Chomsky’s Anomaly: Inner Speech*

Abstract: Chomsky has restricted his linguistics to intra-personal language, which is mainly inner speech. He does not include interpersonal communication or speech acts. But the literature on inner speech show it to be quite free-form and irregular in both syntax and semantics. It cannot be formalized as Chomsky tries to do. This problem weakens Chomsky’s claim to have found a universal grammar and also his idea that this grammar is innate.

Chomsky has restricted his linguistics to language as it is used in thought, which he recognizes as inner speech. He is not talking about language as communication or as speech acts. As he said in On Nature and Language:

Language is not properly regarded as a system of communication. It is a system for expressing thought, something quite different . . . language use is largely to oneself: “inner speech” for adults, monologue for children (2002, pp. 76-77).

He also restricts his science to linguistic forms or what he calls competence as opposed to performance. This is similar to
Saussure’s distinction between langue (language) and parole (speech). These are Chomsky’s starting points.

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I will show that these commitments create problems for Chomsky’s linguistics. Inner speech is quite “messy” (Wiley, 2006), and its peculiarities are in contradiction with much of Chomsky’s linguistic theory. It is also difficult to say there is a “competence” or “langue” dimension for inner speech. The competence dimension is primarily rules, and inner speech, if you just stop and listen to yourself for a moment, has only the loosest rules.

Presumably Chomsky did not intend to create these problems, nor did he forsee them. In 2002 when Chomsky made the foregoing declaration of intent, there had not been a great deal of research on inner speech, and he may have been
unfamiliar with the existing literature (see Wiley, forthcoming for an overview of this topic).

In addition, his comment on the functions of inner speech ignores the syntactical and semantic oddities of this kind of speech.

If one person suddenly got the language faculty, that person would have great advantages: the person could think, could articulate to itself its thoughts, could plan, could sharpen, and develop thinking as we do in inner speech, which has a big effect on our lives. Inner speech is most of speech. Almost all the use of language is to oneself. (2002, p. 148)

Chomsky may also have been unfamiliar with the research on children’s monologues, now referred to as “private speech” (Winsler, 2009). This is children’s “thinking out loud” stage, going from about age two to seven. Children’s private speech has many of the same irregularities as adult inner speech. But regardless of why Chomsky made his statement it seems to be
a poor choice for his linguistics. I will therefore show that his system cannot explain inner speech.

Preliminary Observations

Politics vs. linguistic theory. There are two Chomskys: the one who write political books and the one who writes on linguistic theory. He thinks the two stream of writing are connected, that his linguistics implies his radical politics. But this seems like a considerable stretch, and few people agree with him (though see Lakoff, 1999, pp, 478-9 for an interesting interpretation).

In this paper I will ignore the ideological Chomsky, except to say that I agree with most of his radical politics and I think he has done the United States a big service by expressing his political views, especially the early ones on the Viet Nam war. I am, in other words, a huge fan of the radical Chomsky. But that won’t keep me from calling them as I see them on his linguistics.
Earlier Duel with Skinner and Behaviorism. Chomsky came to the attention of the educated public with his 1959 review of B. F. Skinner’s *Verbal Behavior*. This review appeared in a linguistics journal, and it only gradually, over a period of years, drifted into the public arena. Skinner had tried to explain language acquisition in the child by stimulus-response, reinforcement theory. This was intended as a major coup for behaviorism. According to Skinner, the child would be praised if it used a word or a string of words correctly. This reward would strengthen the practice and help make it a habit. Eventually the child would master the entire language in this way.

Chomsky argued that when the child masters language it can express an infinite number of sentences. There are no limits to the possibly length or complexity of sentences, and therefore there are too many possible sentences for them all to be individually rewarded.

Skinner’s disciples argued that, although there may be a statistical infinity, psychologically or realistically there is not
an infinite number of sentences. Length and complexity have their limits in ordinary language, so the rebuttal went, and people actually work with only a limited number of sentences. Chomsky’s argument was novel and dramatic, and the Skinnerian defense was scattered and a bit whimpery. Chomsky, then as now, had a brilliant argumentative style, and he made mince meat of the behaviorist opposition.

At the time of this review, Skinner was the “bad guy” in the public arena. He had been talking about a planned community in which the leaders would organize the reinforcements and make the rules, using top-down authority. He sounded like a dictator, and, as the intensely democratic values of the sixties began to grow and spread, Skinner seemed like an enemy of democracy. The growth of the sixties political elan made Chomsky a hero.

In other words an atmospheric factor in the defeat of Skinner was the participant democracy that gradually became the new morality of the sixties. To put this another way, the two Chomskys – the political and the linguistic -- coalesced to
defeat Skinner. The theoretical Chomsky was in the foreground, but the radical Chomsky was in the background. In a sense Skinner was defeated by the democratic values of the sixties, even though Chomsky’s linguistic argument was the immediate cause of Skinner’s downfall. I am not saying Chomsky does not deserve credit for this achievement. It was an unprecedented victory for one person to destroy the ruling paradigm in a major discipline with a single book review. Still this victory drew on the fact that the times were a changing, and that, sooner or later, Skinner’s number was up.

Barely noticed by many in Chomsky’s lengthy review was the idea that linguistic grammar is, in some sense, inherited at birth. It is innate and does not need to be learned, except as a way of getting the process started. So, not only was Skinner trying to explain an infinity of language with a finite process, he was also trying to explain something that was naturally present at birth and therefore needed no explanation. At the time innate “anything” was still a red flag to political liberals, and Chomsky, despite his radicalism, carried a slight whiff of conservatism. But Chomsky’s overall charisma and the
widespread relief at behaviorism’s downfall made the innatism seem like a minor issue.

Nevertheless since the 1959 review Chomsky has been constantly criticized on scholarly grounds for saying that language is genetically inherited. As this paper proceeds I will argue that innatism, controversial at best, is an even weaker idea if we look at inner speech and its grammar.

Some Examples of Inner Speech

To make my argument I will have to present a fairly comprehensive description of inner speech. Let me begin by presenting three examples of inner speech. This batch of texts is somewhat long, but the best way to discuss inner speech is to have some examples in front of you.

This is a waitress reporting on her thoughts going to work. Her inner speech is presented linguistically along with brief sketches of her imagery.
A second example is from James Joyce’s novel, *Ulysses*. One might question whether a literary example is a valid instance of inner speech. But Joyce was drawing on his own inner speech in writing this novel, and the vocabulary and grammar does have the ring of true inner speech.

A third example is that of John Johnson, who is illustrating the condensed quality of inner speech. His example is a “to do” list with only three items.

“car, dinner, kids.”

He explains the meaning of this string of words as follows:

“Make sure to fill up the car’s gas tank, stop by the store and pick up a gallon of 2% milk and a loaf of whole wheat bread, and be certain to pick up John and Kate from daycare before coming home. (Johnson, 1994, p. 177).

These examples show how inner speech violates the rules. Sentences are fragmentary, semantics is irregular and non-linguistic images abound. The waitress shows how inner speech can be full of imagery. Joyce shows how both vocabulary and grammar can be irregular and fluid. And Johnson shows how inner speech can be squeezed into a small number of words. Using these examples as a background resource, I will now list the characteristic features of inner
speech, drawing on the analysis of Lev Vygotsky (1987.) First the syntax and then the semantics.

Syntactically this form of speech is often simplified and abbreviated. Since the subject of the sentence is usually the speaker, and the speaker already knows that he or she is the subject, the subject is often omitted. This practice is like the use of condensed language in a telegram (or an e-mail or an electronic “text.”) In the telegram, omitting the subject and sometimes other parts of speech saves money. With inner speech it saves time and effort.

For Vygotsky the syntax of inner speech is, in his words, “predicated.” By this he does not mean the predicate of a sentence in the usual sense. He means the thought which answers a question and supplies only the needed information. If a question concerns a time of departure, the predicate might be “eight o’clock.” That would be the whole sentence. If one said (to oneself) “the best time to leave would be eight o’clock” the first seven words would be unnecessary.
If someone said “Why are you selling the house?” you might merely say “money,” rather than “we are selling it to get the money (or because we need money).” A predicated utterance then might omit the subject and possibly also the verb, not to mention possible modifiers. Inner speech’s syntax is stingy, and it does not follow the formal syntax of Chomsky’s model. Inner speech, given its abbreviated form, almost looks like pidgin or creole, but it is always possible to unfold and expand the sentence into grammatically formal language.

In the examples condensation and abbreviation are found throughout. The waitress begins by saying “Only eight minutes. Takes five to change.” Without abbreviation this sentence would read, “I have only eight minutes and it takes five to change clothing.” But the strength of the waitress’s example is the way she shows the interpenetration of ordinary language and imagery. Her semantics is more imagistic than verbal.

Joyce’s paragraph on Leopold Bloom’s thoughts is extremely condensed. Almost every sentence is drastically abbreviated. And his semantics, his word use, is full of
oddities. John Johnson’s example is a case of a three word utterance requiring forty two words to fully unfold.

Turning to semantics, inner speech has unique ways of handling meaning, again well described by Vygotsky. He has a complex explanation of inner speech’s semantics, and he has been usefully summarized by John Johnson (Johnson, 1994). He sees two broad features in Vygotsky’s explanation: semantic embeddedness and egocentricity.

Semantic embeddedness means a word can have a bigger variety of meanings than it has in ordinary, interpersonal speech. It is embedded in a wide batch of meanings. Ordinarily “dinner” simply means the evening meal. But in inner speech it can have overtones and specifications, such as a particular item for an entrée, a special guest, a celebration, this or that restaurant, who’s cooking?, early or late?, who’s on a diet? And so on. Embeddedness means the vocabulary uses the principle of “a little can go a long way.” The quote from James Joyce uses diction in a rather free-wheeling manner. With a small, but highly flexible and stretchable batch of
words, we can say (to ourselves) almost anything we want. One's inner speech vocabulary is much smaller than one’s outer speech vocabulary. This means the semantics of inner speech is quite different from the semantics of outer or interpersonal speech.

Frege’s distinction between sense and reference comes to mind (Frege, 1948). His “reference” was the central and ordinary meaning of a word, but his “sense” included all the peripheral and adjunctive meanings a world might have. The reference might be a single, core idea, but the sense might be a dozen or more forms of a word’s suggestibility and plasticity. Unlike ordinary speech, inner speech uses sense as much as reference.

Saussure’s associative axis is also helpful here. (1959, pp. 122-127). He had two axes for a sentence. The one he called syntagmatic was merely the syntactical unfolding of a sentences, going from subject to predicate. But what he called the associative axis was the set of meanings that might be suggested by the actual words in a sentence, even though these
words were not chosen and remained in the background. This axis was a collection of related meanings, i.e. both similar and contrastive, that hovered over a sentence’s core meanings. He thought only in terms of similar meanings, those that could be substituted for the meanings actually used. But I think contrasting or opposite terms also belong on this axis. “I’m tired and want to go to bed” could have an associative axis in which words like “weary, exhausted, beat and bushed” might surround the word “tired.” Also such contrasting words as “energetic, alive and fresh” might be present as opposites. Saussure’s distinction has a resemblance to Frege’s, and the two together suggest how a word in inner speech might be embedded in a network of closely related words. This embedding gives the inner speech semantics a fluttery, epistemologically labile quality.

The egocentricity of inner speech’s vocabulary, to turn to Johnson’s second point, refers to the way words can be individualized and hooked to the speaker. The meaning has the speaker’s self or “ego” at the “center” and is thus “egocentric.” Here is an example:
I once knew a guy named "Tom," and he had the most engaging, trust-inspiring smile. All he had to do was flash that smile, and I would believe anything he said. The smile was so powerful I had to be betrayed about a half dozen times before I got the point. Then I realized the smile, sucker as I was for it, was a big lie and his major weapon for getting what he wanted. Now, in my mental wanderings I sometimes hear myself saying "he’s another Tom," or simply the condensed and highly egocentric "Tom!" (example used previously in Wiley, 2006, p. 339).

A peculiarity of inner speech semantics that Vygotsky did not mention is that imagery can function linguistically and syntactically in inner speech. It is well know that some people think, not in words but in such media as sounds, numbers, visuals, colors, tactile feelings, kinesthetics and emotions. The waitress’s text is full of imagistic thinking,

These images can be placed into syntactical slots, such as subjects and objects, and function as though they were words. For example I can say “I’d like a burger” by adding the visual image of a hamburger to the words “I’d like a.” Or I could drop
the subject and the article, just saying the word “like” and then adding the image of the burger. I could even drop “like” and just produce the feeling of wanting a burger. This would produce the single-element sentence of “wannaburger” which combines the hunger impulse with a sizzling burger.

A moments thought shows that there are an indefinite number of ways we can form inner speech utterances that combine imagery and words -- or even work solely with imagery. When we do this in our minds the discourse is often so complex, fast, “non-cognitive” (so to speak) and semi-unconscious that it is difficult to catch. Still, this is how the human animal seems to work and it means that inner speech is, in some ways, more complicated than outer speech. And the infinity of possible sentences, that Chomsky refers to, is “even more infinite” when you add imagery to sentence structure.

Conclusion.

I have now shown that Chomsky’s attempt to make a linguistics of inner speech does not recognize the complexities
of this medium. Inner speech is much more complex and irregular than he seems to think. I will not present my conclusions as definite “implications.” Rather they are things to think about.

One is that Chomsky has probably taken a wrong turn. Inner speech does not seem to work for his analysis. Rather he might better have focused on ordinary interpersonal language and speech acts. On the other hand this refocusing would require greater attention to the social factor in language, actual speech as opposed to competence, and back-and-forth dialogue. Maybe a move toward Mikhail Bakhtin might be helpful.

Chomsky may have overstated the inheritance factor. Inner speech is too informal and “scrambled” to be genetically encoded much less transmitted.

Both syntax and semantics are much more complex than Chomsky allowed for. And the border between the two systems, in inner speech, seems much more imprecise and permeable than he seems to think.
If linguistics were transformed into a less formal and perhaps multi-paradigmatic discipline the other social sciences would applaud. Linguistics has been isolated for too long.

Bibliography


