

Chapter 8

Linguistic schools in the twentieth century

A GRAMMATICAL MODEL OF A LANGUAGE is an attempt to represent systematically and overtly what the native speaker of that language intuitively knows. A model is thus a system of rules that relates patterned sounds to predictable meanings and which reflects a speaker's ability to 'make infinite use of finite means'.

As yet, there is no model for English which totally satisfies all requirements for an adequate grammar of the language, although many models have been advanced and they all have their uses. We shall look briefly at the different models advanced in this century in Britain and in the United States and we shall indicate their respective strengths and weaknesses.

Traditional Latin-influenced models

Until the 1920s, most models of English were based on Latin, the grammar of which was itself based on Greek. Study of the nature and structure of language goes back at least as far as Plato and Aristotle for western European languages. Greek was comprehensively described by Dionysius Thrax towards the end of the second century BC. All Greek words were classified in terms of case, gender, number, tense, voice and mood. Three centuries later, Apollonius Dyscolus improved on the Thrax model by including rules for combining words into acceptable sentences.

Latin grammarians adopted the Greek model for their own language and, since Greek and Latin were structurally very similar, the belief grew that grammatical categories which were valid for Greek and Latin were valid for all languages. Vernacular grammars in Europe appeared as early as the seventh century (the first was a grammar of Irish) but since Latin was the language of religion and scholarship, English and other European languages were described according to Latin categories. Where they failed to match the Latinate system they were regarded as 'debased' or 'deficient' and, if it were possible, they were modified to resemble the Latin model. This model was particularly unsuited to modern English, which is virtually an uninflected language. Let us illustrate what we mean. In Latin, a noun like 'dominus' meaning 'lord' could be declined as follows:

	<i>singular</i>	<i>plural</i>
<i>nominative</i>	dominus	domini
<i>vocative</i>	domine	domini
<i>accusative</i>	dominum	dominos
<i>genitive</i>	domini	dominorum
<i>dative</i>	domino	dominis
<i>ablative</i>	domino	dominis

Although Latin described six cases in the noun in both the singular and the plural, there are only eight distinct forms of 'dominus', the dative and ablative being the same and the genitive singular being identical in form to the nominative and vocative plural. Grammarians who followed the Latin model for English often declined English nouns as follows:

	<i>singular</i>	<i>plural</i>
<i>nominative</i>	lord	lords
<i>vocative</i>	O lord	O lords
<i>accusative</i>	lord	lords
<i>genitive</i>	lord's	lords'
<i>dative</i>	to the lord	to the lords
<i>ablative</i>	by/with/from the lord	by/with/from the lords

Notice, however, that there are only two distinct forms of 'lord', that is 'lord' and 'lords'. All the other distinctions are carried by prepositions, by an exclamatory 'O' or by the positioning of an apostrophe. If we pronounce the genitive singular, we will notice that it is identical in sound to the nominative plural, a feature that is shared by many Indo-European languages. The English verb system was even more distinct from Latin. If we consider only the simple present of 'portare' the equivalent of 'carry', we find that it is marked for person and number:

<i>1st sing.</i>	porto	I carry
<i>2nd sing.</i>	portas	you (<i>sing.</i>) carry
<i>3rd sing.</i>	portat	he/she/it carries
<i>1st pl.</i>	portamus	we carry
<i>2nd pl.</i>	portatis	you (<i>pl.</i>) carry
<i>3rd pl.</i>	portant	they carry

The equivalent English system has only two distinct forms, namely

'carry' and 'carries' but marks the gender of the subject (as being masculine, feminine or neuter) in the third person singular.

Much of the prescriptivism of school grammars derives from Latin models. Stylists have argued that English sentences should not end with a preposition because prepositions could never occur at the end of a sentence in Latin. Such a claim overlooks the fact that, in Latin, a preposition always governed a noun or pronoun and therefore could not occur without a following nominal. English, however, has always permitted prepositions to occur in sentence-final position, especially in colloquial speech. Similarly, generations of students of English have been taught that such sentences as:

It's me.

She's taller than me.

are wrong: Latin had the same case before and after the verb *BE* and so should English. This view, which tries to push English into a Latin mould, ignores the parallelism of such sets as:

He arrived before I did.

He's taller than I am.

He arrived before me.

He's taller than me.

It also ignores the fact that, in English, 'me' is not only accusative. It is also the emphatic form of the pronoun:

Who's there?

Me.

Latin-oriented grammars failed because they did not recognise that each language is unique in its organisation and patterns. Their strength lay in the fact that they recognised that languages were complex and flexible and that, at some level, languages were fundamentally similar.

Structuralism

This approach to languages developed in the US and illustrates the point that the development of any discipline is influenced by the cultural and political setting in which it evolves. In the early part of this century, grammars of languages produced in the US often differed considerably from those produced in Britain. The anthropological approach with its emphasis on the spoken medium was favoured in the US because of the existence of numerous unwritten and dying Amerindian languages. Linguists who worked on such languages carried over the skills and insights they acquired into their examination of English. In Britain, on the other hand, linguists spent a lot of time on Indic languages, many of which had long traditions of literacy and

scholarship. British linguists, not unnaturally, paid more attention to the written medium and to orthographic systems.

Structuralism had one of its clearest statements in Leonard Bloomfield's *Language*, published in 1933. This model of grammar is still influential and worthy of detailed comment. Structuralists began with the premise that each language was unique and must be described in terms of its own individual patterning. They rejected such meaning-based definitions as 'a sentence is a group of words which expresses a complete idea', asking quite legitimately what an incomplete idea was, and they attempted to look on language study as a science where scientific precision would be required in all formulations.

Structuralists envisaged language as a highly structured, predictable system where one could move from sound to sentence, discovering the significant units at each level and providing rules for combining them. They started with sound and defined a 'phoneme' as the smallest unit of a language's sound system. Each language had an inventory of sounds and a linguist's task was to establish which phonemes were significant in the language being described. One step above phonemes came 'morphemes'. These were composed of phonemes and were defined as the smallest unit of syntax. There were two kinds of morphemes, bound morphemes like 'un-' which could not occur in isolation and free morphemes like 'kind' which could. Free morphemes were equivalent to words. Word classes were determined by both form and function. Nouns, for example, differed in form between singular and plural, with plurality being indicated by means of adding /s/, /z/ or /ɪz/ to the singular, thus:

gnat + /s/	>	gnats
tree + /z/	>	trees
horse + /ɪz/	>	horses

Nouns also fitted into such test frames as:

funny
good
(the) seemed very happy
tired
unreliable

By means of examining forms and functions of words and by means of creating test frames, structuralists avoided relying on 'meaning' and they showed that English consisted of words belonging to open classes and to closed sets. *Open classes* were groups of words like nouns, verbs, adjectives and adverbs which were potentially open-ended, that

is, it would be almost impossible to list all the nouns or verbs in English largely because new ones can be created and, in addition, words can move from one class to another. ('Motown', for example, was created by blending 'motor' and 'town'. 'Motor' was originally a noun but can also be used as a verb.) *Closed sets* were words like determiners and pronouns where the items in the sets could be exhaustively listed. Among the closed sets were auxiliary verbs and prepositions which were also described as 'function words' because their primary role was to express grammatical relationships. In the sentence:

Do you like cheese?

for example, the 'do' is there to form a question but has little semantic value.

By means of such study, structuralists worked out that English contained the following word classes:

nouns

verbs (headverbs and auxiliaries)

adjectives

adverbs

determiners

prepositions

conjunctions (co-ordinating and subordinating)

pronouns

exclamations

This classification did not differ radically from the Latin-oriented model for English. Nor is this surprising in view of the fact that Latin and English are related languages. Where the structuralists did differ fundamentally from earlier linguists was: in giving priority to speech; in assuming that if native speakers used a structure regularly then that structure was correct; in ruling out reliance on meaning; in offering precise instructions for building phonemes into morphemes, morphemes into words, words into phrases, clauses and sentences; and in aiming to rely on verifiable, repeatable data.

Structuralists attempted to make the study of language as scientific as the study of chemistry. Their achievements were considerable and all subsequent models of English have utilised the discoveries and techniques of structuralism. They had weaknesses, however. Because they believed that all languages could be analysed in terms of elements in sequence, with successive elements being increasingly predictable,

they undervalued the creativity of speakers and the fact that sentences could look alike and yet be very different. Such sentences as:

John asked me what to do.

and:

John persuaded me what to do.

look alike and were analysed identically by structuralists. In the first sentence, however, John was to perform the action whereas 'I' was to perform it in the second. Their techniques worked beautifully for the regular parts of English:

cat	cat+s		
mat	mat+s		
love	love+d	lov+ing	love+s
shove	shove+d	shov+ing	shove+s

but were less satisfactory for the irregular parts:

foot	foot + plural	= feet	(and not 'foots')
man	man + plural	= men	
drive	drove	driving	drives driven
sing	sang	singing	sings sung

With all their evident strengths, structuralists concentrated on the surface of the language and were more interested in analysing data than in evaluating their discoveries.

Scale and category

This model of grammar is also referred to as 'systemic' grammar and it evolved mainly due to the work of the British linguist Michael Halliday. In its earliest draft (1961), scale and category dealt only with surface structure although later modified models were aware of both surface and underlying (or deep) levels of language. This model of English is based on the existence of choice within language. The essential idea is that at any given place in a structure the language permits choice, a choice that may be extremely large or quite limited:

He	saw	his	friend	on	Monday
She	met	that	person	last	Tuesday
They	greeted	the	workman	on	Sunday
John	noticed	an	intruder	on	Friday

Even when we select such a simple sentence as 'He saw his friend on Monday' we can easily show that choice is available at every point in the sentence. It is most restricted with regard to 'on' and 'Monday' in that only 'on' and 'last' fit into the preposition slot and there are only seven weekdays. Generalising, we can show the choice by such a formula as:

Nominal + V_{past} + determiner + nominal + on/last + Xday

Scale and category grammar attempts to describe language, whether written or spoken, in terms of three primary levels:

substance \Leftrightarrow form \Leftrightarrow situation

Substance relates to sounds for the spoken medium (phonic substance) and to marks on paper for the written (graphic substance). Form is subdivided into two levels:

form — { lexis
 { grammar

Lexis deals with the study of words, their shape and their ability to collocate with others. Grammar deals with the elements of a structure and with the relationships between elements. 'The blue light' and 'the light blue', for example, are both phrases but in the first phrase 'blue' modifies 'light'. We can show the similarities and differences in their structures as follows:

$_m$ the $_m$ blue $_h$ light
 $_m$ the $_m$ light $_h$ blue

where the 'm' indicates that the words are in a subordinate or modifying role and the 'h' indicates the headword or word of prime significance in the phrase.

Situation takes into account such extralinguistic phenomena as gesture, non-linguistic noises, number of participants, time and place of occurrence. In other words, this level relates to J. R. Firth's idea of 'context of situation' which implied that an utterance could only be satisfactorily explained if the context in which it occurred was known. Let us take as an example the sentence:

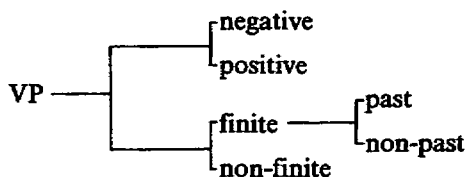
That'll do.

If this is said to a child, it is usually a reprimand and it is uttered with a particular intonation pattern. If, however, it is said to a shop assistant, it implies satisfaction on the part of the client. Meaning can thus be seen to depend not only on sounds, words and structures but on context as well.

In this model, phonology was seen as linking substance and form and four units of phonology were described for English, the phoneme (or smallest significant sound unit in English), the syllable (the sound or combination of sounds marked by one element of sound prominence), the foot (which marked stress patterns in a sequence of syllables) and tone (the intonation patterns in an utterance). The five grammatical units were morpheme, word, phrase, clause and sentence and these were ranked from the smallest, 'morpheme', to the largest, 'sentence'. Sentences were described according to the categories S P O C A (Subject, Predicate, Object, Complement, Adjunct) and when the basic elements of the sentence had been described the aim was to establish systems which accounted for their form and their possible occurrence. This was done by setting up mutually exclusive features such as:

verb phrase (VP) — {
 past
 non-past

which indicates that a choice has to be made between the selection of the past and non-past tense in English. A more elaborate system would take other factors such as negation and finiteness into account as follows:



The above is a very simple system network but it indicates one of the principal techniques of scale and category (systemic) grammar, which attempted to offer networks which would make explicit the relationships between all elements in a sentence.

This model was an advance on structuralism in that it tried to take into account the facts that language varies with situation and that choice is available at all levels of the language. (Later models have refined the definitions and have taken into account the creative ability of all native speakers.) Its main weakness was that it suggested that all sections of a language could be explained in terms of superficial binary contrasts.

Transformational generative grammar

In 1957 Noam Chomsky, an American, published *Syntactic Structures*, a statement of the principles of transformational generative grammar (TG). This grammar has had a profound effect on the study of all languages, including English. TG was a reaction against structuralism and the first model to acknowledge formally the significance of deep structure. We can only offer a very brief survey of the aims and characteristics of TG.

Transformational generative grammarians set themselves the task of creating an explicit model of what an ideal speaker of the language intuitively knows. Their model must assign a structure, therefore, to all the sentences of the language concerned and only to these sentences. As a first step towards this, Chomsky distinguished between 'competence', which he defines as 'the ideal speaker-hearer's knowledge of his language', and 'performance', which is 'the actual use of language in concrete situations'. Competence is, as it were, the perfect storehouse of linguistic knowledge. Performance draws on this knowledge but it can be faulty. The TG model attempts to formulate hypotheses about competence by idealising performance, that is, by dredging away performance accidents such as hesitations, unnecessary repetition, lack of attention, fatigue, slips of the tongue, false starts. TG is interested in competence and this interest marks the clearest difference between structuralism and TG. Structuralism was text-based and only interested in language that had actually occurred. TG does not use text since it is more interested in what produced the text than in the text itself.

A TG model has four main characteristics:

(1) It must attempt to make explicit how a finite entity like the brain can operate on a finite set of items (words and structures) and yet generate an infinite set of sentences. The model must parallel the ideal speaker's competence and so it must be capable of generating an infinite set of sentences by the operation of a finite set of rules on a finite set of items. We can give an impression here of how that can be done. Let us suppose, for example, that we have the rules:

$S \rightarrow NP + VP$ (sentence can be rewritten as noun phrase + verb phrase)

$NP \rightarrow (\text{det}) + N$ (noun phrase can be rewritten as (determiner) + noun)

$VP \rightarrow V + NP$ (verb phrase can be rewritten as verb + noun phrase)

and suppose we have two nouns 'boys' and 'girls', three determiners 'the', 'some' and 'five', and three verbs 'love', 'hate' and 'trust', then

we can produce hundreds of sentences such as:

- | | | |
|---|---|-----|
| Boys love/hate/trust girls. | } | (6) |
| Girls love/hate/trust boys. | | |
| Some boys love/hate/trust girls. | | |
| Boys love/hate/trust some girls. | | |
| Five boys love/hate/trust the girls. | | |
| The boys love/hate/trust some/five/the girls. | | |

These sentences give a limited idea of the productive quality of even the simplest model.

(2) Since the model attempts to describe the ideal speaker-hearer's linguistic knowledge and intuitions, it must be explicit. It must not fall back on intuition to ask whether a structure is or is not correct. If it used intuition to define intuition, the model would be circular and useless. A TG model must therefore be explicit and self-sufficient. Its rules alone must allow us to decide whether a structure is acceptable.

(3) The model must have three components: a *phonological* component, a *syntactic* component and a *semantic* component so that it parallels the speaker's ability to associate noise and meaning.

(4) Although the model must not rely on the intuition of a native speaker it must be in harmony with such intuition. In other words, it must be able to assign a structure to all sentences which would be accepted by a native speaker and reject all sentences which would be rejected by a native speaker.

The phonological component deals with phonemes and with the permissible combination of phonemes. As far as English is concerned, it offers rules for stress and intonation patterns as well. The work on phonology is an extension of the work done by structuralists, a refinement rather than a reappraisal, and this is the part of the TG model which has received least criticism. The semantic component deals with meaning and the interpretation of meaning. Much work has been done in this area and many have criticised Chomsky's techniques. It would be true to say, however, that less satisfactory work has been done with regard to semantics than with regard to phonology and syntax.

It is with regard to his treatment of syntax that Chomsky's approach differs most fundamentally from other models. TG is explicit about the fact that native speakers recognise two levels of structure. A speaker realises that:

- John is easy to please
- John is eager to please

may look alike but are different at some level in that the first implies:

Someone pleases John

and the second:

John pleases someone

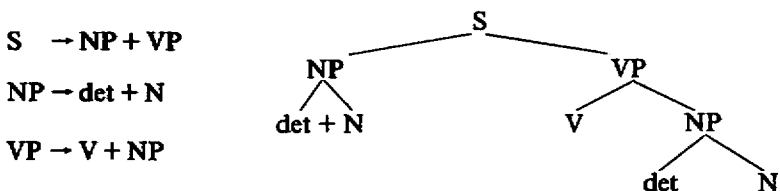
Similarly, a native speaker recognises that although:

John loves Mary

looks very different from:

Mary is loved by John

they are fundamentally very similar. To account for the two levels that a speaker intuitively recognises, a TG model splits the syntactic component into two parts: a base subcomponent and a transformational subcomponent. The base subcomponent generates (that is, assigns a structure to) the deep underlying pattern so that we can represent it by means of a tree diagram (also called a 'labelled bracketing' and a 'phrase marker'), thus:



The transformational subcomponent works on a phrase marker and so generates a surface structure. Again, a brief example may help. The structure:

det + N + V + det + N

underlies thousands of transitive sentences such as:

The cat swallowed the mouse.

The transformational subcomponent accounts for the transformation of such a sentence into such variants as:

The mouse was swallowed by the cat.

The mouse was swallowed.

The swallowing of the mouse (by the cat)

and:

The cat's swallowing of the mouse.

Transformation rules allow the grammarian to explain:

(1) deletion, for example $A + B + C \Rightarrow A + B$:

John ran away and Mary ran away \Rightarrow John and Mary ran away

(2) addition/insertion, for example, $A + B \Rightarrow A + B + C$:

Go away \Rightarrow You go away

He has come \Rightarrow He has just come

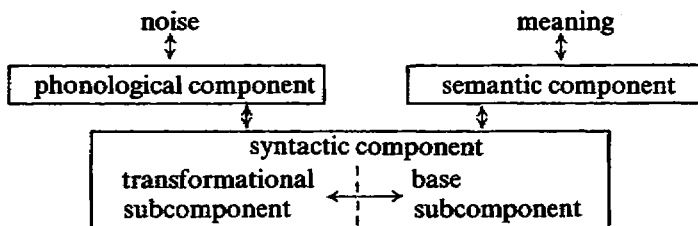
(3) permutation, for example, $A + B + C \Rightarrow A + C + B$:

Call John up \Rightarrow Call up John

(4) substitution, for example, $A + B + C \Rightarrow A + D + C$:

John arrived and Peter went in \Rightarrow On John's arrival Peter went in

In brief then, a TG grammar aims to pair a given string of noises with a given meaning by means of a syntactic component. The following diagram indicates how this may be done and stresses that a TG model is neutral with regard to production and reception. The arrows work both ways because a speaker can associate meaning with noise or noise with meaning:



The ultimate aim of TG is the understanding of language, of the universals common to all languages, and through this an understanding of the human mind.

Case grammar

One of the values of TG is the number of sub-theories which it stimulated. Among the most interesting of these is C. J. Fillmore's case grammar (see Bibliography). Fillmore drew attention to the fact that with many verbs of change (for instance, OPEN, BREAK) essentially the same meaning could be expressed in surface structure with different nouns filling the subject slot as in:

John opened the door with a key.

The key opened the door.

The door opened.

It seems clear that, at some level, these three nouns *John*, *key* and *door* had a specified relationship with OPEN. Fillmore suggested that in deep structure nouns are involved in a 'case' relationship with verbs. In some languages, like Latin, the relationships show up in surface structure as case endings, whereas in English they may be indicated by sentence position and the use of prepositions. According to Fillmore, case is universal in languages and the following eight cases are sufficient to account for the relationships between verbs and nouns.

(1) **Agentive**: this case relates to the agent in a sentence, that is, to the animate instigator of the action or state identified by the verb:

Mary made a dress.

The dress was made by Mary.

Mary was a dressmaker.

The dressmaker was Mary.

'Mary' is the deep structure agent in all of the above sentences, irrespective of its surface role or position.

(2) **Experiencer**: this case relates to the animate being which is affected by the action or state identified by the verb:

John was warmed by the fire.

I threw the dog a bone.

The child believed in Santa Claus.

It infuriated John.

The underlined items above all 'experience' the activity of the verb.

(3) **Instrumental**: this is the case of the inanimate force, object or cause which is involved in the action or state identified by the verb. Again, these are underlined in the following examples:

Mary measured the curtains with a ruler.

The ruler measured the curtains.

The stone broke the window.

The curtains darkened the room.

(4) **Objective**: this case is what Fillmore refers to as his 'waste basket'. It is the case which applies to items which are contained:

John filled his pipe with tobacco.

which move or undergo change or which are affected by the action or state identified by the verb:

Smoke filled the air.

John saw the intruder.

He hit him with a stick.

He died instantly from the blow.

(5) **Source:** this is the case which marks the origin or starting point of the action or state identified by the verb:

He drove from Leeds to London.

She worked from morning until night.

The trouble began with a misunderstanding.

A misunderstanding caused the trouble.

(6) **Goal:** this marks the case of the end point or objective of the action or state identified by the verb:

He drove from London to Leeds.

He worked from morning until night.

He painted a picture.

She wrote a song.

(7) **Locative:** this case specifies the spatial orientation of the action or state identified by the verb:

The rain in Spain stays mainly on the plain.

The case was filled with books.

The flat was very comfortable.

(8) **Temporal:** this case identifies the time of the state or action identified by the verb:

Lectures end on Thursday.

We expected sunshine in the summer.

July is a pleasant month.

He arrived at noon.

Subsequent case models have varied the number of cases and aimed at greater precision but the above eight cases illustrate the techniques of case grammar. As far as English is concerned, it is necessary to fill the subject slot in all sentences except imperatives. This fact accounts for the use of dummy subjects in such sentences as:

It's raining.

where 'it' does not, in fact, refer to anything. In English, the subject

slot can be filled by all the above cases:

Mary broke the cup. (Mary = agent)

John felt the pain. (John = experiencer)

The key opened the door. (key = instrument)

The cup was broken. (cup = object)

That song started the trouble. (song = source)

London was his destination. (London = goal)

It's pleasant in Greece. (Greece = location)

Spring is the loveliest time. (spring = temporal)

The attraction of Fillmore's theory is that it applies to all languages. Every group of people expresses views regarding agents and experiencers; certain actions can only be performed with an instrument; when we plant seeds we expect to have a harvest, so we all understand sources and goals; and time and place are universal realities. In Fillmore's view each deep structure sentence involves a predicator and a number of cases:

$$S \rightarrow \text{Predicator} + \text{Case}_1 + \text{Case}_2 + \dots + \text{Case}_n$$

and these case markings can differ in surface structure from language to language.

The weakness of this theory is that we really do not know much about 'deep' structure, about how it is constructed or even how far below the surface of language or languages we can probe. At the deepest level of all we are trying to probe the ways the mind works and, fascinating as that study is, it is only in its infancy.

Summary

We have offered a very superficial account of five influential models of grammar. There are many others because as the flaws in one model become apparent, modified versions or new models are suggested. As we look back over the last eighty years we can see that each new model is a reaction against the perceived weaknesses of the prevailing traditions. Latin-oriented grammars lost favour because they failed to recognise the uniqueness of each language; structuralism was pushed aside because it concentrated too much on data and failed to proceed from the known to the unknown because it feared theoretical intangibles; TG and case models recognised the value of theory and the significance of what was going on beneath the surface. Their weakness is in not paying sufficient attention to surface structure

where differences in form and content are most immediately apparent. Scale and category/systemic grammar has learnt much from both structuralism and TG but its potential has not yet been fully exploited.

All the above models and all the others that we have not examined have strengths as well as weaknesses. The answer to an obvious question – Which model is best suited to a study of contemporary English? – can only be answered when we have the answer to another question: For what purpose do we want the model? If a model is needed for teaching English to literate adults then there is much to be said for a Latinate model; if we want a model based on language which has actually occurred and which will be useful in everyday interaction, then structuralism is still unequalled. If however, we wish to go beyond the surface of language and if we wish to explore how surface structures are related then we should turn to the more recent models.

Two facts should be apparent from our study of models: one is that we have no totally adequate model of any language in the world. A language, as we have seen, is an abstraction based on the linguistic behaviour of people. As people change and circumstances change so the language will change. Linguists are thus trying to examine a phenomenon which is never static as long as it continues to be used by people. The second fact is that we need models for different purposes and our choice of a model or a synthesis of several models will be conditioned by our needs.