

Descriptive and Communicative Elements of Language: A Proposal for a New Approach to Grammar

HESHIKI Kazumi*

Key words: **descriptive element, communicative element, context, pointing, metaphor**

Thirty-five years after its revolutionary debut, Chomsky's grammar seems to have proven itself to be not a truly universal grammar but a failure by its own criteria: the "explanatory adequacy."

This essay proposes a new approach to a universal grammar. A new grammar that is intended to replace Chomsky's, however, must satisfy Chomsky's criteria. To overcome the limitations of Chomsky's grammar, it must expand its scope to include social as well as cognitive factors.

The new grammar described in this essay reflects the views of sociolinguists and psycholinguists who have argued against Chomsky's concept of innate linguistic competence. They have pointed out that both social competence and cognitive competence are indispensable to properly account for language.

This essay offers a model that explains how the two essential competencies interact with each other while also interacting with the environment, and how these dual interactions eventually develop a mental schema that stores in memory metaphors of our experience. The writer attributes language to this metaphor system in the cognitive structure. The proposed grammar is based on this model.

INTRODUCTION

Purpose

The theme of this essay relates to the dualistic nature of language that prompts questions such as "How much of it is innate and how much is social?"¹ or "How much of it is universal and how much is cultural?" The purpose of this essay is to offer an idea about a linguistic model, or a grammar that can answer these questions. Of course,

* 平敷和美: Adjunct Instructor, College of Community and Continuing Education, University of Alaska at Anchorage, U.S.A.

¹ Many papers have been written on this topic. See Bowerman (1973).

the model will not attempt to determine literally “how much”; rather, it is meant to explain how such opposing factors contribute to language.

The Basic Assumptions

The proposed model reflects two assumptions. The grounds on which each of these assumptions are made will be clarified through the discussions that follow. The first assumption is language acquisition has to do with the child's cognitive power (mind) and with the society in which he or she is brought up. The second is that these two aspects of language are reflected in the way language is formed and used.

Dualism

Language Acquisition and Linguistic Competence

One question that inevitably occurs when people discuss language teaching or learning is how children learn language so naturally and effectively.

Chomsky has centered his inquiry into language on the question of language acquisition and believes that children are born with a tacit LAD (language acquisition device). He presumes the existence of an “innate ability that makes this achievement possible.” Chomsky (1965: 27) asks “What are the initial assumptions concerning the nature of language that the child brings to language learning and how detailed and specific is the innate schema that gradually becomes more explicit and differentiated as the child learns the language?”

Chomsky thinks that a grammar should be able to answer this question. On the basis of this assumption, he has created his theory of transformational grammar: a mechanism for generating correct sentences through innate linguistic competence.

The Flaw in Chomsky's Approach

Chomsky's unique approach fascinated many people and created a global scale stampede among students of language. Now the fascination seems gone, and in the aftermath of what is often called “the Chomsky revolution,” new trends have clearly formed in the study of language. There are two mainstreams of thought: the sociolinguistic approach and the psycholinguistic approach. These two approaches counter Chomsky's theory and have evolved around questions about the nature of innate competence in language acquisition. Neither approach denies the existence of a tacit LAD, which was Chomsky's starting point. Chomsky's question regarding “explanatory adequacy” still holds.

The basic criticism shared by both groups is that Chomsky's view of language is too narrow. Chomsky ignores the commonly supported idea that language learning is a social process as well as a cognitive one by deliberately omitting the social factors of language from his grammar.² He also excludes the adjacent and potentially important area of cognitive psychology, where Piaget established his theory of intelligence.

² Chomsky (1968, 1972) proposes to disassociate performance factors from linguistic competence.

Sociolinguists and psycholinguists think that Chomsky's characterization of innate competence as linguistic competence is wrong. From their arguments against Chomsky, two important notions have come forth. One is the idea of "communicative competence," introduced by sociolinguists, and the other is the concept of the "cognitive universal," presented by psycholinguists.

The Two Perspectives

Communicative Competence

What is missing from Chomsky's perspective is the relationship of language to communication, where language is actually put to use. Sociolinguists want to expand the scope of linguistic theory "beyond sentences to speech acts" (Hymes, 1971). For sociolinguists, "the central notion is the appropriateness of verbal message in context or their acceptability in the broader sense" (Gumperz and Hymes, 1972), rather than "the ability to formalize sentences as grammatically acceptable." Since the appropriateness of a sentence in a given context cannot be determined by the grammar of the sentence alone, it needs a "grammar of speech."

The core of the new approach is an ethnography of speaking, which, according to Hymes (1971), is "a theory of speech as a system of cultural behavior." Therefore, it encompasses all aspects of communication, including questions of discourse, code-switching, and communicative style. It deals with nonverbal and verbal messages.

Hymes (1971) argues that social factors are also based on tacit knowledge, along with grammar; therefore, they should be studied as aspects of competence.

The Cognitive Universal

Sinclair-de Zwart (1973: 11) disagrees with Chomsky's view that the language acquisition schema is innate. Instead, she suggests "... the child brings to the task of acquiring his mother tongue a set of universal cognitive structures which have been built up during the first year of life and which provide enough assumptions about the nature of human language to enable the child to begin to join the talking community at about the age of one and a half."

This leads us to Piaget and his sensory-motor schema theory as a most feasible alternative approach, because what the theory provides is basically this type of "universal cognitive structure." Piaget (Evans, 1976) believes that the process of knowing begins to take place before the child acquires language.

This view of Piaget illustrates a fundamental difference between Piaget and Chomsky in their attitudes toward language. Piaget's emphasis on sensory perception and action as the basis of the initial structure of human intelligence brings a wider perspective to the study of language. It helps us realize that the process of understanding is more basic in human life than is language.

The Gap between the Two Perspectives

Measuring the Gap between Social and Cognitive Views

Although Chomsky and Piaget differ in their views on the nature of the initial cognitive schema of language acquisition, a striking similarity between them is the indifference in their theories to the role of society.

The distance that existed in Piaget's view toward social influence has been reduced as inquiries into the cognitive universal have advanced.

E. Clark (1973: 74), in discussing how children learn about the meaning of words, says that "the first semantic features that the child uses are liable to be derived from the encoding of his percepts . . ." and that those features acquired earliest are the more general ones; "the later addition of more specific features is what eventually distinguishes between several words which share the same general feature(s)," and those additional features of meaning "*are contributed by social or functional factors within the cultural context*" (emphasis added).

Increasing interest in communication among both psychologists and sociologists has helped to narrow the gap between the two disciplines in the study of language.

It is now a commonly supported criticism that Piaget was wrong when he said a child could not communicate with others because of egocentrism. Donaldson (1978) contends that ". . . motives and intentions are entirely comprehensible, even to a child of three."

Selma Fraiberg (1977) and Bruner (Miller, 1983) point out the importance of the influence of the caregiver in the child's cognitive development. They explore the instinctive communicative tie between the child and its caregiver.

New theories of perception relate perceptual cognition to context, and thus accommodate social factors. Velluntino (1979: 333) notes, "What we already know significantly affects what and how we perceive, which is to say that the interpretation of a given stimulus always takes place within a context. Contextual information determines not only the meaning we attach to specific objects and events but the extent to which we selectively attend to their constituent features (what we look at; what we listen to)."

Making assumptions or guessing requires knowledge. There is no doubt that an important part of our knowledge comes from our social experience. Norman (1982) and Evans (1976) emphasize the importance of "world knowledge" for a computer model that explains how our brains work. In these programs, knowledge is structured with "frames" and "scripts." Researchers in this field like Alexander (1982) and Minsky (1981) point out that in our lives perceptual cognition will never take place in isolation; it takes place within the context of relevant knowledge, and that context is unconsciously arranged by the help of schemata, frames, and scripts.

Towards an Integrated LAD Model

Psycholinguists have shown us that linguistic competence, which has been thought by Chomsky to be innate, may be considered a reflection of underlying general cognitive

structures. The consensus among psycholinguists is that such structures are universal and based on human perceptual and motor abilities.

Sociolinguists have made us realize how incomplete a theory on language or its acquisition would be without taking social factors into account. More positively, they argue that the knowledge required to understand or tell stories, or to participate in discourse, is social in origin. We have also learned that our behavioral stereotypes contribute to organization and retrieval of memories in ways that help provide mental scripts and frames. It may be concluded, then, that organization of human knowledge or belief systems and use of such knowledge (including storing and retrieving memories) are dependent on our communicative competence.

Accounts of contextual influence on perception and theories of internal structures and semantic features have shown that the line between the cognitive and social domains in language is not clear. The relationship between the two domains appears to be reciprocal rather than sequential.

These observations suggest that language acquisition is not a one-way, linear process; it is neither solely from outside to inside nor vice versa. Neither the cognitive nor social elements of language can be explained as part of the other. Both cognitive competence and social competence seem to exist, interact, and complement each other in human life well before language acquisition.

This suggests that our LAD model should be a bipolar model and that it should be able to show how the two competencies relate to each other to help the child learn language.

The Roles and Nature of the Two Competencies

The Dynamism of Language

Chomsky's approach misses the dynamism of language. Language is constantly changing and growing. Language also has a strong regulatory power over people. Language represents the authorities of the society. Language is often the source of conflicts between different groups of people and can cause social discrimination.

The pioneer studies on this aspect of language have been by Whorf, Sapir, Vygotsky, and Hall. Because their studies go beyond language to the broader area of communication, they offer us a better perspective to see the relationship between the cognitive and social elements.

The Active Role of the Social Factors

The active role of social factors and the relatively passive nature of cognitive structure are evident even in the studies of the psycholinguists mentioned above. Clark (1973) points out that semantic features derived from percepts are general in nature and those contributed by social factors are discriminative in nature.

Vygotsky (1978: 28, 30) describes the relation of the two factors more definitively in a broader framework, contending that speech is first developed socially for interpersonal use and then is turned inward for the intrapersonal function: "Signs and words

serve children first and foremost as a means of social contact with other people. . . . From the very first days of the child's development his activities acquire a meaning of their own in a system of social behavior and, being directed towards a definite purpose, are refracted through the prism of the child's environment. The path from object to child and from child to object passes through another person."

Vygotsky's view finds many supporters. Among them are John Macnamara and Donaldson (1978) who say, "Children are able to learn language . . . specifically because they have a relatively well-developed capacity for making sense of certain types of situation involving direct and immediate human interaction."

In line with Vygotsky, Basil Bernstein and Edward Hall discuss how culture is identical with the way people communicate (Hall, 1969 and 1977) and how "different social structures may generate different speech systems . . ." (Bernstein, 1964).

Vygotsky's characterization of language as being of social origin is not in conflict with the general framework of Piaget's cognitive development theory, that cognitive structure is developed through the child's interaction with the environment.

In light of the foregoing, I picture the relationship of the cognitive structure to social factors as analogous to the relationship between a building and the purpose for which the building is built. A building is built to cater to the needs and the desires of people. Although invisible on the surface, the needs and the desires of people are what have brought the building into existence. Not only do they account for its plan, design, and decor, but also, to a large extent, for the rules and manners for using the building. To understand the structure of a building, one has to know what it is built for. In language, what we see on the surface are largely the attributes of the cognitive structure, but our study of language will never be complete unless we take social factors into account.

A Sketch of a New LAD Model

Communication and Language

My arguments for a new LAD model and a new grammar begin by recognizing language as a part of communication. Communication precedes and outranges language. Communication may not be language, but all that is language is communication.

Communication ties an individual to other individuals. Such a tie is instinctive to human beings.³ One is naturally obligated to communicate. Consciously or unconsciously, an individual is constantly communicating with society. The purpose of communication seems to extend beyond the individual to society. The unity and well-being of society depend on its communicative tie with its members. Communication keeps society informed about the state of their environment. The society's environment overlaps that of its members.

³ Fraiberg (1977) discusses the importance of instinctive communicative ties such as smiling and crying. Garvey (1977) discusses play as being ". . . the product and the trace of man's biological heritage and his culture-creating capacity." Fein (1978) and Harlow in Evans (1976) discuss the "affectional system" that naturally exists between infant and caregiver.

Communication originates at the point at which a member interacts with his environment. Instinctive communicative activities have evolved into a social institution, and language is part of this social institution. We can see an intriguing resemblance between the social communicative institution or structure with the internal cognitive structure.

External Communicative Structure and Internal Tacit Structures

The child's interaction with a situation is also the origin of cognitive development as described by Piagetian studies. One's experience with a situation affects one's cognitive structure.

Cognitive theories, however, cannot explain a human being's natural tendency to communicate. This aspect of human nature will be better explained by first supposing a tacit communicative competence as suggested by Hymes and other sociolinguists. This competence—we assume, in line with Vygotsky's view—derives from a mental substructure separate from the cognitive structure.

We then can assume that there are two separate sets of tacit mental structures which come in contact with each other when a human being interacts with a situation: cognitive competence and communicative competence. We can further assume that these two competencies have contributed to the formation and the development of the external communicative structure that includes language. Next, we must ask, "How do these two internal structures relate to the external structure?"

Attitudinal Message or Nonlinguistic Message

Communication is a means of disseminating information. The most basic form of communication is nothing more than sharing an attitude. Attitude is a primitive, holistic way of conveying information. One's attitude toward a thing or a situation reveals how one interacts with the environment. Such information is valuable to other members of the society.

More often than not, an attitude is expressed intuitively and unconsciously. It is shown in mannerisms such as voice tone, eyes movement, facial expression, and gestures. Human beings share a lot of their repertory of attitudinal expressions with other animals. Examples include the use of the voice in crying, yelling, threatening, and cooing. Expressions of hostility, aggressiveness, defensiveness, fear, weakness, indifference, hospitality, gentleness, and caring are also common between animals and humans.

Understanding an attitude—that is, knowing how to react to an attitude—is also intuitive. This natural competence of expressing and understanding attitude enables us to communicate not only with people of other societies but also with animals. However, the understanding of an attitude varies according to the environmental condition in which the communication takes place; the same attitude does not invoke the same intuitive reaction in different environments. This suggests that participation of the cognitive structure in communication amounts to more than just the perception of attitude. What is perceived affects the communicative structure as well.

Since this kind of attitudinal communication is based on our internal communicative structure, which is universal in human beings, we hardly need translation from culture to culture to communicate at this level.

As communication develops in a human society, however, communicative social structures evolve. Among those structures are variations in vocal expression of attitude which later evolve into a part of language. All branches of art, such as dance, music, painting, and drama, as well as ceremonies and social etiquette, derive from attitudinal communication. Edward Hall equates culture with communication.

This is the setting in which language is formed. What does it take to form language beside the attitudinal element? Where does the additional element come from? The logical place to look for the answer is the cognitive structure.

Descriptive Competence

According to Piagetian theory, our cognitive competence derives from a cognitive structure or schema. What it does, simply said, is let us know about the outside world. That is, it describes the outside world to us; cognitive competence is descriptive competence. Because of this competence we can understand and be compatible with the outside world. Its function is confined within an individual and its purpose is to serve the individual.

As we have observed previously, the communicative element can give us information about a situation only in terms of attitude, such as whether the situation is agreeable, disagreeable, or dangerous. It cannot tell us what makes it agreeable, disagreeable, or dangerous. Although attitude can express our desires, it cannot specify what we desire, except, perhaps, for food or mating. The necessary specifics must be provided by the receiver of the message in the environment. To be able to pick up relevant information from the environment, we have to depend upon our percepts or cognitive structure. In other words, communication of attitude naturally points to the environment for more information accessible to us by way of cognitive structure.

Pointing to the Specific

A gigantic step in the evolution of human communication must have occurred when human beings learned how to identify things by pointing to them. Pointing makes the information from the environment precise and effective. Pointing seems to be a major landmark that separates human communication from that of other animals. Even in today's highly sophisticated society, we can communicate a lot by just pointing and using body language or attitudinal expressions. A great part of language is concerned with pointing to the specific.⁴

Pointing links two structures. Through pointing, the communicative structure approaches the cognitive structure in a positive and forceful way. In that sense, pointing is an essential component of language.

Creation of Context

The importance of pointing to language is not only that it specifies relevant information. There is a hidden contribution which may be more important: the role pointing plays

⁴ Langer (1982) points this out by saying language's "signific function" (pointing function) is as important as its descriptive function.

in creating context. Context is the information that is picked up from the environment and is relevant to communicated attitude.

Context is formed by attitude in the cognitive structure when an individual interacts with the environment. The natural context, therefore, is marked by "here" and "now." However, in very primitive communication, context is virtually nonexistent because in such communication the attitude is disseminated automatically among the recipients. This type of communication can be observed when a yawn or laughter travels through a crowd. Attitudes of sorrow, rage, or other types of excitement are also contagious.

So, in primitive communication, cognitive structure is almost bypassed. How does the cognitive structure involved form a context in its territory? I think that repetitive experience of the same or similar situations leaves a mark in the cognitive structure. Whenever attitudinal communication takes place, it automatically points to the environment so that some features in the environmental situation are typified.⁵ Further experience generalizes the feature's relationship to the attitude. This generalization in the cognitive structure forms a memory of the event. This memory of an event is the context of the event. I believe that this context is very close to the concept of "script" or "frame"⁶ discussed by Alexander (1982) and Minsky (1981). There is no doubt that formation of context is greatly enhanced by deliberate, physical pointing.

Metaphor as the Basis of Language

Context is formed by generalizing the typical. The result is a general structure or a metaphor. To restate the above observation, what we have within the cognitive structure as a result of its interaction with the communicative structure is a general structure that may be called "context" or "memory." Context is also related to "script" or "frame."

With cognitive competence thus structured, a human being can live with a sense of consistency and order in time, place, and society even before acquiring language. Even without language, yet with the application of metaphor, a person can understand what is going on around him and can predict what is going to happen in his physical environment and in his social environment. We can say that a human being at this stage already has stories about his or her life. This cognitive competence is the very basis of language, which is also created by the principle of metaphor.⁷

⁵ As to what features are typified and how they are typified, the concept of "focal points" in Rosch (1973), when she discusses "internal structure," and the concept of "excerpts" in Jaynes (1976), when he discusses consciousness, offers suggestions.

⁶ Neisser (1982) says that "memory is influenced by mental 'scripts' or 'schemata' for familiar events." Olson (1973), in discussing human memory capacity, suggests the existence of an internal recording mechanism that automatically rearranges the raw information units into a higher-order organization, which may well be "script" or "frame."

⁷ Langer (1982) sees metaphor as the most vital principle of all symbolism, including language.

Communicative Competence Controls Language Performance

At the prelanguage stage, a child, who has a cognitive structure as outlined above, keeps interacting or communicating with society and learning the culture of the society. External language at this stage represents part of the social institution to which the child is trying to adapt. Language is learned as performance skill. Like the skill of walking, the mastering of language rewards the child with a better rapport with the world.

As a toddler likes to challenge new terrain by walking, the child learning a first language likes to challenge a new social situation with language. As with any skill, language is mastered through constant training. For any skill, the goal is to attain full control of the muscles to achieve a certain performance. When the skill is mastered, the intended act is performed automatically. The language skill controls the vocal muscles to perform the intended communicative purposes automatically.

Intention not only triggers a series of actions but also designs and controls the whole performance. The performance may consist of several segments of movements, but each segment is not independent from the rest; it is controlled as a part, coordinated with other parts, and integrated into the whole to serve a purpose. Language performance is controlled and sustained by communication. Communication starts as the expression of a situation by attitude, and this basic format is not changed by the use of language. In verbal communication, words are always interpreted in the light of attitude. As we have seen previously, context is formed around a core of attitudes. If the attitude is clear, we gain details of communication from the context. Indeed, we often determine the meaning of an unfamiliar word or unclearly pronounced word with the help of context. The child's language learning must proceed in the same way. The words a child hears or speaks may be mostly ambiguous at the beginning, but nevertheless communication is possible with the help of the context stored in the child's internal cognitive structure.

External Language and Internal Structures

The process of language acquisition is a meshing of external language with internal structures. In this process, attitudinal expression serves as guidepost. In the child's learning of external language, the attitudinal element is always learned first and intuitively. This element is expressed basically by tone of voice or by gesture. Often the words accompanying the expression are not fully understood.

Primitive prelanguage metaphors are universal, but as the child learns the language of his or her society, metaphors become culturalized and complex. The child updates metaphors by using them in communication. The wrong or ineffective ones are then replaced by more effective ones. Through such a process, the child's metaphor system becomes compatible with other individuals' systems to attain uniformity approximate to the external language of the society.⁸

However, one's metaphor system in the cognitive structure will never become fixed

⁸ Clark (1973) offers the "P-space" and "L-space" model to explain the meshing process.

because it is constantly affected by experience. Changes in individual metaphor systems eventually change the external language.

Image Provides Access to Internal Structures

Metaphor or context is part of our tacit cognitive structure. We cannot see how it is structured or activated in our communication. Nor can we see how our language performance skill is structured and activated. However, we are not without access to our internal structures. Image provides that access.⁹ By using image, we can visualize the context of an event in memory. In other words, we can retrieve memories.

Images reside in our consciousness or short-term memory.¹⁰ They pop up in our minds in response to internal or environmental stimuli from time to time, but if we do not pursue them they automatically disappear in a short while. Images can be pursued only introspectively, with our eyes focusing inward. We cannot see an image of something while we are actually looking at the thing. Introspectively, we can pursue and manipulate images. By using images, we can bring long-term memories into our consciousness.

Images form naturally in our experience. There are two major categories of images: sense-based images and motion-based images.

Sense-based images are mostly visual images that are evoked by external media. Either by resemblance or by association of the media with familiar things, we form images of familiar things that are not actually present.

By using artificial symbols as media, we can deliberately evoke images in other people. When images are evoked in our consciousness, they automatically activate related long-term memories. By using symbols in communication, we can create a common context among the participants of communication. This is basically how language functions in communication.

Performance Image Prepares Action

Motion-based images are based on our movement schema which helps us be prepared for an action. As mentioned previously, image summons the pertinent motor skills and coordinates them for performance. When we are about to start a performance, the concentration of the mind on the task creates an image of the intended performance. Many athletic coaches advise players to use "imaging" to improve performance. They advise players to imagine a perfect performance then practice it. In Japanese traditional sports such as judo, kendo, karate, and sumo, the practice of *kata*, or form, has been the primary method of learning and improving skills.

In speech, performance image not only organizes our motion schema for action but also affects our communicative style. Children imitate the speech style and attitudes of their parents.

⁹ In Atkinson and Shiffrin's (1980) refer to a model of memory retrieval where an image is used as "bait" to attract closely related information from long-term memory.

¹⁰ Atkinson and Shiffrin (1980) equate short-term memory with consciousness.

Internalization of Communication

The child's language acquisition is not complete until he or she has internalized social speech. By internalizing social speech the child learns to use language to communicate with self. Until this happens, speech is a reflexive and unconscious social act like any other habitual social act. Fluency in speech at the preinternalization stage deteriorates rapidly when the child is separated from native society and placed in a different language environment.

Internalization of communication probably is facilitated by several factors. Want of communicative partners, especially by caregivers when they are not available, may be one of them. Eventually the child becomes able to play the missing partner's role. This happens when children have learned how to act out roles through play. The child then becomes able in solitary play to act out multiple roles, as when the child is seen talking to himself or herself. This process of speaking to the inner self is completed when the child is about twelve years old. By then the skill in producing external language may be well meshed with the internal structures.

A Sketch of a New Grammar

What Is Grammar?

First, grammar should be supported by an LAD model which explains the basic nature of language as well as the acquisition process by the child, in other words, an LAD model that satisfies Chomsky's "explanatory adequacy." Second, grammar should explain the structure of a sentence in reference to how it is used.

An Approach

I believe the best approach to explaining the structure of a sentence is by tracing out the two elements of language, the descriptive and the communicative, as refracted through the prism of the LAD model outlined previously.

Since the internal structures responsible for sentences are not directly accessible, the subject of grammar is the external, institutionalized language. However, external language is deceptive since its dual nature is not apparent on the surface. Language tends to be mistaken as a monolithic entity despite some popularly supported dualistic divisions in the study of language. This monolithic appearance has become more and more apparent as the attitudinal element has become verbalized. At the same time, those attitudinal elements that have not been verbalized are often omitted from the grammar. This tendency reflects grammar's traditional emphasis on written language.

Human communication has become more and more verbalized with the advance of civilization. The call for verbalization of context, pointing, and attitude has increased as the structure of society has changed from the closed to open, and as the mode of communication has become diversified from personal contact to remote and from one-to-one communication to mass communication.

Procedure

To properly map out the territories of the two elements in the jungle of words, it is necessary to start with the barest form of communication and pursue its growth into sentences. The original communicative form is a nonverbal expression of attitude supported by the internal cognitive structure or context. Development can then be traced in three directions: (1) formalization and verbalization of the communicative intention marking the boundary of the communicative element, (2) formalization and verbalization of the context showing the territory of the descriptive element, and (3) formalization and verbalization of pointing helping to show the linkage between the two elements.

The above procedure implies three distinct areas of grammar. The first area is concerned with the social factors of language. The major topics of this area include the following: (1) sentence structure (we will see how different communicative intentions take different sentence formats); (2) most of the major topics in traditional grammar such as the subject-predicate relationship, subject-verb concordance, gender, number, conjugation of verbs, mood, tense, aspect, question, and negation; (3) word order; (4) nonverbal elements such as intonation and use of the tone of voice to differentiate meaning; and (5) stereotypical expressions as "articulated attitude," such as greetings, small talk, exclamatory and curse expressions, honorific expressions, and expressions that indicate speech level.

The second area relates to cognitive factors and is the area where the universal elements of language dwell. The major topics in this area concern phrase structure, where questions on the ways nouns, adjectives, and verbs develop into phrases are addressed.

The third area is concerned with how communication is given orientation through context. Pointing establishes the points of reference that make the context relevant to communicative intention. The three basic and natural points of reference are "I," "here," and "now." Language has developed many elaborate pointing systems, including pronouns, proper nouns, address systems, time, dates, and ways to determine geographical locations.

Results

I have recently written a Japanese textbook for college students applying this new approach.¹¹ This book is structured as follows:

Unit 1. Sound Structure

Introduction: The Japanese Sound System

Lesson 1. Basic Units of Japanese Sound

Lesson 2. Building Words with Basic Units

Unit 2. Pointing Words

Introduction: Giving Orientation to Our Conversations

Lesson 3. Contextual Pointing

¹¹ *Communicating in Japanese* (Anchorage: Alaska Pacific University Press, 1990) deals mostly with "to be" expressions (nouns and adjectives). "To do" expressions (verbs) will be covered in the succeeding volume.

- Lesson 4. Non-Contextual Pointing
- Unit 3. The Making of a Sentence
 - Introduction: Elements of a Sentence
 - Lesson 5. The Descriptive Element of a Sentence
 - Lesson 6. The Communicative Element of a Sentence
 - Lesson 7. How the Two Elements Make Up a Sentence
- Unit 4. Identity Telling Sentences: To Be+Noun
 - Introduction: Naming and Denaming
 - Lesson 8. Naming: Representing Things by Name
 - Lesson 9. Denaming: Identifying Names by Thing
 - Lesson 10. Negation of Naming and Denaming Sentences
- Unit 5. Property Describing Sentences: To Be+Adjective
 - Introduction: Adjectives
 - Lesson 11. Descriptions by Adjectives
 - Lesson 12. Types of Adjectives
 - Lesson 13. The Communicative Element in Adjectival Sentences
 - Lesson 14. Comparison
- Unit 6. The Descriptive Use of the Verb "to Be"
 - Introduction: Multiple Roles of the Verb "to Be"
 - Lesson 15. Telling the Whereabouts of Things: Descriptive Elements
 - Lesson 16. Telling the Whereabouts of Things: Communicative Elements
 - Lesson 17. The Past Tense of To-Be Sentences
 - Lesson 18. Non-Judgmental Statements

This new approach allows a systematic and comprehensive coverage of both the descriptive and communicative elements of language. It brings the target language into a universal perspective so that students can compare a new language with their own language. In this book I compared the Japanese language with the English language to help bring the points home to the reader. Such comparisons are easier and more effective when you have already identified the universal and cultural factors of a language.

In this approach, cultural differences are explained as alternative ways of achieving the same thing. The difference in word order in Japanese and English offers a good example. The fact that differences occur in a regular manner strongly suggests that word arrangement in the two languages follows the same principle. Indeed, such a higher level principle does exist. It relates not only to the two languages but also to all artificial symbols, even including road signs.

The principle is "The more attitudinal an element, the closer to the edges it is located," or, to say it the other way around, "The more descriptive the element, the more centrally it is located." What actually makes the word order in the two languages opposite is the principle that a language has two options for word arrangement: "from general to specific" or "from specific to general." The Japanese language follows the general-to-specific order, and the English language the opposite order.

This difference in word order accounts for the difference in cultural comparison: The Japanese language is listener oriented, and the English language is speaker oriented.

This approach brings language into the greater arena of communication, giving us a vantage point to compare language with other forms of human and animal communication.

BIBLIOGRAPHY

- Alexander, Tom. 1982. Teaching computers the art of reason. *Fortune* 105, no. 10: 82-92.
- Atkinson, Richard C. and Richard M. Shiffrin. 1980. The control of short-term memory. In *Mind and behavior: Readings from Scientific American*. San Francisco: W. H. Freeman and Company.
- Bernstein, Basil. 1964. Elaborated and restricted codes. In *American Anthropologist* 66 (6, 2): 55-69, ed. J. Gumperz and Dell Hymes, The ethnography of communication.
- Bowerman, Melissa. 1973. Structural relationships in children's utterance: Syntactic or semantic? In *Cognitive development and acquisition of language*, ed. Timothy E. Moore. New York: Academic Press.
- Chomsky, Noam. 1965. *Aspects of the theory of syntax*. Cambridge: MIT Press.
- . 1968, 1972 (enlarged ed.). *Language and mind*. New York: Harcourt Brace Jovanovich.
- Clark, Eve V. 1973. What's in a word? On the child's acquisition of semantics in his first language. In *Cognitive development and acquisition of language*, ed. Timothy E. Moore. New York: Academic Press.
- Clark, Herbert H. 1973. Space, time, semantics, and the child. In *Cognitive development and acquisition of language*, ed. Timothy E. Moore. New York: Academic Press.
- Donaldson, Margaret. 1978. *Children's mind*. New York: W. W. Norton & Company.
- Evans, Richard I. 1976. "Discussions with Donald Norman." *The making of psychology*. New York: Alfred A. Knopf.
- . 1976. "Discussions with Harry F. Harlow." *The making of psychology*. New York: Alfred A. Knopf.
- . 1976. "Discussion with Jean Piaget." *The making of psychology*. New York: Alfred A. Knopf.
- Fein, Greta G. 1978. *Child development*. Englewood Cliffs, N. J.: Prentice-Hall.
- Fraiberg, Selma. 1977. *Insights from the blind: Comparative studies of blind and sighted infants*. New York: New American Library.
- Garvey, Catherine. 1977. *Play*. Cambridge: Harvard University Press.
- Gumperz, John and D. Hymes, eds. 1972. *Directions in sociolinguistics: The ethnography of communication*. New York: Holt, Rinehart and Winston.
- Hall, Edward T. 1969. *The hidden dimension*. New York: Doubleday & Company, Anchor Books.
- . 1977. *Beyond culture*. New York: Doubleday & Company, Anchor Books.
- Hymes, Dell H. 1971. Sociolinguistics and the ethnography of speaking. In *Social anthropology and linguistics*, ed. E. Ardener. London: Tavistock.
- Jaynes, Julian. 1976. *The origin of consciousness in the breakdown of the bicameral mind*. Boston: Houghton Mifflin Company.
- Langer, Susanne K. 1982. *Philosophy in a new key*. 3d ed. Cambridge: Harvard University Press.

- Miller, Jonathan. 1983. "Dialogue with Jerome Bruner." In *States of mind*. New York: Pantheon Books.
- Minsky, Marvin. 1981. A framework for representing knowledge. In *Mind design*, ed. John Haugeland. Cambridge: MIT Press.
- Neisser, Ulric. 1982. John Dean's memory: A case study. In *Memory observed*, ed. U. Neisser. San Francisco: W. H. Freeman and Company.
- Norman, Donald A. 1982. *Learning and memory*. San Francisco: W. H. Freeman and Company.
- Olson, Gary M. 1973. Developmental changes in memory and the acquisition of language. In *Cognitive development and acquisition of language*, ed. Timothy E. Moore. New York: Academic Press.
- Rosch, Eleanor H. 1973. In *Cognitive development and acquisition of language*, ed. Timothy E. Moore. New York: Academic Press.
- Velluntino, Frank R. 1979. *Dyslexia: Theory and research*. Cambridge: MIT Press.
- Vygotsky, L. S. 1978. *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.
- Zwart, H. Sinclair-de. 1973. Language acquisition and cognitive development. In *Cognitive development and acquisition of language*, ed. Timothy E. Moore. New York: Academic Press.