Unit 3

The Impact of Linguistics: Language Descriptions and Theories of Learning

Content

1. Language descriptions.

2. Theories of Learning.

1. Language Descriptions

Methodology of language teaching makes use of explicit or implicit ideas about the nature of language. These ideas are derived from various language descriptions developed by schools of linguistics. In what follows only a brief

account of language description which has influenced language teaching will be presented[1].

1.1. Traditional Grammar

This traditional view of language was based on the descriptions of the grammars of the classical languages – Greek and Latin. The descriptions were based on the analysis of words and their functions in sentences[2].

1.2. Structural Linguistics

Structural linguistics follows a scientific approach to the analysis of language. The analysis involves a study of the phonemic, morphological and syntactic systems which underlie the study of grammar.

* Language is considered a system of structurally related elements (phonemes, morphemes, words, structures, sentence types) for the encoding of meaning.

* The term "structural" refers to these elements of the language produced in a rule-governed (structural) way[3].

This view of language analysis has had an enormous influence on language teaching. It has led to the development of the substitution drills in the teaching of grammatical patterns, and to the structural syllabus in English language teaching[4].

1.3. Transformational Generative Grammar (T.G.).

[1] (for more details see Hutchinson and Waters, 1987).
[2] The form of a word would change according to whether it was a subject, object, indirect object, and so on.
[3] It was assumed that mastering the elements of the language and the rules by which these elements are combined is essential for learning a language.
[4] Substitution drills (e.g.):
T. we bought a book.
T. pencil.
S. we bought a pencil.

The structural view of language description prevailed until the publication of *Syntactic Structures by Noamn Chomsky* in 1956. Chomsky pointed out the limitation of the structural view of language as a collection of syntagmatic patterns in that it only describes the surface structure of the language.

It therefore could not explain the relationships of meaning not realized in the surface structure[1].

Chomsky maintained that there must be two levels of meaning: a deep level which is concerned with the organization of thoughts and a surface level where these thoughts are expressed through the syntax of the language. The grammar of a language is not only described by the surface structure, but also by the rules which enable the language user to generate the surface structures from the deep level of meaning.

The native speaker has internalized a complex "system of rules that relate signals to semantic interpretations of these signals"[2].

These internalized rules made up the central core of the language and can generate all the grammatical sentences of the language.

Transformational rules are responsible for generating the surface structure of utterances from the basic rules of the language[3].

Chomsky distinguishes between competence (the deep structure) and performance (the surface structure). Competence refers to the intuitive knowledge of the system of the language and the ability of the speaker to

---

[1] Consider, for example, the following two sentences:
John is easy to please.
John is eager to please.
These two sentences, according to structural description, indicate the same relationship between the words in the sentences. However, the two sentences are not the same: in the first sentence John is the receiver of pleasing, while in the second he is doing the pleasing.
[2] (Chomsky, 1966 quoted in Rivers, 1981).
[3] Every utterance can be analyzed through successive transformations. (Processes such as replacement, addition, deletion, changes of position) until its base structure is revealed (rivers, 1981). e.g.: I bought a book. Did you buy a book? What did you buy?

produce grammatical sentences. Performance (The surface structure) represents the actual production of utterances in actual situations.

Evaluation:

Chomsky's work had a direct and great influence on linguistics and an indirect influence on language teaching. His major contribution is his re-establishment of the idea that language is rule-governed. Moreover, he widened the view of language to include the relationship between meaning and form which had a considerable influence on language teaching[1].

1.4. Language Variation and Register Analysis.

It is commonly the case that language varies according to the context of situation. This factor explains the distinction made between formal and informal or written and spoken discourse.

This concept of variation led to the study of that type of English used for specific purposes which has come to be known as English for Specific Purposes (ESP), and which was based on register analysis[2].

1.5. Functional – Notional Grammar.

The functional – notional concept of language descriptions is an offshoot of the communicative compentence. The terms "functional" and "notional" must not be confused: functions are concerned with social behaviour and represent the intentions of the speaker or writer[3].

---

[1] (See Supplementary No. 2).

[2] If language varies according to the context, then it should be possible to identify the kind of language associated with a particular context, such as an area of knowledge (legal English, social English, medical English, business English), or an area of use (academic texts, business meetings, advertisements, doctor-patient communication).
It should be mentioned that much of ESP research was focused on various registers in order to establish a basis for the selection of syllabus items.

[3] For example, advertising, warning, threatening, describing. They are communicative acts carried through language.

On the other hand, notions reflect the way in which the human mind and thereby language divides reality[1].

This functional view of language influenced language teaching in the 1970s: there was a shift of emphasis from language syllabuses organized on structural grounds (i.e. form) to those based on functional or notional criteria (i.e. use). In other words the syllabus was based on language in use in contrast to the structural syllabus which was based on form.

1.6. Discourse Analysis.

Before the advent of discourse analysis, language was viewed in terms of the sentence. The sentence was considered the largest linguistic unit. Discourse Analysis describes how meaning is generated between sentences[2].

In addition, meaning is derived from the context of the sentence: an utterance requires meaning by virtue of what precedes or follows it.

The language teacher needs to recognize that the approaches described above are various ways of looking at the same thing. Communication has

* a structural level,

* a functional level, and

* a discourse level.

These levels are not mutually exclusive but complementary.

2. Theories of learning:

It should be mentioned that no coherent theory of learning existed until psychology appeared as a scientific enquiry in the early twentieth century. Five main stages of development in language learning theory have occurred since

[1] For example, time, frequency, location, quantity, quality, etc. (see e.g. Johnson and Morrow, 1981; pp.1-11 cited in Hutchinson and waters, 1987).

[2] This, in a way, can be regarded as a development of the functional-notional view of language which considered meaning more important than just words in sentences.

then. Those were of paramount importance to the language teacher and to language teaching methodology in general.

2.1. Behaviourism.

Like structural linguistics, behaviourism is another antimentalist approach to the study of human behaviour. In its empirically-based approach, behaviourism considers the human being an organism capable of engaging in a wide variety of behaviours. These behaviours depend on three crucial elements in learning:

* a stimulus which elicits behaviour;

* a response triggered by a stimulus;

* and reinforcement which marks the response as being appropriate or inappropriate and encourages the repetition (or suppression) of the response to occur again and eventually become a habit.

The process of habit formation, according to the behaviourist, is developed as follows:

A habit is formed when a correct response to a stimulus is consistently rewarded.

The habit therefore is the result of *stimulus, correct response* and *reward* occurring together again and again. The more frequently this happens, the stronger the habit becomes. Once the habit is established, the subject (animal or human) will continue to respond correctly to the stimulus, even if the reward is not present[1].

---

[1] For the behaviourists, both *reward* and *punishment* can have an effect on habit formation. Reward has a positive effect; punishment, a negative effect. Both were covered by the term *reinforcement*. Reward was *positive reinforcement*; *punishment, negative reinforcemen*t. (Hubbard, etal, 1985).

Behaviourism in foreign language teaching identifies the learner as the organism, and his behviour as verbal behaviour. The stimulus is what is being taught and the reinforcement is the teacher's evaluation of the learner's response[1].

This simple but powerful theory had an enormous impact on learning psychology and language teaching. It provided the theoretical underpinning of the audio-lingual method of 1950s and 1960s which considered pattern practice the basic exercise for learning.

2.2. Mentalism.

Mentalism developed as a reaction to the behaviourist theory. Chomsky attacked behaviourism on the grounds that the human mind was not able to transfer what was learnt in one stimulus – response sequence to other novel situations.

This concept of generalization, vague in the behaviourist theory, is at the heart of mentalism. It explains how the human mind, from a finite range of experiences, can cope with an infinite range of possible situations[2].

This view of thinking as a rule-governed form of behaviour suggests that learning consists not of forming habits but of acquiring rules a process in which the learner formulates, tests and modifies his hypothesis about the language. In other words, the mind does not just respond to stimuli but finds the underlying pattern or system in order to apply it to a new situation. This mentalist view of rule governed behaviour led to the next important stage: the congnitive theory of learning.

---

[1] The stimulus (or 'cue', as we generally call it) can be a question, a statement, a single word, a mime and so on.
E.g.:
T: Can you play football?
S: Yes, I can.
T: Good!

[2] Thus, thinking, according to mentalism, is rule governed: a finite and small set of rules enables the mind to deal with an infinite range of experiences.

2.3. Cognitive theory.

Unlike the behaviourist theory of learning, the cognitive view takes the learner to be an active, not a passive processor of information. In using rules, the learner needs to think and distill workable generative rules from the mass of data. He needs to analyse the situation in which the rule can be applied. The learner then actively tries to make sense of data, and learning occurs when the learner can arrive at meaningful interpretation of the data[1].

In its treatment of learners as thinking human beings, the cognitive theory puts the learners at the centre of the learning process. However, a cognitive view by itself is not sufficient; a more affective view is also needed.

2.4. The affective factor.

Learning a foreign language is an emotional experience, and the feeling associated with the learning process is a decisive factor in the success or failure of the learning process. Indeed learner's perception of learning will affect the quality of their performance.

In conclusion, it should be made clear that we should not base our approach to language teaching on one particular theory of learning, since we do not know very much about the learning process. Instead methodologists advocate an eclectic approach which takes what is useful from each theory coupled with the teacher's experience. Cognitive, affective, and behaviourist theories of learning might all be potential sources for the EFL teacher[2].

Having considered the two main theoretical bases of language teaching (the nature of language and theories of language learning), we shall examine in the next unit the basic principles upon which the syllabuses of language teaching are

---

[1] In simpler terms, the learner learns by thinking about and trying to make sense of what he sees, feels, and hears.
[2] The teacher may choose a behaviourist approach to the teaching of pronunciation, a cognitive approach to the teaching of grammar, and an affective criteria in selecting texts.

based. We shall see to what extent language teaching syllabuses derive from the nature of language and language learning.

Supplementary No. 2: Transformational Generative Grammar

Chomsky suggests that a native speaker has, somewhere in his brain, a set of grammar rules which he can use to make sentences with. We will look at this representation of the rule governing a simple English sentence. "*The boy kicked the dog'*. Chomsky might represent that sentence in the following 'way:
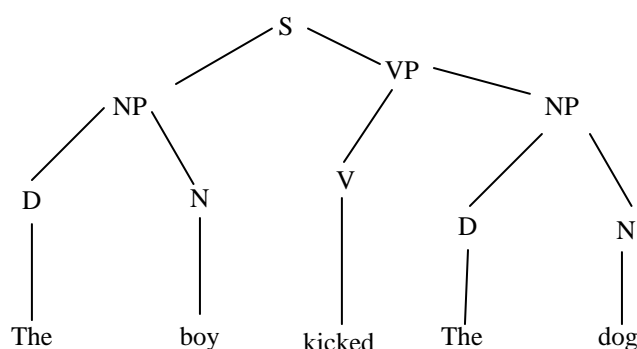
The rule says that the sentence (S) contains a noun phrase (NP) and a verb phrase (VP). The noun phrase contains a determiner (D) and a noun (N), and the verb phrase contains a verb (V) and another noun phrase which we already know contains a determiner and a noun.

If we slot bits of vocabulary into this tree, or frame, we get a sentence. By changing the bits of vocabulary we get completely different sentences, for example, *'The girl loved the man'*, *'The American ate the hamburger'*, *'The artist painted the nude'*, etc. In other words the rule has not changed, but the sentence has. By using the rule as a base we can select the vocabulary to mean the things we want.

Chomsky's contention is that there are a *finite* number of such rules that all native speakers know: the native speaker knows all the rules. With these rules it is possible to create an *infinite* number of sentences. The example above showed

that with one rule we could make many thousands of sentences and if we use all the rules at our disposal the possibilities are literally endless.

A moment's thought will convince anyone of this: in our lifetime we will never say all the possible sentences in our language. It is just not possible. And yet we all subconsciously know the rules of our language otherwise we would hardly be able to say anything at all.

Chomsky made a difference between this knowledge and the sentences it produced. He calls the grammatical knowledge *competence* and realization of these rules as sentences such as 'The boy kicked the dog' *performance*.

Chomsky's distinction between *competence* and *performance* was narrowly based on Syntax. He did not tackle the issue of the sociolinguistic context of language. It is true that describing the language (performance) is important, but it is of greater importance to discover the competence that enables people to do something with the language. Indeed, language is not intended to exist for its own sake. Rather, it is used to perform various functions: people use language to give information, to praise, to make excuses… etc.

This view of language is not a new idea, it was investigated by Firth in 1934 (Firth, 1957) who considered language within its social context. The idea became more important with the development of "communicative competence". Sociolinguists, like Dell Hymes, consider competence not as a set of rules for formulating grammatically correct sentences but also as a knowledge of when, where, and how to talk, (Hymes, 1971).

Languages in use should be studied, therefore, not just as syntax, but also as communication. This view of communicative competence had a far – reaching influence on the development of language variation and register analysis, language as function, and discourse analysis.