

Language Acquisition, Language Teaching, and the Interpreter as a Model for Language Input.

Abstract: This paper outlines general areas of linguistics, and their relationship to language acquisition. Four specific approaches to teaching language are reviewed. These approaches are then applied to the task of establishing language models for deaf children who enter educational settings without having previously acquired a first language. Finally, the role of interpreter is contrasted with the role of language facilitator.

Introduction

Since the passage of the Education of All Handicapped Children Act (otherwise known in the US as PL 94-142) there has been an increase in the use of interpreters as essential elements in the education of deaf children. Interpreters can be found working with deaf elementary students and even with deaf preschool students. It is worth noting that no other language minority in the United States (to the author's knowledge) receives the bulk of their preschool and elementary educations processed through interpreters. While educational interpreting has grown and served many deaf students with access to good educations, not all deaf children are being served equally well through interpreting services in public school settings. Part of this disservice is related to the language skills of the deaf students upon their entry to interpreted educations. Interpreting can only effectively serve people who know at least one language. Without a first language it is impossible to make effective use of interpreting services. This paper will explore several of these issues and attempts to provide some guidance and practical solutions, but will clearly not contain *the* answer for every deaf or hard-of-hearing child.

The Problem

Deaf children who have hearing families frequently have weaknesses in language acquisition. Often these deaf children do not have complete access to the native language of their families (e.g. English) and the family members are not fluent in the language to which the child does have complete access (e.g. American Sign Language). These deficits in language pose a serious problem once the deaf child is old enough to be placed in educational settings. Whether these children are educated in residential settings, public school settings, or through home schooling, their parents, teachers, and/or interpreters face the daunting task of being a language model to the children.

Language

Before we explore the specific situations that are faced by deaf children, their parents, teachers, and/or interpreters, we must first understand just what we are talking about when we use the word "language." To do that, I give you the "Linguistic Pyramid." Have a quick look at it, and then I'll see you on the other side.

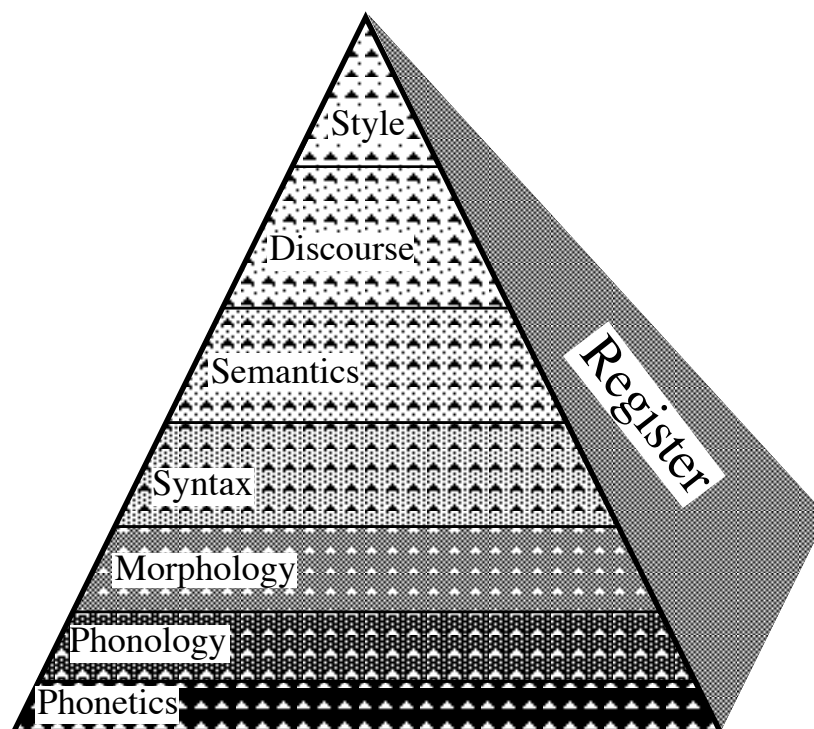


Figure 1
The Linguistic Pyramid

The Basic Levels of Language

Language can be thought of as a series of different skills and rules which overlap and build one upon another. At the bottom, most basic level we have *phonetics*, which consists of the foundational support of language. In spoken languages we have airflow, points of articulation within the mouth, vocal chord vibrations, and other changes in the mouth, pharynx and larynx. When all of these pieces are put together we can produce consonants and vowels and suddenly we're making the sounds of a spoken language. In signed languages we have finger, thumb and limb extensions, rotations, and contractions which allow us to establish handshapes, orientations, and movements between locations. Without the foundation, we can't get very far linguistically.

But it isn't good enough just to have building blocks. We need some rules to guide how the building blocks are assembled and this is the realm of *phonology*. Some languages let you put groups of consonants together at the beginnings or ends of words. In English we have problems pronouncing things like "tlzis" or "gbrang" because we don't like these particular consonant clusters at the beginnings of our words. American Sign Language doesn't like having too many two-handed signs where each hand has a different hand shape. Those two-handed signs that do

have different handshapes are generally limited: the non-dominant hand can only use a few specific handshapes (Battison, 1978).

So, equipped with the building blocks and special rules that govern what kind of combinations are allowed, we can now start to think about the building itself. The whole point of language is to tell people what we mean. And the smallest unit of meaning, linguistically, is the morpheme. *Morphology* is the realm where bits of meaning get bound to other bits of meaning. When we bind the right bits together we can talk about “more than one horse” with the word “horses” because the “s” bit, which conveys a meaning of plurality, gets bound to the “horse” bit; and off you go!

ASL is a morphologically rich language in comparison to English. While English depends on the sequential combination of affixes (prefixes and suffixes in this case), ASL manages to use space in a very efficient way morphologically: various bits of meaning can be combined with others at the same time. A simple example is the use of numeral incorporation. The handshape component may represent the number part of a sign’s meaning. The remaining components may represent the free morpheme component of “weeks,” for example. The resulting combination would have a specific meaning of two-weeks; just enough time to get away from it all!

When we take this idea one step further we start arranging our bits in a line. If I have two brown horses I probably want to use a word order like “two brown horses” to talk about them in English. But if I’m not using English, I might mix up that order and talk about my “brown horses two” or even my “horses two brown.” But if I know the rules of word order, or *syntax*, in my language, then I am likely to keep my words right order in the... I mean... in the right order.

ASL shares the same underlying word order of English (Liddell, 1980). But this doesn’t mean that every ASL sentence (or even that a majority of them) will follow the typical patterns of English. The underlying word order is only a starting point and many syntactic rules, such as topicalization, allow for changes in the word order. In ASL this might mean that my topic is the two horses and my comment is that they are brown; or perhaps my topic is the brown horses and my comment is that there are two of them.

The Higher Levels of Language

Well all of this is fine, you say, but where does the interpreting part come into all of this? It hasn’t yet. You see, we need all of these things to use language, but until we start talking about meaning and *how* we use language, we can’t begin to address the issues related to the interpreting process. So when we start talking about meaning, otherwise known as *semantics*, then we can leave the mundane world of words and start getting to the message carried by those words. This is pretty important stuff, because what we are saying here is that we cannot interpret what we do not understand. So pay attention!

So here we are with semantics. Surely that’s good enough, right? I mean, all we have to do is understand what the words mean, find the words which mean the same thing in the target language, and say those words, following all of the other rules we already talked about. Well that’s fine if you want to turn a comedy routine into a dry and pointless lecture; but you might not get hired

again in your lifetime (and that's not good because you need the work!)

The *way* we use words is about as important as what those words are. This is the realm of pragmatics and *discourse*. We need to know how our consumers are using the words they say; but then we also need to know the appropriate ways to say those things in the target language. This is real work, and it is also real interpreting.

Alright, so now where do we go from here? I mean, this as good as it gets, right? Well, there is one more level toward perfection: stylistics. When we understand the message well enough to adequately predict where it is going; and we also understand the person creating the message well enough to know her purpose, her tendencies, her idiosyncrasies of language use; then we have entered a *stylistic* understanding of the source text. If we are further able to reproduce equivalencies of these individual linguistic tendencies in the target language, then we are being about as accurate and perfect as we can ever be when we interpret. Whew! Good luck!

Register Variation

Now that we have all the building blocks, we can turn the whole thing sideways and look at how language gets modified. Cutting across all of these levels of the linguistic pyramid is what has come to be called Register Variation. Martin Joos developed a theoretical division of the ways people talk (intimate, casual, consultative, formal, frozen) but never called this register variation (Joos, 1961, 1968). People have latched on to his writings as an explanation of Register Variation, in part because it had a nice small number of divisions – five (just the right number to count on your hand). While Joos' "five clocks" and the concept of register variation are related, it is important to understand that studies of register variation do not limit themselves to only five divisions, nor are there only five kinds of register being dealt with by the consumers of interpreting services. So to set the record straight – quite simply, register variation is the way people talk given (1) where they are, (2) who they are talking to, and (3) what they are talking about (Gregory and Carroll, 1978).

So register variation can appear as changes in any or all of the levels of the linguistic pyramid. It may be demonstrated in the changes a person makes when they are talking to their boss or talking to their child. To the Boss - perfect pronunciation of technical words and jargon with some routine phrases that are only understood in the work environment. To the child - some "cutified" pronunciations of words that the child understands but few people outside the home would recognize, simpler sentences, and occasionally incorrect morphology in an attempt to reduce the difficulty for the child to understand.

Of course we are always modifying how we communicate even with the same people depending on where we are and what we are talking about. We even see differences between people in the same situation talking about the same thing: Let's suppose that we wish to apologize to our boss for messing up the "Jones account." We are likely to say things like "Um, boss, I'm really sorry that I messed up the Jones account and I'll never do it again." whereas our boss is likely to say things like "Johnson, this is the last time this company can afford to absorb your mistakes. The next time you'll be fired!"

Now let's suppose that on a different occasion you've actually impressed the boss: "Johnson,

I want to tell you how pleased I am with the work you put into the Smith account. Thanks to you, this company can afford to purchase a company car for your division.” To which you reply “Thanks, boss!” Each person in each exchange is speaking in very different ways, yet these would all fit in the realm of Joos’ “consultative clock.” So understand that register variation is a grand, all encompassing idea, not just five little divisions of communicative behaviour.

Metalinguistics

Just *one* more technical term that’s worth knowing and then we can get on to other things. *Metalinguistics* is the use of language to talk about language. This whole paper can be considered one huge metalinguistic task. The value of being able to use language to talk about language is that we can discuss the rules of correct language usage. The sections below address issues of language acquisition. It is important to note that very young children are generally incapable of making use of rules that are explained to them – the children simply have to figure out the rules on their own. When they’ve figured out enough of the rules, however, then they are ready for metalinguistic discussions. One of the advantages of metalinguistic ability is that it helps children (and adults) to learn *second* languages (O’Malley & Chamot, 1990).

Language Acquisition and The “Sliver”

Let’s get back to the linguistic pyramid – and language acquisition. The pyramid is part of a theory which can help guide us through reality. While each level of the linguistic pyramid appears to be distinct, it is important to remember that each level builds on the levels below it. Language acquisition does not happen in perfectly clean stages: we don’t have to acquire every last bit of phonology before the first piece of morphology can begin. We all know of cases where children say strange things, such as “puh-sketti” for “spaghetti.” There is meaning behind the word, even if it is mispronounced. It can be used in meaningful discourse about meal plans – or clothing stains – all sorts of things. So language acquisition is more like a progressively growing sliver that builds up within the pyramid over time. As long as we continue to use language, we will also continue to expand our sliver in the pyramid.

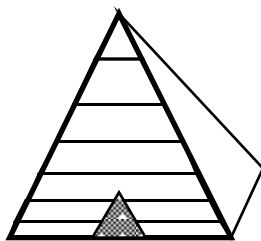


Figure 2
The First Sliver of Language

Infants begin life making sounds, but their mouths are very small and don't have teeth. This leaves them unable to produce a large number of speech sounds that adults can produce. Infants also lack the muscular control in their hands and arms to match the signs and gestures made by adults. By the age of 6 months, however, infants begin to limit their spoken and signed phonology to match that of the language around them. These language building blocks still don't mean much yet (as far as we know) but the parents become really excited about them. This represents the first "sliver" of language acquisition. The child has acquired some basic building blocks, whether they are speech sounds or hand shapes and locations, but at this point the building blocks have no meaning.

In ASL we see that some handshapes are acquired earlier than others: the 1, 5, and A/S handshapes are first acquired (McIntire, 1977, and observations by the author¹) which will have an impact on what ASL words a child can correctly produce. But for the most part a child will be able to generate every ASL handshape by the age of five.² Regardless of how exactly children articulate their ASL words, they can still produce coherent and meaningful utterances (e.g. FATHER using appropriate 5 handshape but done on the top of the head with Back-of-Thumb contact instead of on the forehead with Tip-of-Thumb contact.³)

By the time children are around ten to twelve months of age they start to produce single words in isolation (or in conjunction with pointing gestures). These do have meaning for the child, although that meaning is often being worked on for a while and keeps the parents guessing how many entire concepts are meant when the child utters a single word.

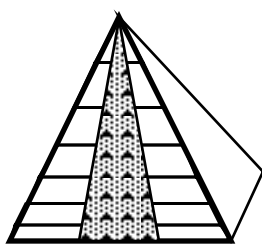


Figure 3
A Few Words

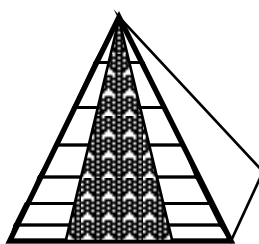


Figure 4
Simple Sentences

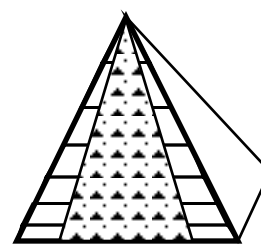


Figure 5
The Journey Has Begun

As children are exposed to more language they continue to acquire more words and expand the meanings of those words. Once children have a basic foundation of about fifty words their little minds start working in overtime shifts, adding as many as nine new words each day (Carey, 1978).

¹Personal observations of a deaf infant between thirteen and twenty months of age.

²Personal observations of a deaf child aged five years.

³Personal observation of a deaf infant between the ages of eighteen and twenty months.

Two-word combinations take the place of one-word “sentences.” Common phrases are learned in their entirety and adults modify their language to accommodate their child’s abilities: for example the “all” words - AllGone, AllGrownUp. Basic structure variations are acquired and pretty soon children are applying rules to the words they have been using for over a year. The child will then “create” new words that follow these recently discovered rules, such as “comed,” “goed,” “eated,” “buyed,” and “hurtied.”

This point between basic word-order acquisition and refining, or revisiting, morphology appears to be the point that the child can finally be said to be using language because the last piece of the language puzzle has been put into place. Let’s review just what kinds of things have to happen before we have a language.

There is general agreement that language must consist of the following five pieces (These are adapted from Chapter 1 of Baker and Cokely, 1980):

- 1) A language has symbols and grammatical signals
- 2) A language’s symbols and signals are relatively arbitrary
- 3) A language is shared and used by members of a community for interpersonal interaction
- 4) A language is systematic – it has rules
- 5) A language changes with use across time

Now, about that last item, regarding how a language must change over time – we do see that children adjust and change their language productions over time, but item (5) of the definition is really addressing historical changes between generations of language users. So the first four items give us the definition we need to know in order to determine whether any given child is systematically using a language.⁴ When children start applying rules (item 4) to their own language productions, those children can be said to have acquired language.

The Parent’s Role in Language Acquisition

Within families where the children have access to the language of the family, the parents and older members of the family provide natural language environments in which the children will become fluent language users by the age of five. This happens in hearing families and in Deaf families alike. The key issue is that the child has access to the family language. The families provide a first language to their children without consciously working to do so.

Hearing families with *deaf* children, however, will generally have to make a conscious effort to provide an accessible language environment for the deaf child. There are a number of choices that can be made. One language decision is for the parents to begin learning a second language (i.e. American Sign Language) and hope to become reasonably fluent in it before the child is five years old. If the parents are not likely to be fluent by the time the child is five, then the parents should enlist the support of people who are native users of ASL in order to provide clear and consistent

⁴ It appears to be the fourth item, that languages must be rule-governed, which is not acquired by those friendly chimpanzees signing “I Love You” in the movies. This is where we see that humans do acquire language completely, but specially trained primates can only come so far, never acquiring all the pieces to the language “puzzle.”

models of the language.

Another choice that parents may pursue is to learn an encoding system that can be paired with the language already used by the family. One encoding system which does not mix the morphology and semantics of signed and spoken languages is Cueing⁵. This choice allows parents to avoid learning a second language, but it still requires training and commitment.

Either of these options still presents problems to the parents and the deaf child. The parents must consciously choose to use either the signed language and/or the manual encoding system in order to allow the child access to the language environment. The child cannot benefit from either approach unless the chosen approach is consistently used to make the language environment accessible. Parents may find it very difficult to consistently provide access to all of the communication surrounding the child, especially the communication that is not directed toward the child. Incidental learning is a significant component of the higher levels of language acquisition: children learn pragmatic aspects of their language by observing the conversations that other people have between themselves.

The Teacher's Role in Language Acquisition

In regular educational settings in the United States, the children in elementary settings are already fluent in a native language. Some of the children may be bilingual, some of them may be fluent in a language which is not used for instruction in the classroom, but basic language skills have already been naturally acquired by the children. The teacher is generally able to draw on the language skills that the children already have in order to expand the knowledge and understanding that the children have about themselves and the world around them.

Even for those children who are not fluent in the language of instruction, they still can draw on their knowledge of how a language works and make adaptations which over time can lead to natural acquisition of a second language. The teacher and other children in the classroom function as models for language input. Deaf children *without language* who are placed in educational settings *without access* to the language of instruction are at a *severe disadvantage*.⁶ These deaf children have no existing knowledge of how a language works to help them acquire their first language. This places undue burden on the teacher to also function as a model of language input, especially in situations which are not designed specifically for the education of deaf children. This is much less of a problem in settings that are designed for deaf children, especially when the teacher is natively fluent in a signed language and is in a position to use that language for classroom instruction.

⁵This paper uses the terms "Cues" and "Cueing" in reference to the encoding system originally called Cued Speech. Cueing is a manual encoding system for spoken languages which uses eight handshapes, four locations, four movements (including epenthetic movement) and a single hand orientation in order to supplement the otherwise incomplete remnants of spoken language information provided by mouth movements. Although cues can simultaneously accompany spoken language production, cueing is a silent and visual representation of speech sounds which does not require speech production or auditory components. Cues represent phonemic information rather than phonetic information – i.e. cues identify speech sounds but do not identify how the sounds are made.

⁶While this point should be obvious to people who interact with deaf people and are fluent in a signed language, it is not so obvious to people who do not comprehend the significance of visual accessibility for the acquisition of language by deaf people. School administrators may not be fully informed about issues regarding deafness, the nature of signed languages, and the intricacies of language acquisition.

The Interpreter's Role in Language Acquisition

While hearing children will enter their first educational setting with various degrees of language fluency, deaf children who enter interpreted educational settings currently have a much broader range of language ability. Children with parents who use ASL at home are likely to begin their school career with a firm foundation in ASL, their first language. These children are likely to be very similar to their hearing peers who enter school with a first language other than the one used for instruction (for example, Spanish, Vietnamese, or Russian). Children whose parents have consistently cued English or Spanish (or any other spoken language) which is used in the home are also likely to begin their school career with a firm foundation in whatever spoken language has been consistently made accessible to them. But both of these situations are rarities.

While other types of encoding spoken languages range from oral-only approaches to a variety of manual English codes, the results are predictably inconsistent in producing fluency in the spoken languages they attempt to encode (Supalla, 1986). As a result, many deaf children with hearing parents begin their school careers without fluency in any language. What is absolutely amazing is that many of these children without language are placed into educational settings with interpreters.

Interpreters perform their work between two languages: the *source* language and the *target* language. In most interpreted classrooms in the United States, English will be one of those two languages. Whatever language the deaf student has is the other language, but if the deaf student does not have any language at all, then interpreting is impossible: how can we interpret from English to Nothing and from Nothing to English? This means that an alingual deaf student must be exposed to a first language and become at least basically fluent in that language before anything close to interpreting can take place with that child.

How can interpreters provide the appropriate language input for those children who come into mainstreamed classrooms without any language at all? The first part of the answer is that interpreters cannot be a language model by *only* interpreting. Language acquisition requires meaningful communication between people. A language cannot be acquired just by listening to a radio or watching television (although a few amazing stories do circulate once in a while).

While the *art* of interpreting allows freedom and flexibility in how one conveys a person's message from one language to another, the *science* of interpreting guides interpreters to remain faithful to the intentions and meanings (as best we can) of the original speaker. Interpreters are not to add to the message, are not to delete from the message, nor to skew the meaning of the message in any way. Cultural adjustments are acceptable, but not to the extent of rewriting or censoring the original text. Watching an interpreted message is in many ways more like watching a television than interacting with a person.

This is not to say that an interpreted education cannot lead to greater levels of language fluency. Once a basic foundation in a language has been established, it is indeed possible for children to learn from relatively few exposures to new words, such as through television (Rice & Woodsmall, 1988). A child who has basic language fluency should be able to build on that fluency even by being exposed to their first language through interpretation. The interpretation must be fluent and

cohesive, however, which is not necessarily the kind of product all educational interpreters are currently generating.

The Language Facilitator's Role in Language Acquisition

If the parents have been unable to be an effective language model for their deaf child, then someone else will have to take on this responsibility. One approach is to provide a *language facilitator* to guide the acquisition of a first language. The language facilitator role is different than that of an interpreter as a communication facilitator. Interpreters facilitate *communication* by working to convey people's intended meanings between two languages and cultures. The *language facilitator* must be fluent (if not native) in the target language and should work with the child one-on-one, or in small groups. Ideally this person should also be a trained teacher who can engage children in conversations, and understands the progressive levels of language acquisition and cognitive development. Unfortunately it is hard to find this ideal combination of target language skill and training in education, psychology, and linguistics.

The reality in most states is that the majority of the trained teachers (even in some residential schools for deaf children) are not fluent in ASL and the majority of people who are fluent in ASL are not trained language teachers. In many situations the interpreter is left as the only person in the educational setting who is fluent in the targeted first language. Some of these interpreters actually do have appropriate language abilities and appropriate training to function as language facilitators, but most educational interpreters have not been trained in language development and should not be given the burden of being the deaf child's model of a first language.

Many people have high expectations for residential school settings regarding both language training and educational outcomes; but the current state of residential schools in the United States suggests that there is room for improvement. While many residential schools for deaf children have begun implementing bilingual education program, public school programs using interpreter services can still offer a rich language and educational environment for deaf children when that environment is structured correctly.

Which educational environment is the best for the deaf child? The answer can only be "it depends." It depends on which environment has the better combination of ASL fluency and educational training. It depends on whether the deaf children are seen as a group who will thrive in the right language environment or as a group that is disabled and who will never achieve to the same levels as their hearing peers. It depends on the amount of respect the educational environment has for American Sign Language and the approaches that will be taken toward teaching English. Are there any elementary teachers who are deaf and use ASL in the classroom?

All residential schools offer social advantages to deaf children, but a few of them fall short in the remaining areas relevant to teaching deaf children. Nearly all of the residential schools in this country were oral institutions in the recent past (Gannon, 1980) and some faculty members and administrators at residential schools still do not respect ASL or Deaf culture. Some faculty members at residential schools see deaf children as severely disabled. The peer-communication environment of the residential schools is a positive aspect that most public school settings do not

have, but if a young child is commuting to a residential school and not staying in the dorms, then even these social advantages are diminished. Residential schools are more likely to have deaf people teaching the children, but at what grades do they teach? Are there any deaf teachers at the elementary levels or are they mostly in the high school? Not all residential schools are the same.

Therefore, there is a demonstrated need for well-trained, educated, and bilingually fluent language facilitators and interpreters in alternative educational settings. The rest of this article provides information about four different methods or approaches to language teaching which may be helpful in developing the language skills of a student before any attempt at interpreting is made.

Language Teaching Approaches

The four approaches reviewed here were all designed to teach second languages. Some modifications are suggested in how they might be applied in facilitating the acquisition of a first language and a second language for deaf students. All of these are presented with the intention that they would be used to facilitate bilingual skills in American Sign Language and written English. This information is provided only as a general overview and does not represent a comprehensive investigation into the methods or their applications.

Grammar-Translation Theory and Description

One of the first approaches to teaching language was geared not so much for interpersonal communication in face-to-face settings, but rather for reading texts written in other languages such as Greek or Latin (Omaggio, 1986). The Grammar-Translation method focuses on memorizing vocabulary words and structural rules. Students use their knowledge of their native language as the bridge to the second language with most of the class discussion occurring in the native language. No emphasis is placed on how to pronounce anything with native fluency.

Over time, with much practice, the learners gain the skills necessary to read texts written in other languages and to write in the studied language to the extent that the target language is regularly rule-governed. Through comparisons between two languages, the learners also improve their understanding of the grammatical rules governing their native language.

Because it depends on the student actively working on translation, this method cannot be used to teach a first language. The child must have enough language to *talk about* language (metalinguistic skill) before this method can be applied to second language learning.

This approach can be a valuable part of teaching deaf children to read English, but may lack the power to produce native-like written English simply because of the many irregularities of the English language. Since there is no widely-used written form of ASL as of this writing, the use of video tape is necessary to document ASL texts in order to apply this method to ASL instruction.

Audio-Lingual Theory and Description

The Audio-Lingual approach was developed in the 1940's and was designed to allow people (in particular, soldiers) to be able to understand information spoken in other languages as well as to speak those languages and pass as native speakers (Omaggio, 1986). This method employs the use of tape recordings and intensive instructor-driven drills which emphasize correct production rather than studying grammar. This approach was based in behavioral theory which suggested that people

learn by observing, doing, and either being rewarded or corrected. The instructor follows well-planned lessons, including dialogues which the students practice and memorize. The instructor must consistently praise or correct-then-praise students to maintain motivation and encourage continued learning.

Oralist approaches to deaf education may take advantage of some of these techniques, but since the deaf student does not have full access to information in spoken form, the results are not likely to be universally successful. The approach has been applied successfully to teaching ASL, but is often modified to include direct teaching on grammatical aspects of the language. The repetition and drilling is intended to provide intensive models of how the language works, but child language acquisition studies indicate that young children would not benefit from this method. Therefore the Audio Lingual Approach should be reserved for fine tuning a first language after basic fluency has been achieved, or for the teaching of a second language.

Total Physical Response Theory and Description

Total Physical Response was developed by James Asher (1986) and is based on several ideas regarding first language acquisition. First, children *acquire* language rather than *learn* it. Second, many of the uses of child-directed language are intended to have the children do something (e.g. “come here, sit on your chair, don’t touch that!” etc.). Third, language learning is inhibited by pressure to produce language, therefore *comprehension* of language should be the initial priority over *production* of language. Fourth, given that comprehension should be the initial priority, one can measure comprehension of language through actions (tell the language learner to draw a circle and see what they do; if they draw a square instead, at least they understood the command to draw something). Fifth, by connecting language acquisition and physical movements the learners are expanding the numbers of ways that they can remember the pieces of language.

Total Physical Response classes can look like a long game of “simon says,” but the idea is that movement related to language will reinforce understanding and allow more direct comprehension of the target language without having to learn *through* another language. As students progress, the simple commands (stand up, sit down, turn around) can become more complex (stand up, walk over to Maria, tell her to have John stand on the chair and jump off, then tell David to put the chair against the wall...). Later on, students can take on the teacher’s role and direct class sessions themselves. This method has been used with consistent success for teaching both English and American Sign Language (Asher, 1986).

Because it is intended to parallel natural language acquisition, TPR should prove to be very useful for the initial stages of teaching a first language. Patience is required since the student must not be forced to generate utterances in their new language. The method focuses on comprehension above production. Other methods mentioned above can be applied later to fine tune the student’s language production.

The Natural Approach Theory and Description

The Natural Approach was developed by Terry Terrell (1977, 1982). It begins by using Total Physical Response initially for immediate, basic comprehension. At the point that students begin to feel comfortable producing language then the Natural Approach ideas are introduced. These ideas use questions and answers initially to expand upon the student's knowledge. The teacher begins with yes/no questions, then Wh questions which have single word responses, then on to more complex questions as the students' skills develop. Once basic fluency is attained, the Natural Approach suggests that language instruction should focus on real-life communication situations rather than scripted dialogue drills and memorization tasks. Since first languages are generally acquired through use, the Natural Approach uses language in order to teach it.

One problem with the Natural Approach is that it is geared primarily for basic fluency rather than accuracy. The student's attempts at communication are not to be corrected because corrections may inhibit the comfort that the student has in using the language. Corrections are to be used only in homework assignments, not during face-to-face interaction. Without modeling of correct forms, students may establish patterns of incorrect use which will be difficult to correct later on.

Language Goals for Deaf Students

Of all the bilingual language communities in the world, the bilingualism of deaf communities is one of the most stable. In most other bilingual communities, the bilingualism is transitional: one language is replacing another either for economic, political, or other reasons. Often the pattern is that a community, which is monolingual in a dominant language for that community, comes into contact with another community using a different language. Between the two communities, one language or the other becomes dominant and the members of the less dominant community begin to shift their language dominance to the new language. This may happen in as few as three generations where the first generation is monolingual in the "old" language, the second generation is bilingual, and the third generation is monolingual in the "new" language.

The Deaf community is bilingual for different reasons because signed and written languages serve different purposes for them. As of this writing, ASL has no standard written form. This means that another language must be used for TTY communication, captioning, and newspapers and magazines, all of which are components of the deaf community. ASL is used for interpersonal, face-to-face communication as well as for live and video-taped performances. Both languages serve important functions to the community and therefore the result is stable bilingualism. Therefore one important goal for the language acquisition of deaf children should be balanced bilingualism where the children are equally fluent in both ASL and English.

The deaf child who comes to the school environment without any language has an urgent need to acquire a first language as soon as possible. There is a growing amount of research that indicates that delay in acquiring a first language can result in language difficulties for life (Curtiss, 1977; Lane, 1976). Various researchers have suggested that the human brain begins to lose the ability to acquire language between the age of five years (Krashen, 1973) and puberty (Lenneberg, 1967). These research findings and theories suggest that deaf children without language need to

begin learning a language quickly and directly. Because it is visually complete, American Sign Language is the primary language to which American deaf people have complete and natural access. It is the logical starting point for a deaf child who is delayed in acquiring a first language.

Application of Language Teaching Methods

Other methods of teaching language exist and could also be applied to a comprehensive plan for bringing children with a language delay into native-like fluency. The best plan would be one in which there had never been a language delay in the first place. These suggestions are offered as a potential repair of circumstances which are all too common for deaf children of hearing parents.

A communication facilitator working with an ailing deaf child could begin using Total Physical Response (TPR) techniques to build basic fluency in ASL, then progress to ideas in The Natural Approach (TNA) once the child starts producing ASL words. The goal in this stage is to get the child to basic fluency as quickly as possible.⁷

In order to provide true access to two cultures, the deaf child will need to have access to spoken language, in addition to the written forms of that language. This can be accomplished visually through the encoding tool of cueing. Much of a hearing child's culture can be found in rhyming, songs, and puns, which are the most difficult aspects of any language to translate into another language. Following a similar approach as that listed above (TPR followed by TNA), a deaf child can begin to access English through cued transposition of spoken English.

Every language is encoded to some extent through its phonetics and phonology. ASL uses handshapes, orientations, locations, and movements. Spoken English is encoded through points of articulation in the vocal tract, voicing, nasality, and so on. Written English is encoded through straight and curved lines and other markings. Cues encode spoken languages at the phonological level through handshapes, locations, movements, and mouth movements (but actual speech production is not required).

Given a child who has no language upon entry to school, the optimal approach to providing a language base would be immersing the child in a natural language, using a naturally developed encoding, such as ASL. Cueing remains extremely useful because it provides an accessible and accurate means of representing the culturally relevant aspects of spoken English of rhymes, puns, and onomatopoeia in more efficient and less confusing ways than manual English codes.

Once children achieve sufficient knowledge of ASL, they will gain the metalinguistic ability to discuss the language, its structure, and proper use in various situations. At this point, language instruction can begin to directly address grammatical issues in ASL and use the ideas of Grammar-Translation theory to apply this linguistic knowledge toward learning written English.

⁷The process of becoming conversationally fluent appears to require about two years of continual language exposure and use. Personal experiences with two language-delayed deaf children provided evidence that they both demonstrated consistently acceptable ASL discourse strategies only after at least 20 months of exposure to and use of ASL. These children began their language acquisition at 5 years, 1 month and at 6 years, 7 months. The child who started at age five required about four months less time than the older one to gain discourse fluency (determined by the child being able to tell coherent stories), but there are a constellation of differences between the children beyond their ages of initial exposure to ASL, therefore there could be further variation from the general time frame of 24 months depending on the child's background and language history.

These three methods of language teaching seem best suited to provide a bilingual/bicultural base of language for deaf children. In addition, the Audio-Lingual approach may prove useful for rote memorization skills such as spelling/vocabulary tests and drilling or rehearsing new components of either the first or second language. It is important to keep in mind that the Audio-Lingual method requires a high level of motivation from the student and organized, structured drills from the teacher.

Summary and Conclusions

What we understand about language is that there are many skills and rules which all come together, as represented by the linguistic pyramid. When we consider the guided acquisition, or teaching, of language, we should consider whether the final plan includes all the levels. Some language teaching methods focus on some levels of the linguistic pyramid more than on others. The best approach will always be designed with the specific child's needs in mind and may consist of pieces from a variety of language teaching methods.

What we understand about language acquisition is that it follows progressive stages and works toward fluency as long as the language input is 1) completely accessible to the learner and 2) the learner is relatively young (best if younger than five, still a chance between five and thirteen). The act of interpreting does not seem likely to provide the language input necessary for language acquisition. Interpreters might take on the role of language facilitators, but should do so only if 1) the interpreter is fluent in the language to be developed as the first language of the deaf child (given the arguments above, the child's first language should be American Sign Language), 2) the interpreter will not be expected to function as an interpreter when they are functioning as a language facilitator, 3) the interpreter has adequate language teaching knowledge and training to become a language facilitator for the deaf child.

The question of whether an interpreter can fill the role of language facilitator cannot be answered until the overall goal of the interpreter in the educational setting has been determined. Without a defined goal it is impossible to determine which aspects of an interpreter's performance work toward the goal and which ones work against the goal. Even if we assume that part of the goals for deaf children in educational settings is that the children work toward balanced bilingualism, the interpreter's role in this educational goal still needs to be defined. The overall goal of balanced bilingualism is not impossible to achieve and is already being achieved in many places across the country. Unfortunately, these educational goals are rarely taken into consideration when hiring or assigning interpreters in educational settings.

Working educational interpreters must advocate for clarifying their responsibilities and exposing their administrations to the needs of deaf students. Regardless of how their roles will be defined in the future, working interpreters within educational settings can improve the language acquisition environments of the deaf children they serve by continuing their own education and raising the awareness of co-workers and supervisors.

Bibliography

- Asher, J. 1986. *Learning Another Language Through Actions: The Complete Teacher's Guidebook, Third Edition*. Los Gatos, CA: Sky Oaks Productions, Inc.
- Baker, C. & D. Cokely. 1980. *American Sign Language: A Teacher's Resource Text on grammar and Culture*. Silver Spring, MD: T.J. Publishers.
- Battison, R. 1978. *Lexical Borrowing in American Sign Language*. Burtonsville, MD: Linstock Press.
- Bjorklund, D. 1989. *Children's Thinking: Developmental Function and Individual Differences*. Pacific Grove, CA: Brooks/Cole Publishing Company.
- Carey, S. 1978. The child as a word learner. In M. Halle, G. Miller, and J. Bresnan (Eds.), *Linguistic Theory and Psychological Reality* 264-293. Cambridge, MA: M.I.T. Press.
- Cornett, R. O. & M. E. Daisey. 1992. *The Cued Speech Resource Book For Parents of Deaf Children*. Raleigh, NC: National Cued Speech Association.
- Cummins, J. 1979. Linguistic interdependence and the educational development of bilingual children. *Review of Education Research* 49:222-51.
- Curtiss, S. 1977. *Genie: A psycholinguistic study of a modern-day "Wild Child."* New York, NY: Academic Press
- de Villiers, P. & J. de Villiers. 1979. *Early Language*. Cambridge, MA: Harvard University Press.
- Gannon, J. 1980. *Deaf Heritage: A Narrative History of Deaf America*. Silver Spring, MD: National Association of the Deaf.
- Gregory, M. & S. Carroll. 1978. *Language and Situation: Language Varieties and Their Social Contexts*. Boston, MA: Routledge & Keegan Paul.
- Grosjean, F. 1982. *Life with Two Languages: An Introduction to Bilingualism*. Cambridge, MA: Harvard University Press.
- Hervey, Sándor. 1992. Registering registers. *Lingua*, 86: 189-206.
- Joos, M. 1961. *The Five Clocks*. New York, NY: Harcourt, Brace & World, Inc.
- Joos, M. 1968. The isolation of styles. In *Readings in the Sociology of Language*. J. Fishman, Ed. New York, NY: Mouton Publishers.
- Krashen, S. 1973. Lateralization, language learning and the critical period: some new evidence. *Language Learning* 23:63-74.
- Lane, H. 1976 *The Wild Boy of Aveyron*. Cambridge, MA: Harvard University Press.
- Lenneberg, E. 1967. *Biological Foundations of Language*. New York, NY: Wiley Publishers.
- Liddell, S. 1980. *American Sign Language Syntax*. New York: Mouton Publishers.
- McIntire, M. 1977. The acquisition of American Sign Language hand configurations. *Sign Language Studies* 16:247-266.
- Omagio, A. 1986. *Teaching Language in Context: Proficiency-Oriented Instruction*. Boston, MA: Heinle & Heinle Publishers, Inc.
- O'Malley, J. M. & A. U. Chamot. 1990. *Learning Strategies in Second Language Acquisition*. New York, NY: Cambridge University Press.
- Rice, M. & L. Woodsmall. 1988. Lessons from television: Children's word learning when viewing.

Bibliography

Child Development 59:420-9.

- Supalla, S. 1986. Manually coded English: The modality question in signed language development. In *Theoretical Issues in Sign Language Research, Volume 2*. S. Fischer & P. Siple, Eds. Chicago, IL: University of Chicago Press.
- Terrell, T. 1977. A natural approach to second language acquisition and learning. *Modern Language Journal* 61:325-37.
- Terrell, T. 1982. The natural approach to language teaching: An update. *Modern Language Journal* 66:121-32.
- Valli, C. & C. Lucas. 1992. *Linguistics of American Sign Language*. Washington, DC: Clerc Books.
- Zimmer, J. 1989. Toward a description of register variation in American Sign Language. In *The Sociolinguistics of the Deaf Community*. C. Lucas, ed. San Diego, CA: Academic Press.
- Zimmer, J. 1990. From ASL to English in two versions: An analysis of differences in register. *Word* 41:1, 19-34.