Croft, William. 2012. *Verbs. Aspect and Causal Structure.* Oxford: Oxford U Press.

4

“what dimensions of event structure are grammatically relevant? There are two major current contenders: **aspectual structure** and **causal structure**.”

[BF mine -- LAJ]

Aspectual structure: “how events unfold over time”

Causal structure: = force-dynamic structure -- causal interactions between participants in events

Analysis of event structure is a central concern for formal (truth conditions in the world), generative (conceptual structure), and cognitive linguistics (conceptual structure not separated from syntax).

11

Semantic frames

13

The question of construal

“A conceptualization or construal is simply a semantic structure for an experience.”

14

figure-ground asymmetry, as in *The rose window is above the entrance* vs. *The entrance is below the rose window.*

a. There are multiple alternative construals of an experience available

b. A speaker has to choose one construal or another; they are mutually exclusive

c. No construal is the “best” or “right” one out of context.

17

“Morphologically, the examples of construal given above fall into two types. The first, represented by *above* vs. *below* and *leaves* vs. *foliage*, represents lexicalized construal: distinct forms are associated with distinct conceptual semantic construals of a situation. The second, represented by the use of the single word *dog* in two different constructions, is an example of what has been called coercion or conversion: the same form (e.g. *dog*) is used in two different contexts (...) with the intended alternative construal required by the context. Coercion/conversion is a common phenomenon in English: English words are quite flexible grammatically. We will observe this phenomenon frequently in both aspectual and force-dynamic alternations of predicates in English.”

Derivational construal is also possible, as in Russian *soloma* vs. *solominka*

18

“The scope of construal and constraints on construal can be described in three general principles”:

1) construal serves the interlocutor’s goals in the discourse

2) the nature of reality limits construal, or at least favors some construals over others

3) construals associated with a lexical item are also limited by cultural conventions of the speech community: some construals and not others are grammatically conventionalized

28

Language form and language function

29

“Construal is at the service of the goals of the discourse, but those goals compete with certain preferences in verbalization that are dictated by the nature of reality, and they are limited by the conventions of the speech community. The analytical task in this approach is to figure out which properties of the nature of reality and of human goals in discourse are those that shape grammar”

“The conventional resolution of competing functional motivations means that the mapping between form and meaning is partly arbitrary.”

“...typological diversity is still vastly underestimated in most linguistic theorizing, which is far too constrained to account for it”

**[I would argue that the same is true for variation/competing forms within a language too]**

31

Chapter 2: The aspectual structure of events

Comrie's “broad definition [of aspect as different ways of viewing the internal temporal constituency of a situation] is essentially correct,... but when we turn to specific manifestations of aspect, things get more complicated.”

“Aspect is manifested both grammatically and lexically.”

Lexical aspect (Aktionsart) “is usually taken to be the inherent temporal structure of a situation: some situations such as being Polish are ‘naturally’ enduring states, while others such as a window breaking are ‘naturally’ punctual processes, and so on.”

Some approach lexical aspect as semantically the same as grammatical aspect (“unidimensional”, Sasse 2002); for others

32

they are different (“bidimensional”)

Croft is essentially unidimensional, but admits that events can be construed in various ways, even though they have an inherent bias.

“Our first task is to develop an analysis of lexical aspectual types”

33

Croft uses a two-dimensional geometric representation that “provides a general framework that covers all the attested aspectual types”

2.2 Lexical aspectual types (construals)

2.2.1 The Vendler classification and its problems

Vendler restated Aristotle’s distinctions of state vs. activity vs. achievement vs. accomplishment

34

Croft will use capitalized terms to refer to language-specific grammatical categories

Event is used “as the superordinate term for all lexical aspectual categories” [not just bounded processes]

“States describe situations that do not change over time... they are durative ... they are unbounded”

“Activities describe situations that involve change over time... they are dynamic events or processes, they are durative... and unbounded”

“Achievements...describe a change of state that is ... conceptualized by the speaker as instantaneous... punctual... bounded.”

“Accomplishments are processes that are bounded... they lead to a ‘natural’ endpoint”

37

Dahl (1985: 26-7) “makes several important observations. First, a predicate does not inherently belong to a single aspectual type. Instead, it has the potential to be conceptualized or construed in multiple aspectual types”

2.2.2 Alternative construals and new aspectual types

Overall, there are LOTS of exceptions to Vendler’s supposed tests for the four types...

This is due to construal.

38

*See* and *know* can be construed as both states and achievements.

*Be friendly* can be construed as both state and activity.

39

*Eat* can be construed as both activity and accomplishment.

Croft also distinguishes as fifth type, called inactive actions:

*Jim is standing at the top of the stairs; Bats were hanging from the roof of the cave; He’s holding the baby; She’s sleeping, The flowers are blooming*

[These can be construed as both state and activity]

40

Croft has a sixth type, cyclic achievements (=semelfactives) that are punctual but have no change of state:

*She coughed (once)*

[These can be construed as both activity and semelfactive]

41

Croft has another type known as runup achievement for predicates that can be used to describe the process leading up to an achievement, like

*She’s dying; He’s falling asleep; They are reaching the summit*

2.2.3 New aspectual subtypes

42

Croft also distinguishes between permanent states and transitory states, as in *be* Polish vs. be *ill*

Permanent states can be inherent or acquired and states can be of different types for different objects (*be dry* is transitory for clothes, permanent for the desert)

43

Achievements can be reversible vs. irreversible:

*The door opened/closed twice* vs. \**The mouse died twice*.

There are also point states:

*It is 5 o’clock*

44

Croft also distinguishes between directed activities vs. undirected activities.

Directed activities are expressed by predicates like *cool, sink, age*

Summary of Croft’s revisions and extensions to the Aristotle/Vendler classification:

a. Four types of states: inherent (permanent) states, acquired permanent states, transitory states, and point states (which are a type of transitory state)

b. Two types of activities: directed activities and undirected activities

c. Two types of achievements: reversible achievements and irreversible achievements

d. Accomplishments

e. Cyclic achievements (semelfactives)

f. Runup achievements (not punctual, not incremental)

45

2.3 A two-dimensional geometric analysis of aspectual types/construals

2.3.1 Symbolic and phasal analyses of aspectual types

Many scholars propose various types of feature or decompositional analysis of aspectual types using primitives.

47

But this leads to problems.

These primitives cannot capture all of the aspectual types.

We also need a ways to analyze the primitives.

“If possible, a theory that allows for the analysis of aspectual primitives as well as capturing the composite nature of some aspectual types would be desirable.”

“A first step in this direction is the introduction of temporal phases to the analysis of aspect.” cf. Binnick 1991

[From here C. launches into a discussion of various phasal approaches to aspect...]

52

“A fourth type of phasal analysis is offered by Timberlake (1985)...he argues that events must be described in terms of their ‘histories’...T also describes events as a function from time intervals to situations and suggests that qualitative changes in state form a second dimension after that of time... These important insights, not developed further by Timberlake...form the basis of the analysis presented in the rest of this chapter.”

53

2.3.2 A Two-dimensional phasal analysis of aspectual types

“lexical aspect describes how events are constructed as unfolding over time”

Time is one dimension.

“The second dimension for representing lexical aspect is therefore the set of qualitative states of the unfolding event.”

“The x axis is the time dimension (t), and the y axis is the qualitative state dimension (q).”

54

“The sequence of phases ...represents the aspectual contour of the event.”

55

The two construals of English *see* (state vs. transition) can be represented as different profiles of the aspectual contour of the verb.

“The profiled phase of an event’s aspectual contour is the phase asserted to hold in the world at a particular point in time”

57

“In this analysis, inceptive states such as English *know* and *see* do not represent a distinct aspectual type... Instead, English *know* and *see* have the aspectual potential of two alternative construals... By separating the aspectual potential of specific language predicates from the aspectual type represented by each alternative construal of a predicate, we significantly reduce the number of ‘lexical aspects’ that have to be accounted for.”

2.4 A general framework for aspectual types

2.4.1 Motivating the typology of aspectual types/construals

C. shows diagrams for 4 types of states: Transitory *the door is open*, Acquired Permanent *the window is shattered*, Inherent Permanent *She is French*, Point *The sun is at its zenith*

60

C. shows three kinds of achievements: Reversible Directed *The door opened*, Irreversible Directed *The window shattered*, Cyclic (semelfactive)  *The mouse squeaked* (= Undirected Achievement)

61

C. shows two kinds of activities: Directed Activities *The soup cooled*, Undirected (Cyclic) Activities *The girls chanted*.

62

C. shows two kinds of accomplishments: (Incremental) Accomplishments *I ate an apple pancake*, Runup Achievements (Nonincremental Accomplishments) *Harry repaired the computer*.

Accomplishments are temporally bounded and have ‘natural endpoints’.

63

“Whether an accomplishment is incremental or nonincremental (or for that matter, whether an activity is directed or undirected) is subject to construal depending on context.”

66

2.4.2 The two-dimensional model and interval semantics

69

“The structure of the event on the q dimension essentially takes the unitary qualitative description of an event in a proposition and analyzes it into component states and scales that allow us to capture many of the semantic distinctions among aspectual types.”

2.5 Conclusion

“We present a two-dimensional geometric representation, with a time dimension and a qualitative state dimension, which is rich enough to represent all and only the aspectual types that have been observed.”

70

Chapter 3: Change, boundedness, and construal

3.1 Boundedness and change

3.1.1 Directed changes, incremental themes, and scales

[Discussion of count vs. mass interpretations of nouns and verbs]

77

3.1.2 Event boundaries and the imperfective paradox

There are two notions of boundedness (Sasse):

one associated with natural endpoints (accomplishments & achievements; Natural & Specialized Perfectives)

one associated with simple termination (complex acts)

78

Russian *Ja pisal pis’mo* is an example of the imperfective paradox since it refers to an event with a natural endpoint, but that endpoint is not necessarily reached.

82

Croft solves this paradox by distinguishing between q-boundedness (where the boundary is the reaching of the final state) and t-boundedness (where there is simply a temporal boundary).

83

3.2 Construal and aspectual potential

“predicates have meanings that allow them to be interpreted as belonging to different aspectual types, depending on the grammatical and/or discourse context in which they are embedded”

84

“most predicates have at least two or three construals”

“What is the contribution of the predicate semantics to the aspectual type of a sentence in a particular context? What are the allowable relationships among the alternative aspectual construals of a single predicate?”

3.2.1 The contribution of predicate semantics to aspectual types

Polysemy analysis: each verb “has multiple senses corresponding to each of its available aspectual construals”

This analysis “implies that all the alternative construals of a predicate are conventionalized”, something that Croft finds unlikely.

Derivation analysis: “each predicate has a basic aspectual type, and other aspectual construals are made available by derivational processes”

Coercion is a type of derivation caused by grammatical or constructional context.

86

“Coercion is a process that can override a clash of values in a shared feature by forcing a change in the value of the feature of one of the linguistic elements so that the two feature values match.”

87

Vagueness analysis: a predicate has no aspectual type, “its meaning is vague across the aspectual types available in its aspectual potential, and its aspectual type is determined by the grammatical context in which it occurs.”

Croft discusses problems with all three types of analysis, some are caused by the fact that linguistic forms are often semantically underdetermined.

91

“A usage-based, encyclopedic semantic model of predicates and their meanings provides an account of the contribution of predicate meaning to the aspectual type of a sentence that avoids the problems of the polysemy, derivational, and vagueness accounts.”

Frequency is a factor.

“The usage-based model also allows for some predicates to have a default aspectual construal, or at least a preferred aspectual construal, as a result of asymmetries in the frequency of use of one aspectual construal over another.”

92

“in a usage-based model, the conventionalization of an aspectual construal, and the existence of a basic (default) aspectual construal, is an empirical question whose answer varies depending on usage patterns, rather than being an a priori assumption about lexical semantic representation.”

3.2.2 Mechanisms of aspectual construal

“Croft and Cruse classify construal operations under four major headings, all of which have a cognitive psychological basis: attention, comparison, perspective, and Gestalt.”

93

“One common construal operation of attention is selection...or metonymy...”

“Aspectual selection/metonymy is found with those predicates that allow either a directed achievement construal or a transitory (resulting) state construal”:

Transitory state: *I remember how to do this*

Directed achievement: *I remembered the answer*

Different phases are profiled in these two.

“A construal operation of the Gestalt type that plays an important role in both the countability of objects and aspect in events” is structural schematization.

94

“The same phenomenon is found with the cyclic achievement and undirected activity construals of cyclic action predicates such as *flash*, as Talmy himself observes (Talmy 1985: 77)”

Cyclic achievement: *The light flashed*

Iterated cyclic achievement: *The light flashed four times*

Undirected activity: *The light flashed for five minutes.*

Motivation for construals comes from experience with reality.

95

Scalar adjustment is another kind of construal important for various kinds of aspectual differences:

96

Fine-grained: activity: *He's being polite*

Coarse-grained: Inherent state: *He is polite*

97

Fine-grained: activity: *She is hiking through the woods*

Coarse-grained: Inherent state: *She hikes every weekend*

Fine-grained: incremental accomplishment: *The bridge is collapsing*

Coarse-grained: directed achievement: *The bridge collapsed at 9:15am*

98

Fine-grained: nonincremental accomplishment: *He's dying*

Coarse-grained: directed achievement: *He died*

Fine-grained: inherent state: *She resembles her mother*

Coarse-grained: directed activity: *She is resembling her mother more and more every year*

Fine-grained: transitory state: *Bill is lying on the bed*

Coarse-grained: inherent state: *The forest lies to the east*

101

3.2.3 Aspectual construal in English adverbial and auxiliary verb constructions

110

3.3 Some observations on aspect in Russian

Croft claims that his model works for Russian and will demonstrate this with determinate/non-det verbs and then perfective/imperfective.

3.3.1 Determinate and Indeterminate verbs of motion

112

Indeterminate motion verbs refer to fine-grained and coarse-grained action, yielding movement in no direction (coarse) and also movement to and fro and repeated movement to and fro via good continuation links between movement in the two directions.

113

This also works for the habitual meaning.

115

3.3.2 Remarks on the Russian Perfective/Imperfective distinction

121

“Across the Russian lexicon, we find a distribution of verb forms, paired and unpaired, across Imperfectve and Perfective that fit their semantics (temporally bounded vs. unbounded). Unpaired Perfectives denote events that are default achievements, while unpaired Imperfectives denote events that are default states or activities (particularly inactive actions, which are state-like if not stative). Of the paired Perfectives, we find Perfective achievements

122

construed iteratively in the Imperfective (Forsyth’s second group), Perfective nonincremental accomplishments construed as the undirected runup activity in the Imperfective (the third group), Imperfective activities that are construed as accomplishments in the Perfective (the fourth group, first subgroup), and Imperfective mental states/inactive actions that are construed as the inceptive achievement in the Perfective (the fourth group, second subgroup). We also observed that the addition of a result state in the q dimension may lead to a semantic shift that leads to the formation of a Specialized Perfective. In addition, Perfective Semelfactive verbs are construed iteratively in their Imperfective base forms, although Forsyth does not consider them to form aspectual pairs.”

Croft says that all of these construals are the same ones available in English.

124

“It appears that in general in Russian, repeated and habitual events are construed as unbounded, undirected activities via a coarse-grained construal and good continuation linking together the individual events, as with the habitual Indeterminate motion verb..”

125

“It appears that one can analyze the Russian Perfective/Imperfective distinction as basically one of temporal boundedness/unboundedness. The range of variation in the Russian Perfective and Imperfective has partly to do with the differing aspectual potential of different semantic classes of predicates, and partly to do with conventionalized construals of certain real-world event types...”

3.4 Conclusion

127

Chapter 4: The interaction of grammatical and lexical semantics: quantitative and qualitative analyses

4.1 Introduction

Grammatical aspect categories can be polysemous and can differ from language to language (we saw this in Chapter 3).

“A further complicating factor with grammatical aspect is its interaction with lexical aspect.”

This chapter will present Croft & Poole’s MDS analysis of Dahl’s data.

128

4.2 A multidimensional scaling analysis of Dahl’s crosslinguistic tense-aspect data

4.2.1 Multidimensional scaling as an extension of the semantic map model in typology

132

4.2.2 Reanalyzing Dahl’s tense-aspect data

137

“The codes [for tense-aspect prototypes] cluster extraordinarily well from a semantic point of view”

4.2.3 The temporal dimension

“The most striking result is the clear separation of two dimensions in the spatial model of tense and aspect, one corresponding to tense and the other to aspect.”

“The traditional semantic and grammatical division between tense (deictic time reference) and aspect (how events unfold over time) is empirically valid, despite the fact that some languages combine tense and aspectual semantics in a single grammatical marker or construction.”

138

“The situation types distributed in the future end of the temporal dimension clearly indicate that the future’s modal meaning, denoting unrealized events, is conceptually as important for linguistic expression as its future time reference”

139

4.2.4 The aspectual dimension

“The grammatical aspect dimension is also mapped as a single dimension, perpendicular to the temporal dimension, in the spatial model.”

The nonfuture situations fall into three clusters: present imperfective, past imperfective (Imperfect), and perfective/perfect (Aorist). This follows Comrie’s and Dahl’s suggestion that there is a primary distinction of aspect between Perfective and Imperfective and then a secondary distinction between Present and Imperfect.

140

“dynamic predicates are father toward the imperfective end of the aspectual dimension than stative predicates”

*more imperfective*

dynamic situations

habitual and stative situations

performatives and simultaneous report

continuing/persistent perfect

*more aspectually neutral*

142

“Dahl reports that this linguistic prototype categories Perfect and Perfective are quite clearly distinguished... One might expect that there would be a sharp separation of perfect and perfective situations in the spatial model; but there is not. This may be due to the gradual semantic change involved in the aforementioned well-trodden grammaticalization path from Perfect to Perfective...”

143

*more past*

immediate past perfectives, perfect of recent past

experiential perfect

result/stative perfect

*more present*

“The grammaticalization path is resultative > perfect of result > experiential perfect > perfect of recent past > perfective”

4.2.5 Grammatical and lexical aspect in Dahl’s data

144

Croft gives a big table of lexical types and how they line up on a continuum from “more perfective” (cough, meet, open, die, kill, build, paint, break, buy, enter, feel beat, write...) to “more imperfective” (be cold, be big, think, sit, hope, doubt, know, write, read, drink, eat, play)

Note that several items (like write) appear at multiple places along the scale due to the fact that they have various construals.

“Atelic (q-unbounded) predicates may occur either in the imperfective, in which case they are also temporally unbounded, or in the perfective, in which case they are temporally bounded (the predicate holds for a period of time and then terminates...). The perfective situations in the database are overwhelmingly achievements, which do not occur in the imperfective (except for the iterative construal of the cyclic achievement cough). The durative atelic situation types in the perfective (transitory state and undirected activity) mostly appear in the middle of the perfective end of the aspectual dimension;

145

but four cough situations, including the one semelfactive (cyclic achievement) situation, occur toward the perfective end of the dimension.”

“On the imperfective side, as noted above, activities are more toward the imperfective end than states. However...”

tentative ranking for imperfective < perfective:

activities ?< states << durative t-bounded situations ?< achievements

4.3 The basic tense-aspect constructions of English

165

4.4 A multidimensional scaling analysis of lexical aspectual potential and grammatical aspect

Croft summarizes his analysis of TA constructions in English.

They are Present, Progressive, and Past constructions.

There is a total of 15 different aspectual construals across these three English constructions (table 4.4).

44 verbs were analyzed and they fall into 27 distinct classes according to their aspectual potential across the three constructions

Croft now compares this with Japanese Present, *te-iru*, and Past and then does an MDS analysis

166

“The resulting matrix mapped forty-four predicates across thirty-two constructions in the two languages.”

167

This yields a set of clusters (they are arranged as a circle, so that all are contiguous and the first one is also contiguous to the last one):

transitory states: *be ill, be president*

directed achievements: *split, die*

directed activities: *cover, shrink*

undirected activities: *dance, run*

cyclic achievements: *scratch, wave*

inactive actions: *touch, stand*

169

“the spatial model of English-Japanese lexical aspect suggests a novel solution to the problem of the semantic interpretation of grammatical aspect.”

“The proposed solution is that the perfective/imperfective distinction in grammatical aspect corresponds to an opposition of aspectual construals characteristic of ... regions on the lexical aspect circle, which are approximately opposite each other in the circle.”

Punctual events (achievements) are closest to the perfective end of the aspectual dimension.

“However, the perfective and anterior are in fact closely associated with stative predicates. ... the anterior is analyzed as representing a past event with current relevance.”

170

“The anterior is closely related to resultatives...which are stative.”

“in the process of grammaticalization, grammatical forms in this family of meanings move back and forth between an achievement construal and a (resulting) state construal. This close relationship between achievement and state is puzzling from the perspective of perfectivity as completion or boundedness: states are unbounded. But the achievement-state ambivalence is exactly what we observed for semantic classes...”

Croft shows that this results from profiling of different phases of what he calls a directed aspectual contour, which consists of a directed achievement and a transitory/result state.

“The second family of grammatical tense-aspect categories include imperfective, progressive, present, and habituals.”

“Progressives grammaticalize into presents and imperfectives.”

171

“This family of constructions is therefore associated with iteration of actions and also with typical inactive actions.”

These “situations can be captured by the ... undirected aspectual contour”, which consists of an iterative, habitual, undirected activity that contains a chain of cyclic achievements.

[**HAH! Directed vs. undirected is thus the basic distinction. This looks exactly like completable vs. noncompletable suggested in Janda 2007!**]

4.5 Conclusion

“Our conclusion is that the perfective/imperfective grammatical opposition represents two families of closely related aspectual construals that are characteristic of opposite sides of the lexical aspect circle... The opposing construals are

172

grounded not in a single binary feature opposition, but on opposing aspectual contours, the directed contour for perfective and the undirected contour for imperfective. This analysis accounts for the membership of the two families of related grammatical tense-aspect categories and the association of certain lexical aspectual types or construals with the grammatical aspectual categories. The analysis also explains why no single simple semantic opposition captures the perfective-imperfective distinction. The semantics of the opposition is based on a contrast between two complex, multiple phase aspectual contours. The wide range of event types in the real world is susceptible to construal in one or the other of these aspectual contours to differing degrees.”

[The rest of the book is more about argument structure and causation, not so much about aspect.]