ANGLOPHONIA. French Journal of English Studies 12, 2002. 199-212

A Cognitive Account of Tense and Aspect: Resurrecting "Dead" Metaphors

© **Alexander V. Kravchenko** (sashakr@isea.ru)

1. Introductory remarks

In contemporary linguistic literature verbal aspect, along with the category of tense, has been one of the most controversial issues. This controversy, I believe, is to a large extent caused by certain misunderstanding and, as a result, misinterpretation of the genuine (that is, not superficially imposed through an application of some arbitrary semantic procedure) grammatical (categorial) meaning of tense and aspect.

The controversy is largely rooted in the fact that in many languages of the world the number of grammatical forms of the verb referred to as “tenses”, is more than three, so these forms do not fit very well in the conventional triadic schema known as “time axis” (Figure 1):

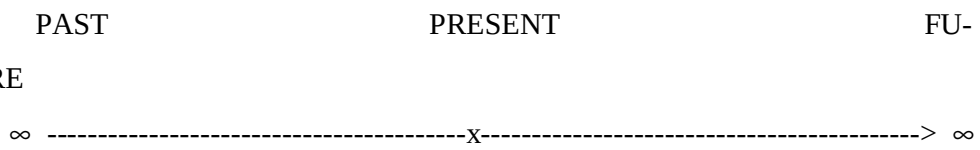

Figure 1. The time axis

According to long established tradition, tense is believed to be a grammatical category that correlates most directly with distinctions of time in terms of present, past, and future. This means that the grammatical meaning of tense cannot be fully understood and interpreted without the nature of time being considered. Therefore, the concepts of present, past, and future should be analyzed from the point of view of their cognitive content, aiming to answer the number one question, "What is "present" ("past", "future")?" The conceptual paradigm for treating tense as a grammatical category depends critically on how this question is to be answered.

As for aspect, most linguists agree that many languages, including English, do have such a category, but its definitions vary and there is no general agreement as to the number of aspectual forms and their meaning. As has been shown elsewhere (Kravchenko1990, 1995), aspectual studies in different languages, by and large, fail to provide a satisfactory conceptually consistent account of aspect because of **inadequate methodology** used in the analysis. Considering space limitations, the purpose of this paper is not to provide a comprehensive critical review of current

tense-aspect theories, with an emphasis on each theory's pros and cons. Rather, it is an invitation to approach the entire problem from a somewhat different, unorthodox angle (cf. Kravchenko 2002), assuming that the following two empirical tenets are true:

> **I.** Natural language is a sign system for processing information. At the same time, the system itself is a natural environment, sustained and adapted to by human beings as a necessary existential prerequisite. Interaction with this environment, as a cognitive activity based on sensory input and represented in the form of linguistically (symbolically) categorized experience, must be governed by mechanisms largely independent of language-specific linguistic structures (grammars).

> **II.** Natural language grammar is, fundamentally, a relatively simple system of encoding cognitive experience through metaphorization. Therefore, a theory aiming at explaining grammar (or a part of it) should also be relatively simple and generally comprehensible.

The conceptual inventory used within the traditional semantic paradigm fails to take into account one crucial factor on which understanding of meaning depends, that is, the *experiential origin of meaning*. Attempts to reconcile the traditional theory of meaning with this intuitively felt cognitive principle resulted in the "meaning - sense" dichotomy proposed by Frege. However, there has been little progress in the working out of foundational principles for a universal hard-core theory of meaning, especially in grammar.

The grammar of natural language is a formalized semiotic system of knowledge representation, in which each grammatical category relates to a certain relevant aspect of cognitive processing. Acquisition of grammar is a natural self-regulatory process whereby the child develops an ability to categorize sensory input in symbolic form, assigning alongside with conceptual, specific cognitive values to linguistic items. This process relies heavily on the trial-error principle in building the experiential sign-object and sign-concept data bases. These two data bases account for the binary principle in the organization of grammatical (morphological) categories. Consequently, two types of knowledge are distinguished as different cognitive values of grammatical categories: phenomenological and structural (Goldsmith, Woisetschlaeger 1982).

As a sign system for processing information, language operates on two levels of knowledge representation: the level of text (discourse), and the level of linguistic units that add up to produce a text. The resulting informative value of a text depends on the informative value of its constituents. The traditional approach to grammar attempts to provide an explicit set of "features" of meaning allegedly associated with a given form. Typically, these features tend to be an assembly of concepts we have about the world, which are acquired via natural language and with the help of language. The outcome of this acquisition process is the sum total of our linguistic experiences, of our "romancing the language" — not as a system in a

structuralist sense, but as a natural environmental domain inseparable from any other non-linguistic aspect of human existence. Semiosis as a sign-creating activity incorporates all kinds of data accessible for processing, therefore semantics as the study of relationships

between signs and objects cannot do without the study of *data processing mechanisms* and *principles of conceptual categorization*.

On the one hand, traditional semantics tries to come up with feasible conceptual frames and schemata for describing what is believed to be the structure of meaning of a particular linguistic item. On the other hand, in doing so it draws on the already existing conceptual inventory (represented by text-level knowledge) using it for explaining the core concepts represented by particular linguistic structures used to generate the text, and so on in recursive order ad infinitum.

Consider the following as an illustration of the "vicious circle" principle traditional semantics goes by. The temporal meaning of the word *present* is usually explained as 'existing or happening now', whereas *now* is explained as 'at the present time'. The meaning of *time* is defined as 'duration', the meaning of *duration* is defined as 'continuance in time', and the meaning of *continuance* is defined as 'duration' (Webster's New World Dictionary). So, it does not matter what is defined through what, as a circle has no starting point as a synchronic entity. Yet, if we view a circle as a diachronic entity that results from a certain kind of human creative activity, it always has a beginning, but where it lies only he knows who creates this circle. This raises one of the most important issues in natural language processing, that of the source to which a given text-level concept can be traced. Ultimately, the starting point (point-of-reference) for any concept, however complex, associated with any linguistic structure regardless of its complexity, is *sensory data input*.

The two data bases mentioned above are formed by two kinds of input described as phenomenological and structural. The term "phenomenological input" refers to anything that allows to establish direct connection between two reactions to sensory stimuli, of which one is caused by a physical entity (such as an object), and the other by a linguistic entity (such as a word). (It is understood that a linguistic entity itself is a kind of physical entity, and it certainly complicates the picture, but for the present moment this consideration may be disregarded.) The term "structural input" refers to sensory (auditory) experiences generated by verbal stimuli (discourse) whereby connection is established between sensory stimuli both of which are caused by linguistic entities. This two-level processing of data accounts for the difficulties software developers are only too familiar with: adequate processing of discourse (structural input) implies proper handling of categorized (and, con-

sequently, specifically structured at the first level of conceptualization) phenomenological input, that is, the cognitive semantics of a linguistic item, which is based on **experience**. The inadequacy of traditional analysis of semantics in grammar results, among other things, in incapability of language processing software products to manage the encoding of cognitive experience, so that so-called "grammar checking utilities" have remained what they are — tools for tracking formal errors.

Consider the following sample text:

(1) The Statue of Liberty ***is standing*** *on Liberty Island in New York Bay. It* ***will have been built*** *in the last century and* ***is being*** *a symbol of freedom to millions of immigrants* ***going*** *to America.*

Run through Corel WordPerfect Grammatik, it appears to be perfectly correct, though none of the verbs used in it are in the grammatically correct form ("grammatically correct" in this case means "not creating semantic problems in interpreting and understanding the text"). The fact that a grammar checking utility is unable to yield a processed text that is grammatically correct proves that there is no basic understanding (at least, in computational linguistics) of how grammar works in relation to knowledge representation.

2. Tense

The term "tense" traditionally refers to finite forms of the verb. In English, there are twelve such forms in the active voice, and grammarians usually speak of twelve tenses. At the same time, it is generally understood that there can be no more than three tenses in any given language — at least, the conceptual model of time in any existing language does not allow room for a fourth element different from PRESENT, PAST, and FUTURE. Thus, the term "tense" in its current grammatical usage is vague and imprecise since the finite forms are nothing but a conglomerate of several grammatical categories that include tense, mood, and aspect (cf. Dahl 1985).

To understand how grammatical tense reflects temporal distinctions, we must look at the origin of time as a *psychological phenomenon, rooted in perceptual experience*. A good clue is given by etymological analysis of corresponding terms, such as “present”, for example. Contrary to a widespread belief that many metaphors are semantically "dead", I claim that there is hardly such a thing as dead metaphor. Moreover, it is often these "dead" metaphors that hold the key to the door in many theoretically controversial cases, especially in grammar.

Thus, the English word *presence* descends from the Lat. *prœsens*, which consists of the prefix *prœ-* ‘in front of, before’, and the root *-sens*, which is traced to *sensus* ‘sense’[1]. So, the meaning of *prœsens* is ‘that which is before the senses’, i. e. ‘perceived with the senses’. This meaning is preserved in the adjective *present* in such uses as *All are present*. Correspondingly, *absent* means 'that which is not before the senses'.

The primary meaning of the correlate term “past” is ‘beyond in position, father than’, i.e. originally, “past” meant (and still does) ‘that which is gone by, no

[1] Although traditionally *-sens* is interpreted as the present participle of *esse* (Skeat 1956), there are sufficient reasons to question the validity of this assumption. Following Benveniste’s (1974: 159 ff) insightful analysis of the meaning and usage of *praesens* and other words with the same root in Latin, I have argued that the exact meaning of *praesens* shows that *-sens* has very little to do with *esse*. I believe it was the vise-like grip of tradition that prevented Benveniste from making the obvious conclusion himself, although he had all the facts correctly. The argument for the meaning of the Latin *praesens* is given in Kravchenko (1992) and Kravchenko (1993).

longer current’. We know that something is gone by when we cannot observe it any longer, so “past” refers to that domain of our experience which is not associated with current observation (is “absent”) but is retained in memory. The division of our world experience into two domains (“that which is currently observed” and “that which is no longer observed”) serves as a phenomenological background on which our conception of time is based (Kravchenko 1996a). It also explains why in many languages of the world (including English) the category of tense is morphologically represented by a binary opposition (“past/non-past”, or “past/present”): language reflects categorized reality in the form of a binary structure composed of two entities, “everything currently observed” and “everything that is no longer observed”. There is no future time in the real world, the concept of future

has to do with our experience-based prognoses about the possible flow of events, that is, future time is the domain of predicted experience, and in this it differs essentially from present and past time.

The concept of future in many languages emerged much later than the other temporal concepts, at the time when their grammars had been formed, so the already existing resources had to be drawn upon for the expression of future events, such as the analytical construction *will* + *Infinitive* in English, or the present tense stem of the verb with a spatial prefix in Russian (e.g. *poyedu* '(I) will go' = *po-* 'along' +'*yedu* 'go PRES 1 Sg'). The fact that *will* as an auxiliary in future tense forms retains its lexical (modal) meaning, influences its functional (grammatical) properties, resulting in what is known as the Future-in-the-Past Tense, (note, that the term itself defies tense logic based on the monolinear model of time). However, the term is not self-contradictory as long as a different kind of logic based on cognitively categorized experience is used.

The form *would* (past tense of *will*), as in (2):

*(2) He **told** me he **would do** it*

is used to express futurity not from the speaker's viewpoint (i. e., from the point of view of the person who actually says something like (2)), but from the point of view of the person the speaker is talking about (i. e., *he*). In other words, *he would do it* in the above example refers to the future of *he,* which is nothing but past for the speaker. The meaning of such a sentence is as follows: 'At a certain moment in the past he told me about his intention to do it later, but I am not sure whether he has done it or not, and if not, I am not sure he is going to, anyway'. By the same token, if the speaker has strong reasons to believe that the promise will be kept, the other person's future extends into the speaker's future (shared prognosticated experience), thus making the following sentence perfectly grammatical:

*(3) He **told** me he **will do** it.*

The meaning of this sentence may be interpreted as follows: 'At a certain moment in the past he told me about his intention to do it later, and although he has not done it yet, I believe he is going to anyway'.

A very similar phenomenon (accounted for by the difference between the cognitive concepts SPEAKER and OBSERVER) is found in Russian as well:

(4) On osmotrels'a. Raboty zdes' predstoyalo mnogo.
He look PAST PF around. Work GEN here be-in-store PAST IMP much.
'He looked around. There was a lot of work to be done here.'

(5) On osmotrels'a i uvidel, chto raboty zdes' predstoit mnogo.
He look PAST PF around and see PAST PF that work GEN here be-in-store PRES IMP much.
'He looked around and saw that there *is* a lot of work to be done *here*.'

In (4), the past tense is used in both the sentences (account of events from the speaker's point of view). In (5), the cognitive verb *see* relates the proposition expressed in the introduced clause to the observer (*he*) who is different from the speaker. As may be seen, observation (sense perception) appears to be an intrinsic structural component of the concept of time in general, which allows us to speak of a cognitive constituent in the meaning of the grammatical category of tense, this constituent being *the relationship between the described event and the observer.* In trivial acts of verbal communication the observer typically coincides with the speaker, and this is the one and only reason why PRESENT has been traditionally defined as "the moment of speaking", reference to which, it has been claimed, is the meaning of the word *now.* But even a cursory glance at the functional properties of *now* shows that this is not so, as *now* can refer not only to present time, but also to past and future time, cf.:

*(6) ...She **now found** herself alone (Dreiser)*

*(7) **Now** the light **was lifting** as the sun went down (Steinbeck)*

*(8) They **will be having** dinner **now**, if I know anything about their habits*

There is strong linguistic evidence that the meaning of *now* is not 'at the moment of speaking', but rather 'at the moment/time of observation' (Kravchenko 1990). Since the role of observer may not always and exclusively be ascribed to the speaker, *now* can refer to different times of observation, the observers being different individuals. The same is also true about such indexicals as *today, yesterday, tomorrow,* etc. Cf.:

(9) *Tomorrow was* war (a book title)

The past tense of the verb places the event "war" in the past (from the reader's perspective), but the word *tomorrow* does not refer to the reader's future, it refers to someone else's future, and it is understood that this someone belongs to the

past. Consequently, we can speak of **split temporal perspective** in examples like this: one is the speaker's (reader's), the other is someone else's (another observer's) (Kravchenko 1992). This cognitive distinction between the speaker and the observer is reflected in the grammatical category of aspect.

3. Aspect

Now, following the first of our introductory assumptions, let us take a look at the English verb. If we agree that there are three tenses in English (which claim is supported by the fact that the name of each of the twelve forms is prefixed by either "Past", "Present", or "Future"), we need to decide what the four groups of finite forms are about. Two approaches are possible: one is structural, and the other is conceptual. The structural approach lets us view the four groups of finite forms as an opposition SIMPLE/COMPLEX, whereby Simple Tenses are in opposition with Complex Tenses. Complex Tenses include the Progressive, the Perfect, and the Perfect Progressive, each of which consists of an auxiliary and the participle of the main verb. Since the Simple Tenses are, basically, inflected infinitives (we disregard the Future Simple here as a historically later development), the opposition SIMPLE/COMPLEX of the finite forms ought to be related to the opposition INFINITIVE/PARTICIPLE of the non-finite forms. It means that, in order to understand the se-

mantic distinction between the simple and complex tenses, we must establish such a distinction between the infinitive on the one hand, and the participle, on the other. This is where the conceptual approach to finite forms comes into play.

Another known name for the Simple Tenses is the *Indefinite Tenses*. A logically consistent approach to classification would require that the name Definite be used for the Complex Tenses, but then the question arises, what is actually meant by respective terms (Indefinite vs. Definite). These terms cannot refer to temporal distinctions per se, since temporal reference is made explicit through the terms Present, Past, and Future, while reference to concrete time, with different degrees of specification, is achieved by means of different lexical devices as in (10), or as in (11) when the so called Indefinite tense is used to speak about very definite time:

(10) a. He visited Paris in his younger years

b. He visited Paris 20 years ago

c. He visited Paris in 1982

d. He visited Paris in May, 1982

e. He visited Paris during the last week of May, 1982

(11) He arrived in Paris at exactly 11 a.m. on the 28th of May, 1982

Note, that the INDEFINITE/DEFINITE opposition parallels the SIMPLE/COMPLEX opposition, so it may be attributed to the opposition of non-finite forms INFINITIVE/PARTICIPLE as well. Both the structural and the

conceptual approaches in the analysis of finite forms indicate the necessity of identifying the grammatical status of the opposition of non-finite forms.

As has been suggested earlier (Kravchenko 1992), the difference between non-finite forms may be described as follows. The infinitive represents an event (activity, etc.) as an abstract concept, that is, its referent is not something that exists in reality and can be observed as part of a specific situation with its unique spatio-temporal characteristics; in other words, it is not something **present** (i.e., before the senses) **in the situation**. Rather, it is a mental construct that exists in the unlimited realm of human consciousness, devoid of any

spatio-temporal characteristics. It is no coincidence that the term “infinitive” is derived from the corresponding adjective meaning ‘having no boundaries or limits, endless or innumerable’ (speaking of “dead” metaphor again!).

The grammatical meaning of the participle is reference to an event which exists in reality and can be observed as part of a specific situation with its unique spatio-temporal characteristics. The term “participle” is derived from the Lat. *participio* ‘take part in sth’, that is, its referent is viewed as taking part in the observed and described situation. This difference between the infinitive and the participle is reflected in the fact that, whenever we are asked to produce an instance of a verb, we always come up with an infinitive, and never a participle — just because a participle would entail a series of questions about *who*, and *when*, and *where* (invoking spatio-temporal characteristics), whereas the infinitive does not. Interestingly, in Russian, for instance, the participle is morphologically marked for gender and number while the infinitive is not, so if a speaker of Russian were to give an example of a verb in the form of the participle, he would be simultaneously telling his listener that the activity is performed by either one or more than one individuals, and in case it’s one individual — that it belongs either to masculine, feminine or neuter gender, thus tying up the referent of the participle to a specific spatio-temporal context.

Just like the participle in many other languages, the English participle has two forms labeled “Present Participle” and “Past Participle”. What is the grammatical (conceptual/cognitive) difference between them?

As we have seen, *present* means ‘that which is before the senses’, and *past* may be interpreted as ‘that which is beyond the senses’. The referent of the Present Participle is, therefore, regarded as something directly observed in the immediate (described) situation, whereas the referent of the Past Participle is regarded as something beyond the immediate (observed and described) situation. In the latter case, the observed and described situation has obvious signs that the event in question took place, but the event itself is not part of the situation. Thus, when we say something like *The chair is broken*, we attribute a certain feature (“broken”) to the object “chair” because we know from experience that the structural integrity of this object can be changed as a result of the event “breaking”, so by using the past participle of the verb *break* we indicate the origin of the feature characterizing the

object. More specifically, the past participle implies comparison of two kinds of data accessible at two different times of observation (we compare what we observe now

with what we observed before), and it is on the grounds of this comparison that an appropriate inference is made. So, epistemologically, the past participle is a more complex structure for knowledge representation than the present participle.

It is not incidental that *-ing* as a grammatical morpheme marking the present participle is among the earliest acquired by English-speaking children, preceding, along with other grammatical morphemes, the past tense/past participle morpheme *-ed* (Brown 1973). This sequence of acquisition (first, the *-ing* forms, then, the *-ed* forms) is an iconic reflection of children's cognitive experience of their immediate linguistic environment. This environment is constituted by a child's family members' (first of all, the child's parents) utterances while speaking to the child. Typically, the progressive forms in the speech of parents talking to the child prevail over other forms which contain the *-ed* morpheme as parents tend to speak about what is taking place at the moment of speech and thus *is observed by the child*. Strictly speaking, this is a necessary condition for establishing a *cognitive link* between a linguistic form and a corresponding part of the child's environment.

The cognitive content of non-finite forms in English reflects the distinction between indefinite and definite sources of information about described events: the Infinitive denotes an event or activity without any indication that it is observed by someone, and the Participle (either Present or Past) denotes an event or activity indicating at the same time that the source of information about this event may be specified as a particular observer. The distinction "indefinite source of information / definite source of information" constitutes the grammatical meaning of aspect as a category.

The formal classification of English finite forms ("simple" vs. "complex") reflects their aspectual distinctions. The simple tenses are, in fact, the Indefinite Aspect Tenses, and they are typically used when we speak about what we know rather than what we observe. The complex tenses are the Definite Aspect Tenses, and they are typically used when we speak about what we observe rather than what we know. Depending on what it is that we actually observe (the process or activity itself unfolding before our eyes, or visible signs

that such an activity must have taken place), the Definite Aspect is further specified through special grammatical forms traditionally known as the Progressive and the Perfect.

Situations in which we speak about what is immediately observed may differ considerably depending on what exactly we observe (that is, what we can see, hear, smell, etc.). When I say:

(12) Look, Jack is smoking again

I can observe the process itself (he is holding a cigarette, periodically putting it in his mouth, inhaling, and then exhaling smoke — frankly, a senseless, hazardous, and very unesthetical activity). This is a bona fide "progressive" situation.

Now, if to my question why Jack's face has a greenish pallor I hear an answer such as (13):

(13) He has smoked three cigarettes in a row

I am being informed of the cause of the observed state of Jack's face as a result of the mentioned action ("smoking"). This is, naturally, a "perfect" situation. In other words, the perfect is used when we compare what we observe in the situation-of-utterance with what was observed before, and make a certain inference based on this comparison.

Finally, it is often the case that even while we speak about an activity observed in the situation-of-utterance, we, at the same time, compare what we see with what we saw some time before. For example, I see Jack smoking now, and I have also seen him smoking on several occasions throughout the day — in such a case, the two forms expressing different cognitive values are combined yielding the Perfect Progressive:

(14) Jack has been smoking (all day)

The Perfect Progressive may be used even though the activity referred to by the verb is not observed in the situation-of-utterance; it is often enough that the observed sign(s) of

this activity have a close *temporal* link with it. If Jack's mother, upon his coming home after school, smells a specific odor emanating from his clothes, and asks,

(15) Have you been smoking again?

she indicates that she perceives something that is a telltale sign of a very recent activity of smoking, and she compares this with a similar "smoking situation" that took place before (the function of the adverb *again*).

4. Pedagogical Implications

So, the cognitive content of aspect as a grammatical category appears to be related to the contrast between two basic concepts of events (activities, processes, etc.): verbal referents are categorized either as those identified empirically (through direct observation), or those identified on the basis of existing (background) knowledge. These different types of data input may be pragmatically interpreted as "observer's competence/knowledge" and "speaker's competence/ knowledge". The terms "observer" and "speaker" do not necessarily refer to one and the same individual language processor: the speaker, by default, is always an observer at the same time, but the reverse is not necessarily true.

The contrast between the observer and the speaker is systemic in nature (Kravchenko 1993) and serves as the cognitive basis for many grammatical phenomena (cf. the universal phenomenon of grammaticized evidentiality across languages as described, for example, in Willett 1988). In other words, we speak about **what we see** (hear, feel, etc.) or about **what we just know**. In the first case,

the source of information about the verbal referent is definite because the observer may be identified. In the second case, no such immediate identification is possible, so the source of information about the event is indefinite. The grammatical meaning of aspect is thus defined as "indication to the source of information about the event" which can be definite (based on observation), or indefinite (based on speaker's knowledge).

This set of conceptual coordinates helps simplify the process of tense-aspect acquisition by learners of English as a foreign language by providing a common-sensical three-step procedure for choosing a correct form in any discourse situation (Figure 2).

Step One. The speaker must decide whether what he is going to say refers to his present, past, or future, thereby establishing the frame of temporal reference. It is important to remember here that in making such a decision the speaker **should not** be guided by the grammatical form of the verb he would use in his native language, as it might be misleading. Instead, he should make recourse to the cognitive concepts of PRESENT, PAST, and FUTURE as they have been specified above.

Step Two. The speaker needs to answer the question, "Is what I am going to say (the information I am going to communicate) based on somebody's observation, or is the source of my information unspecified?" In the latter case, a positive answer results in the choice of the Indefinite Aspect Tense (that is, Simple), and that is all there is to it. In the former case, a positive answer leads to a choice of one of the Definite Aspect Tenses (Progressive or Perfect), and thus one more step is necessary.

Step Three. The question the speaker needs to ask is, "What is it that I (he, them, etc.) observe, exactly? Is it the process itself unfolding before the observer's eyes, or is it only some sign(s) telling the observer that this process must have taken place?" Correspondingly, in the first case one would use the progressive verb, and in the other case, the perfect.

But what about the Perfect Progressive? Nothing much, really. It's Perfect and Progressive combined, both conceptually and structurally: in a prototypical situation, the Perfect Progressive will be used when conditions for the use of Perfect and Progressive obtain at the same time. Thus, talking with a friend at a library, I may point at someone we both know and say:

(16) Just look at him! He's been sitting at that table for a good 5 hours!

I use the Present Perfect Progressive here because

(a) the situation I describe is part of my present ("before the senses"),

(b) my statement is based on what I observe ("*Look at him!*"),

(c) the process I describe is part of the observed situation (participates in it), and

(d) I compare what I observe ("have") now with what I observed ("had") some time before.

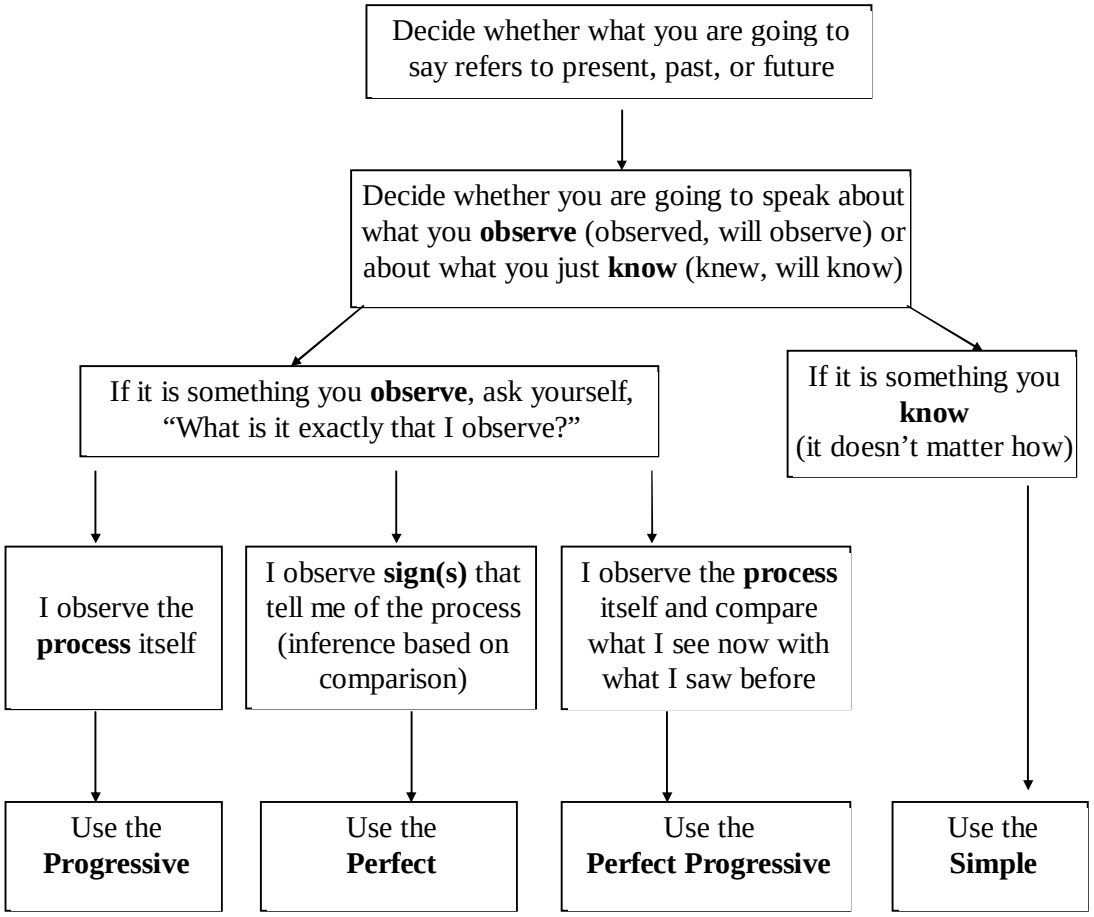

Figure 2. Decision tree for choosing a tense

This simple procedure, once its conceptual justification has been explained to, and understood by EFL students, allows to dramatically improve the process of grammar acquisition, ridding it of semantically vague interpretations and based on them "exceptions" of different kinds. Moreover, the cognitive difference between the Infinitive and the Present Participle provides a sound and comprehensible explanation of the difference in meaning

and function in case of Complex Object constructions (*I saw him dance* vs. *I saw him dancing*), relating the difference between the two structures to different modes of knowledge representation (Kravchenko 1999).

The outlined approach to tense and aspect in English has been successfully used in teaching English to speakers of Russian at Irkutsk Linguistics University for over 7 years now (cf. Kravchenko 1997). As accumulated experience shows, it takes about one to two months for the average student to understand the "works" of the

entire tense-aspect system, that is, the meaning and function of all the tenses — the rest is a matter of practice.

A cognitive account of tense and aspect presents an effective alternative to the traditional semantic account, giving deeper insights into the cognitive nature of grammar and enhancing the process of its acquisition.

Abbreviations

Sg	Singular
PF	Perfective
IMP	Imperfective
GEN	Genitive
PRES	Present

REFERENCES

Benveniste, E. (1974). Общая лингвистика. Москва: Прогресс [*General Linguistics*].

Brown, R. O. (1973). *A First Language: The Early Stages*. Cambridge, MA: Harvard UP.

Goldsmith, J., Woisetschlaeger, E. (1982). "The logic of the English Progressive". *Linguistic Inquiry* ***13:1***.

Dahl, Ö. (1985). *Tense and aspect systems*. Oxford: Basil Blackwell.

Кравченко А. В. К когнитивной теории времени и вида (1990). *Филологические науки* ***6***. [“Toward a cognitive theory of tense and aspect”. ***Philological Studies 6***].

Кравченко А. В. (1992). *Вопросы теории указательности: Эгоцентричность. Дейктичность. Индексальность*. Изд-во Иркутского университета [***Issues in the theory of indication: Egocentricity. Deixis. Indexicality***. Irkutsk University Press].

Кравченко А. В. (1993). К проблеме наблюдателя как системообразующего фактора в языке. *Известия Российской академии наук. Серия литературы и языка* ***52:3***.[“On the problem of observer as a systemic factor in language”. ***Newsletter of the Russian Academy of Sciences. Literature and Language Series 52:3***].

Кравченко А. В. (1995). Глагольный вид и картина мира. *Известия Российской академии наук. Серия литературы и языка* ***54:1*** [“Verbal aspect and the world view”. ***Newsletter of the Russian Academy of Sciences. Literature and Language Series 54:1***].

Кравченко А. В. (1996a). Когнитивные структуры пространства и времени в естественном языке. *Известия Российской академии наук. Серия литературы и языка* ***55:3*** [“Cognitive structures for space and time in natural language”.

Newsletter of the Russian Academy of Sciences. Literature and Language Series 55:3].

Кравченко А. В. (1996b). *Язык и восприятие: Когнитивные аспекты языковой категоризации*. Изд-во Иркутского университета [***Language and perception: Cognitive aspects of linguistic categorization.*** Irkutsk University Press].

Kravchenko, A. V. (Ed.) (1997). ***The English Verb: A New Grammar for Everyone***. Irkutsk: Linguistics University Press.

Кравченко А. В. (1999). Инфинитив и причастие в сложном дополнении (или что дает когнитивная теория). ***Studia Linguistica*** **8,** 131-138. С.-Петербург. [“The infinitive and the participle in complex object constructions (or of what use is the cognitive theory)”. ***Studia Linguistica*** **8**. St.-Petersburg].

Kravchenko, A. V. (2002). “Toward a bio-cognitive philosophy of language”. *Perspectives: Journal for Interdisciplinary Work in the Humanities, 1-5, 2002* (http://www.brookes.ac.uk/schools/ humanities/research/perspectives).

Skeat, W.W. (1956). *An Etymological Dictionary of the English Language.* Oxford.

Willett, T. (1988) “A cross-linguistic survey of the grammaticization of evidentiality”. *Studies in Language **12:1***.