MENTAL ACTIVITIES AND LINGUISTIC STRUCTURES[1]

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> *"To explain the complicated visible by the simple invisible..."*
>
> Jean Perrin
>
> (Nobel Prize for Physics, 1926)

INTRODUCTION.

1 - Between the world —real or imaginary— and the linguistic domain, there is an area which is not directly observable; this is the area of *conceptualization*. For many years linguists have been devoting their attention to this field of investigation. Eighty years ago Gustave Guillaume set about establishing schematic representations of mental trajectories (the radical binary tensor). This line of research has been pursued, first by European semanticians, then by American cognitivists, oscillating between topo-synthetic graphic reprensentation (the geometric approach) and logico-analytical formulation (the algebraic approach).

2 - Scientific ethics requires researchers to take the work of their colleagues into account, even if they do not belong to the same school, live in the same continent or
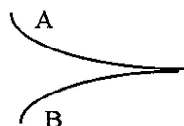
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write in the same language. This is why we shall recall briefly certain modern orientations before presenting our own theory[2].
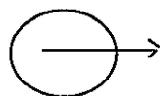
3 - The common aim to all the work done on the subject of conceptualization is to establish essential fundamental representations, from which can be derived the complexities expressed in natural languages.

As a general rule the following distinction must be maintained between

- the most abstract GRAPHS, which are independent of natural languages, such as:

to express the union of A and B
(<u>mix, fuse, melt into, meet, merge</u>)

to be interpreted as a passage from an interior to an exterior
(<u>go out</u>, ex<u>tract</u>, e<u>vacuate, way ou</u>t)
(lat. EX).

- *META-TERMS* which can designate, in the course of the description, events or entities, for example:

- *operators*: "movement", "state", "control", DO, STAY;
- *concepts*: resulting from linguistic analysis: "ergativity", "localization", "determination", or resulting from the promotion of some lexical terms, belonging to a particular language, to the rank of "primitives": *I, think, after, two*;
- *semiotic notions that are the result of the interpretation of the meaning* on the textual level: //revenge//, //frustration//, //betrayal//.

- the SEMES which belong exclusively to particular language and make possible the organization of the relation between signs:
- either to express common features: /stability in time/ for *stable, stay, permanent, intangible, always*;

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[2] Other researchers could have featured in this presentation: A. Culioli, J. Fodor, A.J. Greimas, J.B. Grize, A. Joly, G. Lakoff, F. Rastier, H. Seiler, for example.

- or to make explicit differences, for example between *joy/ pleasure* or *introduce/ plunge*;

- or any other *ad hoc* function.

I. SOME MODELS OF MENTAL MECHANISMS

A. The Catastrophe Models.

1. Presentation.

The underlying philosophy, the foundations of which were already laid by G. Guillaume, is characterized in the following way by R. THOM: "Theorization consists essentially in the art of reducing to the identical. The scientific procedure leads to the highlighting of a single process" (remarks taken from *Le Monde*, 22-23 July 1995). It should be noted that all levels of complexity are concerned by this principle —from the simple morpheme to the complex utterance, and even to the text.

The graphs are composed of lines which occupy a space in time, in continuity: "to reconcile the immediate intuition of continuity with the generativity —by definition discontinuous— of the operations" (R. THOM, *Paraboles et catastrophes*, p. 159). This topological configuration is by its very nature *kinetic* and the lines are the traces of entities in Time.

When these entities (which become linguistic actants) are endowed with certain properties such as force/ power (± PUI) or will (± VOL) these energy factors lead to *dynamic* schemata.
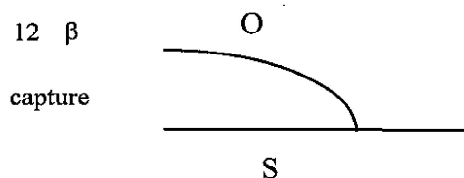
Obviously, the question of the impossibility of representing certain concepts is raised. As Jackendoff puts it: "What visual images convey the thoughts expressed by words such as "justice", "if", "tomorrow", or, for that matter "thought"?" (*Patterns of the Mind*, p. 187). It will be seen that these concepts have their place in our schemata.

R. THOM qualifies this doubt: "Already Aristotle observed that privation is a *kind of form, drawing attention, in this way, to the palpable effect an absence can* sometimes have. Must we conclude that the isomorphic topological representation of spatio-temporal processes is an impossible dream?" (Letter to B.P., 5-2-96).

2. René THOM.

The "catastrophe theory", founded on mathematical principles, opened up the way, over thirty years ago, to numerous interdisciplinary developments, in particular in the field of linguistics.
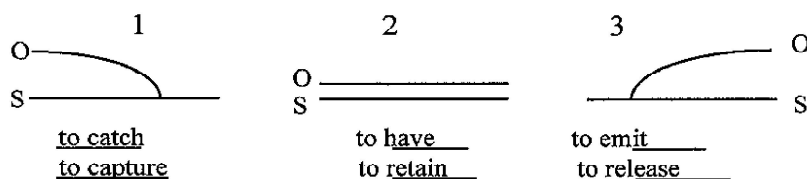
Starting from seven singularities, eighteen schemata are proposed to represent the basic types of events. The visualization is clear and immediately comprehensible. Every line designates an entity. A convention attributes specific properties, since:

12 β   O

capture

              S

(1970, p. 248)

refers to the "capture of O by S and not the opposite" (straight line = continuing existence in time).

The presentation of "morphological archetypes" leads to binary distinctions (unite/ separate, send/ take). In our view, each pair could enter a schema of a more general nature, if an intermediary term were introduced.

        1   2   3

O   O

S   S   S

to catch   to have   to emit
to capture   to retain   to release

forming, in this way, a "*whole* event", which can frequently be repeated and become cyclical.
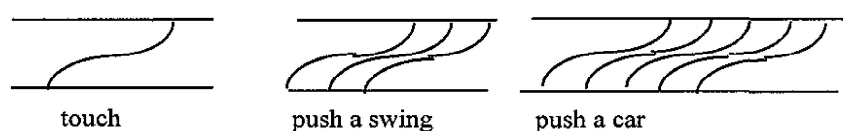
3. In the wake of R. THOM.

3.1. Jean PETITOT.

The author has developed the model of R. THOM in numerous articles which should be referred to. He demonstrates how a geometric space can give rise to a more abstract semantic interpretation. The localist hypothesis is defined as *spatio-temporal* to which is added the dimension of intentionality. This approach represents the most important development in the domain of the catastrophe theory.
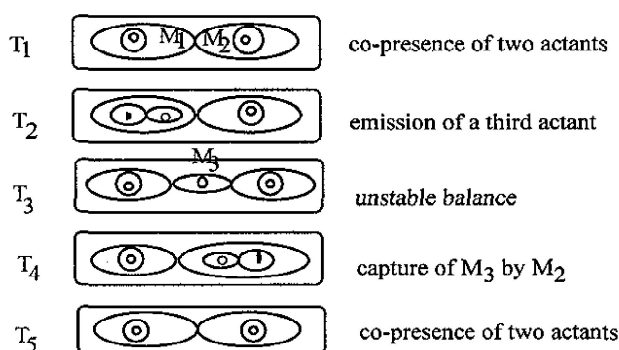
3.2. Wolfgang WILDGEN.

The author has included the textual dimension in the theory. He has made an excellent distinction between *configurations* (schemata) and the *energies* that can be transmitted by the actants.

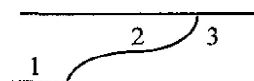The tendency to have recourse to iconicity is evident in the following illustration:

touch	push a swing	push a car

(1989, p. 71)

The example of *to exchange* illustrates clearly the "typical stages" of the process in five "flashes":

T_1 co-presence of two actants

T_2 emission of a third actant

T_3 unstable balance

T_4 capture of M_3 by M_2
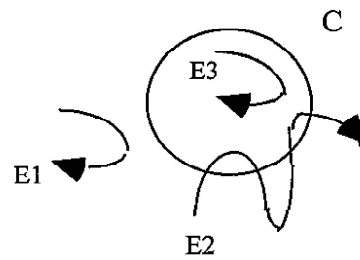
T_5 co-presence of two actants   (1989, p. 72)

The change in domination is then expressed by a figure of the type which introduces an indispensable continuum

3.3. Per Aage BRANDT.

The "chorematic" model is based on the choreme or area "traversed by a plurality of objects (the latter to be taken as dynamic modalizing)". The three situations of interiority, boundary and exteriority are variables, which is the reason for using the dynamic arrows applied to the choreme:

C

E3

E1

E2

An example of interpretation:

E^1: impossible (cannot enter)

E^2: possible, free

E^3: necessarily interior (cannot leave)

The choreme "live" has its entry (*birth*) and its exit (*death*) in a similar way to "activity" (*start* and *finish*). This presentation resembles our own model of mental chronology (model A). For the various extensions attributed to the chorematic, it is best to consult the author's various publications.

3.4. Bernard POTTIER.

As a former pupil of G. Guillaume and an attentive reader of R. Thom, we propose a representation of mental mechanisms capable of accounting for all the semantico-conceptual organizations apart from entities of a first order (beings and things). This will be presented in the second part.

B - Analytical Models.

1. Ray JACKENDOFF.

The author's starting point is the establishment of "major conceptual categories" such as PLACE, PATH (*to, from, via*), EVENT (*go, stay*), STATE, CAUSE...

The utterance "John turned yellow from eating carrots" has the following conceptual structure (*Semantic Structures*, p. 96):

$$\left[\begin{array}{l} GO_{Ident}([JOHN], [TO [YELLOW]]) \\ [FROM [EAT ([JOHN], [CARROTS])]] \end{array} \right]$$

Similarly *buy*, which expresses a change, can be represented by:

$$
\begin{bmatrix}
\text{buy} \\
\text{V} \\
\underline{}\text{NP}_j <\text{from NP}_k> \\
\text{GO}_{\text{Poss}}([]_{j'}, \begin{bmatrix} \text{FROM} []_k \\ \text{TO} []_i \end{bmatrix} \\
[\text{EXCH} [\text{GO}_{\text{Poss}}([\text{MONEY}], \begin{bmatrix} \text{FROM} []_i \\ \text{TO} []_k \end{bmatrix})]]
\end{bmatrix}
$$

(Ibid., p. 61)

The current position of the author will be given at this congress.

2. Anna WIERZBICKA.

A.W. has been working on natural languages for many years; from this source, she has intuitively extracted the concept of "primitives", expressed through the medium of the English language, *I, think, want, see, where, other, two...* Their number, originally reduced to a dozen, has currently reached thirty seven and could reach "dramatically" fifty-five (*Semantics. Primes and Universals*, p. 110).

The author explains: "The elements which can be used to define the meanings of words (or any other meanings) cannot be defined themselves; rather they must be accepted as *indefinabilia,* that is as semantics primes, in terms of which all complex meanings can be coherently represented" (*Semantics*, p. 10).

Examples of rewriting:

"X became Y":
- at some time, X was not Y
- after that something happened to X
- after that X was Y
- I say this after that time   (*Quad. di Sem.*, 89 (2), p. 328)

"X is Y's mother"
- thinking of X and Y one can say:
- Y's body came out of X's body
- and before Y became a person Y's body was like a part of X's body

(*Quad. di Sem.*, 89 (1), p. 108)

Refer to the author's paper at this congress.

3. Igor MEL'ČUK.

In accordance with the Russian tradition of the sixties, I.M. also has recourse to primitives. In establishing his dictionaries, he has retained about sixty lexical functions which allow all the lexies to be characterized. Semantic relations can be presented by means of a network, underlying a whole series of paraphrases in natural languages.

"W helps Y to do Z" = W is a factor contributing to Y's taking place, Z being desirable to Y or to people in general."

(Quad. di Sem., 89 (1), p. 87)

The author explains: "I conceive of semantic primitives simply as ELEMENTARY LEXICAL MEANINGS OF A PARTICULAR LANGUAGE and I do not know whether they will be the same for all languages."
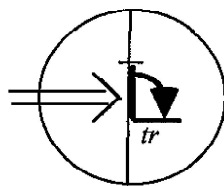
(Quad. di Sem., 89 (1), p. 101)

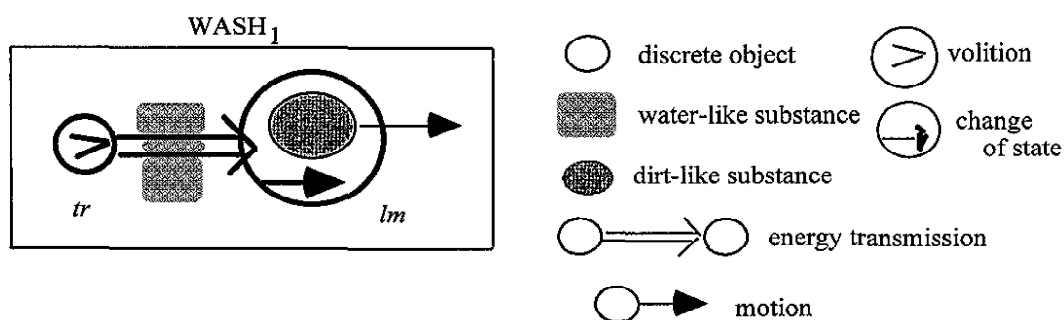### C - Intermediary figurations.

1. Ronald W. LANGACKER.

Among the author's representational procedures figure the terms *viewpoint, trajector* and *landmark*, which correspond to the terms "point de visée" (angle of vision), "flèche" (arrow) and "limite" (limit) that I used in 1955 to define relational elements. These components are, of course, indispensable when it comes to defining *simple configurations.*

For more complex events, a too frequent recourse to iconicity tends to lead to the introduction of a schema for each separate visualization. With respect to "Just then the door opened", R.L. gives the following visual representation of an opening door.
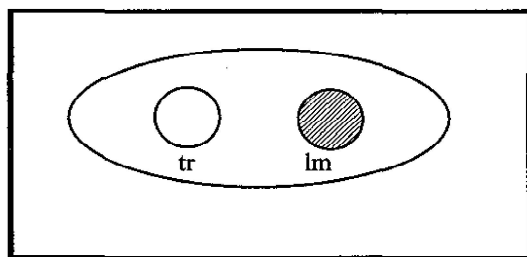
(1995b, p. 62)

and in the case of WASH, the water is placed between the agent and the car, and the dirt is on the car:

(1995a, p. 23)

This schema, which is valid for a prospective event, has to be modified for the proposed example: *I washed the car,* in which the respective situations of the entities are modified. Only a continuous archetype permits the aspecto-temporal variables to be manipulated with ease.

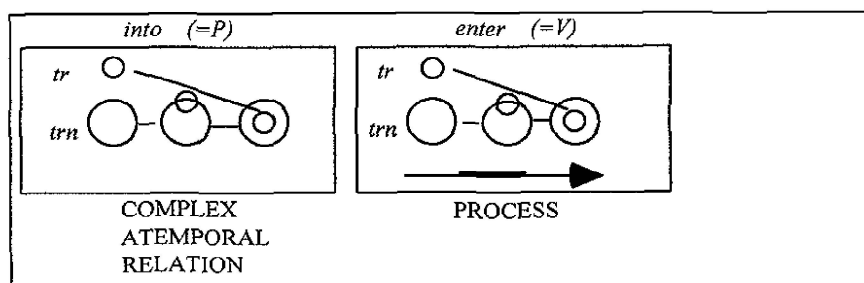Sometimes the information is insufficient. *Near* cannot be reduced to:

(1995a, p. 15)

because *distant,* and *far off,* would have the same solution. The spatial proximity announced can only be defined as a modal attitude. The "semantico-conceptual whole"[3] (SCW) should have three terms:

"far — near — in contact".

Likewise, it seems strange to forget *during* when opposing *before/ after.*

There appears also to be a certain interdependence of linguistic classes, because despite the difference visualized in
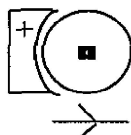

(1995b, p. 65)

the same movement is conceptualized. According to the author, a preposition "profiles one or another kind of an atemporal relation" while a verb "profiles a process... through time." This introduction of linguistic notions into conceptual patterns leads to confusion. In our view, in natural languages, a *single schema* accounts for the solutions proposed.

2. Leonard TALMY.

The author sometimes has recourse to diagrams. When he studies the relation of energy between entities, the diagram
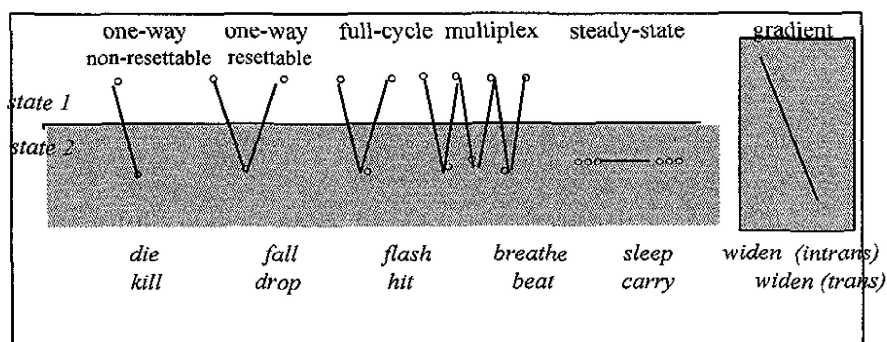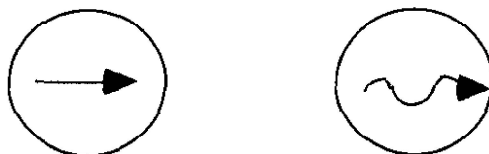

(1988a, p. 55)

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[3] *L'entier sémantico-conceptuel* (ESC).

resembles the actants of A.J. GREIMAS, for example "l'adjuvant" (the helper) and "l'opposant" (the opponent); as well as the modal combinations *to be able to/ not to be able to do*.

Some schematic illustrations of events are suggestive but not systematic:
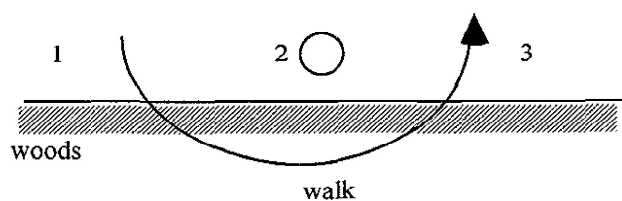

The use of paraphrases expressed in elementary terms places him in the same group as the authors of the second group. In "I walked through the woods", *through* is analyzed as: "*notion along* a *line* that is *within* a *medium*," and this could be efficiently expressed as:

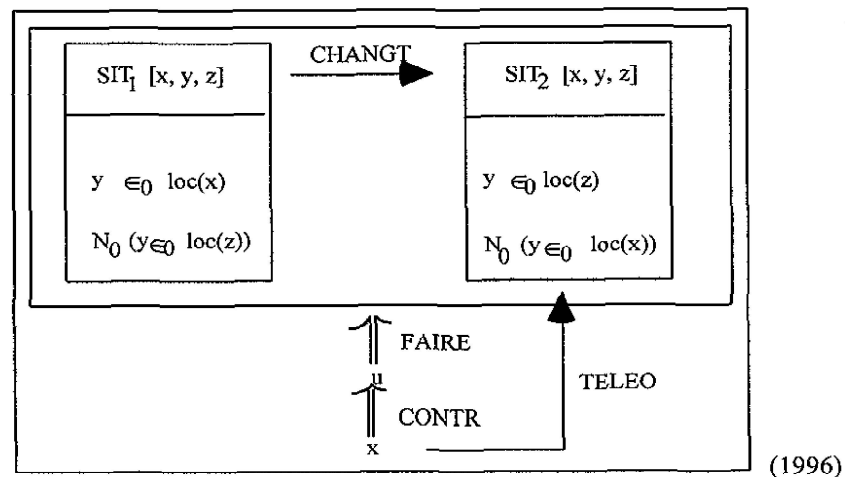(cf. lat. PER [-------ᵛ--------->] in B. Pottier, 1955)

and it would be even better if the "path" were integrated in a whole event:

3. Jean-Pierre DESCLÉS.
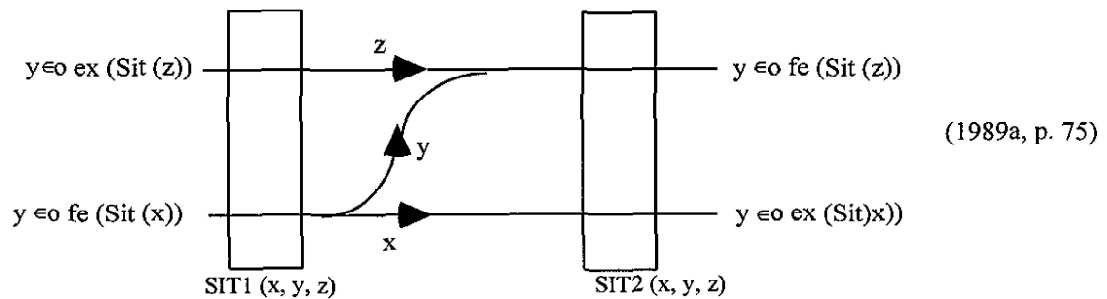
The use the author makes of primitive concepts such as "movement, change, control, teleonomy", applied to events considered to be "static, kynesic, dynamic, causative, modalized" argues for his inclusion in the second group.
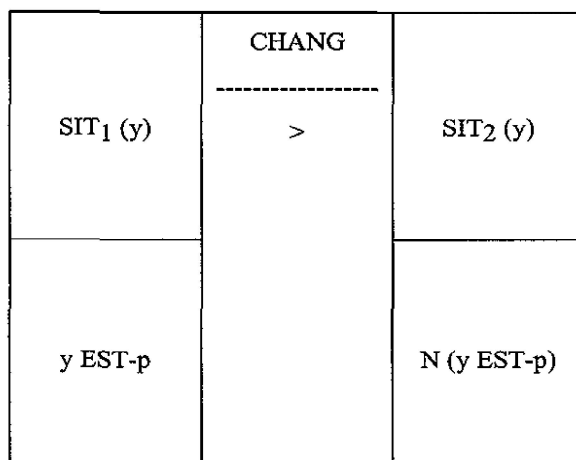
However PETITOT has made the point that a schema such as *give* ("donner"):

(1996)

can easily be expressed in terms of the catastrophe model:

(1989a, p. 75)

Furthermore the semantico-cognitive schema of *die* ("mourir")

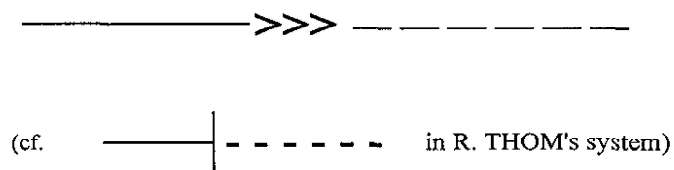|	CHANG	
$SIT_1 (y)$	------------------- >	$SIT_2 (y)$
y EST-p		N (y EST-p)

(1985, p. 30)

paraphrased by: "the same object passes from a situation where the property "IS-p" is attributed to it, to a situation where the same property is no longer attributed to it" could be represented figuratively in the following way:

$$\underset{y}{\underline{\overline{\quad\quad\overset{\text{is - p}}{\rule{3cm}{0pt}}\;{>\!>\!>\!>}\;\underset{\text{change}}{\;-\;-\;\overset{\text{n (is - p)}}{-\;-}\;-\;}}}}$$

or even, since the analysis is focused on the existence of *y*:

$$\underline{\quad\quad\quad}{>\!>\!>}\;-\;-\;-\;-\;-\;-$$

(cf.   ⎯⎯⎯⎯| - - - - - -   in R. THOM's system)

More recent developments presented orally by the author in scientific gatherings give more details about the various components of the theory. The semantico-cognitive schemata, which illustrate items from natural languages, lead to the establishment of an invariant for a class of verbs (the archetype) which can have a universal vocation. The

"semantico-cognitive types" allow the entities, the situations, the topological operators and major grammatical categories to be classified. The model is constantly being enriched.
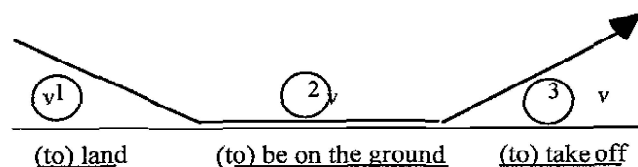
II. TERNARY MORPHODYNAMICS

A - The principles.

1. Ternarism.

Binary structuralism, by definition static, finds its expression in the often quoted pairs *before/ after, give/ receive, good/ bad, up/ down*. Guillaume's binary schema was despite this already kinetic and continuous[4].

We propose a continuous ternary schema in which the intermediary position is an integral part of the mental mechanism.
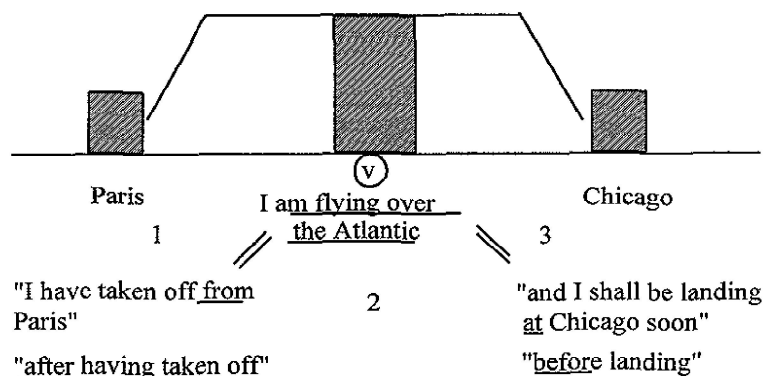
In this way *three phases* are delimited: in other words, we are dealing with a "trimorph". The typical example for pedagogical purposes would be:

| (to) land | (to) be on the ground | (to) take off |

We define as a "noemia" the set of these three phases which constitute a *semantico-conceptual whole* (SCW). We are dealing here with an EXPERIENTIAL CHRONOLOGY, the viewpoint (V) varying continually in time.
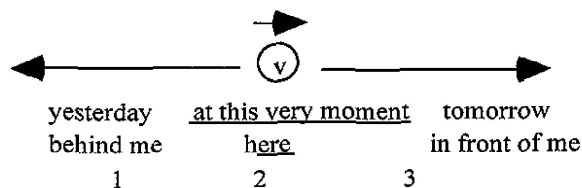
If on the contrary (V) is considered by the speaker to be stable, he will speak about what *has* happened to him, what *is* happening to him and what *will* or *may* happen to him. The pedagogical version will therefore be:

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[4] See in particular the writings of A. JOLY.

Paris
1

I am flying over
the Atlantic

(v)

Chicago
3

"I have taken off from
Paris"

"after having taken off"

2

"and I shall be landing
at Chicago soon"

"before landing"

This "appropriation" of the event by the speaker leads to an EVENT CHRONOLOGY, in which the order of the events is *inversed*.

The speaker can have at least a self-centered vision of the world which he organizes around his own person: this is the DEICTIC CHRONOLOGY.

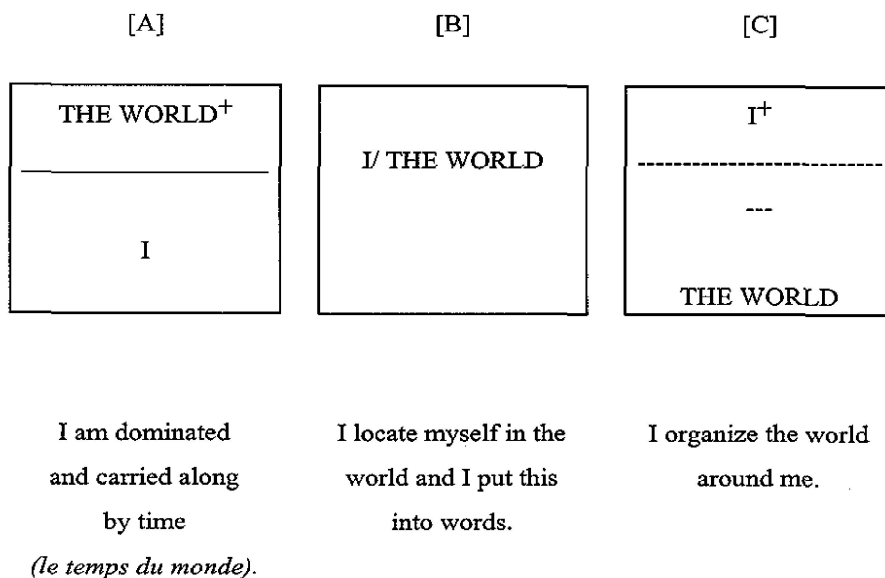| yesterday | at this very moment | tomorrow |
| behind me | here | in front of me |
| 1 | 2 | 3 |

2. The axes of instanciation.

The localist hypothesis puts particular emphasis on space. Space, however, requires time in order to "exist". As for the various entities, these are endowed with properties which belong to the notional domain. The speaker, for his part, takes charge of his own utterance by modalizing it. The "being" himself experiences the hazards of existence (absence, privation, *not yet, no more*). This explains the necessity of the following axes:

- existential (EXI)
- spatial (S)
- temporal (T)
- notional (N)

        - modal (M)

which will be used in the course of the presentation of the models.

    3. The hypothesis is that these three models are the result of a dialogue between I (the self) and the WORLD, in a progressive alternation:
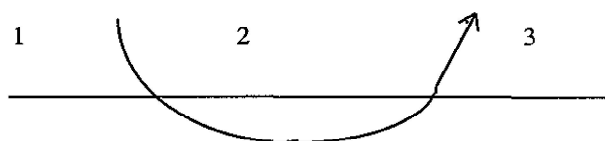
[A]	[B]	[C]
THE WORLD^{+} ———————— I	I/ THE WORLD	I^{+} ----------------------- --- THE WORLD
I am dominated and carried along by time *(le temps du monde).*	I locate myself in the world and I put this into words.	I organize the world around me.

B - Illustration of the models.

    1. Model [A]: EXPERIENTIAL CHRONOLOGY.

    For reasons of economy, the various comments which would explain and justify the place of the following examples in the inventory have been omitted.
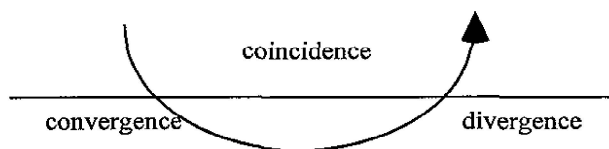
1.1. Existential Axis.

	Non-existence of BEFORE	Existence Co-existence	Non-existence of AFTER
• 1 entity	appear be born	be live	disappear die
+ CAU	build write draw	maintain preserve conserve	destroy efface erase
• 2 entities	(to) get married marriage fusion conjunction	live together spouses stability junction	to divorce, separate divorce, separation fission disjunction
+ CAU	(to) marry		(to) cause to divorce, (to) separate

N.B.   cf.   TO GATHER   <   TOGETHER

        cf.   tasse à thé   <   tasse de thé

            TEA CUP   <   CUP of TEA

            (Adj.)   (Sb.)

1.2. Spatial Axis.

coincidence

convergence   divergence

• Lat.	AD, IN (accusative)	IN (ablative)	EX, DE, AB (ablative)
• Localized entity	(to) <u>reach</u> (atteindre)	(to) <u>travel through</u> (parcourir)	(to) <u>leave, abandon</u> (quitter, abandonner)
	(to) go <u>towards</u> (se diriger <u>vers</u>)		
	(to) go <u>to</u> (aller <u>à</u>)		(to) go <u>away from</u> (s'éloigner <u>de</u>)
	(to) arrive <u>at</u> (arriver <u>à</u>)		(to) leave <u>from</u> (partir <u>de</u>)
	(to) enter <u>into</u> (entrer <u>dans</u>)		(to) come <u>out from</u> (sortir <u>de</u>)
		to walk <u>through</u> (se promener <u>à travers</u>)	

• The two types of parasynthetic formations:

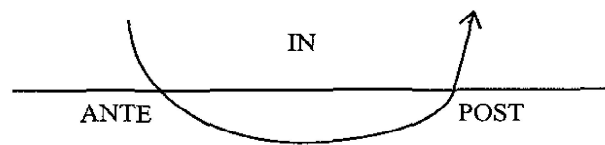| (a):	(to) <u>em</u>bark (get on a boat) (s'<u>em</u>barquer)	(to) be <u>a</u>board (to be on the boat)	(to) <u>dis</u>embark (get off the boat) (débarquer)

(b):	(to) emblazon	(to) be empowered	(to) defrost
	(to) empower		(to) deforest
	(to add, give…)		(to remove)

"not to have"	"to have"	"to no longer have"
(to) seek	(to) find	(to) mislay
(to) buy	(to) own	(to) sell
(to) obtain	(to) retain	(to) lose
(to) capture	(to) detain	(to) free
(to) take	(to) keep	(to) return

1.3. Temporal Axis.

before arriving at the bridge	on the bridge	after having arrived at the bridge
(before coming to the bridge)		(after coming to the bridge)

he is not at the library yet	he's at the library	he is no longer at the library
	(he's still there)	

• + ASP (the event as an ongoing process)

to start to	to be in the process of…	(to) be finished (with)
	(en train de)	

I have two chairs to deliver	I am delivering two chairs	I have delivered two chairs
I am to deliver two chairs		

(TO) BREAK	BREAKING	BROKEN

1.4. Notional Axis.

• Abstract relations:

"association"	"alternative"	"dissociation"
+	=	-
et, AND	ou, OR	mais, BUT
avec, WITH		sans, WITHOUT
plus, MORE	autant, AS	moins, LESS

• Absence of a "before" and absence of an "after":

Lat. IN-TECTUS	TECTUS	DE-TECTUS
IN-FORMIS	FORMA	DE-FORMIS
Fr. informe		difforme

• Determination.

"in quest of identification"	"identification, monstration"	"anaphora" (presupposition)
• common noun table	proper noun Charles	pronoun the
• give me a (any) book	give me that book	give me the book (belonging to, that…, yellow…)
A(N) ONE /	THIS /	THE

• The three phases of attribution in Spanish:

"hay cosas…	que son interesantes…	pero que están mal presentadas"
(presentation)	(definition)	(relator)

1.5. Modal Axis.

(a) Alethic modality.

impossible[1]	possible	necessary[2]	possible	impossible[3]
	cf. PER-HAPS	HAPPEN		

(b) Epistemic modality.

I have no opinion	I doubt	I am certain	I am no longer sure	I exclude
be ignorant of[1]	learn	know[2]	forget	I ignore that I knew[3] (ignore my previous knowledge)
	think believe know			

N.B. For *cyclical* presentations, see B.P., *Sémantique générale* and "Modèles Linguistiques", XV-2.

- "before knowledge"   "knowledge"   "presupposition of knowledge"

- INTERROGATION   AFFIRMATION   NEGATION
  did he come?   he has come   he has not come
  DO YOU SMOKE?   I DO SMOKE   I DO NOT SMOKE

- HYPOTHESIS   THESIS
  if I have time   I (do) have time
  I'll go and see if...   I see that...
  I don't know if...   I know that...

- SUPPOSITIVE   TESTIMONIAL   MEDIATIVE
  I suppose you are against   he arrived yesterday   he is supposed to have
                         (I saw him arriving)   arrived yesterday

                         he is dead   he is reported to be dead
                         (I can vouch for it)

(c) Factual modality

PRO-SPECTIVE   IN-SPECTIVE   RETRO-SPECTIVE

1   2

- DESIDERATIVE   CONSTATIVE

  VOLITIVE

  DEONTIC   (+AXIOLOGICAL)

- (to) wish   (to) see

  (to) be able to   (to) observe   (to) be astonished by

  (to) be obliged to   (to) realize   (to) regret that

- IMPERATIVE

  Close the door!

- OPTATIVE   APPRECIATIVE

  Let the best man win!   It's a good thing I was there!
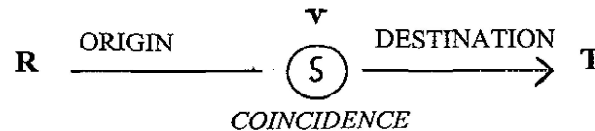
(d) Axiological modality: assessment.

+   =   —

POSITIVITY   NEUTRALITY   NEGATIVITY

- love   indifference   hatred

  attraction   rejection
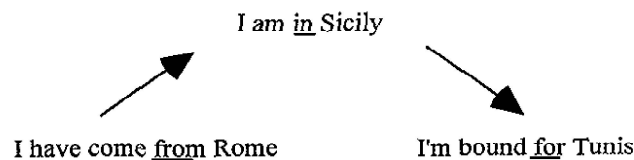
2. Model [B]: EVENT CHRONOLOGY.

The objective is stable and central (S). It has a BEFORE in (R) and an after (T). This chronology is respected, whatever the linguistic manipulations concerned. The order of the events is the *opposite* to that of the model [A].
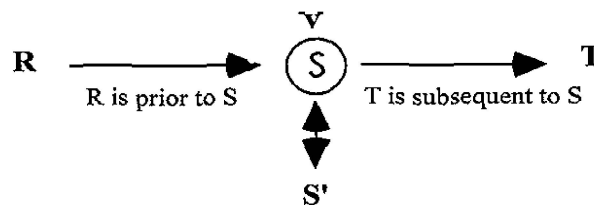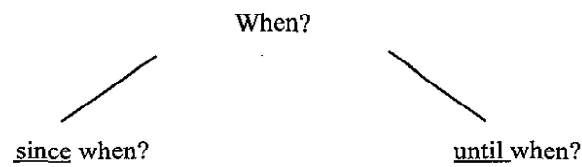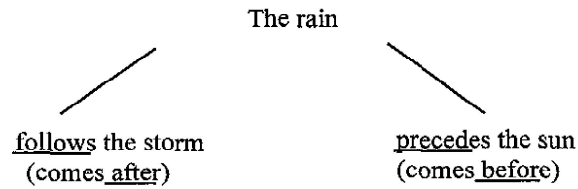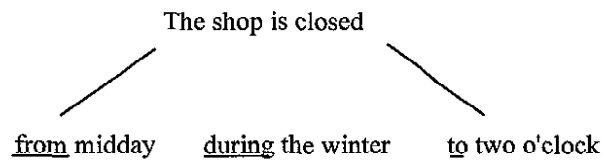
2.1. Spatial Axis.

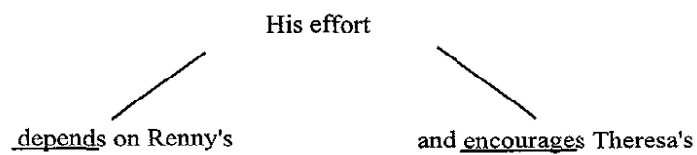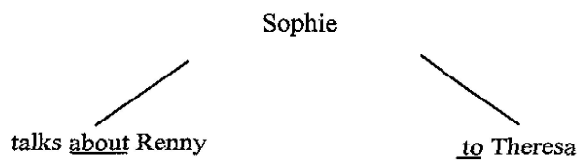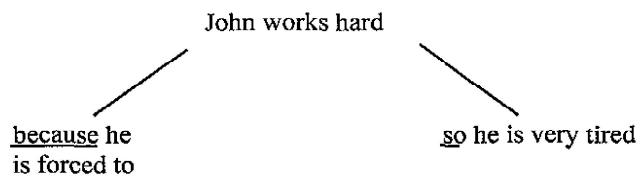|	ORIGIN	COINCIDENCE	DESTINATION
• Latin	unde uenis?	ubi es? qua is?	quo is?
French	d'où venez-vous?	où êtes-vous? par où passez-vous?	où allez-vous?
Spanish	¿de dónde vienes?	¿dónde estás? ¿por dónde pasas?	¿adónde vas?
English	where do you come from?	where are you? which way did you come?	where are you going to?

I am in Sicily

I have come from Rome   I'm bound for Tunis

2.2. Temporal Axis.

The shop is closed

/   \

from midday   during the winter   to two o'clock

The rain

/   \

follows the storm   precedes the sun
(comes after)   (comes before)

When?

/   \

since when?   until when?

2.3. Notional Axis.

$$R \longrightarrow \underset{}{\bigcirc\kern-0.9em S} \longrightarrow T$$

R is the cause   T is the consequence
of S   of S

comparison with S'

John works hard

/   \

because he   so he is very tired
is forced to

Sophie

/   \

talks about Renny   to Theresa

His effort

/   \

depends on Renny's   and encourages Theresa's

-
  Solange sings <u>like</u> a lark
-

I tell you this

<u>for</u> you have reached   <u>now</u> I   <u>so</u> you should
the age of reason   don't have to   be satisfied

• Actancial relations (cases, diathesis).

-
  $$R^+ \xrightarrow{\quad^-\quad} \overset{\mathbf{V}}{\underset{}{(S)}} \xrightarrow{\quad+\quad^-} T$$

        S   S
  is subjected to R   acts on T

  "ergativity" of R   "accusativity" of T
            "nominativity"
                of S

  PASSIVITY of S   ACTIVITY of S
            "middle diathesis"
                for S

Sophie was beaten   Sophie <u>beat</u> Theresa
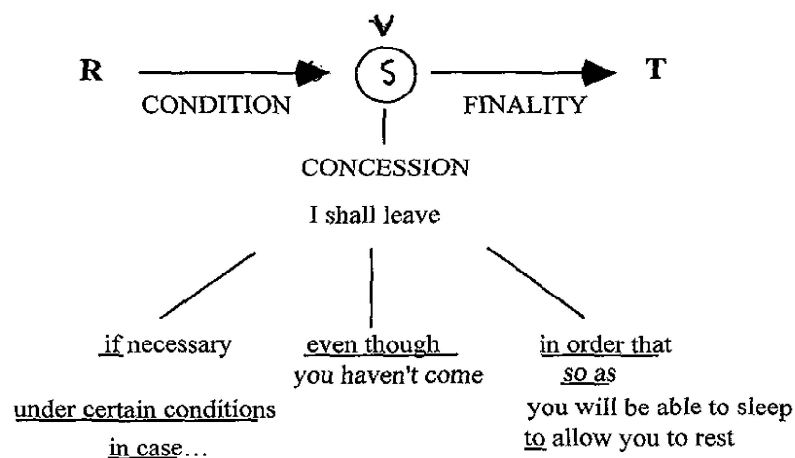
<u>by</u> Renny   Spanish: Sofía la pega <u>a</u> Teresa

            Sophie <u>stands up</u>
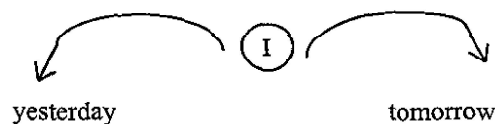
            (Sophie <u>se</u> lève)

2.4. Modal Axis.
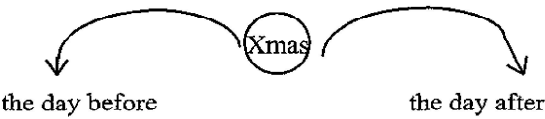

2.5. Summary of intra- and extra- relations.

	phase			
axis		1	2	3
S		origin	coincidence	destination
T		anteriority	simultaneity	posteriority
N		cause	comparison	consequence
M		condition	concession	finality

3. Model [C]: DEICTIC CHRONOLOGY.

This axis is organized around the viewpoint, which can be the self (I):
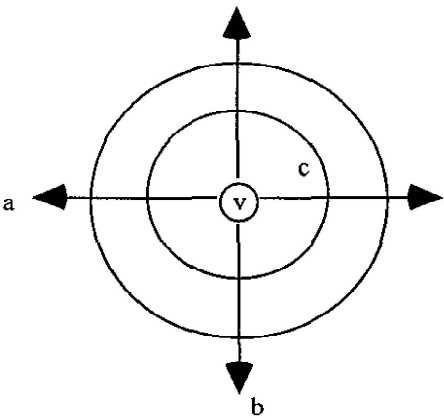

or any other reference point:

the day before   the day after

3.1. Existential Axis.

• Person.

"duality"	//	"beyond"		
je) tu	)	il, elle	)	il (neuter)
I) THOU (you)	)	HE, SHE	)	IT

masculine) feminine				neuter
singular) dual		plurality	)	globality

the basic couple

3.2. Spatial Axis.

a. horizontality dominant

<u>behind</u>   <u>in front of</u>

<u>go backwards</u>   -->   Ⓥ   <u>go forward</u>

(oriented)

b. verticality dominant.

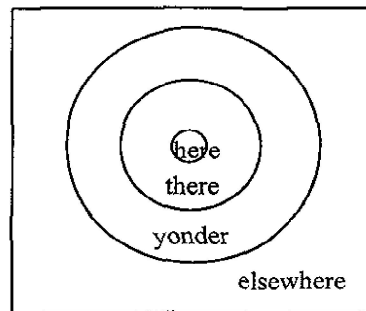<u>on</u>, <u>over</u>

<u>go up</u>

↗ Ⓥ

<u>under</u>, <u>underneath</u>
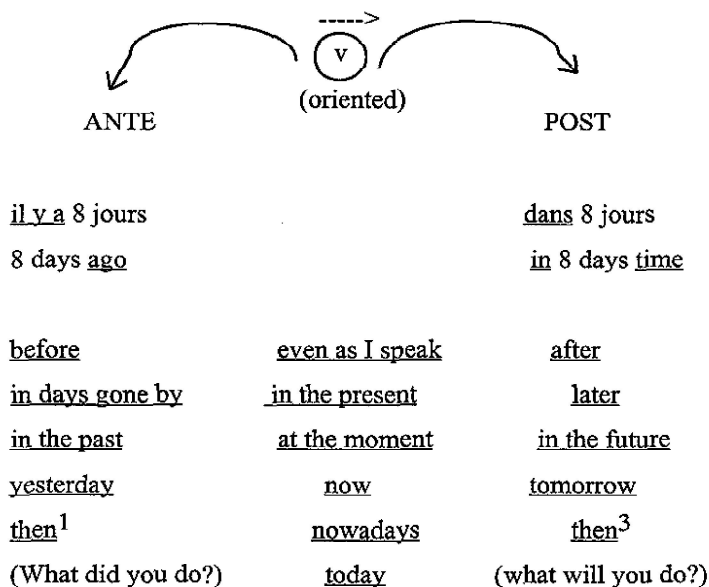
<u>go down</u>

All languages exploit these possibilities in their own ways (INDOORS/ OUTDOORS, HERE/ THERE/ YONDER).

c:

3.3. Temporal Axis.

ANTE	(oriented)	POST
il y a 8 jours		dans 8 jours
8 days ago		in 8 days time
before	even as I speak	after
in days gone by	in the present	later
in the past	at the moment	in the future
yesterday	now	tomorrow
then[1]	nowadays	then[3]
(What did you do?)	today	(what will you do?)

3.4. Notional Axis.

- "dis-conformity[1]" "conformity" "dis-conformity[3]"
  otherwise[1] thus otherwise[3]
  in another way in this way

• Quantification

less	<-------- as -------->	more
on this side		beyond
(en deçà)	(meaning)	(au delà)
meaningLESS		meaningFUL

- Spanish: librito <--------- libro ---------> librote
  (cf. "affective") (cf. "pejorative")

3.5. The Modal Axis.

-    as for his brother,   <---- his brother has arrived ---->   it's his brother who has
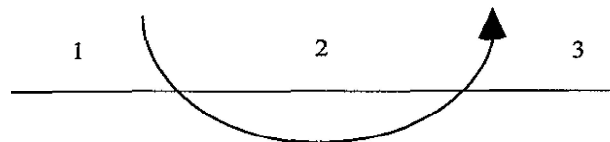
        he has arrived   arrived

       "thematization"   "focalization"

-    bad, useless   middling   good, useful

       injustice   justice

      "going in the wrong   "going in the right

          direction"   direction"
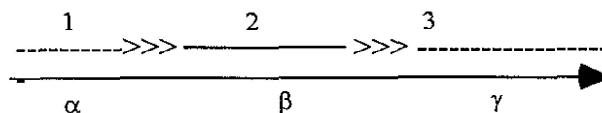
C - From conceptual archetypes to linguistic semantics.

Each noemia or "semantico-conceptual whole" is composed of three phases. Each one is the figurative support of an event-type which can be expressed in various ways within the same natural language.
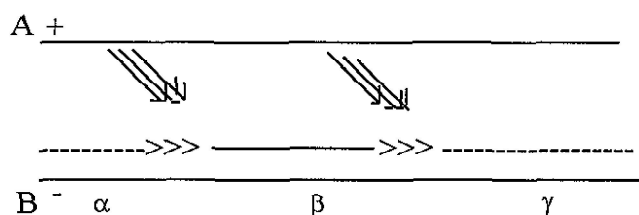
1. The noemia of model A.

can be expressed in conventional terms, in the case of a change of state:

and if an element of causation is added, the result obtained is:
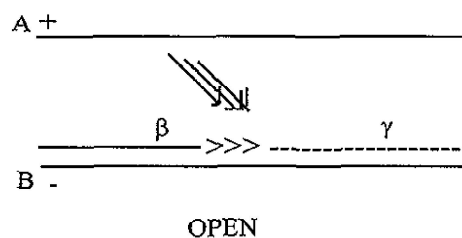
Let us consider phase 3 with semiotization of the noemia in a natural language:

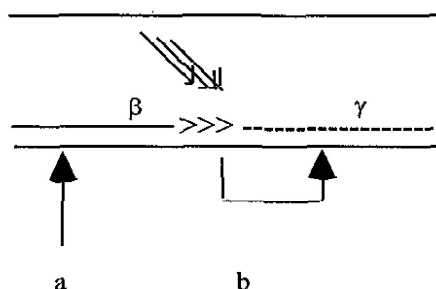
TO SHUT   //   BE SHUT   //   TO OPEN

ex.: A = the butler, B = the door.

This provides the basis for examining the complete family of utterances associated with the *archetype* (phase 3 of the noemia):

OPEN

In this way, the six cases proposed by R. LANGACKER can be re-examined with the introduction of the speaker's intentionality, taking as its point of departure A or B (*A butler opened the door; the door was opened by a butler*), which targets A thanks to a modalizer (*the door opens easily*), which reduced the agentivity to a minimum (*Just then the door opened*), or which limits the result of the process (*the opened door*). If γ is considered, independently of the process, the result will be *the open door*.
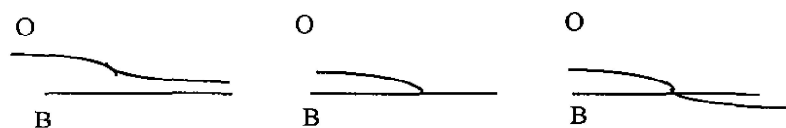
The great advantage of these schemata in continuity is that their progress can be arrested at any moment:

a = "la porte était sur le point d'être ouverte", "the door was just about to be opened"

b = "peu après l'ouverture de la porte", etc., "just after the door had been opened", etc.

2. In the case of convergence between two entities, phase 1 can be expressed in by the following forms (variants or _types_):

If the point of departure is O:

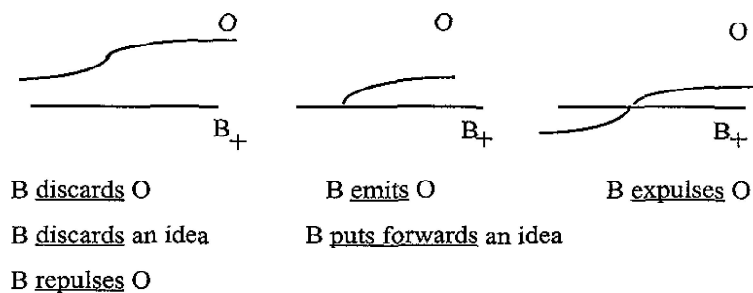O lands on B   O fuses with B   O penetrates B

B endowed with /+POWER (PUI/, /+ WILL (VOL)/ will produce for example:

B attracts O (the magnet attracts iron; John attracts trouble)

B catches O (balls, the flu)

B seduces O (B is a seductor, seduction)

Symmetrically, for phase 3:

B discards O   B emits O   B expulses O

B discards an idea   B puts forwards an idea

B repulses O

It is these archetypes that are the source of the metaphors that play a fundamental role in the enrichment of language.

CONCLUSIONS.

1. The hypothesis is that the speaker's conceptualization of the referential universe is based on a reduced number of simple mental mechanisms and that these underlie all the more complex operations.

2. Only the continuous morphodynamic ternary graphs allow the inscription of the entire range of phenomena —static, kynetic and dynamic— expressed by language.

3. The confrontation of the SELF (I) /vs./ the WORLD (real or imaginary) can be resolved in terms of chronologies applied to events, subjective experience and deixis.

4. Each lexie should be inserted in its semantico-conceptual whole (SCW), in this way, the significance of its position in phase 1, 2 and 3 becomes apparent. Apart from entities (beings or things) which should be analyzed in their semantico-cultural context, all the other components of language have a place in the schemata proposed: lexemes destined to become verbs, adjectives or event subtantives, grammatical morphemes of relation (prepositions, conjunctions, prefixes), of determination (articles, deictics, personal forms, anaphoric forms, quantifiers...), of temporality and aspectuality and of actancy (case), etc.

5. The underlying conceptual level (CO-1) is expressed by ternary noemia. Each separate phase in their development can be represented figuratively by an archetype (level CO-2), which in turn tends to have variants or types, expressed in language by an inventory (family) of solutions, that vary in number; this is the level of semantic linguistics.

6. It is on this basis that the operations that are carried out on these representations — particularly where synaesthesia and metaphor are concerned— become comprehensible.

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