LANGUAGE, THOUGHT AND CULTURE: THE TRUE RELATIONSHIP

Danny D. Steinberg

INTRODUCTION

By way of introduction to my talk today, I would like to tell you a story. I'm sorry to say that it is not a funny story. However, it is an interesting one, and, it is true.

In May of 1920, in Hamilton County, Nebraska, a rural sort of area in the United States, a teacher by the name of Mr. Meyer was arrested and charged with a crime. The crime involved a 10 year old boy.

No. The crime did *not* involve what many of you who have dirty minds might be thinking. No. What " dirty old " Mr. Meyer was caught doing was teaching a second language! He was teaching Bible stories in German at Zion Parochial School. This was in violation of a Nebraska State law which forbade the teaching of a second language to children under the age of 13 years.

As a matter of fact, following World War I, the teaching of foreign languages, except " dead " languages like Latin, was forbidden by law in 22 of the 48 states. The main target was the German language. America had just finished a war with Germany and there was a hatred of Germany, its social structure, military values, ideals and political institutions. The laws reflected a belief, held by many Americans, that the German language itself embodied all of the evil that exhibited itself in German culture. Nebraska prosecutors argued this position in their prosecution of the Meyer case (U.S. Supreme Court Reports, 1922).

Ironically, it was a famous German philospher, Wilhelm von Humboldt (1836), who almost one hundred years earlier stated this doctrine concerning the relationship of language, thought, and culture, quite succinctly when he argued that a language embodies the spirit and national character of a people. If this is true, and the German language itself, in its grammar and vocabulary, contains in it a philosophy and world view that is distasteful and antithetical to American ideals, then it logically follows that such a language could be harmful to American children, as the State of Nebraska and 21 other states held. It was in accord with this line of reasoning that these states passed laws forbidding the teaching of a second language to young children.

Mr. Meyer's conviction was upheld by the Supreme Court of the State of Nebraska. With that ruling, it looked as though Meyer would be heading for jail. However, Mayer decided to take his case to the Supreme Court of the United States. In October of 1922, the U.S. Supreme Court delivered its judgement on the case of *Meyer vs. the State of Nebraska* (U.S. Supreme Court Reports, 1922; hereafter, USSCR, 1922). The U.S. Supreme Court overturned the Nebraska law and all the other state laws forbidding the teaching of languages other than English.

Such laws were regarded in violation of the U.S. Constitution. According to the Court, " in our desire for the Americanization of our foreign born population we should not overlook the fact that the spirit of America is liberty and toleration." (USSCR, 1922 : 392). " The individual has certain fundamental rights which must be respected. The protection of the Constitution extends to all, to those who speak other languages." (USSCR, 1922 : 401).

Further the U.S. Supreme Court contended that " Mere knowledge of the German language cannot reasonably be regarded as harmful " (USSCR, 1922 : 400).

Well, was the Supreme Court right ? Does knowledge of a language alone, its grammar and

vocabulary, influence or determine the thought of a person, how a person perceives nature and how a person views the world ? The Supreme Court, in its ruling, did not consider argumentation regarding the relationship of language, thought and culture. (They were more concerned with individual rights and judged the case on those merits.) However, what I would like to do now is to ask you to join me in considering argumentation regarding this complex relationship.

FOUR INADEQUATE NOTIONS CONCERNING THOUGHT, LANGUAGE, AND SPEECH

Notion 1 : Speech production or other behavior is the basis of thought

Contemporary proponents of this view hold that thought is a kind of behavior, mainly speech. Typically, such theories are held by behaviorists who wish to reduce the notion of thought or cognition to that which is observable or potentially observable. They reject any notion that affirms the existence of mental process and its relevance to the causation of behavior. The psychologists Watson, Skinner, and Staats, the linguist Bloomfield and the philosopher Ryle are but a few who propose such a conception. Advocates of the motor theory of speech perception--the theory that the understanding of speech requires a prior motor act of some sort, e.g., sub-vocal speech or internal articulation--are also generally involved in a similar conception, e.g. Liberman.

The following quotations characterize the view in question.

John B. Watson (1924) :

> The behaviorist advances the view that *what the psychologists have hitherto called thought is in short nothing but talking to ourselves*...My theory does hold that the muscular habits learned in overt speech are responsible for implicit or internal speech (thought). (p. 238 - 9) Speaking overtly or to ourselves (thinking) is just as objective (physical) a type of behavior as baseball. (p. 6) (emphasis is Watson's)

B. F. Skinner (1957) :

> The simplest and most satisfactory view is that thought is simply *behavior*--verbal or nonverbal, covert or overt. It is not some mysterious process responsible for behavior but the very behavior itself in all the complexity of its controlling relations, with respect to both man the behaver and the environment in which he lives. (p.449)

Leonard Bloomfield (1961) from a 1942 paper :

> The fully literate person has succeeded in reducing these speech movements to the point where they are not even visible. That is, he has developed a system of internal substitute movements which serve him for private purpose, such as thinking and silent reading, in place of audible speech sounds. (p. 3)

Gilbert Ryle (1949) :

> Much of our ordinary thinking is conducted in internal monologue of silent soliloquy, usually accompanied by an internal cinematograph-show of visual imagery. This trick of talking to oneself in silence is acquired neither quickly nor without effort ; and *it is a necessary condition of our acquiring it that we should have previously learned to talk intelligently aloud and have heard and understood other people doing so.* (p. 27) (emphasis mine)

Thus, Ryle regards thinking, which for him is talking to oneself in silence, as an accomplishment that has a speech base.

Alvin Liberman (1957) :

> ...articulatory movements and their sensory effects mediate between the acoustic stimulus and the event we call perception. (p. 122).

Let us consider some objections which may be raised with regard to the position of these theories. Not all objections, however, will apply to all theorists. Then, too, some of the objections placed under succeeding notions may also be applicable to these theorists. And, as was noted before, given the abstract and intangible nature of the subject matter, no objection can be expected to be definitive. The principle aim, rather, is to provide a number of objections whose combined effect is to raise reasonable doubts about the notion in question.

Objections to Notion 1 :

1. Speech understanding precedes speech production in normal children

Normal infants learning a language come to understand speech prior to producing it themselves. For example, a one-year-old child may be able to understand a sentence like *Put the banana on the table* yet still may be only at a one-word (or even no-

word) stage of speech production. The research that has been done in this area confirms this common observation of parents. For example, Huttenlocher (1974) studied four children and found that their speech understanding was well in advance of their production ability. Similarly, Sachs and Truswell (1976) found that children who could say only single words could understand speech structures composed of more than one word, e.g. *Kiss ball* and *Smell truck*. Then, too, Steinberg and Steinberg (1975) report the case of a normal child who from one to two years of age was taught to read and understand a number of written words, phrases, and sentences before he had developed the ability to utter them. Thus, the fact that children have the ability to understand speech indicates that they must have the thought that is involved in the comprehension of speech. And, the fact that children learn to understand speech prior to producing it indicates that speech production is not necessary for the development of thought. That children are able to construct and utter words and sentences which provide a meaningful communication only after they gain an understanding of language items first is not surprising. The sound forms of the words of a particular language, the meanings of those words, the syntactic relations in a sentence, etc. cannot be known by a child without prior exposure and some analysis of that language.

2. Speech understanding without speech production in handicapped children

Persons who are congenitally mute or have congenital spastic paralysis and are otherwise normal acquire a normal understanding of speech even though they cannot produce it or can only produce it laboriously and faultily. For example, Steinberg and Chen (1980) report the case of a three-year-old Japanese girl who was congenitally mute but hearing. Although she could utter only a few sounds, that child could understand what was spoken to her. (Appropriate behavioral responses to a variety of complex instructions provided empirical evidence for this.) She was even taught to read complex Japanese writing through matching cards with objects. Clearly, that she was able to understand language indicates that she was able to think. The existence of thought could not have been dependent on the acquisition of the ability to speak because she had no such ability.

If it is then to be argued, as Skinner does, that behavioral responses other than speech may be the basis of thought; it then remains to be demonstrated what particular behavioral responses, e.g. muscular or glandular activities, are involved. In this regard, it might be noted that about 50 years ago, behaviorist psychologists were delighted to discover that changes in electrical potential occurred in parts of bodies of subjects who were instructed to think of certain motor activities. For example, changes in electrical potential in the musculature of the right arm occurred in response to instructions to think about lifting that arm. Many psychologists then believed that they had begun to localize thought and meaning in the body. The problem with this theory is that it incorrectly predicts that a loss of thought or meaning will occur with damage or removal of body parts. It also fails to explain how persons with congenital paralysis or muscular deficiencies of various sorts can acquire an understanding of language. (See Osgood (1953 : 648) for a critical review of such research attempts.)

The fact that persons with various speech and behavioral deficiencies acquire the ability to understand language, and that such an ability must include thought, however one defines such a term, shows that the development of thought does not depend on speech production and other behavior.

3. Simultaneous speaking and thinking

Consider a situation where a person is talking to someone but is thinking of something else at the same time. That person might be talking to someone about a movie and also be thinking about how the other person looks, etc. One might even be telling a lie. Clearly, two distinct processes with different content are occurring at the same time. However, if thought were merely some kind of internalized speech, serious problems would arise from this behaviorist conception. For, according to this conception, the variables which control the content and construction of sentences are the same for overt and covert speech. They do not postulate one set of variables which would determine sentences for overt speech and another set of variables which would determine sentences for covert speech. Rather, the principal model holds that one set of variables determines the content and construction of sentences. (Other types of variables, e.g. reward contingencies, will then determine whether the sentence will be uttered.)

Notion 2 : Language is a fundamental basis of thought

Many theorists, such as Vygotsky, Sapir and Whorf hold that the language system, with its rules or vocabulary, forms thought or is necessary for thought. For example :

Vygotsky (1934):

> Thought is not merely expressed in words ; it comes into existence through them...The relation between thought and word is a living process : thought is born through words. (pp. 125, 153)

Edward Sapir (1921) :

> The writer, for one, is strongly of the opinion that the feeling entertained by so many that they can think, or even reason, without language is an illusion. (p. 15)

Benjamin Whorf, from his 1940 paper (Carroll, 1956) :

> The background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions, for his synthesis of his mental stock in trade. *Formulation of ideas* is not an independent process, strictly rational in the old sense, but *is part of a particular grammar,* and differs, from slightly to greatly, between different grammars. We dissect nature along lines laid down by our native language. (p. 212-13. emphasis mine)

It might be noted that Vygotsky differs from Whorf in that he does not make language the ultimate source of meaning. Rather, Vygotsky sees meaning (thought) as arising from an interaction between language and environment. The environment is not considered to be an independent source of meaning, however.

Objections to Notion 2 :

1. Deaf persons without language think

There are many deaf children who do not begin to acquire language until a rather late age, often after five years, when they begin to attend special schools. These are typically children who have a congenital hearing loss of over 90 decibels and are unable to receive speech, and whose parents (usually hearing) do not know sign language. These children, when at play and when participating in activities around the home, appear to behave just as intelligently and rationally with respect to their environment as do hearing children. If one holds that language is the basis for thought, one would have to argue that these children do not think. And, if one holds that grammar determines how we ' dissect nature, ' then it must be argued that either the non-language deaf children cannot dissect nature or that they do it differently from children who do have grammars. No such difference has ever been noted, nor has it ever been observed that deaf children who acquire language late undergo a radical change of perception. Rather, research evidence points to the opposite conclusion. Furth (1966 ; 1971), for example, provides research data which shows no difference in intelligence between normal and deaf persons, even though the language knowledge of the deaf persons is generally far below that of hearing persons. The case of Helen Keller whose language knowledge was minimal until she was eight years old also is relevant to this issue. It would be insupportable to maintain that she could not think nor sensibly perceive the world prior to that age.

2. Multilinguals as unitary persons

Consider persons who are proficient in more than one language. If the language system forms thought, and if different languages form different thought systems, then such persons would have formed more than one system of thought. (It would not have been possible under the theory to form a single system because opposing concepts derived from the different languages would be involved.) Persons knowing three languages would have formed three systems of thought, for example. If multilingual persons have many different thought processes, such persons would not have coherent intelligence or personalities. Different guiding ideas would be involved with the different languages. Then, too, such persons would have difficulty in using the knowledge gained through one language when operating in the other languages, since thought is supposed to be language-specific and not universal according to this theory. No evidence of the malfunctioning and other sorts of problems for multilingual persons which the theory predicts has ever been offered in support of the theory. Casual observation of multilingual-multicultural persons might sometimes seem to provide such support, e.g. a person might be aggressive in one culture but passive in another, or polite in one and impolite in another. However, such observations, it must be realized, cannot be taken at face value as indicating true differences in thought or per-