

STORIA DELLA LINGUISTICA 2013-14
Storia della grammatica generativa (I parte)
Materiali

1) Il modello di LSLT e i suoi rapporti con la linguistica strutturale americana

- 'Teoria linguistica' e 'livelli linguistici'. Il ruolo della distinzione tra "entità osservabili" e "costrutti teorici"

Esempi di forme ricostruite (da Bloomfield 1933: 381):

Pre-English	>	Old English	>	Modern English
*[mu:s]		mus [mu:s]		mouse
*[mu:si]		mys [my:s]		mice
*[fo:t]		fot [fo:t]		foot
*[fo:ti]		fet [fe:t]		feet

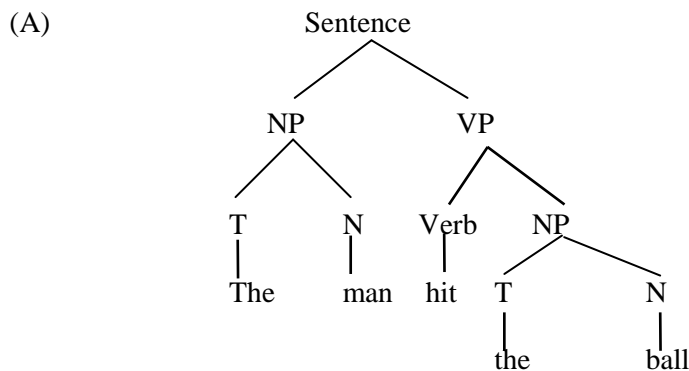
Linguistic theory is thus constructed in a meta-meta-language to any natural language, and a metalanguage to the language in which grammars are constructed (Chomsky, *LSLT*: 116).

The simplicity of linguistic theory is a notion to be analyzed in the general study of philosophy of science; the simplicity of grammars is a notion defined within linguistic theory (*LSLT*: 119).

A grammar of a particular language can be considered, in what seems to me a perfectly good sense, to be a complete scientific theory of a particular subject matter, and if given in precise enough form, a formalized theory. Any interesting scientific theory will seek to relate observable events by formulating general laws in terms of hypothetical constructs, and providing a demonstration that certain observable events follow as consequences of these laws. In a particular grammar, the observable events are that such and such is an utterance of the language, and the demonstration that this event is a consequence of the theory consists in stating that this structure conforms to the grammatical rules, or to the laws, of the theory. The grammar thus gives a theory of these utterances in terms of such hypothetical constructs as the particular phonemes, words, phrases, etc. of the language in question. [...] As an analogue, consider a possible formulation of a part of a chemical theory in which, on the basis of such theoretical notions as "electron", "valence", and so on, all possible chemical compounds can be described. (*LSLT*: 77-78)

- *I costituenti nel modello di LSLT*

A sequence of words within a sentence "is a constituent of type Z if we can trace this sequence back to a single point of origin in (15) [= (A)], and this point of origin is labeled Z" (Chomsky 1957: 28).



- *I costituenti e la loro rappresentazione nella linguistica strutturale americana*

Let us call the I[mmediate]C[onstituent]s of a sentence, and the ICs of those ICs, and so on down to the morphemes, the *constituents* of the sentence; and conversely whatever sequence is constituted by two or

more ICs let us call a *constitute*. [...] Every word is a constituent (unless it is a sentence by itself), and also a constitute (unless it is a single morpheme). (Wells 1947: 84)

If we analyze our sentence as ‘The || king ||| of |||| England | open ||| ed || Parliament’ so that the main break comes after ‘England’, we can explain the constituents as expansions down to the following point: ‘the king of England’ is an expansion of ‘the king’ (which in turn is an expansion of a proper name, say ‘John’) because ‘king of England’ is an expansion of ‘king’; ‘opened Parliament’ is an expansion of a past-tense intransitive verb like ‘worked’. The whole sentence, therefore, is an expansion of ‘John worked’, which is of a fundamental sentence-type because it is not an expansion [...] of anything shorter. (p.86)

Our principle directs us to analyze into constituents which are expansions; but at first sight the advantages of the alternatives appear to be about equal. ‘King of England’ is an expansion of ‘king’, but ‘the king’ is an expansion of ‘John’. In respect of their other ICs, ‘the | king of England’ is better than ‘the king | of England’, since ‘the’ is a single morpheme while ‘of England’ is neither a morpheme nor yet an expansion. But this is too slight to figure in the decision. As before, it is necessary to see how close to equivalence is the reciprocal substitutability of ‘king of England’ with ‘king’, and of ‘the king’ with ‘John’. It turns out that while the relation of ‘king of England’ to ‘king’ is almost absolute equivalence, the environment ‘poor ()’ – ‘poor’ here being replaceable by any other non-pronominal adjective – differentiates ‘John’ from ‘the king’, for there is no ‘poor the king’. Rather, and instead, there is ‘the poor king’. (p.89)

Eng-	-land	use-	-s	the	foot	pound	second	system

(da Hockett 1958)

- *L'analisi di Harris della struttura in costituenti*

For instance, $N-s = N$: ‘paper’ + ‘-s’ = ‘paper’; and ‘papers’ can be substituted for ‘paper’ in most environments. However, we cannot substitute $N-s$ for the first N in this very equation: we cannot substitute ‘papers’ for the first ‘paper’ and then add ‘-s’ again (‘papers’ + ‘-s’), as this equation would seem to indicate. (Harris 1946: 170)

$N^1 -s = N^2$: ‘papers’, substitutable for ‘paper’ in cases such as ‘I’ll get my —out’.

$TN^2 = N^3$: ‘the orchestra’, ‘these pointless, completely transparent jokes’ substitutable for ‘butter’ in ‘I don’t like —’. (T is the symbol for the class of determiners).

The noun phrase is completed with the introduction of N^4 . $N^3 N^4 V_d^4 = N^3 N^4 V_e^4 P = N^4$: ‘the clock he fixed’ or ‘the house he slept in’ for ‘the clock’ in ‘—is all right now’. (V_d : transitive verb; V_e : intransitive verb).

‘have $V^1 -en$ ’ = V^2 : ‘have eaten’ for ‘know’ in ‘I — it’.

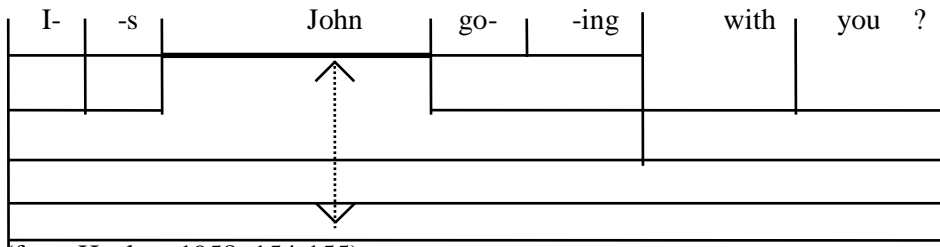
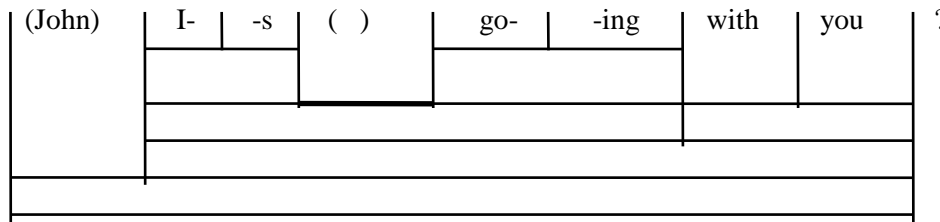
$V_g^1 N^4 V^3 = V^3$: ‘make him vote’ for ‘vote’ in ‘We’ll—your way’.

$V^3 -V_v = V^4$: ‘walked’ or ‘walked off’ or ‘had eaten’ or ‘tried to escape’ for ‘walk’ or ‘have eaten’ in ‘I—alone’ (- V_v : inflectional verb suffix).

$P N^4, N^4 V^4 = N^4 V^4, P N^4 = P N^4 N^4 V^4 = N^4 V^4 P N^4$: ‘At night, it’s too hard’; ‘It’s too hard, at night’; ‘At night it’s too hard’; ‘It’s too hard at night’. (Harris 1946:172-174)

- I “costituenti discontinui” nella linguistica strutturale americana

A discontinuous sequence is a constituent if in some environment the corresponding continuous sequence occurs as a constituent in a construction semantically harmonious with the constructions in which the given discontinuous sequence occurs. (Wells 1947: 104)



(from Hockett 1958: 154-155).

- Le trasformazioni e le loro proprietà in LSLT

- Le trasformazioni non sono soggette alle restrizioni delle regole SS (“Struttura sintagmatica”, Phrase structure)

$$(1) VP_A \rightarrow \left. \begin{array}{l} \{ed\} \\ \{C\} \end{array} \right\} (M) (have + en) (be + ing) (be + en)$$

Let Y be any one of ‘ed’, ‘C’, ‘en’, ‘ing’ (i.e., Y is any affix), and let Z be a prime. Then $X Y Z W \rightarrow X + Z Y + W$, where + is the marker of word boundary, i.e., it is the concatenation operation of the level **W**. (LSLT:233)

- Il formato delle trasformazioni in LSLT: ‘analisi strutturale’ e ‘cambiamento strutturale’

S.A.: $NP_1 - VP_A - V_T - NP_2$

S.C.: $NP_2 - VP_A - be + en - V_T - by + NP_1$

- Le trasformazioni come strumento per l’analisi della struttura sintattica

(2) John came home

(3) *home was come by John

- Restrizioni sulle trasformazioni

(4) *Whom did your interest in seem to me rather strange?

(5) You lost interest in him (last year)

(6) Whom did you lose interest in (last year)

- ‘Trasformazione’ in Harris e in Chomsky

We will say that sentences of the form A are equivalent to sentences of the form B, if for each sentence A we can find a sentence B containing the same morphemes except for differences due to the difference in form between A and B. (Harris 1952: 19).

In constructions like ‘I know whom you by-passed’ or ‘Whom did you by-pass?’ the V ‘by-pass’ is never followed by an object N, though elsewhere it is. We can then say that ‘whom’ – or, for other reasons, only the ‘()om’ – is itself the object N_2 of ‘by-pass’, so that ‘()om you by-passed’ becomes the well-known construction $N_1 v V N_2$ with the N_2 moved up. We avoid having unique constructions like ‘you by-passed’ without object N. (Harris 1957: 295)

2) Da LSLT alla “teoria standard” e alla EST

- Interpretazione “realistica” della grammatica

In LSLT the “psychological analogue” to the methodological problem of constructing linguistic theory is not discussed, but it lay in the immediate background of my own thinking. To raise this issue seemed to me, at the time, too audacious. It was, however, raised explicitly in the review article by Lees published in 1957 [...] In LSLT, the “realist” position is taken for granted. [...] The general theory, now regarded as an explanatory theory, is likewise to be understood as a psychological theory that attempts to characterize the innate human “language faculty”, and that can be tested in terms of its consequences in particular languages. (Chomsky, “Introduction” to LSLT, 1975: 35-37)

Perhaps the most baffling and certainly in the long run by far the most interesting implications of Chomsky’s theories will be found in their cohesions with the field of human psychology. [...] We cannot look into a human speaker’s head to see just what kind of device he uses there with which to generate the sentences of his language, and so, in the manner of any physical scientist confronted with observations on the world, we can only construct a model which has all the desired properties, that is, which also generates those sentences in the same way as the human speaker. [...] Granting that this so-called scientific method is valid, it is not too much to assume that human beings talk in the same way that our grammar ‘talks’, provided the grammar has been constructed as an adequate and maximally general model for that speech behavior: (Lees 1957: 406-407).

The fact that all normal children acquire essentially comparable grammars of great complexity with remarkable rapidity suggests that human beings are somehow specially designed to do this, with data-handling or ‘hypothesis-formulating’ ability of unknown character and complexity. (Chomsky 1959).

Linguistic theory is mentalistic, since it is concerned with discovering a mental reality underlying actual behavior. (Chomsky 1965: 4)

A linguistic theory is ‘explanatorily adequate’ if it “succeeds in selecting a descriptively adequate grammar on the basis of primary linguistic data” (Chomsky 1965: 25).

- L’opera di Lees, Klima e Postal. L’analisi della pronominalizzazione. La nascita della nozione di ‘deep structure’

- (1) S → (wh) (neg) (Adv(neg)) (Adv) Nominal-Predicate
(Klima 1964: 250)

The meaning of every sentence is determined uniquely by the operation of projection rules on underlying P-markers. Transformations would be without semantic effects. (Katz & Postal 1964:46)

- (2) John is a doctor
- (3) Is John a doctor?
- (4) Either John is a doctor or not
(Katz & Postal 1964: 118-119)

- L’analisi delle strutture subordinate e l’ordinamento delle trasformazioni

- ‘NP-complementation’ vs. ‘VP-complementation’ (Rosenbaum 1967)

- (1) a. Bill prefers to stay here
b. What Bill prefers is to stay here
c. to stay here is preferred by Bill
d. What is preferred by Bill is to stay here
- (2) a. Bill condescended to stay here
b. *What Bill condescended was to stay here
c. *To stay here is condescended by Bill
d. * What was condescended by Bill was to stay here
(Rosenbaum 1967: p.93)

- Costruzioni a “sollevamento” (‘Raising’)

- (3) *What I believe is for John to have convinced Bill

- (4) a. I believe John to have convinced Bill
b. I believe Bill to have been convinced by John

- (5) a. I compelled a doctor to examine John
b. I compelled John to be examined by a doctor

(Rosenbaum 1967: 60 ss.)

- (6) a. John happened to find gold
b. It happened for John to find gold

(Rosenbaum 1967: 78-19)

- *La nozione di 'ciclo' e l'ordinamento delle trasformazioni*

- (7) a. [₂Bill persuaded Mary [₁the police to interrogate Mary]] (deep structure)
b. [₂Bill persuaded Mary [₁Mary to be interrogated by the police]]
(cycle 1; Passive applied; EQUI inapplicable)
c. [₂Bill persuaded Mary [₁to be interrogated by the police]]
(cycle 2; EQUI has applied)
d. [₂Mary was persuaded by Bill [₁to be interrogated by the police]]
(cycle 2; Passive has applied)

- (8) a. *Realizing that Oscar_i was unpopular didn't disturb him_i
b. Realizing that he_i was unpopular didn't disturb Oscar_i

- 'Condizioni sulle trasformazioni'

- *Le trasformazioni "richiedono la conoscenza della struttura in costituenti"*

- (1) The man who was here was old
(2) Was the man who was here old?
(3) *Was the man who here was old?

- *La necessità delle variabili nelle trasformazioni (Ross 1967)*

- (4) X - Q - Y → WH + Q - X - Y
(5) a. What did Bill buy?
b. What did you force Bill to buy?
c. What did Harry say you had forced Bill to buy?
(6) a. *What did Bill buy potatoes and?
b. *What did that Bill wore surprise everyone?
c. *What did John fall asleep and Bill wear?

- 'A-over-A Principle' vs. 'Complex NP Constraint'

(...) if the phrase X of category A is embedded within a larger phrase ZXW which is also of category A, then no rule applying to the category A applies to X (but only to ZXW). Chomsky (1964: 931)

- (7) a. I chased [_{NP} the boy who threw [_{NP} a snowball]] at our teacher]
b. *Here is the snowball which I chased the boy who threw at our teacher

- (11) a. Tom mentioned [_{NP} the fact that she has worn [_{NP} a bikini]]
b. *Where's the bikini which Tom mentioned the fact that she has worn?

- (12) [_{NP} What] would you approve of [_{NP} my seeing]?
(13) [_{NP} What] are you uncertain about [_{NP} my giving to John]?

'Complex NP Constraint' (CNPC): "No element contained in a sentence dominated by a noun phrase with a lexical head noun may be moved out of that noun phrase by a transformation" (Ross 1986: 76).

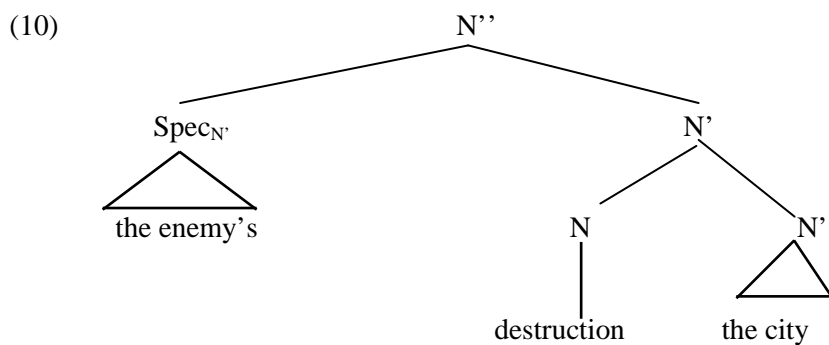
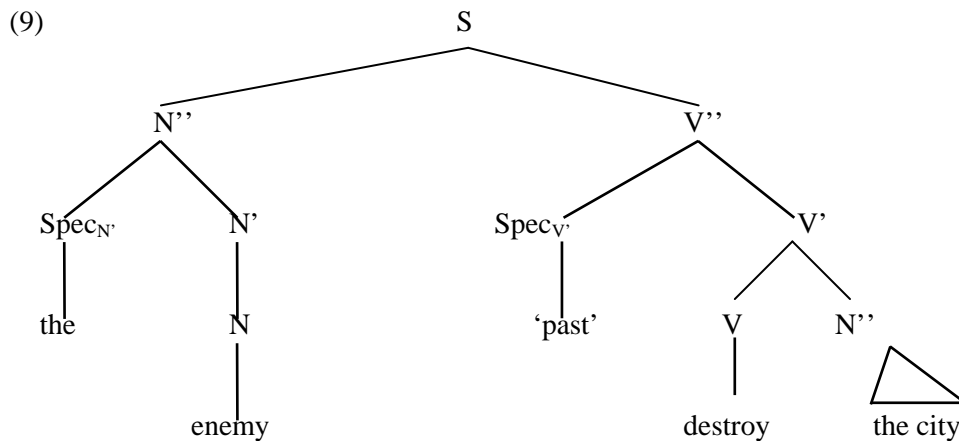
- *Il problema delle condizioni sulle trasformazioni dal punto di vista "metodologico" e "psicologico"*

[...] it is crucial to restrict the class of transformational grammars. [...] This is true if we approach the matter from a methodological standpoint, seeking to construct the most restrictive theory with the strongest claims, hence the theory that is most subject to empirical disconfirmation and that makes the

most significant contribution to the justification of the linguist's grammar. It is also true if we adopt the alternative psychological perspective, attempting to characterize the "initial state" of the organism capable of acquiring human language, the innate schematism and mechanisms that are applied in the analysis of the data of sense. (Chomsky, "Introduction" to LSLT, 1975: 23-24)

- Chomsky (1970): la prima formulazione della 'X-bar theory'

- (1) The committee appoints John
- (2) The committee's appointment of John
- (3) John's appointment by the committee
- (4) a. John is easy to please
 b. John's being easy to please
 c. *John's easiness to please
- (5) a. The enemy destroyed the city
 b. The city was destroyed by the enemy
- (6) a. The enemy's destruction of the city
 b. The city's destruction by the enemy
- (7) $X' \rightarrow X \dots$
- (8) a. $X'' \rightarrow \text{Spec}_x - X'$
 b. $X' \rightarrow X - \text{Comp}$



RIFERIMENTI BIBLIOGRAFICI

- Bar-Hillel, Yehoshua. 1964 = *Language and Information*. Reading, Mass. - Palo Alto - London - Don Mills, Ontario: Addison-Wesley.
- Bloomfield, Leonard 1933 = *Language*. New York: Holt, Rinehart & Winston
- Chomsky, Noam. *LSLT = The Logical Structure of Linguistic Theory*. Chicago & London: The University of Chicago Press, 1975[1955-56].
- , 1957. = *Syntactic Structures*. The Hague: Mouton.
- , 1959. = Review of Skinner (1957). *Language* 35.26-58.
- , 1964 = "The Logical Basis of Linguistic Theory". *Proceedings of the 9th International Congress of Linguists* (Cambridge, Mass., August 27-31, 1962) ed. by Horace G. Lunt, 914-978 (discussion 978-1008). The Hague: Mouton.
- , 1965 = *Aspects of the Theory of Syntax*. Cambridge, Mass.: The MIT Press.
- , 1970 = "Remarks on nominalization". Jacobs & Rosenbaum 1970.184-221.
- Fodor, Jerry A. & Jerrold J. Katz, eds. 1964 = *The Structure of Language. Readings in the Philosophy of Language*. Englewood Cliffs, N.J.: Prentice-Hall.
- Graffi, Giorgio. 2001 = *200 Years of Syntax*. Amsterdam: Benjamins.
- Harris, Zellig S. 1946 = "From morpheme to utterance". *Language* 22.161-183.
- , 1952 = "Discourse analysis". *Language* 28.1-30.
- , 1957 = "Cooccurrence and transformation in linguistic structure". *Language* 33.283-340.
- Hockett, Charles F. 1958 = *A Course in Modern Linguistics*. Bloomington, Indiana: Indiana University Press.
- Jacobs, Roderick A. & Peter S. Rosenbaum, eds. 1970 = *Readings in English Transformational Grammar*. Waltham, Mass.: Ginn & Co.
- Katz, Jerrold J. & Paul M. Postal. 1964 = *An Integrated Theory of Linguistic Descriptions*. Cambridge, Mass.: The MIT Press.
- Klima, Edward S. 1964 = "Negation in English". Fodor & Katz 1964.246-323.
- Lees, Robert B. 1957 = Review of Chomsky (1957). *Language* 33.375-408.
- , 1968[1960] = *The Grammar of English Nominalizations*. 5th printing. Bloomington: Indiana University Press; The Hague: Mouton.
- Rosenbaum, Peter S. 1967 = *The Grammar of English Predicate Complement Constructions*. Cambridge, Mass.: The MIT Press.
- Ross, John R. 1967 = *Constraints on Variables in Syntax*. Ph. D. Diss.: MIT = 1986. *Infinite Syntax!*. Norwood, N.J.: Ablex.
- Wells, Rulon S. 1947 = "Immediate constituents". *Language* 23.81-117.