the use of specific performative words such as *promise*, *swear* and *vow*, and (2) the act of promising has the propositional content condition that the future action to which the Speaker commits is in the interest of, or is desirable to, the Hearer. Promising also has the preparatory condition of obligation to perform the action expressed in the proposition of the utterance, and the sincerity condition that the child intends to do the act expressed in the proposition. Promising includes promising to allow the future act of another (e.g., “I promise you can play with my toys,” reflecting “I promise that I will let you play with my toys”).

The child’s utterance contains one of the above mentioned (or similar) verbs which explicitly marks the utterance as a commissive act of promising. Given a strong enough indication of commitment, *I will* may count as an indirect promise. This category includes only those instances where the child promises spontaneously. When the promise is elicited by another person, the code PA (below) is used. Promising may be unrelated to ongoing activities. It may be observed in ‘bargaining’ interchanges, where the child promises to do, or to refrain from doing a particular activity in order to obtain some form of reward or reinforcement. Children also promise in apology, e.g., “I promise not to do it again.”

TD Counts as an attempt to make a threat

Coding criteria and contextual clues: Threatening, like promising, foretells a future act of the Speaker; the direction of fit is world to words. A fundamental difference between the two acts is that promising represents an undertaking which is beneficial for the Hearer, while threatening is disadvantageous for the Hearer. Another distinction is seen in the lesser degree of obligation in the act of threatening (one is not compelled to fulfill a threat in the same way as a promise). Sincerity and preparatory conditions are that the child intends to fulfill the threat, and believes he is capable of doing so.

Motives for making the threat may or may not be made explicit within the proposition (at later stages, this may be expressed using an *If..., then...*, structured utterance, e.g., “If you don’t stop, I’ll hit you”). Threats may be accompanied by gestural or facial indications of anger, such as raising a hand or clenched fist as if to strike, or grimacing, etc. The child may position himself at the ready to perform the action which has been threatened. The child may hesitate before acting out his threat, in which time he is waiting for a response, either verbal or behavioural, that satisfies his goal for threatening in the first place (the intended perlocutionary effect is variable). Illocutionary uptake may or may not be indicated by the Hearer. The child’s persistent threatening may indicate that uptake has not occurred, but may also mean that the Hearer does not take the threat seriously.

Threatening differs from the directive act of warning (WD) in that it involves (i.e., warns of) a future act of the Speaker; warning, on the other hand, is an attempt to cause a future action of the Hearer (e.g., to be careful).

PA Counts as an attempt to agree to do, or to agree to let do

Coding criteria and contextual clues: The child commits himself to a future action (or involvement in a future action) that has been suggested or determined by a previous Speaker;

the utterance has the world-to-words direction of fit. The sincerity and preparatory conditions are that the child intends to do or to allow the action, and that he believes that he is capable of doing so. There is no particular perlocutionary effect or indication of illocutionary uptake by the Hearer; the Hearer may commence the action which the child agrees to allow. The child may express consent using full sentences, or moodless forms of agreement, e.g., *okay*, *sure* and *mhm*. Utterances may be accompanied by gestural indications of acceptance and compliance (e.g., nodding head).

B and his mother are building stairs with Lego blocks:

M: here, you know what, I think you need another one at the bottom

B: okay (3;0)

RD Counts as an attempt to refuse to do, or to refuse to let do

Coding criteria and contextual clues: The child commits himself to *not* doing a future action prescribed by someone else, or to *not* allowing or *refusing* to be involved in a future action of another/others; the direction of fit is world to words. Unlike the directive PF, in which the child prohibits the future action of the Hearer, RD occurs when the child refuses to commit himself to doing, or to being involved in an action. Sincerity and preparatory conditions are that the child intends not to do the act in the previous Speaker's proposition, and believes that he has the option of refusing to do. A previous utterance by another Speaker has requested that the child perform some act, or that he be party to the performance of an act. The child responds in the negative, either verbally, or verbally and gesturally. The perlocutionary effect is variable depending on the Hearer's (also the previous Speaker's) motives for getting the child to do, or agree to do, A. Uptake may be indicated by the Hearer trying to convince the child to do A, or by acknowledging the child's decision.

G forcibly takes a piece of Lego from his friend, D, and his mother scolds him.

M: G, you tell him you're sorry

G: no (3;6)

Note that there is a distinction between committing oneself to not doing something, and refusing to commit oneself to doing something. Speech Act Theory accounts for this phenomenon with the principles of *illocutionary denegation* and *negative* propositional content, which are best illustrated in Searle and Vanderveken's examples (1985: 4):

(1) "I *do not* promise to come."

(2) "I promise *not* to come."

Utterance (1) represents an act of illocutionary denegation, which negates the illocutionary force of the act. In (2), the illocutionary force remains intact, while the propositional content expressed is negative. It is the latter principle which is captured by the category RD.

OS Counts as an attempt to offer or show an object, O, to the Hearer

Coding criteria and contextual clues: The child commits to giving or showing an object, O, to the Hearer; direction of fit is world to words. The sincerity condition is that the child intends to fulfill an offer to give or show O. The preparatory conditions are that the child believes that the Hearer is unaware of O, but would probably be interested in seeing O. A gesture of showing or extending O toward the Hearer may accompany the utterance. Illocutionary uptake is usually indicated by the Hearer's commenting on, and/or accepting, O.

G (handing a car to adult): car (2;3)

B, G and adult are playing with blocks, B utters an indirect OS

B (to adult, C): I'm give this to C (3;0); B holds out toy for C to approach and take)

Following Speech Act Theory as elaborated by Searle and Vanderveken (1985), Offer/Show behaviours are considered to be in the commissive class because they entail

obligation on behalf of the Speaker to perform a future action. Because there is no *a priori* rationale for distinguishing early Offer and Show behaviours, combining the two is compatible with the classification system developed and used by Dunlea (1989).

Expressives

General Characteristics

The expressive illocutionary point is to relate one's psychological attitude about a given state of affairs represented in the propositional content of the utterance. Expressives have the null direction of fit. While illocutionary point remains the same (i.e., to express a psychological attitude about X), different forces convey different attitudes about the same propositional content. Degree of strength of point and degree of strength of sincerity are identical because the expressive illocutionary point is "achieved by expressing the sincerity conditions" (Searle & Vanderveken 1985:59). There is no general propositional content condition; however, individual forces may have their own specifications. As well, the propositional content usually pertains to either the Speaker or Hearer. The preparatory condition is that the propositional content must be true in the world of the utterance.

Expressives include the following categories:

- MK Mark social routine or event
- AS An expression of affective state or personal attitude

Expressive acts: (E)

MK Counts as an attempt to mark a social event or routine

Coding criteria and contextual clues: The child attempts to express personal attitude toward a state of affairs using a socially acceptable, conventional form. Because the expressive point is to 'express,' the act is achieved 'in the saying'; expressives thus have the null or empty direction of fit. The acts of greeting, apologizing, thanking, congratulating, saying goodbye,

excusing oneself, etc., all express personal attitude about a change in the state of affairs of either the Speaker or Hearer. The preparatory condition requires that the child be reacting to true propositional content, and the sincerity condition is that he has the feeling expressed in the act. Propositional content conditions are generally constrained to the types of social expressions above; however, these may take idiosyncratic (child language) forms, such as the boys' usual utterance of "Ta" for *thank you*. The child typically utters a conventionalized expressive form, such as *Hi, Goodbye, Thanks, Sorry, Excuse me*, etc. When appropriate, the utterance may be accompanied by gesture (e.g., waving). The context involves a change in the state of affairs appropriate to the expression used, e.g., *hello* upon arriving, or another's arrival; *ta* upon being given a cookie. The Hearer may respond with the reciprocal member of the appropriate contingency pair, e.g., *hello* and *you're welcome* to the expressions above, respectively.

B (upon joining adults and G in living room): hi (2;3)

AS Counts as an attempt to express affective state or attitude toward a state of affairs presumed to be true in the world of the utterance, but which is not reported in the proposition of the utterance

Coding criteria and contextual clues: The child utters word(s) to express attitude/affective state, either directly (e.g., *I'm mad at you!* or *That makes me sad*), or indirectly, using moodless utterances and supragemental features such as emphatic stress and intonation (e.g., *oh no!* uttered with an exaggerated intonation and increased loudness); the utterance has the null or empty direction of fit. The child must have the psychological state which is expressed as part of the sincerity condition of the utterance for it to be a sincere act. Constraints on propositional content are that the utterance express an emotive state or attitude about the propositional content, P, but not about other internal states such as hunger and fatigue (which would be classified as ST), and that it express attitude toward P without

stating P. Presumably, the proposition may be stated in complex illocutionary acts (i.e., utterances containing more than one illocution). In this taxonomy, expressive acts were identified as being the main clause in complex illocutionary acts, with the proposition being expressed in the dependent clause. For example, G's utterance below includes an expressive act, AS, and an assertive act, STOP. Where there is no particular intended perlocutionary effect, illocutionary uptake may be indicated by the Hearer's acknowledging or commenting on the child's utterance. Facial expression may be helpful in determining the presence of true expressive illocutionary force.

G and B are building a carport:

G (to mother): oh no/he broke it (4;0)

Nonillocutionary Interactive Communication

The following behaviours and forms of language use do not qualify as illocutionary acts, but were included in this taxonomy because of their interest to researchers concerned with the development of discourse skills in blind children, and because of previous claims made by other investigators regarding the frequency and importance of some of these behaviours in the overall picture of language acquisition by blind children.

FR Counts as an attempt to maintain an ongoing (previously initiated) ritualized, verbal family routine

Coding criteria and contextual clues: The child repeats the words/phrases/actions of a familiar family routine. The child may perform both his own role, as well as that of the adult, in order to make explicit his desire to continue or repeat the routine. The child and parent/caregiver have just completed or are still engaged in an ongoing verbal family routine.

DF Discourse function

Coding criteria and contextual clues: The utterance serves no illocutionary purpose but satisfies a discourse function. The role of the utterance may be to mark the attention of the Hearer, or to take a conversational turn void of proposition, e.g., *uh-huh*, *yeah*, or a part or whole repetition (with no confirmational value) of the previous utterance. The child produces an utterance such as a back-channel response or acknowledgement of the contribution of a previous Speaker, or repeats a bid for turn or topic, for example.

GE Gestural communication

Coding criteria and contextual clues: The child opts to communicate gesturally rather than verbally (here, gestural includes use of facial expression and other appropriate and conventional nonverbal means of communication). This category was included to capture the extent of the difference in use of gesture and nonverbal communication by the sighted and the blind child. Admittedly, because we considered only verbal initiations and responses, the sighted child's more frequent (and perfectly natural and acceptable) use of gestural/nonverbal communication surfaces as a discrepancy between his profile of speech act use, and his actual communicative abilities and tendencies. This action was taken, however, in an attempt to adhere to the conditions of Speech Act Theory. The category GE was included in part, to catch some of the sighted child's responses which would otherwise have fallen by the wayside, distorting his communicative profile.

Noninteractive/Noncommunicative Language Use

This category includes utterances which would be considered communicative if directed toward a Hearer other than the Speaker himself, as well as utterances that carry no apparent communicative intent.

RT Repeat/imitate previous utterance in its entirety or in part

Coding criteria and contextual clues: Repetition is marked according to whether the child repeats himself (S), his twin (T), or another Speaker (O). The purpose for noting whose utterances are most often repeated by the children is related to the possibility that the blind child may effectively use repetition of his sighted brother's utterances as an aid to his own language acquisition. However, RT is applied only when there is clear evidence that the repetition is noncommunicative, i.e., there is no Hearer in the vicinity, no involvement in ongoing conversation and the utterance does not serve as an initiation or bid for entry into a conversation. Loudness of voice and head orientation may also indicate whether the repetition was intended to be interactive or not. These strict conditions on repetition were necessary to avoid overinclusion of the blind child's utterances in the noncommunicative RT classification by virtue of his tendency to address utterances 'into the ether' without selecting an addressee.

The child repeats verbatim a previous utterance or parts thereof. In general, noncommunicative repetition occurs with the child maintaining some physical distance from potential Hearers, and without making eye contact with others in the vicinity. Noncommunicative repetition may occur when the child is involved in individual or parallel play situations.

DE Deferred imitation

Coding criteria and contextual clues: Similar to repetition but entails a passage of time between the original utterance act and the child's imitation of the act. In order to capture some anticipated differences in language use, deferred imitation is marked according to whether it is sung (SU) or spoken (SP). The child imitates an utterance made previously by another Speaker, some time after the original utterance. The child adopts roughly the same

intonational and stress patterns, and may assume a different register to represent the original Speaker (e.g., high-pitched for mother, low-pitched for father). As with RT, imitations may be more frequent when the child is engaged in individual play, whether or not in a potentially interactive situation.

NV Noninteractive verbalization

Coding criteria and contextual clues: Noncommunicative use of language that does not involve repetition or imitation of prior utterances. NV is marked according to whether it consists of self-directed monologue (MO), or onomatopoeic animal or vehicle noises (NO). Utterances coded as NVMO may later be recalled for further analysis of the illocutionary status they would assume if communicative. Such information may reveal patterns of speech act development involving practice with structures in noncommunicative contexts.

The child 'talks to himself,' or may assume the roles of two or more participants in an engineered, imaginary conversation. Alternatively, the child imitates the noises of animals, vehicles or machines/appliances. NV language use may appear in the same contexts given for RT and DE above.

Other Coding Categories:

AM Utterance with ambiguous illocutionary point. Potential superordinate categories are indicated by the initials following AM. For example, ambiguity between assertive and directive points is signified as AMAR:

B: "want red!" while playing with bright coloured blocks (3;0)

This utterance may be interpreted as either a simple (albeit emphatic) *statement* about which colour of block B wants at the moment, or it may equally be considered an indirect *request* that he be given a red block.

In this study, the category of ambiguous illocutionary point is reserved for coding utterances which are sufficiently complete to permit being interpreted as having two or more possible points, according to the linguistic and physical contexts. Whenever possible, a singular point is determined and recorded, based on the observer's interpretation of the role of the utterance in view of its linguistic and/or physical context. However, in some situations, more than two illocutionary points may be possible, while in yet others, the utterance may not permit identification of a single, potential illocutionary point. In these cases, the utterances are marked simply as AM. This system allows for a more or less indepth examination of the ambiguous utterances according to the specific research needs or interests at hand.

IN Incomplete utterance due to a distraction or an interruption by another Speaker, or as part of a continued attempt to formulate an utterance/complete an intent.

In order to count as IN, the utterance must be sufficiently incomplete that it precludes a confident guess as to utterance intent. For example, in B's attempt, "you" (3;0; directed at C), the sentence structure is insufficient to disambiguate illocutionary point because the utterance is so incomplete

UC The utterance is uncodable due to a variety of reasons, which include:

- poor intelligibility of the utterance or key parts thereof,
- ambiguity as to which twin produced the utterance, or
- the Speaker is off camera, therefore accompanying actions or facial expressions which facilitate interpretation of speech act significance or communicative intent are rendered inaccessible.

CHAPTER IV:

RESULTS

To determine whether or not the order of emergence and frequency of use of speech act types was similar for B and G, a tally was made of the act types produced by each boy at each of the four ages studied. These results are described below, according to age and illocutionary force, following brief profiles of the twins' language at each age. Noncommunicative and uncodable/unintelligible utterances are not discussed here; thus counts in the tables do not add up to 100. In addition, data are presented on the boys' tendencies to describe and call attention to their own and others' actions, as well as information about the proportion of descriptive statements each boy made about *ongoing*, *past*, *future* and *make-believe* actions/activities; these data do not reflect the primary focus of the current study but are discussed to respond to claims by other researchers that blind children tend to comment predominantly on their own ongoing actions.

Description of B and G's Language at Age 2;3

B's Language at 2;3

B had a Mean Length of Utterance (MLU) of 2.03 in this sample; however, the sample was very small (31 utterances) due to a high incidence of unintelligible utterances. This figure may also be a little higher than B's actual MLU because the sample includes several repetitions of "daddy truck," and a variant of it, "truck daddy"; however, B produced only two other two-word utterances in the sample (e.g., "a boat" and "no mama"). Most of B's utterances consisted of nominals for objects he was acting on at the time, e.g., "bike" while sitting on his bike, and "cookie" and "raisin" while eating a cookie containing raisins. He

did not produce any verbs; the only semantic relation expressed by a two-word combination in B's sample was that of possessor - possessed. B's total number of utterances was small in general, less than half of what G produced during the same recording session. (In later sessions, however, B's utterance count approximated and eventually superceded the number of utterances G made.) In addition, a greater proportion of B's utterances were elicited by his mother or other adults in the room. When B did make spontaneous utterances they were not generally related to the topic of the ongoing conversation, e.g., B was chewing on the wheels of a toy car; H (an adult) asked B, "are you eating the car?" to which B responded "daddy truck." Several of B's utterances were responses to familiar routines, such as providing animal or vehicle sounds when asked "What does a X say?" B used "no" for negation, and once protested his mother's actions by saying "no mama." B used social expressions (e.g., *hi, hello*) spontaneously. In this session, B did not use rising intonation. He relied heavily on physical contact with a Hearer to be certain of interactional status and Hearer attentiveness, and drew attention to himself by crying or whining, or through sudden outbursts of loud vocalizations (consisting of either words or sounds).

G's Language at 2;3

G's MLU of 1.17 at age 2;3 was due, in large part, to his referential style of naming objects in the environment; this behaviour led to many one-word utterances. Most of these utterances consisted of nominals. G made use of pointing and eye contact to express illocutionary force in this session, and had no ambiguous speech acts, in comparison to B's seven utterances with ambiguous illocutionary force. In addition, he employed rising terminal intonation to express the interrogative mood. For example, to request that his mother get his bike out for him, he looked up at her quizzically and uttered "bike?" G repeated others' utterances very frequently, but did so spontaneously. G produced a few two-word utterances, most of them expressing the semantic relation of possessor- possessed, e.g., "Ryan car" "Bryan bike" and "Bryan horn." He often used one-word utterances to comment on the

activities of others, such as B's riding his bike ("bike") and honking his horn ("horn"), etc. G also used single words to offer and show things, e.g., "car" while handing a toy car to one of the investigators.

Speech Acts Performed at Age 2;3

Types

One hundred utterances were coded for illocutionary force for each twin. B and G each produced nine different types of speech act. The distribution of illocutionary act types for this session is shown in table 4.1.

Assertives

Both boys used language to assert/describe (ST) and to agree with the propositions of others' utterances (AP). Although not in the 100 utterances coded for speech act type, G was observed to identify/label (IL) in other parts of the recorded session. Neither boy used language to disagree with the proposition of others' utterances (DW) in this session.

Directives

Both B and G used language to request action (RP), and to request objects (GO). G also requested information (QI) and clarification (QC). While B did not produce either of these requests, he used language to elicit attention (CL), to initiate familiar verbal routines (RO), and to protest the actions/utterances of others (PF). Examples include: "mama" (CL) and "no mama" (PF).

Declaratives

Greg produced one declarative act of appropriation (DA), e.g., "mine."

Table 4.1 Frequency of Speech Act Types Used by B and G at 2;3

| | Twin: B (Blind) MLU: 2.0 | Twin: G (Sighted) MLU: 1.17 |
|---|-----------------------------|--------------------------------|
| Speech Act | Frequency | Frequency |
| Assertives: | | |
| ST | 26 | 44 |
| AP | 4 | 11 |
| Directives: | | |
| RP | 1 | 1 |
| RO | 1 | -- |
| GO | 1 | 1 |
| CL | 5 | -- |
| PF | 2 | -- |
| QI | -- | 1 |
| QC | -- | 1 |
| Declaratives: | | |
| DA | -- | 1 |
| Commissives: | | |
| OS | -- | 1 |
| Expressives: | | |
| AS | 2 | -- |
| MK | 4 | 1 |
| Ambiguous: | 7 | -- |
| # of Codable Acts Performed^a: | 46 | 62 |
| # of Different Act Types: | 9 | 9 |

^aAmbiguous acts were not included in the # of Codable Acts Performed or in the # of Different Act Types.

Commissives

G produced one single-word utterance with the purpose of offering/showing (OS).

Expressives

Both B and G used language to mark social events/routines (MK), but only B produced expressive utterances with the point of expressing affective state/personal attitude (AS); these were preconventional and involved uttering “mmm” with varied intonation and voice quality, e.g., with a whiny voice and a falling intonation after G appropriated his bike.

Ambiguous

B produced seven utterances for which illocutionary force could not be coded. No ambiguous utterances were recorded for G; this is probably due to the presence of gesture and facial expression in his speech, which often helped to disambiguate the force of his utterances.

Frequency

Assertives

Both boys produced many more assertive acts than acts from other categories, as is shown in table 4.1. G made a total of 44 descriptive statements (ST) while B produced 26. G produced 11 agreements with proposition (AP), markedly more than did B (4).

Directives

B's sample included ten directive acts, five of which were requests for attention (CL). G made four different types of request, once each. The numbers for this category suggest no particular trends other than the relatively frequent occurrence of CL in B's speech.

Declaratives

G produced one declarative act, an act of appropriation (DA): "mine!" This is interesting in that it is the first declarative to occur in the samples analyzed.

Expressives

B used the expressive force four times to mark social routine (MK); these utterances consisted of greeting and thanking. G marked social routine once (thanking).

Description of B and G's Language at Age 3;0

B's Language at 3;0

At age 3;0, B's MLU was 3.36. His utterances often contained five or six morphemes, including possessive *-s* and plural *-s*, interrogative or Wh-words (*where*), and inconsistent use of present progressive *-ing* (i.e., in some obligatory contexts). He generally used *wheres* as an unanalyzed whole, but used it singly as well, e.g., "where are the pegs go?" B also used intonation to signal the interrogative mood, e.g., "it can go?" B used the auxiliary *be* but did so inconsistently. He employed both *no* and *don't* for negation in strings of three to four words, and often used catenative forms (*gonna*, *gotta*). B tended to repeat many of his own utterances. Often these repetitions were attempts to make a request or to draw attention; however, B did not display a great deal of flexibility in recasting utterances to obtain a response; e.g., B produced "and mommy play block" as a request (for his mother to join him playing blocks) in five consecutive utterances with unsuccessful uptake. A few turns later, he substituted *Carolyn* for *mommy* to request the investigator's participation, but did not otherwise alter the form of his previously unsuccessful request. The preceding example, however, also shows a development in B's language at this stage, this being his more frequent use of proper names to select addressees. B's ability to initiate interaction was much more developed due to his use of names to select Hearers, and his use of adults' lines

to initiate familiar verbal routines; e.g., B would say “what’s a cow say” to initiate the routine.

G’s Language at 3;0

G’s MLU at age 3;0 was 3.19, slightly lower than B’s for the same sample. G was producing some seven and eight morpheme utterances, e.g., “I get reading cards with Carolyn.” Like B, he used *wheres* to ask questions. In addition, G used *what?* inconsistently; i.e., he asked *what* instead of *who*. He also used intonation to signal interrogatives, and produced a few irregular past verbs, e.g., “it been in your car?” G produced the catenative form *gotta*, although with less frequency than did B. He used both the imperative and declarative moods to make direct and indirect requests, e.g., “read this for me” and “I want more,” respectively. G requested attention by saying *lookit* and was using *no*, *don’t* and *no way* for negation. G used regular plural *-s* consistently, and produced present progressive *-ing* in some obligatory contexts. Similar to B, G used the auxiliary *be* inconsistently. G produced the infinitive construction, e.g., “I trying to get out.” G made a few attempts to get in on an ongoing routine between B and an investigator, but lost interest quickly in this activity.

Speech Acts Performed at Age 3;0

Types

In the 100 utterances analyzed for each twin, B produced 13 different speech act types, while G produced 8 types. Distribution of the boys’ speech acts is shown in table 4.2.

Assertives

While both boys continued to produce assertive/descriptive statements (ST) and agree with the propositions of others’ utterances (AP), only B used language to disagree with/deny/negate the proposition of another’s utterance (DW). This speech act was absent

Table 4.2 Frequency of Speech Act Types Used by B and G at 3;0

| | Twin: B(Blind) MLU: 3.36 | Twin: G(Sighted) MLU: 3.19 |
|-------------------------------|-----------------------------|-------------------------------|
| Speech Act | Frequency | Frequency |
| Assertives | | |
| ST | 35 | 66 |
| AP | 4 | 15 |
| DW | 2 | -- |
| Directives | | |
| RP | 10 | 1 |
| RO | 1 | 3 |
| CL | 5 | 6 |
| PF | 1 | 2 |
| FP | 1 | -- |
| QI | 4 | 4 |
| QC | 2 | -- |
| Declaratives | -- | -- |
| Commissives | | |
| OS | 1 | -- |
| Expressives | | |
| AS | 1 | 2 |
| MK | 1 | -- |
| Ambiguous | | |
| | -- | -- |
| Total # of Acts Performed: | 68 | 99 |
| # of Different Act Types: | 13 | 8 |

from G's repertoire in this sample; however, he used gesture (shaking his head for no) to convey this message. At this stage, B made relatively more comments about joint activities than he had previously, but comments about self were still considerably higher in proportion.

Directives

Both boys made requests for action (RP), attention (CL), routines (RO), and information (QI). B's CL acts included "lookit," "look at me" and "look at B." In addition, B produced requests for clarification (QC) and permission (FP). QI and QC were not witnessed in B's speech in the previous session; FP was noted for the first time in either of the boys' speech samples. G produced a few attempts to request or break into familiar verbal routines (RO), and used language to request attention (CL) for the first time in the data analyzed.

Declaratives

Neither boy produced declarative speech acts in this session.

Commissives

B performed one act of offering/showing (OS). G did not produce any commissive acts in this sample.

Expressives

Both boys used language to express affective state (AS), but only B used language to mark a social event/routine (MK), e.g., "hi" and "hello."

Frequency

Assertives

The twins still produced more utterances with the assertive force than any other force, as they did at 2;3. Both boys increased their number of assertions from their earlier samples; G by approximately 50% and B by about 30% of the total number of utterances, as is shown in table 4.2. Since the proportion they constitute of codable utterances remains about the same, this is a measure of the increased codability of the twins' illocutionary acts. G made considerably more agreements with propositions (AP); 15 as compared to 4 uttered by his brother. B used language twice to disagree with a proposition.

Directives

Points of interest in this category are B's high incidence of requests to do (RP); he produced 10 while G produced only 1. B's use of language to request attention (CL) was identical to that in the sample for 2;3, while G produced 6 requests for attention. B made two requests for clarification (QC); G made none.

Declaratives

Neither boy produced any declarations in this sample.

Commissives:

B produced one offer/show behaviour, which was interesting in that it was his first in the data, and was made rather explicitly (e.g., "I'm give this to Carolyn," said in a loud voice while holding the toy up in the air in front of him, with his head raised).

Expressives:

B expressed affective state (AS) once, and marked social events (MK) once in this sample, while G expressed affective state twice.

Description of B and G's Language at Age 3;6

B's Language at 3;6

B's MLU was 4.26; he could construct utterances of up to ten morphemes, e.g. "well, up there we gotta build some high stairs." Contributing to the higher MLU were B's further increased use of names to select addressees (e.g., "I found a helicopter, mom") and the emergence of auxiliaries in his language, such as *will* to denote future time/action and *did* for past action. B sometimes used auxiliary inversion to ask questions (e.g., "can Carolyn laugh?"), but also produced "what you buildin?" He used some instances of imperative mood to make requests (e.g., "now you build with me Carolyn"). He also succeeded in making some indirect requests, largely with the help of explicit selection of a Hearer, e.g., "you better help me Carolyn." (The previous utterance was, however, a mitigated repetition of one of G's earlier utterances within the same discourse; this is noteworthy because B tends to 'borrow' often from his brother's utterances.) B continued to use a lot of catenative forms. He used both *no* and contracted *not* to negate utterances, e.g., "no, it isn't under the hat." The influence of verbal routines was seen in his incorporation of routinelike sequences into his language during play, e.g., "thump, thump, thump" which he 'borrowed' from a story book, and "people can go up, up, up and people can go down, down, down" as he patted the steps on the stairs he'd been making. B also used language playfully by changing his voice register to be high and squeaky, which he used when following requests with "kay?"

G's Language at 3;6

At age 3;6, G's MLU was 4.15; he produced some utterances of ten morphemes, e.g. "and this one goes here and you pull it." G used the regular past *-ed*, the auxiliaries *will* and *be*, and the negative *won't* consistently. His use of present progressive *-ing* was more frequent in obligatory contexts, e.g., "I'm getting over," but his use of third person *-s* was not

Description of B and G's Language at Age 3;6

B's Language at 3;6

B's MLU was 4.26; he could construct utterances of up to ten morphemes, e.g. "well, up there we gotta build some high stairs." Contributing to the higher MLU were B's further increased use of names to select addressees (e.g., "I found a helicopter, mom") and the emergence of auxiliaries in his language, such as *will* to denote future time/action and *did* for past action. B sometimes used auxiliary inversion to ask questions (e.g., "can Carolyn laugh?"), but also produced "what you buildin?" He used some instances of imperative mood to make requests (e.g., "now you build with me Carolyn"). He also succeeded in making some indirect requests, largely with the help of explicit selection of a Hearer, e.g., "you better help me Carolyn." (The previous utterance was, however, a mitigated repetition of one of G's earlier utterances within the same discourse; this is noteworthy because B tends to 'borrow' often from his brother's utterances.) B continued to use a lot of catenative forms. He used both *no* and contracted *not* to negate utterances, e.g., "no, it isn't under the hat." The influence of verbal routines was seen in his incorporation of routinelike sequences into his language during play, e.g., "thump, thump, thump" which he 'borrowed' from a story book, and "people can go up, up, up and people can go down, down, down" as he patted the steps on the stairs he'd been making. B also used language playfully by changing his voice register to be high and squeaky, which he used when following requests with "kay?"

G's Language at 3;6

At age 3;6, G's MLU was 4.15; he produced some utterances of ten morphemes, e.g. "and this one goes here and you pull it." G used the regular past *-ed*, the auxiliaries *will* and *be*, and the negative *won't* consistently. His use of present progressive *-ing* was more frequent in obligatory contexts, e.g., "I'm getting over," but his use of third person *-s* was not

yet consistent, e.g., “and he shoot people.” G asked questions using inversion with *what*, e.g., “what is that?” and rising intonation without inversion, e.g., “this is a knob?”

Speech Acts Performed at Age 3;6

Types

One hundred utterances were coded for illocutionary force for each twin. B produced 13 different types of speech acts, while G produced 12 different types. The distribution of speech acts used by the twins is shown in table 4.3.

Assertives

B and G both produced many descriptive statements (ST) relative to other types of speech acts. As well, they both agreed and disagreed with propositions using language (AP and DW, respectively). B used language to identify/label (IL) once in the sample, e.g., “one, two, three” while counting out blocks for a chimney he was building.

Directives

G produced more different directive act types than did B in this sample, including the first use by either of the twins of warning (WD). For the most part, the boys continued producing the same types of acts they had been at 3;0. Of possible interest is G’s lack of request for routine (RO). B has this act type represented in his sample, suggesting that G had an opportunity to at least join in an ongoing routine (which is classified as RO). The fact that G did not take this opportunity may signal his lack of interest in this activity, while B continued to rely on the structure of routines to provide an interactional/conversational scheme (Johnson & Blockberger, 1985).

Declaratives

Neither boy produced any declarations in the utterances coded for speech act type;

Table 4.3 Frequency of Speech Act Types Used by B and G at 3;6

| | Twin: B (Blind) MLU: 4.26 | Twin: G (Sighted) MLU: 4.15 |
|---------------------------------|------------------------------|--------------------------------|
| Speech Act | Frequency | Frequency |
| Assertives | | |
| ST | 40 | 50 |
| IL | 1 | -- |
| AP | 4 | 14 |
| DW | 9 | 2 |
| Directives | | |
| RP | 6 | 1 |
| RO | 1 | -- |
| GO | -- | 1 |
| CL | 2 | 2 |
| PF | -- | 4 |
| FP | 2 | 6 |
| WD | -- | 1 |
| QI | 6 | 4 |
| QC | 3 | 1 |
| Declaratives | -- | -- |
| Commissives | | |
| RD | 2 | -- |
| Expressives | | |
| AS | 6 | 4 |
| MK | 1 | -- |
| Ambiguous | -- | -- |
| # of Codable Acts Performed: | 85 | 90 |
| # of Different Act Types: | 13 | 12 |

however, during the session they were observed to negotiate declaration of a state of affairs in pretend play. G declared that a certain structure made of blocks was a yellow tree, and B rejected his declaration by saying “no, no, no.”

Commissives

B used language to refuse to do or let do (RD) at least once during the sample. This was the first instance of this behaviour for either of the twins in the language sampled. G continued to offer/show (OS) by holding up an object and uttering a one-word utterance; however, the utterances tended to direct the Hearer’s attention rather than label the object as in previous stages, e.g., “see?” In B’s attempt to offer/show at 3;0 (above), he used a declarative mood to indirectly achieve the illocution. G, on the other hand, continued to use an utterance with no syntactic mood to offer/show, due largely to his ability to incorporate gesture, and rely on shared eye gaze and knowledge of the Hearer’s proximity and attention.

Expressives

Both boys produced utterances that conveyed affective state/attitude (AS), while B alone used language to mark social routine (MK).

Frequency

Assertives

Once again, both boys continued to make considerably more assertive statements (ST) than any other type of act; G made 50 and B produced 40, although their number decreased relative to that of other act types (see table 4.3 for the distribution of the twins’ speech act types). G also made markedly more agreements with propositions than did B; 14 to 4, respectively. B, however, made several more disagreements with propositions than G; 9 compared to G’s 2 DW acts.

Directives

B continued to make more requests to do (RP) than G, with 6 to his twin's single RP. G requested permission more frequently (FP) than B (6 to 2, respectively), while B produced slightly more requests for information (QI) and clarification (QC), (6 to 4, and 3 to 1, respectively). In addition, G prohibited (PF) 4 times, while B did not produce this act in the sample.

Commissives

B used language to refuse to do or let do (RD) twice in this sample. G did not produce any commissive acts in this sample.

Expressives

Both boys produced comparable numbers of expressions of affective state/attitude (AS); B used language to mark social routine once.

Description of B and G's Language at 4;0

B's Language at 4;0

At age 4;0, B's MLU was 3.98. This figure is lower than G's MLU for the same age, as well as being lower than B's MLU at 3;6; there may be a more than one explanation for this phenomenon. First, the context for most of this recording session involved several people playing blocks (mother, both twins, a friend of the twins, and an investigator), and may therefore not have provided B with either the stimuli to initiate topics, or opportunities for him to take long conversational turns. Second, B continued to use catenatives and contracted forms (e.g., *you're*, *we're*) with high frequency, in spite of having acquired a few auxiliaries; his inability to invert auxiliaries suggests that he still used them as unanalyzed wholes, e.g., "what we're buildin'?" He did, however, use both *where's* and *where is*, which suggests that he was beginning to analyze some of these forms. B used *how about* in

requests for objects, e.g., “how bout a bag?” He employed the infinitive construction (e.g., “I have to get X”), regular past *-ed*, present progressive *-ing*, and the modal *would*, e.g., “mom would you pick me up?”

G’s Language at 4:0

G’s MLU was 4.29, and he produced many utterances of ten morphemes, e.g., “mommy could you help me make another piece like this?” G successfully employed modals and auxiliary verbs, and inversions of these. G used *could* as a conditional (e.g., “we could build them now, kay B?”) and in polite requests (e.g., “could you get me another piece like this one?”). He used a temporal preposition with present progressive *-ing* to indicate immediate futurity, e.g., “now we’re going to build the roof.” G produced *no* and *not* in combination for negation, e.g., “no B, that’s not the way you do it.” G used *how come* to ask a question, e.g., “how come my door’s closed?” Finally, G used language playfully by switching initial sounds in words, e.g., “vancouver, lancouver” (after which he laughed merrily).

Speech Acts Performed at Age 4;0

Types

Illocutionary force was coded in 100 utterances for each twin. B used 13 different types of speech acts, while G used 15 different types. The distribution of each twin’s speech acts is shown in table 4.4.

Assertives

At this age the twins produced statements (ST), and used language to agree and disagree with propositions (AP, DW). Neither boy identified/labelled (IL).

Table 4.4 Frequency of Speech Act Types Used by B and G at 4;0

| | Twin: B (Blind) MLU: 3.98 | Twin: G (Sighted) MLU: 4.29 |
|-------------------------------------|------------------------------|--------------------------------|
| Speech Act | Frequency | Frequency |
| Assertives | | |
| ST | 32 | 44 |
| IL | 1 | -- |
| AP | 5 | 11 |
| DW | 3 | 4 |
| Directives | | |
| RP | 18 | 11 |
| GO | 2 | 1 |
| CL | 6 | 6 |
| PF | 2 | 10 |
| FP | 2 | 2 |
| QI | 18 | 2 |
| QC | 5 | 1 |
| Declaratives | | |
| DP | -- | 1 |
| Commissives | | |
| PA | 3 | 1 |
| RD | -- | 3 |
| OS | -- | 1 |
| Expressives | | |
| AS | 1 | 6 |
| Ambiguous | | |
| | -- | -- |
| # of Codable Acts Performed: | 98 | 104 |
| # of Different Act Types: | 13 | 15 |

Directives

Both boys produced the same types of directive acts, including requests to do (RP), requests for object (GO), requests for attention (CL), prohibitions (PF), requests for permission (FP), and requests for information and clarification (QI and QC, respectively). B used both selection of addressee and *look* to request attention, e.g., “look what I did.” Neither boy issued a warning (WD) or requested routine (RO). B recast failed attempts to request: after two attempts to engage his mother in an activity by saying “let’s build a carport,” B singled his mother out as his addressee by saying “let’s build a carport, mom.” He also used the imperative mood more frequently, e.g., “let me feel it!,” and once

Declaratives

G uttered two declarations: appropriation (DA), and declare a state of affairs in pretend play (DP). B did not make any declarations in the utterances coded for speech act type.

Commissives

B used language to agree to do or let do (PA). G produced three different commissives, all of which B had produced either in the current or in previous samples. These were: agreeing to do or let do (PA), refusing to do or let do (RD), and offering/showing (OS).

Expressives

In this sample both twins used language to express affective state/attitude (AS), while neither marked social routine (MK), which had already been attested in both of the boys’ language.

Frequency

Assertives

B and G continued to use assertive statements (ST) more than any other act, but the gap between their numbers narrowed; B produced 32 ST acts to G's 44 (see table 4.4). The twins disagreed with propositions (DW) with similar frequency; however, G continued to use language to agree with propositions (AP) proportionately more often than B, suggesting a true difference in the twins' use of this speech act.

Directives

While both boys issued more requests to do (RP) than in previous samples, the numbers suggest a true difference between B and G's use of this act. B uttered 18 such requests, while G uttered 11. Two other trends were identified in the directives data for 4;0: G's higher frequency of prohibitions (PF), (10 to B's 2), and B's significantly higher frequency of requests for information (QI), (18 to G's 2). In addition, B appeared to request clarification more often than did G (5 times to 1, respectively), contributing to an apparent trend by B to use specific directives with a disproportionately high frequency. The implications of these results will be discussed in Chapter V.

Declaratives

G used declarations twice in this sample; once to appropriate (DA) and once to declare a state of affairs in pretend play (DP). B did not utter any declarations in this sample.

Commissives

G expressed affective state/attitude (AS) more often than did B; however, the apparent randomness of distribution for this category suggests that no significant trend is indicated by this distribution.

Expressives

B used language to express affective state once, and G did so 6 times.

Reference to Self and Other in B and G's ST and CL Acts

This section presents data on reference in the twins' assertive/descriptive utterances (ST acts) and requests for attention of Hearer (CL acts). Some researchers have claimed that young blind children acquiring language are restricted to commenting on their own actions, and tend not to talk about the actions of others until somewhat later than sighted children begin to do so (Dunlea 1982, 1984; Urwin 1978; and Andersen et al. 1984). Table 4.5 shows an unequal distribution of B's utterances about self, joint and other reference that suggests a certain amount of validity to these claims. At age 2;3, B had no confirmable ST acts about joint or other activities; however, it must be noted that 24 of his 26 ST acts could not confidently be assigned specific reference. At the same age, G produced 17 comments about others' activities and 27 ST utterances that could not be assigned reference.

At age 3;0, B used 4 ST acts to refer to joint activity; this was followed by a trend to produce a much larger relative number of joint-reference ST acts at ages 3;6 and 4;0 (13 and 12, respectively). At age 3;0, all types of reference were attested in G's ST acts, with large numbers of self and other-referenced utterances (36 and 19, respectively).

Compared to B, G made almost twice as many comments about self at age 3;6 (B - 19, G - 34). B, however, produced 13 ST acts with joint reference compared to G's 6. B referred to the activities of others in this sample, and did so about as often as G; however, this reference type was still relatively rare in his assertive speech acts.

By age 4;0, the differences between the respective numbers of joint and other references in the twins' assertions had virtually disappeared. While there was a slight disparity in the frequency of reference to self, joint and others' activities, the numbers are insufficient to suggest any particular developmental trends. These results must be interpreted with caution, however, as B was later in referring to others' activities (i.e., he did

Table 4.5 Summary of B and G's ST Acts by Referent

| B's ST Acts by Referent | | | | | G's ST Acts by Referent | | | |
|-------------------------|----------------|-------|-------|----------|-------------------------|-------|-------|----------|
| Age | Self | Joint | Other | Environ. | Self | Joint | Other | Environ. |
| 2;3 | 2 ^a | -- | -- | -- | -- ^b | -- | 17 | -- |
| 3;0 | 31 | 4 | -- | -- | 36 ^c | 5 | 19 | 2 |
| 3;6 | 19 | 13 | 6 | -- | 34 | 6 | 8 | -- |
| 4;0 | 14 | 12 | 6 | -- | 16 | 19 | 9 | -- |
| Total | 66 | 29 | 12 | 0 | 86 | 30 | 53 | 2 |

^a B produced 24 ST utterances that could not be classified by referent.

^b G produced 27 ST utterances that could not be classified by referent.

^c G produced 4 ST utterances that could not be classified by referent.

Table 4.6 Summary of B and G's CL Acts by Referent

| B's CL Acts by Referent | | | | | G's CL Acts by Referent | | | |
|-------------------------|------|-------|-------|----------|-------------------------|-------|-------|----------|
| Age | Self | Joint | Other | Environ. | Self | Joint | Other | Environ. |
| 2;3 | 5 | -- | -- | -- | -- | -- | -- | -- |
| 3;0 | 5 | -- | -- | -- | 3 | -- | -- | -- |
| 3;6 | 2 | -- | -- | -- | 2 | -- | 3 | -- |
| 4;0 | 5 | 1 | -- | -- | 3 | 2 | 1 | -- |
| Total | 17 | 1 | 0 | 0 | 8 | 2 | 4 | 0 |

not do so in the samples obtained at 2;3 and 3;0).

Table 4.6 represents the twins' use of language to direct attention (CL) to themselves, to joint activities and to others. In spite of the small numbers obtained for these behaviours in the samples, two possible patterns are suggested. First, B produced self-referenced requests for attention earlier than did G, the first acts were present at age 2;3. His use of self-referencing CL acts remained fairly consistent across the four samples, and was virtually the only type of CL he produced, until he directed attention to a joint activity on one occasion at age 4;0; e.g., B uttered, "oh, look at this," as he and his mother discussed the toy figure he was making walk up the stairs he had built. G produced self-referencing CL acts at age 3;0; he continued to do so with consistency into his fourth year, using this act slightly less than his brother (B - 5, G - 3 acts per sample at ages 3;0 and 4;0). G, however, did make both joint and other-referenced CL acts. At age 3;0 he directed attention to others' activities three times (e.g., "lookit, B did all those cars" and "look, he did it again"), and at 4;0, he produced two joint references (e.g., G to his friend, D, who is building something with him: "look!" and "oh oh, lookit, it broke"), and one reference to another's activity.

Temporal Reference in B and G's ST and CL Acts

Tables 4.7 and 4.8 show some scatter in the distributions of temporal references, and reference to self and other activities in the twins' speech. Generally, ST acts referring to 'now' events predominated in B's utterances across all four samples, regardless of whose activity he was referring to. At 2;3, B referred to now and make-believe events. At 3;0, he referred to now events with high frequency (29), and future (4) and make-believe events (2). At 3;6, all time references were represented in B's ST acts, numbering 26 now assertions across self, other and joint referents, 4 past assertions, 3 future assertions and 5 make-believe assertions. Finally, at age 4;0, B produced mostly now-self assertions (27), with a small number of past-self and future-self assertions.

Table 4.7 Summary of B's ST Acts by Self/Joint/Other and Temporal Reference

| Age | Self | | | | Joint | | | | Other | | | |
|-----|----------------|------|--------|--------------|-------|------|--------|--------------|-------|------|--------|--------------|
| | Now | Past | Future | Make-Believe | Now | Past | Future | Make-Believe | Now | Past | Future | Make-Believe |
| 2;3 | 1 ^a | -- | -- | 1 | -- | -- | -- | -- | -- | -- | -- | -- |
| 3;0 | 29 | -- | 2 | -- | 2 | -- | -- | 2 | -- | -- | -- | -- |
| 3;6 | 13 | 1 | 4 | 1 | 9 | 2 | -- | 4 | 4 | 1 | 1 | -- |
| 4;0 | 9 | 2 | 3 | -- | 12 | -- | -- | -- | 6 | -- | -- | -- |

^a At age 2;3, B produced 24 ST utterances that could not be further classified for referent or tense.

Table 4.8 Summary of G's ST Acts by Self/Joint/Other and Temporal Reference

| Age | Self | | | | Joint | | | | Other | | | |
|-----|-----------------|------|--------|--------------|-------|------|--------|--------------|-------|------|--------|--------------|
| | Now | Past | Future | Make-Believe | Now | Past | Future | Make-Believe | Now | Past | Future | Make-Believe |
| 2;3 | -- ^a | -- | -- | -- | -- | -- | -- | -- | 13 | -- | -- | 4 |
| 3;0 | 21 ^b | 3 | 2 | 10 | 3 | -- | 1 | 1 | 4 | 8 | -- | 7 |
| 3;6 | 24 ^c | 2 | 3 | 5 | 1 | -- | -- | 5 | 2 | 2 | 1 | -- |
| 4;0 | 9 | 4 | 3 | -- | 17 | 1 | 1 | -- | 7 | 2 | -- | -- |

^a G produced 27 ST utterances that could not be further classified.

^b G produced 4 ST utterances that could not be further classified, and 2 STEN utterances which have been omitted from table 4.8 for reasons explained above.

^c G produced 2 ST utterances that could not be further classified.

G made 13 assertions about now-other activities and 4 make-believe assertions about others at age 2;3. At age 3;0, G's categories were somewhat better attested, with 28 now assertions across referents, 11 past, 2 future and 17 make-believe assertions about various referents. At 3;6, he produced 27 now assertions, 4 future, 4 past and 10 make-believe assertions across referents. Finally, at age 4;0, G uttered 33 now assertions, half of which had joint reference, while the remaining half were split approximately evenly between self and other reference. G also produced 7 past and 3 future ST acts at age 4;0.

CHAPTER V: DISCUSSION

In Chapter I, the following questions were asked:

- (1) Do blind and sighted children undergo similar speech act development?
- (2) Do speech acts emerge in the same order for blind and sighted children?
- (3) Are there differences in distribution of speech act types used by blind and sighted children? Do blind children use more requests for objects and attention than do sighted children? (Dunlea 1989).

An additional goal of this study was to develop a taxonomy of speech acts that was applicable to children's language use, and which maintained the integrity of both the constructs of Speech Act Theory, and the different levels of discourse and illocutionary language behaviours. A taxonomy was therefore constructed partially incorporating Ninio & Wheeler's (1984) attempt to translate Speech Act Theory into a functional taxonomy of speech acts common to mother-infant interactions. This taxonomy was applied to the twins' language use at four ages: 2;3, 3;0, 3;6, and 4;0. In each sample one hundred utterances were coded for speech act significance for each twin. The resulting data were tabulated for frequency and distribution of speech act types used by B and G. Two particular speech acts, assertions (ST) and requests for attention (CL) were also coded for reference and temporal reference. This information was analyzed to determine whether any significant patterns exist in the topics of the boys' assertions and attempts to direct the Hearer's attention to particular agents or activities. Answers to the above questions, and impressions about the efficacy of the taxonomy are presented below.

Data Interpretation Considerations

It is important to note that certain contextual and situational factors may have influenced the children's individual profiles of speech act use. These will be mentioned briefly before an interpretation of the results.

One possible confound of data collection in this study is the inequality of interactions and contexts within and across individual language samples. Certain activities may have influenced the amount and nature of language output of the twins in various ways. For example, in all but one of the samples, the boys spend a fair portion of the session building with blocks. This activity lends itself to a certain range of possible speech act types and may include utterances from each of the major categories of illocutionary force; however, it may also result in a restricted overall repertoire of acts performed (i.e., a preponderance of directive - requesting acts), and an unrepresentative sampling of temporal references, and references to self and other activities. Similarly, in sessions where there were few or no opportunities to use language to mark social events and routines, this type of act was probably not attested to a representative degree of use by the twins. Furthermore, the number and roles of other participants in particular sessions may also have affected the general patterns of speech act use. For instance, in the sample obtained at age 4;0, the boys were visited by a playmate. The participants in this session included two adults and three children. The presence of an extra competitor for conversational turns and attention may have been a factor in G's increased use of different speech act types, and may equally have played a part in B's decreased MLU and increased frequency of requesting behaviours, as the twins and their playmate competed for turns, topics and equal attention from the adults. Additionally, by the time the later samples were obtained, the boys had become accustomed to visits by investigators, and to the general turn of events during these sessions. While it was important to record the language and behaviour of both B and G, the blind twin, B, remained the focus of attention; it is possible that G's consistently higher frequency of assertive statements (ST acts) reflects an attempt to enter this focus of attention and to

'have his own say.' This may also explain his more frequent assertions about self in the sample obtained at age 3;6, when his self-referenced ST acts outnumbered B's by about 75%.

A further caveat in considering the data obtained in this study pertains to its comparability with Dunlea's (1989) findings. She examined speech act development by two blind children, each with a sibling approximately five years older. In addition, one child's older sibling was also blind. These familial variables, along with different parenting styles, etc., undoubtedly contributed to different contexts for language acquisition by each child. Furthermore, the children in Dunlea's study were the single focus of each recording session. In this study, the twins were acquiring language at about the same pace, cancelling the possible influence of an older sibling's language on their own language development; however, the twins' constant close proximity to each other almost certainly resulted in each boys' language development being influenced by the co-twin's language.

The extent to which these factors may have shaped the boys' use of language in this study and the equivalence of these results to Dunlea's cannot be determined within the present research paradigm. The above examples are included simply to provide an indication of some potential ways that the equality of samples (both within this study and compared to Dunlea, 1989) may have been compromised by the varying contexts, interactions and participants from which the samples were obtained. Nevertheless, the results must be interpreted with care due to the possible role of context in determining what the twins talked about and the speech acts they performed.

Emergence of Speech Acts

The data presented in table 5.1 provides a summary of the types of speech acts used by each twin in each of the sessions. While the number of speech acts recorded for the twins is too small to conclude the significance of results, it is sufficient to identify certain trends in B and G's speech act development.

Table 5.1 A Summary of B and G's Speech Act Types Across Ages

| Speech Act Type | | B's Speech Act Totals at Age: | | | | G's Speech Act Totals at Age: | | | |
|-----------------|----|-------------------------------|-----|-----|-----|-------------------------------|-----|-----|-----|
| | | 2;3 | 3;0 | 3;6 | 4;0 | 2;3 | 3;0 | 3;6 | 4;0 |
| Assertives: | ST | 26 | 35 | 40 | 32 | 44 | 66 | 50 | 44 |
| | IL | -- | -- | 1 | 1 | -- | -- | -- | -- |
| | AP | 4 | 4 | 4 | 5 | 11 | 15 | 14 | 11 |
| | DW | -- | 2 | 9 | 3 | -- | -- | 2 | 4 |
| Directives: | RP | 1 | 10 | 6 | 18 | 1 | 1 | 1 | 11 |
| | RO | 1 | 1 | 1 | -- | -- | 3 | -- | -- |
| | GO | 1 | -- | -- | 2 | 1 | -- | 1 | 1 |
| | CL | 5 | 5 | 2 | 6 | -- | 6 | 2 | 6 |
| | PF | 2 | 1 | -- | 2 | -- | 2 | 4 | 10 |
| | FP | -- | 1 | 2 | 2 | -- | -- | 6 | 2 |
| | WD | -- | -- | -- | -- | -- | -- | 1 | -- |
| | QI | -- | 4 | 6 | 18 | 1 | 4 | 4 | 2 |
| | QC | -- | 2 | 3 | 5 | 1 | -- | 1 | 1 |
| Declaratives: | DA | -- | -- | -- | -- | 1 | -- | -- | 1 |
| | DP | -- | -- | -- | -- | -- | -- | -- | 1 |
| Commissives: | PA | -- | -- | -- | 3 | -- | -- | -- | 1 |
| | RD | -- | -- | 2 | -- | -- | -- | -- | 3 |
| | OS | -- | 1 | -- | -- | 1 | -- | -- | 1 |
| Expressives: | AS | 2 | 1 | 6 | 1 | -- | 2 | 4 | 6 |
| | MK | 4 | 1 | 1 | -- | 1 | -- | -- | -- |
| Ambiguous: | AM | 7 | -- | -- | -- | -- | -- | -- | |

In the first sample, B (age 2;3) was already using language to request attention (CL). This may represent an adaptive strategy on B's part to compensate for his inability to use mutual eye gaze and gesture to gain another's attention. G was not observed to perform CL acts in the session; this is probably because he was so well served by his ability to point, reach and make eye contact to elicit and maintain Hearer attention. G had begun to ask questions (QI) and request clarification (QC) in this session, while B had not. This difference in the twins' language use may also be attributed to G's ability to use objects and others in the environment to provide context for his utterances, enabling him to ask questions by simply pointing and uttering a word (or a sound for that matter) with rising terminal intonation. B was limited at the one-word stage in this respect because he was not observed to be using rising terminal intonation in this session, and could not rely on external factors to provide context unless they were objects that he could manipulate haptically or perceive auditorily.

Other differences in speech acts used at this age are less obviously significant, with the exception of G's single offer/show act (OS), which again, is explicable with reference to G's ability to perform speech acts at the one-word stage due to the possibilities open to him for using gesture, facial expression and eye gaze to communicate. In addition, G had better independent mobility because of his vision, allowing him to select addressees and suggest topics simply by approaching a potential Hearer, either with an object, or to look at an object in the Hearer's possession. B performed protest/prohibitions twice, an act which was not attested in G's sample; this too may be related to G's ability to gesture for yes/no, or to move away rather than needing to mark protest linguistically. Generally, the main differences between the acts used by B and G in this session are seen in B's use of requests for attention (CL), and G's ability to question (QI) and request clarification (QC). The fact that seven of B's utterances were judged ambiguous in illocutionary force merely underscores the importance of facial expression, gesture and the ability to move toward and act on objects, in

furnishing contextual information for disambiguating the early utterances, hence the early speech acts, of children.

The sample taken of the twins' language at age 3;0 does not reveal any particularly striking differences in the boys' speech act types. B was observed to perform requests for both information (QI) and clarification (QC), suggesting that with the higher MLU and later stage of development in this sample, B's linguistic abilities had attained a level sufficient for him to perform these acts. Similarly, B was able to offer/show in this session due to his advanced language relative to that at age 2;3. B disagreed/negated the proposition of another's utterance (DW) twice in the session; G had not yet performed this act in the samples for 2;3 and 3;0, which may again be due to his ability to use facial expression, eye gaze and gesture to achieve the same illocutionary effect.

At age 3;6, the boys performed essentially the same types of acts in their respective samples. B was observed to identify/label once, a behaviour that was not attested in G's language samples; however, the appearance of this act in this session is not likely to signal its emergence or any particular developmental trend. Rather, because it does not carry the same communicative load as an assertions or requests, for example, it is probably a less frequent act that the boys had been using previously, but which simply was not observed in the earlier sessions. In this sample, G performed the directive act of protesting/prohibiting (PF); three of his four PF acts were directed at B which may suggest that G had some understanding that gesture and facial expression were not sufficient to convey information to his brother (the number of PF acts increased further in the sample obtained at age 4;0). Similarly, B used language to refuse to do/let do (RD) in this session; once again, his use of linguistic markers to perform this act may be related to his lack of gesture, mutual eye gaze and facial expression.

At 4;0, the boys' speech act types were essentially identical. The one notable difference between their speech acts was G's performance of declarative acts (DA and DP), a class which was not been attested in any of B's samples. As the numbers are low (one

instance each) and there is no apparent reason for B not to be producing declarations, it is unlikely that this finding has any true developmental significance. This may, however, prove an interesting question for future research.

In brief, the order of emergence of speech acts in the twins' speech was not strikingly dissimilar. B was slower to perform requests for information and clarification (QI and QC, respectively), which may be related to his inability to exploit context as a communicative support, and facial expression, gesture and eye gaze to disambiguate illocutionary force at the one-word stage and before two-word combinations had become truly productive. The data suggest that by age 3;0, the boys were performing essentially the same types of speech acts; however, it should be noted once again that the number and size of the samples on which these observations are based are insufficient to generalize extensively about the emergence of speech acts among blind and sighted children.

Frequency of Speech Act Types

A few very striking differences were made apparent by the results across ages/language samples for each twin, and across twins, as is shown in summary form in table 5.1. Both B and G consistently performed more assertions (ST) than any other act. G's ST utterances outnumbered B's in every sample; however the figures were fairly stable for each twins' relative ST use. G's more frequent assertions and descriptions are most probably due to his ability to notice activities going on around him, thus providing him with a larger possible selection of 'things to describe.' G frequently repeated adults' utterances, using them to comment on joint activities or new objects, etc. He tended to produce far more utterances than his brother in general in the earlier two samples (ages 2;3 and 3;0), and while B eventually surpassed him in utterance production in the samples for ages 3;6 and 4;0, G continued to produce proportionately more ST acts than his twin. The first suggestion is in line with the hypotheses set forth in Chapter I, that blind children's early assertions are

about their own ongoing actions or objects they are acting on at the time (Dunlea, 1984)), and that they begin to comment on others' actions later than sighted children do (Dunlea, 1989).

These hypotheses were tested in a subsequent analysis of temporal reference and reference to self, joint and others' activities. The results of this analysis are presented in Tables 4.5 - 4.8. As predicted, B tended to comment on objects he was acting on or could recognize haptically or auditorily, or through other forms of perception available to him. Changes in the environment or context that could only be recognized visually were lost to him unless another Speaker commented on such events, or an alternative sensory-perceptual route could be exploited. Over time, B began to refer more frequently to joint and others' activities, but reference to self continued to predominate in his ST acts. G made assertions about joint activities and others activities with relatively high frequency. He did, also, make more references to himself in the samples obtained at ages 3;0 and 3;6, but this may have been in response to a perceived lack of attention; G often 'performed' for the adults, perhaps in effort to take the focus off of his brother.

The data for temporal reference also suggests a difference in the twins' ST acts. G tended to refer far more often to past, future and make-believe events than did B. However, while the majority of B's utterances referred to current activities, he did comment on past, future and make-believe events at some point over the four sessions. Although it is difficult to generalize any clear patterns of use for temporal reference, it is fair to say that B was somewhat more restricted in the range of temporal references he made. This finding supports previous claims about the early language use of blind children; however, there is no immediate explanation as to why temporal reference should be more restricted for these children.

Both B and G produced very consistent numbers of AP acts (agree with a proposition) across all four samples. Once again, B's frequency of use for this act was lower than G's (B produced four AP acts on average, and G produced an average of twelve). A possible reason for this may involve B's inability to observe the facial expression of the other Speaker. The

facial expression of a Speaker may provide subtle cues which indicate to the Hearer that a response is expected or appropriate. It may be that G, the sighted twin, is able to pick up on such cues, and therefore performs a higher number of AP acts. B, who is not able to recognize such cues, would not likely anticipate that a response to another's assertion is expected. This line of reasoning is purely speculative for the moment, but may warrant closer consideration of the roles of the subtle messages of body language in the discourse of sighted Speakers and Hearers. A second, less interesting possibility to explain G's higher frequency of AP acts relates to the definition of this act in the taxonomy. An AP act is defined as agreeing with a proposition expressed in a previous utterance, including "confirmations which may be achieved through partial or complete repetitions, and moodless utterances." This category may then also reflect G's tendency to repeat adults' utterances, as discussed above.

The act of disagreeing with a proposition (DW) presents a somewhat different picture of use for the twins; B produced more DW acts and began using them earlier than G. Here again, the pattern of use most likely reflects B's inability to employ gesture for communicative purposes. While G could simply shake his head from side to side to convey a 'no' response, or to disagree with a previous utterance, B could only achieve this illocutionary effect conventionally through linguistic means (he could conceivably achieve it unconventionally by physically acting out, for example, and did exercise this option occasionally in the earliest session).

Three notable patterns of use across ages emerged from within the class of directive acts: B's higher relative frequencies of requests to do (RP) and requests for information (QI) and clarification (QC), and G's higher relative frequency of prohibitions/protests (PF). Although B was later in using questions (according to data for the samples obtained at age 2;3 and 3;0), he used them with increasing frequency in each successive sample. At age 3;6, he performed six QI acts and two QC acts, similar to G's distribution except that G did not perform any requests for clarification (QC). In contrast, at age 4;0, B performed eighteen

requests for information and five requests for clarification, while his brother performed two QI acts and one QC act. It is clear that B was able to employ questions to his advantage in both participating in social interactions and ensuring that his needs were being met, and the high functionality of these speech acts was the reason for their high frequency in his overall patterns of use. Similarly, requests to do (RP) were significantly more attested in B's language use than in G's; B made a total of thirty-five such requests across all four samples, compared to a total of fourteen for his brother. The pattern of use across ages for B suggests an increase over time, from one RP at age 2;3, to ten at age 3;0, to eighteen at age 4;0. The value of an efficient request behaviour is obvious in any case, but for B this act may have carried even greater functional importance. G was able to move around more freely and make requests using nonlinguistic means; B, whose independence was limited, at least in the early years, generally required more assistance from adults, whether to seat himself in his high chair, or to locate food or a favourite toy. Having an effective means of directing others' actions was undoubtedly of great practical importance to B, as his frequent use of this act suggests.

Surprisingly, G exhibited a higher frequency of use of prohibitions/protests (PF). While the samples at ages 2;3 and 3;0 do not reveal any marked discrepancies in the twins' use of this act, there are notable differences at ages 3;6 and 4;0. G produced four PF acts at 3;6 and ten at 4;0, while his brother's sample did not include any PF acts at age 3;6 and only two at 4;0. The reason that this pattern is surprising is that it seemingly contradicts the previously observed patterns wherein G was able to rely on gesture rather than language to achieve various illocutionary effects; prohibiting/forbidding/protesting should lend itself well to facial and gestural expressions of communicative intent (i.e., by frowning, shaking the head for 'no', waving the 'Hearer' away, etc.), and yet G still produced significantly more verbal protests than did B. One possible explanation of this finding, as mentioned in the discussion of emergence of speech acts, is that G's protests were addressed to his blind twin and he therefore adjusted them to be more perceptually salient B, using language instead of a mode

requiring visual recognition. The majority of G's protests were, in fact, addressed to B; whether or not this explanation is accurate, however, is a question that will remain unanswered.

Two other directive speech acts should be considered here, in relation to claims made by Dunlea (1989) that the blind children she studied made more requests for attention (CL) and objects (GO) than did their sighted counterparts. Table 5.1 depicts relatively equivalent distribution for both of these act types among the twins' language use; the only difference in B and G's patterns of use for these acts appears to be B's use of CL acts in the sample obtained at age 2;3. During this session, B performed five CL acts; they were not attested in his brother's sample for the same session. It was suggested in the discussion of emergence of act types that B's earlier use of CL acts represents an adaptive strategy for ensuring that he had the Hearer's attention, and that the interaction at hand was still in progress. Beyond the data for age 2;3, however, both boys performed CL acts with roughly equal frequency. It is possible that G may have requested attention for different reasons; rather than using this act as a means of assuring himself of an attentive Hearer, G may have been drawing attention to himself as a competitive move, i.e., to say "Now it's my turn, pay attention to me." Subsequent analysis of the frequency of reference to self and other in CL acts by each boy suggests that the importance of this act to B's social and discourse uses of language is real; B drew attention almost exclusively to himself, with one instance of reference to a joint activity. This implies that B's purpose for requesting attention was specific to his role in conversation and interaction, perhaps to secure the attention of the Hearer, perhaps to secure conversational turns, etc. G, on the other hand, also used CL acts to direct attention to joint activities and the activities of others, as well as to himself. He appears to have had a more general use of this act, being simply to direct the Hearer's attention to some event or activity. Thus, the results of the present study support Dunlea's claim that blind children more frequently draw attention to themselves, but do not support the claim that blind children make more requests for objects than sighted children do.

In summary, the data obtained in the present study support claims by other researchers that blind children's early use of assertions is relatively limited to comments about ongoing self-activities. The blind child in this study made fewer references to others' activities, and did not comment on past, future and make-believe events with the same frequency as his sighted identical twin. The blind twin used language to draw attention to himself more than his brother did, and called attention to himself more often than to the actions of others. These results support previous claims by Dunlea (1989). The blind twin produced a high number of requests for action, information, and clarification, presumably to gain and exercise control in conversation and social interactions. He did not produce more requests for objects than the sighted twin, in contrast to what Dunlea (1989) found in her study of two blind children. The overall patterns of emergence of speech acts was fairly similar for the sighted and blind twin. The frequency distributions of the types of speech acts used by each child did, however, reveal some interesting patterns of use; some of them support earlier findings by Dunlea (1989) while others do not; the corpus is too small to submit to definitive generalization.

Speech Act Taxonomy

A speech act taxonomy was designed to determine the illocutionary significance of the twins' utterances. The taxonomy was based on the most recent explication of Speech Act Theory (Searle & Vanderveken, 1985) and a taxonomy devised by Ninio & Wheeler (1984). The taxonomy was designed to improve upon previous attempts to describe children's speech acts in terms of the theory. Ways in which this was accomplished include maintaining the distinction between discourse roles and illocutionary functions of the children's utterances, and adhering to the theoretical descriptions of illocutionary force and force-indicating devices in describing speech acts commonly used by children. A comparison of the current taxonomy to Ninio & Wheeler's taxonomy is provided in appendix C.

The taxonomy was successfully applied to the twins' language samples to chart emergence and use of speech act types. It is not, however, without its weaknesses. First, due to weak points in Searle & Vanderveken's (1985) version of the theory, certain act types remain difficult to categorize, justify and describe in terms of the requirements for successful speech acts. For example, the commissive class in general is problematic because of the differing degrees of both commitment/intent to do and obligation to do with which various commissive acts may be realized. The illocutionary act of threatening (TD) is an example of a commissive act with variable commitment and obligation to do. Incomplete elaboration of various illocutionary forces and acts resulted in some arbitrary placements of act types into categories. Once again the commissive class provides an example: utterances that state intention, such as "I will go home now" intuitively fit into the commissive category; however, due to the lack of specification of a minimum degree of obligation/commitment to do, these acts were considered to be assertions of a future act of the Speaker. In a sense, both the assertive and commissive force categories are compromised by this solution.

In designing the current taxonomy to reflect Speech Act Theory, an effort was made to maintain the requirement of conventionality of speech act behaviours. The result of this practice is that this taxonomy is not entirely applicable to speech acts that are not yet conventional in terms of adult form and function. In this sense, if one truly observes the commitment to conventionality of form, much information about the development of conventional form and function will be lost because pre-conventional behaviours will not be categorized as speech acts. The problem of conventionality also enters into the consideration of indirect vs. direct speech acts; without an adequate definition of what *conventional* is, it is impossible to categorize indirect acts on a principled basis. In looking at the early speech acts of children, this problem becomes very apparent. If a child protests or requests in a way that is conventional for children but is not yet conventional in the adult sense, does it suffice to consider the behaviour unconventional and therefore not a speech act in the truest sense? It is here that information about initial speech act development lies, but current theory and the

present taxonomy are helpless to access that information until the conventionality problem is resolved. It may prove useful to reconsider the suggestions of researchers such as Dore, Bates, and Griffiths, and to try to reconcile their interpretations and applications of the Speech Act Theory to its most recent version in order to examine and document children's speech acts in the first two and a half years.

In summary, the strengths of the present taxonomy are its maintenance of the distinction between discourse and illocutionary levels of language use, and its description of children's speech act behaviours in terms of theoretically defined principles (Searle & Vanderveken, 1985). As the Speech Act Theory continues to evolve and be better explained, improvements to this taxonomy will clarify and better validate the classification and description of presently debatable acts.

Implications for Future Research

Due to the small corpus considered in the current study, it should serve only as a preliminary effort in examining the available data on the speech act development of the twins, B & G. A subsequent study would involve looking at earlier stages of development, as well as sampling more frequently between the age ranges in the present study. Longer utterance samples are also necessary to obtain a truly representative sampling of the children's speech acts for each age.

In addition, the taxonomy should be validated through use by different investigators. In this way a reliability rating for coding using the taxonomy can be established, and remaining problems of categorization and description may be identified and better delimited.

Implications for further research include shaping the present taxonomy to accommodate consideration of earlier stages in children's speech act development, and to capture subtleties in the changing form-function relations throughout speech act development. Finally, the taxonomy should be applied to a differential analysis which considers both the illocutionary and discourse levels of language to determine what significant relationships exist, if any,

between speech act development and the development of discourse skills, and if there are any observable differences in this regard in the early language use of the blind and sighted twin.

Summary

This study compared the early speech acts of a blind child and his sighted, identical twin. For this purpose, a taxonomy of speech acts was developed based on current Speech Act Theory (Searle & Vanderveken, 1985), and incorporated categories from Ninio & Wheeler's taxonomy of speech acts in mother-infant interactions. Results showed that the order of emergence of speech acts was fairly similar for the sighted and blind twin, but that differences existed in the relative frequency with which the blind child performed certain speech acts; he produced more requests for information, action and attention, and less assertions about others' activities. The taxonomy was effective in describing the twins' speech act use because it preserved distinct levels for discourse and illocutionary language function, and adhered to the principles of current Speech Act Theory.

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APPENDIX A:

LIST OF SPEECH ACT CODES

Speech Acts

Assertives (A)

ST Descriptive utterance relating to an activity or event, object or state of affairs;
one of: one of:

| | | | |
|---|---------------|---|--------------|
| S | Self | N | Now |
| J | Joint | P | Past |
| O | Other | F | Future |
| E | Environmental | C | Conditional |
| | | M | Make-believe |

IL Identification/Labelling (includes listing and counting)

AP Agree with a proposition expressed in a previous utterance; includes confirmations which may be achieved through partial or complete repetitions, and moodless utterances, e.g., mhm

DW Disagree with, negate or deny the proposition of a previous utterance

Directives (R)

RP Request to do an act other than one of the following:

- RO Routine (ritualized -- initiation only)
- GO Give object
- CL Attend, pay attention
- WD Warn of danger
- PF Prohibit/protest/forbid action of Hearer
- FP Give permission
- QI Request information
- QC Request clarification

Declaratives (D)

- DC Declare a new state of affairs by declaration; may be one of the following:
- DP Regulation of pretend play/games
 - DG Regulation of other games
 - DN Regulation of social interactions
 - ND Refusal/rejection of another's declaration
 - DA Appropriation
 - YD Acceptance /approval of another's declaration

Commissives (C)

- PD Promise
- TD Threaten to do
- PA Agree to do or let do
- RD Refuse to do or let do
- OS Offer/show

Expressives (E)

- MK Mark social routine or event, e.g., greeting, apologizing, thanking, congratulating, bidding farewell, excusing oneself, etc
- AS An expression of affective state or personal attitude

Nonillocutionary Communication and Language Use

- DF Discourse function: to mark attention of Hearer using a moodless, back-channel response, e.g. *mhm*, or a part or whole repetition void of confirmational value; includes utterances whose sole function is to take a conversational turn
- FR Family routine: maintain participation in ongoing family routine
- GE Gestural communication (includes nodding/shaking the head, pointing, etc.)

Noncommunicative/Noninteractive Language Use

This category includes utterances which would be considered communicative if directed toward a Hearer other than oneself, and utterances that carry no apparent communicative intent.

- RT Repeat/imitate previous utterance; may be one of the following:
 Self
 Twin
 Other
- DE Deferred imitation; may be one of the following:
 SI Sung
 SP Spoken
- NV Noninteractive verbalization; may be one of the following:
 NO Noise
 MO Monologue

Other Coding Categories

- AM Utterance with ambiguous illocutionary point
- UC Utterance is uncodable due to any of a variety of reasons, which include:
 -ambiguity as to which twin produced the utterance
 -poor intelligibility of the utterance
 -the speaker is off camera rendering inaccessible accompanying actions
 which would facilitate interpretation of speech act force
- IN Incomplete utterance due to interruption by another speaker, or part of a continued attempt to formulate utterance/complete intent

Note: The following two-letter codes and some of their accompanying descriptions were taken from Ninio & Wheeler (1984), although their classification in terms of major illocutionary force type is not necessarily the same as it is in Ninio & Wheeler's system: ST, AP, DW, RP, CL, PF, WD, DC, DP, ND, YD, PD, TD, PA, RD and MK. The category OS was based on Dunlea's (1989) classification of offer/show.

APPENDIX B:

LIST OF CATEGORIES FOR CODING DISCOURSE FUNCTION

Tier One - Addressee

- (a) Selects addressee(s) by name:
 (i) selects one addressee
 (ii) selects more than one addressee
 "Mommy, see my house?" or "Mommy and daddy hi"
 CODE: sname
 e.g., smom
 e.g., smom + dad
- (b) Selects addressees in interactional framework by general term:
 "You guys listen!"
 CODE: sgen
- (c) No addressee selected: Social utterance meant to be interactive; not a monologue; utterance just starts.
 "Hey, stop it."
 CODE: noad
- (d) Addressee is already secured by prior interaction: (i.e., is a continuation) or because this utterance is a response, or addressee is indicated by context (proximity, physical advance toward addressee, orientation, gesture).
 CODE: name (of addressee)

Tier Two - Interactional Status

- (a) Establish/bid for interaction: When there has not been prior verbal interaction or there is not a group activity that carries a heavy expectation that there will be interaction.
 CODE: a
- (b) Bid for attention: Within a conversational framework; when the utterance is not part of an ongoing conversation, e.g., a partner has been distracted by another activity or speaker.
 CODE: b
- (c) Bid for turn: Within an ongoing conversation, when attention can reasonably be expected to be secured, e.g., hey, look
 CODE: c

Categories (a), (b) and (c) generally require an overt linguistic marker of function, but include behaviour patterns which are frequently employed by children despite being unconventional by adult standards, e.g., screaming, crying.

(d) Opener: A turn that is topically discontinuous with a preceding turn, but is not (a), (b) or (c) above. Interaction is established, attention is secured, right to have a turn is secured or taken for granted.

CODE: d

(e) Continuous with own speech: A subsequent utterance within a turn, or a subsequent utterance across turns which does not take into account or recognize another speaker's turn.

CODE: e

(f) Response (continuous with other's speech): Pragmatically appropriate or semantically linked to other's prior utterance or nonverbal behaviour.

CODE: f

Tier Three - Topic Status

(a) Introduces a new topic entity; bid for topic.

CODE: a

(b) Reintroduces a topic entity: Prior mention but either there has been no uptake, or time or other topics have intervened; bid for topic.

CODE: b

(c) Repeats a topic bid exactly: First try has not had uptake; no modification; exact repetition.

CODE: c

(d) Repetition of topic bid with modification: Not successfully taken up before; modification may be prosodic (intensity, intonation, length) or involve adding a name or other linguistic marker, recasting or rewording; while topic is being negotiated; secures exact details of topic.

CODE: d

(e) Maintain/elaborate: Likely to name or be about the same topic entity + predication; logical next step; entity compared or contrasted, repetition of other's utterance when communicative (i.e. as confirmation, approval, etc.).

CODE: e

(f) Redirect: There is a connection with a prior utterance but it is seen as remote, as if the speaker is using it as a springboard or reminder of something else.

CODE: f

(g) Acknowledge: Approve or provide a backchannel response.

CODE: g

(h) Reject/refuse interaction or topic:

CODE: h

(i) Request repair/acknowledge breakdown:
CODE: i

(j) Procedural: Turn does functions of Tier Two only.
CODE: j

APPENDIX: C

COMPARISON OF THE CURRENT TAXONOMY TO NINIO & WHEELER'S TAXONOMY

| Ninio & Wheeler 1984/CHILDES 1991 Speech Act Codes (N & W) | | Current Taxonomy Classification | | Notes |
|---|--|---------------------------------|-----------------------------------|---|
| CODE | DESCRIPTION | CODE | DESCRIPTION | |
| RP | Request/propose/suggest action for Hearer; directive | RP | Same; directive | |
| RQ | Yes/no question about Hearer's wishes and intentions; directive | QI | Request information; directive | Not exactly equivalent; N & W's taxonomy reflects caretaker behaviours |
| DR | Dare + challenge Hearer to perform action; directive | — | | Omitted; simply a mode variation of RP |
| WD | Warn of danger; directive | WD | Same; directive | |
| CL | Call attention of Hearer by name or substitute exclamations; directive | CL | Same; directive | N & W's description reads "call attention to Hearer;" this was assumed to be a misprint of "call attention of Hearer" |
| SS | Signal to start performing an act; directive | — | | Omitted; reflects a caretaker behaviour |
| AD | Agree to do act requested or proposed by other; directive | PA | Agree to do or let do; commissive | Miscategorizorized by N & W; has commissive force; future act of Speaker |
| AL | Agree to do for the last time; directive | — | | Omitted; extraneous version of PA |
| RD | Refuse to carry out act proposed by other; directive | RD | Same, but with commissive force | Denegation of a commissive act is itself a commissive act according to theory |
| CS | Counter-suggestion; indirect refusal; directive | — | | This is actually a complex speech act consisting of an indirect refuse-do (RD) and second directive, suggest-do (RP) |

Note: The illocutionary force is given for each act; these are not always equivalent in the taxonomies.

| Ninio & Wheeler 1984/CHILDES 1991 Speech Act Codes (N & W) | | Current Taxonomy Classification | | Notes |
|---|---|---------------------------------|--|---|
| CODE | DESCRIPTION | CODE | DESCRIPTION | |
| AC | Answer calls; show attentiveness to communications; directive | DF | Discourse function; no illocutionary force | Miscategorized as a speech act; no illocutionary force; describes a discourse function |
| GR | Give reason; justify a request for action, refusal or prohibition; directive | ST | Make an assertive or descriptive statement; assertive | Explaining is assertive according to the requirements of the theory as specified by Searle & Vanderveken (1985) |
| SI | State intent to carry out act by speaker; description of one's own ongoing activity; commissive | ST(SF) | Make an assertive statement about a future activity of self; assertive | Initially, 'state intent' was considered a commissive in the current taxonomy, but according to theory, the commissive force requires obligation and commitment, not just intent; furthermore, to describe one's ongoing activities is clearly an assertive act |
| FP | Ask for permission to carry out act; commissive | FP | Same, but with directive force | A commissive requires obligation of the Speaker to perform some act; a request for permission requires the performance of an act by the Hearer (i.e. to let Speaker do A); it therefore has the directive force |
| PD | Promise; commissive | PD | Same; commissive | |
| TD | Threaten to do; commissive | TD | Same; commissive | Theory still fails to adequately account for 'threaten' if one accepts that making a threat does not obligate the Speaker to a future act in the same way as a promise, as Searle & Vanderveken (1985) suggest |
| PF | Prohibit/forbid/protest Hearer's action; commissive | PF | Prohibit/forbid/protest utterance/action of Hearer; directive | PF influences the future action of the Hearer (i.e. to stop doing A); therefore, it has directive force (see above) |

Note: The illocutionary force is given for each act; these are not always equivalent in the taxonomies.

| Ninio & Wheeler 1984/CHILDES 1991 Speech Act Codes (N & W) | | Current Taxonomy Classification | | Notes |
|---|---|---------------------------------|---|---|
| CODE | DESCRIPTION | CODE | DESCRIPTION | |
| DC | Declare a new state of affairs by declaration; declarative | DC | Same, but was broken down into subcategories of declarations; declarative | Too general to capture the different ways children 'declare;' the taxonomy in the current study recognizes six subcategories: DN, DP, DG, DA, ND, YD |
| DP | Declare make-believe reality; declarative | DP | Same; declarative | One of the six subcategories of DC |
| YD | Agree to a declaration; declarative | YD | Accept/approve of a declaration made by another speaker; declarative | 'Agree' is improper terminology for a declarative act because it suggests truth value; 'accept' or 'approve of' are more appropriate in the case of declaratives |
| ND | Disagree with a declaration; declarative | ND | Reject/refuse a declaration made by another speaker; declarative | See above for discussion of terminology for accepting declaratives |
| MK | Mark occurrence of event (i.e. thank); markings and responses | MK | Mark an event or social routine; expressive | N & W categorize MK as a <i>Marking</i> ; this is an ambiguous category in terms of the theory; however, their use of MK and the category <i>Markings</i> appears to be in line with the expressive illocutionary force |
| TO | Mark transfer object to Hearer; markings and responses | — | | I attempted to include this category in the current taxonomy, but abandoned it because it lacked a principled means of distinguishing TO from the commissive act, offer/show (OS) |
| XA | Exhibit attentiveness to Hearer; markings and responses | DF | Discourse function; no illocutionary force | |
| ST | State or make a descriptive statement; assertive | ST | Same; assertive | |

Note: The illocutionary force is given for each act; these are not always equivalent in the taxonomies.

| Ninio & Wheeler 1984/CHILDES 1991 Speech Act Codes (N & W) | | Current Taxonomy Classification | | Notes |
|---|--|---------------------------------|---|---|
| CODE | DESCRIPTION | CODE | DESCRIPTION | |
| AP | Agree with proposition expressed by previous Speaker; assertive | AP | Same; assertive | |
| DW | Disagree with proposition expressed by previous Speaker; assertive | DW | Same; assertive | |
| WS | Express a wish; assertive | --- | | Omitted from current taxonomy; unclear whether 'wishing' is assertive, declarative or expressive; it fails to meet the words-to-world fit of assertives, but may be considered to achieve either the double direction of fit or the null or empty direction of fit of declaratives and expressives, respectively; needs further consideration and clarification of theoretical requirements |
| CN | Count; assertive | IL | Identification/labeling/counting/listing; assertive | Context determines whether or not these acts are truly communicative/illocutionary; the current taxonomy allows for the inclusion of listing and serial labeling |
| QN | Ask a product question; questions and responses | QI | Request for information; directive | Classed with <i>Questions and Responses</i> ; N & W confuse discourse and illocutionary levels by including specific question-answer types such as 'eliciting question' and 'answer in the negative to a yes-no question;' with the exception of QN, the class was omitted; relevant categories are incorporated into the current taxonomy as AP, DW, PA, RD, ST and QC acts |

Note: The illocutionary force is given for each act; these are not always equivalent in the taxonomies.

| Ninio & Wheeler 1984/CHILDES 1991 Speech Act Codes (N & W) | | Current Taxonomy Classification | | Notes |
|---|--|---------------------------------|---|---|
| CODE | DESCRIPTION | CODE | DESCRIPTION | |
| RR | Request to repeat utterance; demands for clarification | QC | Request for clarification/repetition; directive | Current taxonomy includes requests for expansion, explanation and recasts |

Note: The illocutionary force is provided for each act; these are not always equivalent in the taxonomies.

Note: Categories in Ninio & Wheeler's taxonomy that are not applicable to the current study are not included in this comparison; most of the excluded categories do not apply to children's speech. Speech act categories of the present taxonomy not presented in this comparison include RO, GO, DP, DG, and AS, and categories of nonillocutionary communication and noncommunicative/noninteractive language use: FR, GE, RT, DE, NV.