

TOWARDS A SEMANTIC SYNTAX¹

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INTRODUCTION

In the Functional Lexematic Model lexicon (hereafter FLM)², the paradigmatic and syntagmatic information of each lexical entry are closely interrelated to the extent that a verb's syntax depends on its location in semantic space. In other words, a verb's combinatory possibilities and potential syntactic patterns are semantically motivated. This interface between syntax and semantics in verbs has also been observed by others (i.e. Dixon, 1991). Levin (1993: 5) states that various aspects of a verb's syntactic behavior are tied to its meaning. Pinker (1994: 395) also writes:

...in most languages a verb can appear in a family of forms, each with a distinct meaning component, plus a common meaning component that runs throughout the family.

Nevertheless, the problem is that in the majority of cases, syntactic coding has been used as the starting point to explain semantics. For example, words have been grouped in semantic classes on the basis of grammatical alternations, such as the following:

- (1) The harpoon plunged into the water.
- (2) The sailor plunged the harpoon into the water. [zero-derived causative form of *plunge*]
- (3) The hunter shot the tiger.
- (4) The hunter shot at the tiger. [conative grammatical alternation]

This in itself is insufficient as a basis for the determination of semantic classes because syntax alone does not provide a satisfactory explanation of semantic constraints. As Pustejovsky (1995: 10) points out:

...participation in one grammatical alternation does not sufficiently determine the semantic class of the verb. In fact, even once a complete cataloguing of participation in alternation classes is achieved, we must ask ourselves just what we have accomplished.

The goal of any lexical semantic theory is to establish the premises upon which words can be organized into classes which to a great extent predict their syntactic and semantic properties. One might argue that this is a difficult task, but we believe that regularities in the lexicon can be mapped out by means of syntactic-semantic (*synsem*) parameters which operate throughout the lexicon in the various areas of meaning. Such parameters can be derived by analyzing the meaning definitions of semantic sets, as well as the complementation patterns characteristic of each subdomain in the FLM lexicon. We believe that they are the key to understanding lexical organization, and will ultimately serve as the basis for the set of lexical rules, which constitute the nucleus of domain-specific grammars (cf. Faber and Mairal (fc)).

2. MEANING DEFINITIONS AND SYNTACTIC PROJECTIONS: *SYNSEM* FEATURES

Given the importance of semantics in syntactic representations, it is necessary to reconsider the ancillary status of meaning definitions in FG (Dik, 1978). We believe that such definitions, when considered in paradigmatic contexts, play an important role in determining the complementation of a given predicate, as well as the occurrence of certain grammatical features, such as the state of affairs of the predication and its co-occurrence with certain satellites. In this regard, the domains in the FLM lexicon are configured in such a way that the syntactic hierarchy in each subdomain can be mapped onto the semantic one. The previously-mentioned *synsem* parameters are one of the products of this explicitation of the interface between syntax and semantics. Although all of them play a role in the generation of the actual clause structure, some have a greater effect on syntax than others.

We have divided these parameters into three types, according to their scope of application:

- (a) *Lexically-realized grammatical parameters* are obligatory and are always explicit in a verb's complementation structure.
- (b) *Lexically-realized optional parameters* are semantically implicit, but are not always activated in the actual linguistic expression.
- (c) *Lexically-realized contextual parameters* are not syntactically projected, but serve as clues for contextual setting

2.1. LEXICALLY REALIZED GRAMMATICAL PARAMETERS

Lexically-realized grammatical parameters are those which have a direct effect on a predicate's complementation structure, and act as a filter to block certain patterns while accepting others. Examples of such parameters are *duration*, *temporal sequence*, *iteration*, *inception*, *achievement*, *cessation*, *causation*, *conation*, *negativity*, and *factivity*³.

These factors are important for the simple reason that they are basic to our perception of the event that the verb in question encodes. When we experience an event, we take note of its "shape". In other words, we perceive when it begins and/or ends, how long it lasts, if it is recurrent, what effect it has on us, and if it truly corresponds to the world or a state of the world. Given that all of these questions are semantic as well as syntactic, it is logical that they should be reflected in a verb's meaning as well as its syntax.

2.1.1. *Duration*⁴

Duration encodes how long an event lasts in our perception, and is thus the perception of continuance. As one of the most important *synsem* parameters, it has two subtypes, depending on whether the action or process happens over a longer or shorter period of time. This distinction is important because whether or not an action is perceived as durative or momentaneous has very definite repercussions on a verb's syntax.

The examples given are only a few of many that could have been chosen, and illustrate just how pervasive this parameter is in the lexicon because the verbs in question come from domains of quite diverse meanings.

2.1.1.1. Short duration

The semantic parameter of short *duration* activates the following type of complementation in the domains of VISUAL PERCEPTION, CONSUMPTION and FEELING:

(a) VISUAL PERCEPTION:

The meaning of verbs such as *spot*, *spy*, *sight* and *glimpse* all contain the parameter of short duration. As hyponyms of *see*, all of them specify the basic meaning of the subdomain in different ways.

To see somebody/something at a distance/briefly

<i>spot</i>	to see somebody/something with difficulty, making an effort to do so.	EFFORT + DIFFICULTY
<i>sight</i>	to see somebody/something suddenly, making an effort to do so.	EFFORT + SUDDENNESS
<i>glimpse</i>	to see somebody/something not very well/partially.	PARTIAL VISION
<i>spy</i>	to see somebody/something, after looking for them for awhile.	PREVIOUS LOOKING

Much of the complementation acceptable for other perception verbs is filtered out here because of the parameter of *short duration*. A bare infinitive seems to transmit the meaning of momentaneousness, and thus is incompatible with verbs of VISUAL PERCEPTION such as *spot*, *sight*, *glimpse* and *spy* because the act of perception does not last long enough to adequately detect the action in the clause:

- (5) I saw a movie actor walk across the street. [NP + bare inf.]
- (6) * I glimpsed a movie actor walk across the street. [NP + bare inf.]
- (7) I observed that it had become dark. [*that*-clause]
- (8) * I spotted that it had become dark. [*that*-clause]

The complementation patterns that characterize this particular subdomain are an NP and an NP + *ing*-participle. However, there are instances when these complements also become unacceptable, and the reasons are purely semantic.

- (9) I spotted/spied/sighted/glimpsed a movie actor. [NP]
 (10) * I spotted/spied/sighted/glimpsed a movie actor for a long time. [NP]
 (11) I spotted/spied/sighted/glimpsed a movie actor walking down Hollywood Boulevard. [NP *ing*-part.]
 (12) * I spotted/spied/sighted/glimpsed a movie actor walking down Hollywood Boulevard for a long time. [NP *ing*-part.]

Despite the fact that (10) and (12) take the same complementation patterns as (9) and (11), they are ungrammatical because the adverbial phrase, *for a long time*, is in opposition to one of the basic semantic values of the subdomain. In contrast, adverbial modification that confirms this value (*briefly/for a short time*) is perfectly acceptable:

- (13) I briefly spotted/spied/sighted/glimpsed a movie actor walking down Hollywood Boulevard.

(b) CONSUMPTION:

Another example of predicates which contain the parameter of short duration can be found in the domain of CONSUMPTION. Verbs of eating and drinking are interesting, not only because such activities are pleasant in themselves, but also because their meanings are largely motivated by social norms and pragmatic factors (Jiménez 1994). Drinking, for example, is an activity that has very definite meaning specifications. One can drink a liquid quickly/slowly and in large/small amounts. Curiously enough, there are no verbs which lexicalize drinking a liquid quickly in small amounts, or conversely, drinking it slowly in large amounts.

- (14) *Consume* to use (up) something until there is none left.
drink to consume liquid, taking it into one's mouth and swallowing it.
imbibe to drink alcohol [formal]

QUICKLY IN LARGE AMOUNTS { *gulp (down)* to drink something very quickly.
quaff to drink something quickly [old-fashioned].
swig to drink something quickly in large amounts in a series of big swallows [informal].
swill to drink something quickly and greedily in large amounts [informal].
guzzle to drink something (esp. alcohol) very quickly, greedily and noisily in an inattractive way.

SLOWLY IN SMALL AMOUNTS { *tipple* to drink something (esp. alcohol) often secretly and in small amounts (informal).
sip to drink something slowly in very small amounts.

Verbs such as *quaff*, *swig*, *swill*, and *guzzle* all contain the parameter of *short duration*. This means that they cannot be modified by adverbial phrases which violate this inherent semantic value:

- (15) I gulped (down) /quaffed/swigged/swilled/guzzled four martinis.
 (16) * I gulped (down) /quaffed/swigged/swilled/guzzled the martinis for a long time.

As manner-of-drinking verbs, *quaff*, *swig*, *swill* and *guzzle* are not telic, but focus on the categorization and evaluation of the activity (as well as of the person who is carrying it out). *Drink*, the generic term of the subdomain, is the only one that can enter into a construction typical of a goal-directed action:

- (17) He drank himself to death.
 (18) * He guzzled/quaffed/swigged/swilled/ himself to death.

Drink and *imbibe* can be used without an explicit goal argument, though in that case, it is still present implicitly as a default value, which is invariably an alcoholic beverage of some sort. In contrast, verbs with the meaning parameter of *short duration*, such as *gulp*, *quaff*, *swig* and *swill*, must take an NP because they have no inherent object:

- (19) * Please give me a glass of something non-alcoholic. I am afraid I don't gulp/ quaff/ swig/ swill.
 (20) Please give me a glass of something non-alcoholic. I am afraid I don't drink/imbibe.

Of course, the goal argument of *gulp*, *quaff*, *swig* and *swill* must be a liquid (preferably a drinkable one). Yet, despite the fact that, at least in theory, one can rapidly ingest any liquid in this way, the more negatively evaluated verbs of this set sound very strange in a collocations with non-alcoholic beverages, especially healthy ones like milk (22). And in (23), where such verbs are used in the sense of a daily activity, the sentence would have to be strongly contextualized in order to be acceptable.

- (21) He gulped down/quaffed/swigged/swilled several glasses of champagne.
 (22) He gulped down/quaffed/??swigged/??swilled several glasses of milk.
 (23) ??He gulps down/quaffs/swigs/swills milk every day at lunch.

Indeed, more than encoding the act of drinking, these verbs encode the perception of the act, as well as the evaluation of the agent.

(c) FEELING:

Short duration is not only a property of actions, but also of very strong feeling such as great joy, fear and surprise. In this area of meaning, however, it takes the form

of *suddenness* For example, *panic* is the way fear can be manifested when one loses control. It is something momentary, which cannot be maintained over a long period of time, and thus does not accept modification by adverbial time clauses.

- (24) After the accident happened, he panicked. [FEAR]
 (25) * After the accident happened, he panicked for a long time/all afternoon.

Furthermore, in its participle form, it does not refer to the actual manifestation of fear, but rather is a sort of prelude to the actual loss of control (26).

- (26) I saw him panicking (= about to panic).

The perceiver is the judge of the emotional state of the other person. However, as this type of evaluation cannot be done momentarily, verbs of visual perception such as *glimpse*, *spot*, *sight*, etc. cannot be used in this context, since they are of short duration and do not allow the perceiver enough time to make this type of judgement (27):

- (27) * I glimpsed him panicking.
 The same thing occurs with certain feelings of great pleasure (*thrill*, *elate*) and surprise (*startle*), which also have this element of suddenness:
 (28) She thrilled to his touch. [PLEASURE]
 (29) * She thrilled for a long time/all day to his touch.
 (30) His success elated him. [PLEASURE]
 (31) * His success elated him for a long time.
 (32) The noise startled him. [SURPRISE]
 (33) * The noise startled him for a long time.

Moreover, as a momentaneous event, verbs with this semantic parameter cannot collocate with aspectual verbs that codify inception, continuance, and cessation.

- (34) * When they were together, he began/continued/finished to thrill to her touch.

In fact they are over so quickly that it is virtually impossible to syntactically encode them as a process/state, and thus are not used in participle form:

- (35) * She spent the day being elated/startled.
 (36) * She was thrilling to his touch.
 (37) * I saw her thrilling/ being elated / being startled.
 (38) * I saw her thrill / be elated / be startled.

2.1.1.2. Long duration

In predicates affected by the parameter of *long duration*, the event/process takes place over a certain period of time. Such verbs cannot be modified by adverbs which

violate this basic meaning (e.g. *suddenly*), and also sound strange in syntactic constructions with the bare infinitive. Verbs of this type are present in a number of domains throughout the lexicon, however the examples below are from the domains of PREPARATION, CHANGE and SPEECH.

(a) PREPARATION (food)

The verbs of cooking have been studied extensively (Lehrer 1974). The tiny segment below shows those which are affected by the parameter of *long duration*.

- (39) *cook* to be prepared for eating by the use of heat. (of food).
stew to cook slowly in liquid in a covered container for long time.
simmer to cook slowly in water at/just below boiling.
poach to simmer (of eggs/fish).

The above verbs of food preparation encode a process which occurs over a period of time, the result of which is a change of state. In the same way as more prototypical verbs of MOVEMENT and CHANGE, they have a zero-derived causative form:

- (40) I stewed the meat. / The meat stewed.
 (41) I poached the eggs. / The eggs poached.

The fact that the action denoted by *stew*, *simmer*, and *poach* takes place over a period of time filters out certain types of adverbial modification like (43) and (44) and even makes certain syntactic patterns ungrammatical (46).

- (42) * He suddenly stewed the meat.
 (43) * The meat stewed for a second.
 (44) * The eggs suddenly simmered/poached.
 (45) ? I saw the eggs poach /meat stew on the fire.
 (46) * I glimpsed/spotted the meat stew.

In (42), the adverbial modification *suddenly* is in direct opposition to the time parameter basic to the semantics of these verbs. As a result, *poach* and *stew* sound rather bizarre in subordinate clauses with the bare infinitive (which to some degree, encodes the meaning of immediacy), whereas they can be used with an *ing*-participle:

- (47) I saw the eggs poaching /meat stewing on the fire.
 They are also —telic, which is shown in these examples in which the tests for telicity are applied:
 (48) The meat stewed for an hour (* in an hour).
 (49) * It took Peter three hours to simmer the milk.
 (50) ? He almost poached the eggs.

(b) CHANGE

The verbs in this domain encode processes that may also have a time span implicit/explicit in their definitions.

- (51) *to become different by becoming greater*
develop (from/into) to become larger or more complete gradually
mature to develop completely
ripen to mature, becoming ready to be eaten (of fruit/crops), to
be eaten/drunk (of cheese/wine), or complete (of qualities).

For example, when *mature* and *ripen* refer to natural processes, no parameter of suddenness (either adverbial or syntactic) can be attached to them. Examples (54) and (55) sound weird enough to project us into the realm of science fiction.

- (52) * The apple tree ripened suddenly.
 (53) * The wine matured suddenly.
 (54) ? I saw the apple tree ripen /wine mature.
 (55) ? I saw the apple tree ripening.

Nevertheless, when these processes are extended to human beings as well as abstract entities, rapid maturing/ripening becomes possible in certain contexts because of metaphorical extension.

- (56) He suddenly matured after he left home.
 (57) I saw their plans suddenly ripen.

(c) SPEECH

Complaining is an area where examples of the parameter of *long duration* as well as *iteration* abound.

- (58) *To complain continuously*
nag to complain continuously so that somebody will do something.
gripe to complain continuously and forcefully (informal).
grouse to complain continuously and loudly (informal).
bellyache to complain continuously and loudly for no reason (informal).

In the same way as the previous examples, this parameter filters out certain types of adverbial modification, as well as syntactic constructions. As can be seen in (59), *complain*, as the generic term of the set, takes the greatest variety of subcategorization:

- (59) Typology of syntactic patterns

	--	NP	that-clause	PP (to)	PP (about)	PP (of)	Quote
complain	+	-	+	+	+	+	+
nag	+	+	-	-	+	-	+
gripe	+	+	-	-	+	-	+
grouse	+	-	-	-	+	-	+
bellyache	+	-	-	-	+	-	-

However, there is one pattern which is not included in the inventory of *complain*. Both *nag* and *gripe* can take NP's, whereas *complain* does not:

- (60) She was nagging me endlessly. [= annoying]
 (61) His behavior really gripes me. [= annoying]

This is primarily because in this type of context, the meaning of *nag* and *gripe* is close to that of *annoy* in the domain of FEELING. Consequently, the fact that both can take an NP of this type signals a meaning extension to another lexical domain because such a complement is typical of that particular meaning area. As verbs which encode repeated and continuous complaining, *nag*, *gripe*, *grouse*, and *bellyache* often appear in *ing*-forms:

- (62) He kept nagging me endlessly.
 (63) She was griping about the lack of heating.
 (64) Stop your bellyaching!

It is considerably less frequent for them to appear in a bare infinitive construction such as the following:

- (65) * I glimpsed him gripe
 (66) * He spotted her nag.
 (67) ? I saw him gripe/nag.

In a similar way, they do not accept adverbial modification such as *suddenly* or *briefly*, which violates their basic semantic parameters:

- (68) * He nagged/bellyached/griped suddenly.

These verbs are also -telic:

- (69) He griped/nag for an hour (* in an hour).
 (70) * It took John three hours to bellyache/nag.

2.1.2. Temporal sequence

The parameter of *temporal sequence* appears in verbs whose meaning depends on a temporal context. For example, the action encoded in all of the verbs listed below is sequential to a previous action/event of the same sort.

- (a) SPEECH *rephrase* to phrase something again in a different way.

For example, the act of *rephrasing* can only take place after another action of a similar type, something which makes the following example unacceptable:

- (71) * He rephrased his question for the first time.

Since this type of meaning is signaled by the prefix *re-*, there are many other possible examples, such as *redo*, *repossess*, *rewrite*, *replay*, etc., which belong to other domains as well as *speech*.

(b) POSSESSION

POSSESSION is a lexical domain imbued with pragmatic meaning. The act of giving is firmly rooted in a complex variety of social relations which stipulate *who* can give *what* to *whom* and in exchange for *what*. Certain verbs, such as *bequeath*, also denote when such a transfer of possessions is acceptable.

To give something to somebody after one's death
leave to give for use after one's death by leaving written instructions to do so.
bequeath to leave something, handing it down to them when you go away or die.

The use of *bequeath* generally takes place after the death or disappearance of the possessor of what is being handed over:

- (72) He bequeathed me his fortune.
 (73) I bequeath you my fortune (= You shall have my fortune after I am dead.)
 (74) ?? I bequeath you my fortune, and here it is.

For that reason, (73) can be understood as a future transfer of possession, but (74) sounds extremely odd because the possessor is still alive.

2.1.3. Iteration

The parameter of *iteration* encodes a repeated action, something which manifests itself in different ways depending on the particular area of meaning in which it is operating. Examples of this parameter can be found in CONTACT, USE and SOUND.

(a) CONTACT

In CONTACT, this parameter is present in the set of verbs that encode physical punishment, all of which basically share the same complementation patterns and argument structure. The selection restrictions mainly pertain to the entity affected by the action. One can *beat* and *batter* an inanimate object as well as an animate one, but in the other verbs, the scope of this argument narrows and only accepts living beings.

To hit somebody/something many times especially to hurt/damage them

NP NP PP (to death) NP C NP PP (with)	}	<i>beat</i> to hit somebody/something hard and continuously over a long period of time.
		<i>batter</i> to beat somebody/something with great force many times with one's fists/other object.
		<i>clobber</i> to beat somebody up [informal]
		<i>whip</i> to beat somebody with a whip as punishment.
		<i>lash</i> to whip somebody (slave, sailor) as punishment [old-fashioned].
		<i>flog</i> to whip somebody (slaves, sailor) with great force as punishment [old-fashioned].
		<i>flagellate</i> to whip somebody as a religious act of penance (formal).
		<i>birch</i> to whip somebody with a birch.
		<i>cane</i> to beat somebody with a cane as punishment.

The fact that *whip*, *birch*, and *cane* are denominal verbs derived from the instrument employed to carry out this action eliminates the PP (*with*) from their inventory, unless the instrument specified in the phrase modifies the default value because it is of a different type or is more highly specified.

- (75) * The overseer whipped the runaway slave with a whip.
 (76) The overseer whipped the runaway slave with the whip in the shed/a cat o' nine-tails.
 (77) * The schoolmaster caned the boy with a cane.
 (78) The schoolmaster caned the boy with a long, thin cane.

Needless to say, the type of meaning encoded in all of the verbs of the subdomain is hitting somebody repeatedly with something. The parameter of *iteration* is principally what connects the verb in question to sociocultural frames of institutionalized punishment. Iteration is always present in this particular set of verbs, and consequently, even when the action is specified as *once*, it does not mean one stroke of the whip or lash, but rather several (in sufficient number to constitute *one* punishment).

- (79) The overseer whipped him once (= hit him several times with a whip).

Another salient feature of these verbs is that the action they encode is goal-directed. Therefore the following constructions are possible:

- (80) The ships captain beat/battered/clobbered/flogged/etc. the sailor senseless.
 (81) The ships captain beat/battered/clobbered/flogged/etc. the sailor to death.

These are all examples of resultative constructions in which the agent (in this case, the *ships captain*) exercises an action on the patient (*the sailor*). The resulting state of the patient is codified by an adjectival complement (*senseless*) or a preposi-

tional phrase (*to death*). This type of construction is very frequent with iterative verbs, in which the repetition of the action results in the attainment of a final state.

(b) CONSUMPTION

Other examples of the parameter of *iteration* can be found in verbs like *chew*, *masticate* and *gnaw*, all of which verbs convey the meaning of iterative biting.

- (82) *bite* to use one's teeth to cut through something
chew to bite something repeatedly usu. in order to taste/eat it.
masticate to chew [formal].
gnaw to bite something repeatedly.

Chew and *masticate* differ in degree of formality. The agent argument of both verbs is necessarily an animate being and the goal argument is solid food (soft enough to be eaten). *Gnaw* is slightly different in that the goal is something hard, which gets worn away little by little through continuous biting. All three of these verbs have an inherent instrument (i.e. teeth). However while the instrument can be lexicalized in *gnaw* and *masticate*, it cannot in *chew*.

- (83) * He chewed/masticated the food with his teeth.
 (84) The prisoner gnawed at the rope with his teeth.

The parameter of *iteration* also makes the following example anomalous:

- (85) * She chewed/gnawed the meat once.

(c) SOUND

Another example of iteration can be found in verbs of repeated laughter, such as *giggle*, *titter*, *snigger* and *snicker*:

laugh to make the sound expressing happiness or amusement.

iteration { *giggle* to laugh softly and repeatedly.
titter to giggle nervously, esp. to express embarrassment.
snigger to giggle softly in a secret, disrespectful way.
snicker to snigger in a high-pitched way.

In the same way as *chew* and *masticate*, verbs of iterative laughter do not appear in collocations with *once / one time*.

- (86) * She giggled/tittered/sniggered/snickered one time.

This parameter also filters out the collocation with *at*, which is possible with *laugh*. *At*, in this sense, indicates the specific target towards which the agent directs his/her action.

- (87) The children laughed at the teacher.
 (88) * The children giggled/tittered/sniggered/snickered at the teacher.

It is to be noted that in this sense, *laugh* acquires a meaning which projects it into another domain. It becomes more than just sound, and in this sense, signifies mocking or making fun of someone/something. It thus becomes an event, something which is impossible for the manner-of-laughing verbs.

2.1.4. Inception

As its name indicates, *inception* refers to the beginning of an event. The most obvious examples of it can be found in the domains of CHANGE and EXISTENCE.

(a) CHANGE

Verbs of CHANGE are similar to MOVEMENT, though instead of movement from one place to another, they encode movement from one state to another. It is thus an event that occurs over a period of time, and as such, it has a number of phasal distinctions. The following verbs of CHANGE encode the parameter of *inception*:

- (89) *become* to begin to be different in the way that is stated.
get to become (fairly informal).
turn (into) to become something different in nature/quality/condition (with emphasis on the suddenness of the result).
grow to become something different in nature/quality/condition (with emphasis on gradualness).
go to become, changing to a particular state/condition.

In this subdomain, the process of change is slow because in this non-causative sense, time is often the implicit agent:

- (90) Her parents became old.

This filters out constructions in which this parameter is violated:

- (91) * Her parents stopped becoming old.

In fact, even when the implicit agent is obviously not time, constructions with *stop* still sound strange because the process of change in this initial phase is conceived as something that really cannot be stopped at will:

- (92) The frog turned into a prince.
 (93) ?The prince stopped turning into a frog.

(b) EXISTENCE

Lexical structure in the domain of EXISTENCE reflects the duality of our understanding of this concept. Accordingly, something can exist (for us) in two ways: more

generally because we believe it has a counterpart in the outside world, and more specifically, because it enters our field of perception. Therefore, *existence in the objective world* runs parallel to *existence in the perception of others*. In both types of existence, life can be conceptualized as an event, a temporal segment that can be broken down into a number of phasal distinctions such as beginning, continuing and stopping. The following lexical set includes those verbs which belong to the phase of inception (Faber and Mairal 1997: 135-6):

- (94) *appear* to begin to exist in the perception of others.
dawn to begin to appear [formal]
surface to appear, becoming obvious or known, especially after a period of remaining unseen.
materialize to appear, taking bodily form/becoming reality.
form to appear, beginning to be visible and having a clear shape/outline.

This subdomain is closely linked to that of PERCEPTION, since when something appears, it begins to exist (not in itself), but for that perceiver. Something can appear because it moves into somebody's field of vision, or it can appear because of a change in contextual condition which facilitate visual perception (i.e. sufficient light, absence of barriers). Consequently, the above lexemes refer to a process of change which takes place in the perceiver who moves from a state of unawareness to awareness of the perceived entity. In the phase of inception, this means that such verbs cannot appear in constructions which go against this basic *synsem* parameter:

- (95) * The idea stopped dawning/materializing.
 (96) * The outline of the ship stopped forming on the horizon.

2.1.5. Cessation

In comparison with *inception*, *cessation* is much more extensively lexicalized because ending seems to be more perceptually salient than beginning. Examples of this parameter can be found in EXISTENCE, LIGHT, and POSSESSION.

(a) EXISTENCE

Cessation is encoded in *to stop existing in the perception of others*, which includes the following verbs, all of which describe the state of affairs of not being able to seem something any more:

- (97) *disappear* to stop existing the perception of others
fade to disappear gradually from sight/hearing/memory, often remaining to some extent.
vanish to disappear suddenly and completely, especially in a way that cannot be explained.
dissipate to disappear completely, as if by scattering.
evaporate to disappear like vapor.

In *vanish* and *dissipate*, the disappearance is complete, so what is lexicalized is the manner of disappearance (*suddenly, as if by scattering*). Interestingly enough, in *vanish* there is also a secondary connection with COGNITION in that the suddenness of the process causes a state of perplexity in the perceiver. The fact that a sudden disappearance is something that needs an explanation signals a default value in this subdomain regarding the relative speed with which something is expected to move outside the scope of our perception in order to be considered a normal state of affairs. In contrast, in *fade*, the process is so gradual that there is usually some trace left over a period of time.

All of these verbs are intransitive and there are virtually no selection restrictions on the argument. Unlike *inception*, *cessation* does allow constructions with *begin*. In other words, one can talk about the *beginning of the end* much more easily than the *end of the beginning*. It is only ungrammatical in *vanish* primarily because of the parameter of *achievement*.

- (98) The bruise on her arm gradually began to fade.
 (99) His enthusiasm for a new car began to dissipate when he saw what it would cost.
 (100) Her desire for him began to evaporate as his real personality came to light.
 (101) * The spot on the carpet began to vanish.

Alternatively, however, these verbs are ungrammatical in constructions with *stop* because in the examples below, cessation in *fade*, *dissipate*, *evaporate* and *vanish* is cancelled out rather than reinforced.

- (102) * The bruise on her arm gradually stopped fading.
 (103) * His enthusiasm for a new car stopped dissipating when he saw what it would cost.
 (104) * Her desire for him stopped evaporating as his real personality came to light.
 (105) * The spot on the carpet stopped vanishing.

(b) CHANGE with secondary connections with LIGHT

- put out* to cause something to stop burning.
extinguish to put out something (light/fire) [formal].
quench to extinguish a fire with water [old-fashioned].
smother to extinguish a fire by covering it.

- (106) ?They started to quench/extinguish the fire.
 (107) * The water started to quench/extinguish the fire.
 (108) ?They started to smother the fire.
 (109) * The blanket started to smother the fire.

Cessation in this sense also has an important element of achievement. The event in this case is also affected by short duration or momentaneousness. Consequently, it cannot be perceived as having a beginning and an end, but only an end.

2.1.6. Achievement

Achievement is present in various areas of meaning and is manifest in the following type of construction. The following resultative constructions have *unconscious*, *sick*, *flat*, *blind* and *silly* as culminating predicates.

- (110) She beat him unconscious. [CONTACT]
 (111) The thought of his going away worried her sick. [FEELING]
 (112) They knocked him flat and stole his wallet. [CONTACT]
 (113) Roldan robbed the government blind. [POSSESSION]
 (114) She laughed herself silly. [SOUND]

As Pustejovsky (1995: 15) observes, these can be classified as *stage-level* predicates. These contrast with *individual-level* predicates, which are properties that an individual possesses more or less throughout a lifetime (Carlson, 1977 and Kratzer, 1988 *apud* Pustejovsky, 1995). Such predicates cannot appear in resultative constructions:

- (115) * John ate himself handsome.
 (116) * Paul worried himself tall.

Another type of resultative construction can be seen in the following examples where *death*, *insanity* and *exhaustion* are conceptualized as the final destinations of the affected argument.

- (117) They starved him to death. [EXISTENCE]
 (118) She drank herself to death. [CONSUMPTION]
 (119) The Lone Ranger galloped Silver to exhaustion. [MOVEMENT]
 (120) She nagged him to death. [SPEECH]
 (121) His indifference drove her to insanity. [MOVEMENT]

Certain of these verbs belong to the domain of MOVEMENT, but others such as *starve*, *drink*, and *nag* belong to other domains in which such movement is understood more figuratively. Evidently, *achievement* can be expressed in a variety of different ways. Although all of the examples refer to completed action, they are different in that in some of them, the action referred to affects the first argument and in others the second.

	1st Argument	2nd Argument
CONTACT	* They knocked themselves flat. * She beat herself unconscious	They konked him flat. She beat him unconscious
CONSUMPTION	She ate/drank herself to death.	* She ate/drank him to death.
FEELING	She worried herself sick.	She worried him sick.
POSSESSION	* Roldan robbed himself blind.	Roldan robbed the government blind
EXISTENCE	She starved herself to death.	He starved her to death.
MOVEMENT	He ran himself to death.	He galloped his horse to exhaustion.
SPEECH	* She nagged herself to death.	She nagged him to death.
SOUND	She laughed herself silly.	She laughed him silly.

2.1.7. Causation

Virtually all of the dimensions in MOVEMENT have causative subdimensions in which the same verbs appear:

MOVEMENT IN LIQUID (NON-CAUSATIVE)	MOVEMENT IN LIQUID (causative)
<i>To move/go downwards</i>	<i>To cause to move downwards</i>
<i>dive1</i> to go into the water, jumping head-first with one's arms straight above one's head.	<i>dive2</i> to cause somebody/something to go into the water.
<i>plunge1</i> to dive quickly and forcefully.	<i>plunge2</i> to cause somebody/something to go into the water quickly and forcefully.
<i>sink1</i> to go slowly downwards below the surface of the water.	<i>sink2</i> to cause somebody/something to go slowly downwards below the surface of the water.
<i>submerge1</i> to go under the surface of a liquid, esp. at a planned speed.	<i>Submerge2</i> to cause somebody/something go under the surface of a liquid, esp. at a planned speed.
	<i>immerse</i> to cause somebody/something to go down into liquid, covering them/it completely.
	<i>dip</i> to cause somebody/something to go down into liquid for a short time.
	<i>dunk</i> to dip something into a liquid for a particular purpose.

(a) MOVEMENT (in liquid)

Many of these verbs can be used both transitively and intransitively.

(122) He plunged/sank/dove into the water.

(123) He plunged/sank/dove his hand into the water.

Dive can be considered a special case in that its second argument is more semantically specified than that of the other verbs, and is necessarily a part of the body:

(124) He $\left\{ \begin{array}{l} \text{plunged} \\ \text{sank} \\ \text{*dove} \end{array} \right\}$ the knife into the water

Some of the verbs within this particular area of meaning, however, are only causative, and cannot be used intransitively, at least, in their sense of *movement in/on liquid*.

(125) * The ship immersed/dipped/dunked.

Many of these verbs also have other meanings which refer to generic downward movement. With the exception of *dunk*, *immerse*, and *submerge*, the others (*dive*, *plunge*, *sink*) can be used for general movement as well as movement in air.

(126) The seagull plunged into the ocean

(127) The missile plunged downward (in the air).

(128) The drill plunged into the earth.

Sink, as the generic term, can be used to designate downward movement in wide variety of contexts:

(129) Ralph sank into the water/chair/mud.

However, the fact that its prototypical sense is *movement in liquid* can be seen in the following example, where the medium is unspecified and the default value is obviously *in liquid*:

(130) He sank the ship /* plane/* drill.

(b) LIGHT

A second example of a subdomain marked by a causative parameter can be found in verbs of LIGHT. In the preceding subdomain, causation was more evenly balanced with non-causation. However, the domain of LIGHT is quite different perhaps because of its generic semantic value in which light is emitted from a natural source. This is a good example of a domain of intransitive verbs which have no zero-derived causative

form. With the exception of *shine* and *flash*, which are in both subdomains, the other verbs are only in one.

LIGHT (NON-CAUSATIVE)	LIGHT (CAUSATIVE)
<i>to give off light</i>	<i>To cause sth to give off light</i>
<i>Shine1</i> to give off light/to be bright. <i>glow</i> to shine with a soft, warm light (of a low fire, stars). <i>blaze</i> to blaze suddenly. <i>flare</i> to blaze suddenly.	→ <i>Shine2</i> to cause something to give off light/to be bright.
<i>flash1</i> to shine with a sudden, bright light (esp. quickly and regularly). <i>glint</i> to shine brightly, giving off small flashes of light (esp. a metallic surface). <i>sparkle</i> to shine brightly giving off small, quick flashes of light (esp. jewels, stars). <i>twinkle</i> to sparkle continuously, changing from bright to faint (esp. stars). <i>scintillate</i> to sparkle (esp. of wit, personality) [formal] [literary]. <i>glitter</i> to sparkle in a flashy, artificial way.	→ <i>flash2</i> to cause something to shine with a sudden, bright light (esp. quickly and regularly). <i>brighten</i> to cause something to shine more. <i>illuminate</i> to cause something to be bright by shining light on it. <i>light</i> to cause something to begin to give off light/be bright.
<i>dazzle</i> to shine in somebody's eyes with a sudden very bright light, making them unable to see. <i>glare</i> to shine with a very bright light that is difficult to look at. <i>flicker</i> to shine unsteadily with sudden changes in brightness. <i>shimmer</i> to shine with a soft, changing light (esp. a moving surface such as water, silk, etc.). <i>glimmer</i> to shine with a faint, unsteady light. <i>gleam</i> to shine brightly by reflecting light (esp. a clean, shiny surface). <i>glisten</i> to shine brightly (esp. a smooth/wet/oily surface). <i>beam</i> to shine brightly and constantly (esp. in a certain direction).	

In the causative subdomain, an agent causes a light source to give off light or alternatively, causes a space to be bright. It follows that these verbs are those which have a transitive use, whereas the verbs in the parallel subdomain are one-place predicates which do not:

- (131) The janitor shone/flushed the flashlight from the window.
 (132) * The janitor twinkled/flickered/blazed/flared/sparkled/etc. the flashlight from the window.

2.1.8. *Factivity*

The parameter of *factivity* emphasizes the different degrees of the thinker's commitment towards the truth or falsity of a proposition within the complement phrase. There are a range of subjective, epistemological operators that act as the basic structuring parameters of an important sector of the domain of cognition, organizing its subdomains so that the verbs within them encode different degrees of certainty⁵. This commitment on the part of the speaker has important syntactic repercussions. For example, a semantic value such as *Certain* (the speaker's evaluation that the proposition holds in every possible world) is in consonance with topicalization, a syntactic construction involving the fronting of a non-subject NP interpreted as the top to a sentence-initial position. This topic fronting applies to definite NPs, and thus, is compatible with this type of operator, which offers no alternatives. However, it is incompatible with others which apply other available options, as can be seen in the following examples:

- (133) That she did a good job, he regrets.
 (134) That he left, she knows.
 (135) That she played well, * she believes.
 (136) That he go there, she demanded.
 (137) That he go to the dentist, * he suggested.

As can be observed in example (133) and (134), topicalization is possible because the speaker's evaluation of the propositions (*that she did a good job/that he left*) are modified by the operator *Certain*. However, this is not the case in examples (135) and (137) because the complement proposition is not modified by this operator. In essence, a syntactic construction involving definiteness tends to occur with a type of meaning that offers no alternative.

A subjective epistemological operator like *Probable*, which signals the speaker's evaluation that the proposition is expected to be the case, is in accordance with syntactic transformations known as "root transformations" (Hopper and Thompson, 1973). Such transformations cannot operate on questions, reduced clauses, and presupposed clauses, since it would not make any sense to emphasize constituents in a sentence whose proposition is presupposed or already known. From this, it follows that these syntactic constructions will be compatible with a probable meaning and its possible alternatives. This type of meaning will therefore be sensitive to constructions, such as complement preposing, VP preposing, etc.

- (138) He wants to leave the country, he says. [complement preposing]
 (139) The trade unions are obsolete, the president concluded. [complement preposing]
 (140) The group vows that disrupt the elections they will. [VP preposing]
 (141) Ken announced that marry Jane he would. [VP preposing]

2.1.9. *Conation*

This parameter encodes the speaker's attempt to carry out an action. It is lexically marked by *try*, which appears as part of the genus of all of the verbs. In the same way as other types of semantic markers of this sort (*start*, *stop*, *continue*, etc.), it can either appear as the genus itself (142), or alternatively as a modifier of the genus (143) and (144).

- (142) *try* to make an effort to do something.
attempt to try to do something difficult
endeavor to try very hard to do something (formal)
strain to try very hard, especially making a great physical effort
strive to try to do something, making a very great effort over a period of time.

The focus of this semantic value is thus on the initial phase of the activity without explicating whether the action is actually carried out. It is explicitly marked by *try*, and appears marked in a variety of different areas of meaning.

- (143) *coax* to try to persuade sb to do sth in a gentle, pleasant way.
 (144) *hawk* to try to sell something by shouting in the street / taking it around to various people (informal)

The presence of *try* as a semantic constituent of the definition has important syntactic consequences insofar as it encodes a -telic state of affairs, and consequently, this sort of construction is compatible with the test for telicity (cf. Dik, 1998: 92-94).

- (145) I coaxed him for an hour (* in an hour).
 (146) * It took me three hours to coax him.
 (147) I hawked the jewelry for an hour (* in an hour).
 (148) * It took me three hours to hawk the jewelry.

However, a change in the complementation of certain verbs brings about a change in the state of affairs, as can be observed in the following examples:

- (149) I coaxed him into going to the store /to go to the store.
 (150) * It took me three hours to coax him to go to the store.

Here it can be seen how the inclusion of an infinitive/prepositional phrase can cause the canonical meaning of *coax* to vary⁶ and acquire the meaning of achievement. However, the same is not true for *hawk* which does not accept this type of

complementation.

2.1.2. Lexically realized optional parameters

Lexically-realized optional parameters explain why certain arguments, though semantically present, are not syntactically prominent in the actual linguistic expression. The most obvious examples of this can be found in POSSESSION, in the subdomain which encodes transfer:

- (151) I bought/purchased a new car
- (152) I bought/purchased a new car from Tom
- (153) I bought/purchased a new car from Tom *for Mary*.
- (154) I bought/purchased a new car from Tom *for Mary for \$5000*.

In the above examples, the only argument that is strictly necessary for the syntax of the sentence is *a new car*. The others are all potential in the structure of this type of verb, but not necessarily activated all at once. In fact, when they all appear together, the result even sounds awkward.

The arguments in the above examples are *true arguments* because they are syntactically realized parameters of the verb in question. However, Pustejovsky (1995: 63-4) also distinguishes between *default arguments* and *shadow arguments*. *Default arguments* participate in the meaning, but are not necessarily expressed syntactically:

- (155) She made the wedding dress *out of silk*.
- (156) The second little pig built his house *out of sticks*.

Shadow arguments are semantically incorporated in the lexical item. As we have seen, they can be expressed only by operations of subtyping or discourse specification:

- (157) * The overseer whipped the runaway slave with a whip.
- (158) The overseer whipped the runaway slave *with the whip in the shed/a cat o' nine-tails*.
- (159) * The schoolmaster caned the boy with a cane.
- (160) The schoolmaster caned the boy *with a long, thin cane*.

2.1.3. Lexically realized contextual parameters

Lexically realized contextual parameters, though not syntactically projected, serve as clues for contextual setting. They are of different types and elaborate the schema in contrasting ways (*location, instrument, intensity, movement*). Examples of this are in the domains of POSSESSION, VISUAL PERCEPTION, POSITION, and SPEECH:

(a) POSSESSION

Peddle and *hawk* in the domain of POSSESSION activate a schema of location and of movement because in both cases, the activity is carried out while moving from one place to another.

- (161) *To give somebody something in exchange for money*

sell to give something in exchange for money.

- { *vend* to sell [formal].
- { *peddle* to sell small things by going from place to place.
- { *hawk* to try to sell something by shouting in the street / taking it around to various people [informal].

Given their basic semantic parameters, it thus sounds strange for someone to *peddle/hawk* something in a department store. Nor is it normal to *hawk/peddle* a pair of matched Rolls Royce or a mansion in Malibu.

- (162) The traders hawked their wares on the street corners.
- (163) ?The shop attendant hawked the perfume in the department store.
- (164) The man peddled his wares from door to door.
- (165) ?The man peddled his wares in the department store.
- (166) ?He went from door to door peddling Rolls Royces.

Whereas examples (163), (165) and (166) sound very strange, they are possible. However, the parameter that cannot be violated is that of *sound* in *hawk*:

- (167) The traders loudly hawked their wares in the market place.
- (168) * The traders silently hawked their wares in the market place.

(b) VISUAL PERCEPTION

Another example of contextual activation can be found in the domain of VISUAL PERCEPTION. Most of the manner-of-staring verbs below are very general and tell us more about the perceiver than the what is being perceived. For example, *goggle*, *gape* and *gawk* reflect negatively on the intelligence of the experiencer. *Glare* and *glower* give us information about his emotional state. However, *ogle* can be said to activate a specific context.

- stare* to look at somebody/something for a long time with wide open eyes.
- goggle* to stare at in surprise.
- gape* to goggle esp. with an open mouth.
- gawk* to stare in a stupid, unthinking way [informal].
- glare* to stare angrily, in an unfriendly way.
- glower* to glare for a long time.
- ogle* to stare with sexual interest.

The semantic parameter of *manner* codified in this verb evokes a very definite context, which greatly narrows the scope of the goal argument:

- (169) The soldiers ogled the girls sitting at the bar.
- (170) The ladies ogled the male striptease dancer.
- (171) The boys ogled the pictures in the magazine.

The reason for this is that with the exception of certain unprototypical behavior patterns, sexual interest of the Agent is generally directed towards similar entities of the opposite sex. A non-human argument in this position is marginally acceptable, depending on the type of animal involved, and the extent to which human consciousness can be attributed to it.

- (172) The male gorilla ogled the newly-arrived female gorilla that the zookeepers had put in his cage.
 (173) * The male cockroach ogled the newly-arrived female cockroach.

The selection restrictions of the arguments thus block the occurrence of semantically odd/unacceptable sentences such as the following:

- (174) * Peter ogled the aardvark/tarantula.
 (175) * The aardvark/tarantula ogled Peter.
 (176) ?Peter ogled the beautiful aardvark.
 (177) * Peter ogled the beautiful tarantula.
 (178) * Peter ogled the table for a long time.
 (179) * The table ogled Peter.
 (180) * Peter ogled the beautiful table.

However, if the aardvark in examples (174), (175), and (176) is made more human-like in the sense of possessing qualities which contribute to a positive evaluation of a scale of human attractiveness, then example (176), though odd, can at least be interpreted as a kind of marginally possible behavior pattern. In contrast, no similar modification of acceptability occurs in (177) because it is difficult to attribute human consciousness (eyes-ears-nose schema, human-like reactions) to a tarantula. Likewise examples (178-180) do not experience any modification either because an inanimate entity (albeit an attractive one) is generally not an object of sexual interest.

(c) POSITION

In the domain of POSITION, verbs such as *lodge*, *board*, *squat*, *camp*, *bivouac* and *cohabit* with the base meaning of *to stay in one place*, all belong to the same subdomain. All of these verbs have *live* as their genus, and the descriptive parameters in their definitional structure refer to time period, payment, location, and person(s) living with the subject:

- (181) *live* to stay somewhere, having it as your home.
lodge to live somewhere esp. for a short period of time and paying rent.
board to live somewhere (usu. in sb's home and receiving meals) in return for payment.
camp to live somewhere for a short time in a tent/caravan.
bivouac to camp in a bivouac (a temporary shelter which is not a tent).
squat to live somewhere (usu. public land/unused building) without having a legal right to do so.

room to live in a room/rooms in sb else's house.
cohabit to live together, having a sexual relationship (of unmarried people) [formal].
shack (up) to start to live together, having a sexual relationship (of unmarried people) [informal].

The lexical contextual parameters within this subdomain are the following:

- (182) Lexical contextual parameters
 1. Short period of time [During]: *lodge*
 2. Payment [in exchange for]: *lodge*, *board*
 3. Particular location [at/in]: *camp*, *bivouac*, *room*, *squat*
 4. Company [with]: *cohabit*, *shack up*

Although semantic parameters codifying sociocultural norms are different, depending on the domain and subdomain they are embedded in, it is relatively easy to deduce what such norms are because they are precisely what is not lexicalized. In language, we tend to find words for what draws our attention, and what surprises us is generally what differs from our expectations or deviates from the socially-accepted norm.

Squat, for example, activates a whole sociocultural context of property rights and others who make use of that property against the law. From its original sense as a verb of body position, more specifically a rather unorthodox kind of *sitting* (on one's heels instead of on a chair/ground), *squat* has a meaning extension to another subdomain, *to stay at a particular location*. In this case the location is an unused building/land which the subject occupies illegally (without permission and without paying rent).

(d) SPEECH

Biological norms are also codified in the lexicon. An example of this can be found in one of the subdomains of SPEECH:

- (183) *to say sth (speak) with difficulty*
stutter to speak with difficulty (with short stops one cannot control).
stammer to speak with difficulty (hesitating and repeating sounds and words).
lisp to speak with difficulty (using "s" sounds which are not clear).
bumble to speak with difficulty in an awkward, uncontrolled way.

This subdomain encodes deviations from the biological norm. If we *stutter*, *stammer* or *lisp*, it is more difficult to communicate because of physical impediments. This kind of speech is negatively evaluated, not so much for its content, but for the quality of its sound, which is the result of the speaker's lack of control of the speech act. Consequently the following examples are unacceptable:

- (184) * He stuttered/stammered/lisped/bumbled well.

The definitions of these verbs tell us that speech should prototypically be fluid without stops or hesitations. Sounds should not be repeated, and phonemes (such as /

s/) should not be unnecessarily emphasized. The norm that dominates all of the preceding ones is that of speaker control.

(e) SPEECH: codification of power relations

Another important type of norm is codified in the power relation between arguments, as well as the context this action can take place in, something which is clearly delimited within its meaning. A case in point can be seen in the predicate *upbraid*:

- (185) *To say that somebody has done something bad*
scold to say somebody has done something bad, criticising them angrily.
chide to scold somebody gently [old-fashioned].
upbraid to scold somebody for a long time [formal].
sermonise to scold somebody, giving them unwanted moral advice.
moralise to sermonise somebody, telling them what is right/wrong.
berate to scold somebody loudly [formal][old-fashioned].
reprimand to scold somebody severely and officially.

Upbraid has an agent, a patient, and optionally a reason for scolding someone in that way. However, the argument slots can be filled by different types of entities:

Agent		Patient		Action, activity, behavior		
(186) The teacher	} upbraided	{	} for	{		
(187) He					the students	their poor marks
(188) ? The soldiers					his wife	her extravagance
(189) ? The children					the general	his bad temper
				coming home late		

Examples (186-189) show us that one of the selection restrictions for arguments A and B is authority. In examples (186) and (187), the power relation between *teacher-students* and *husband-wife*, gives A the right to *upbraid* B. In contrast, example (189) is odd, and in need of contextualization because children do not prototypically have sufficient authority to upbraid their parents. The same is true for the inverted power relation between soldiers and the general in (188). The third argument (C), the reason for being upbraided, is invariably a behavior/activity/attitude which A is not in agreement with. Furthermore, in contrast with other verbs in the same subdomain, the grounds for being upbraided are usually definite and justifiable (*poor marks, extravagance, lack of discipline*) etc.

- (200) ?The pharmacist *upbraided* his children *for* always attending church.
 (201) The pharmacist *berated* his children *for* always attending church.

Although both *upbraid* and *berate* unprototypically have a positively valued element in position C, (200) is less acceptable than (201) because *upbraid* has a negative axiological evaluation built-in to its third argument, whereas *berate* does not. In consonance with the whole subdomain, the activity lexicalized in all these verbs is negatively valued, thus the unacceptability of the following example:

- (202) * He upbraided/berated/chided her well.

3. CONCLUDING REMARKS

In this article, we have shown that in a lexical subdomain, semantic parameters constrain and filter syntactic projections. *Synsem* parameters, such as *duration*, *iteration*, *temporal sequence*, *achievement*, *conation*, and *factivity* are a determining factor in the actual process of constructing an underlying clause structure. Obviously, this brings meaning definitions to the forefront in FG because semantic information is projected onto syntax.

In this way, it becomes evident that the semantics encoded in a lexical subdomain is in consonance with its syntactic potential. Accordingly, a verb's complementation is not random, but is systematically coherent with its semantics. The distribution and activation of *synsem* parameters is also principled in that the greater the semantic scope of the lexeme, the greater its syntactic variation. The configuration of both the semantic and the syntactic information is hierarchical, and the two resulting hierarchies are not independently motivated, but constrain and interact with one another.

Notes

1. This research was carried out within the framework of the project, *Desarrollo de una lógica léxica para la traducción asistida por ordenador a partir de una base de datos léxica inglés-francés-alemán-español multifuncional y reutilizable*, funded by the DGICYT, code n° PB 94/0437.
2. For a detailed presentation of this lexicological model, we refer the reader.
3. The inventory of features presented here is by no means exhaustive.
4. For a complete discussion of the role of semantic parameters in the lexicon, see Martín Mingorance (1985b). More specifically, we refer the reader to Felices (1991) and Portero (1997) for thorough discussions of specific semantic parameters like axiology and intensification respectively.
5. The following discussion is based on Hopper and Thompson (1973) and Ransom (1986).
6. As is well known this falls under the predicate formation rules in FG. However, our approach somewhat defers from this inasmuch as we believe that this type of variation can be captured in terms of a set of lexical rules. For further discussion, see Faber and Mairal (forthcoming).

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