

Chapter 8

Bare Aspect: A Theory of Syntactic Projection

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8.1 The Component Projection Model

We present a theory of structure projection that identifies the properties of verbs that determine syntactic structure; the result is a simplified aspectual classification. This revised classification unifies different types of change events and, together with the projection model in which it is formulated, accounts for a variety of linguistic phenomena, both syntactic and interpretive. As one small example, the model explains transitivity possibilities, such as those illustrated by *cut* in (1).

- (1) a. Jane cut the bread.
b. *This bread cut.
c. This bread cuts easily.

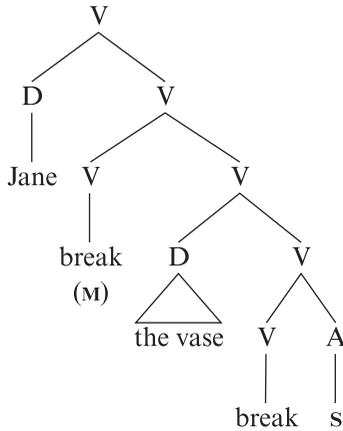
In this model of component projection, syntactic structure is projected from a limited inventory of lexical semantic components, the meaning components of verbs. It is a combination of these meaning components and the projected structures that determines thematic and aspectual interpretation.

We propose a minimal lexical entry for the meaning of verbs, consisting solely of their meaning components. Such components identify the abstract meaning that derives a verb's interpretation in all contexts. We analyze these meaning components as bound semantic morphemes, themselves derived from a limited inventory. For instance, the meaning of a verb such as *cut* is composed of a manner of cutting (with a sharp instrument) and a resulting (cut) state. In (2), we show the inventory of meaning components that can make up a verb's lexical entry.

(2) *Verbal meaning components*

- M** = manner/means/instrument
S = state
L = location

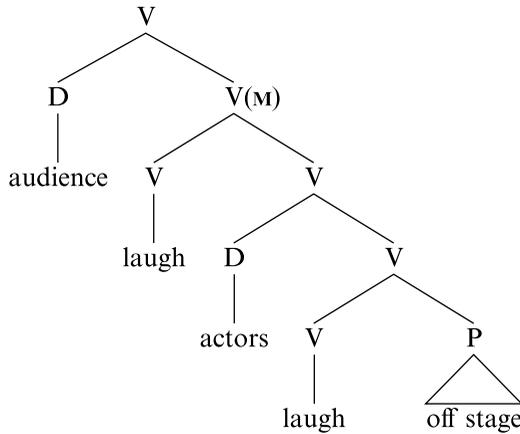
c. *Cause + change of state*
(*accomplishment*)



Merge and projection are free, in accordance with principles of minimalism and bare phrase structure. Chomsky (2000) suggests that an item of a lexical array not be removed when accessed in computation, thus allowing the projection of multiple copies of a lexical item. As shown in (4c), we adopt this suggestion: *break* projects twice (the two copies forming a chain), the upper copy merging the change-of-state structure. This yields the complex structure that underlies the transitive *Jane broke the vase*. (We are abstracting away from the complete structures that include sentential functional categories like tense and agreement.)

Transitivity thus follows from the number of meaning components. If a verb has two meaning components, as with *break* (“forceful” means and “broken” state), it can, by itself, be transitive. Alternatively, transitivity can result when a one-component verb merges another lexical item, the new one providing the second, projecting component. Consider, for example, the verb *laugh*. *Laugh* has one component (M) and can project the intransitive activity structure, as shown in (4a). But when the same verb merges a prepositional phrase, the complex accomplishment structure, exemplified in (5a), results; this yields a transitive sentence like (5b).¹

(5) a.



b. The audience laughed the actors off the stage.

In this way, our model derives the same structures as does that of Hale and Keyser (1991, 1993, 1995; henceforth, H&K), but by different means. Whereas our structures are freely derived by component projection, H&K's structures are associated with a verb in its lexical representation.

It is worth emphasizing that verbs can freely merge any complement type. The strong constraints on the types of structures follow, adapting H&K's proposal, from the limited inventory of meaning components and our requirement that they be interpreted. And we find a corresponding limit on the aspectual interpretations of these structures.

8.2 Interpretation

8.2.1 The Interpretation of Structures

Following H&K (and adopting, roughly, the Vendler 1967–Dowty 1979 classification), each projected structure has a particular aspectual interpretation, according to the category of its predicate. V-N represents the production of an instance and, as shown in (3), is interpreted as an activity. V-A represents the production of a state and is interpreted as a change-of-state achievement. V-P represents the production of a change of location and so is also interpreted as a change achievement. And V-V represents the production of an event, yielding a causative, or accomplishment, interpretation.

As in H&K's theory, each predicate type imposes a particular interpretation on its merged subject (although, contra H&K, every verb-complement structure in our theory is a predicate).² The V-N activity predicate imposes an agentive, actor interpretation on its subject. The subject of the V-A and V-P achievement predicates is interpreted as an (affected) theme, that is, the element that measures out the change

in state or location described by the A or P.³ And the V-V cause predicate's subject is interpreted as an initiator/causer.

Such interpretations, or θ -roles as they have been called, are by no means primitives of this theory. As in H&K's model, the information that these roles supposedly contain is derived structurally. We also derive, from a combination of a verb's meaning components and their projected structure, all the information necessary for interpretation: our model has no aspectual functional categories or empty light verbs, in contrast with other structural approaches. Our model therefore has in common with lexicon-based models (e.g., Levin and Rappaport Hovav 1995) that interpretation is driven by lexical meaning components. What is unique to our model is that these meaning components project structure. And it is these same components that determine transitivity possibilities.

As shown above, transitivity can result if two meaning components are available. An intransitive results if only one meaning component is. An intransitive use of a two-component verb is also possible, as exemplified in (4b), when one component does not project. The possibility of such nonprojecting components is constrained by the principle of Full Interpretation.

8.2.2 The Interpretation of Components

We assume a comprehensive version of the principle of Full Interpretation (FI) (e.g., Chomsky 1986) in which the interpretation of a lexical item requires the interpretation of all its meaning components.

(6) *Full Interpretation (FI)*⁴

The interpretation of a lexical head v requires the interpretation of each meaning component of v .

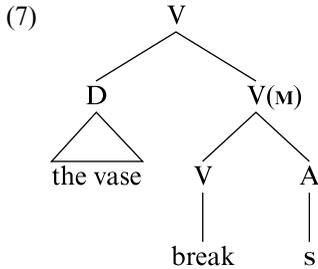
As we will show, it is this requirement that gives our model much of its explanatory power.

In the simplest case, a verb and its component project a predicate, as shown in (3) and (4). The projected component satisfies FI via the interpretation of this predicate: the S and L components, when they project as the complement of their verb, are interpreted as the particular state or location of the predicate's change-of-state/location interpretation. When M projects, it is interpreted as the particular manner of activity of the predicate's activity interpretation. In this way, syntactic structure directly reflects the meaning of verbs.

But components do not always project structure, as is the case with *break*'s M, the means 'with force' in (4b) and (4c). FI nevertheless requires that they be interpreted. Such nonprojecting components are interpreted as predicate modifiers—in these cases, of their predicate's event type: *break*'s M is interpreted as modifying the V-A change event in (4b) and the V-V cause event in (4c), yielding the interpretations that

the respective events happen with force. All components, then, whether projecting or not, are interpreted, meeting FI.

A clear illustration of the constraints imposed by FI is given by the inchoative construction. The inchoative is one of the interpretations of the change structure of (4b), repeated in (7).



This structure represents sentences like those in (8).

- (8) a. The vase broke.
 b. The plastic melted.
 c. The juice froze.

The interpretation of (8a) is ‘The vase went to a broken state (with force/forcefully)’. Such modification is possible, and FI is satisfied, when **M** is a means (e.g., force (*break*), heat (*melt*), and cold (*freeze*)).

However, as is well known, not all verbs can be inchoative, as the sentences of (9) demonstrate.

- (9) a. *Rye bread cut.
 b. *This wood sawed.
 c. *The lawn mowed.

We attribute the unacceptability of such sentences to the inability of the **M** components of these particular verbs to modify the change event. The **M** of these verbs is an instrument, and instrument manners cannot be interpreted as modifying a change event. This is because instruments implicate a causer (the instrument’s wielder); and since the inchoative describes a referential event, this implicated causer must be referential as well. But in the sentences of (9), or in their structure (7), no such causer is supplied. **M** cannot be interpreted, FI is therefore contravened, and the sentences are consequently unacceptable.⁵ It thus follows from FI that when a verb’s **M** is an instrument, that verb cannot be an inchoative.

The possibility of the inchoative is therefore due, not to argument manipulations (as in Chierchia 1989; Pesetsky 1995; Reinhart 2000), but to event modification. Transitivity alternations in general follow both from the number of meaning com-

ponents and from the availability of an interpretation for each component in its particular structure type.

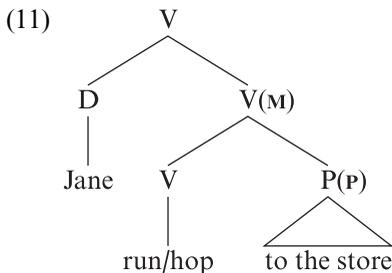
8.2.3 Structural Coercion of Interpretation

The structure type drives interpretation. This can be seen in structure (5a), for example. Here, *laugh*'s **M**, interpreted as modifying the cause event, is irrelevant to the change-of-location interpretation of the lower V-P predicate. As in the cases of verbal component projection (e.g., (7), *The vase broke*), the interpretation is structurally derived, owing to the content of the predicate (e.g., the V-A of *break* and the V-P of *off the stage*).

Structure type not only drives interpretation, it coerces it. This can be seen in sentences with manner-of-motion verbs.

- (10) a. Jane ran to the store.
 b. Jane hopped to the store.
 c. Jane rolled down the hill.

We analyze the verbs *run*, *hop*, and *roll* as consisting of manner-of-progression along a path (**MP**). As illustrated by the sentences of (10), each verb can merge a prepositional phrase, resulting in the change achievement structure shown in (11).⁶

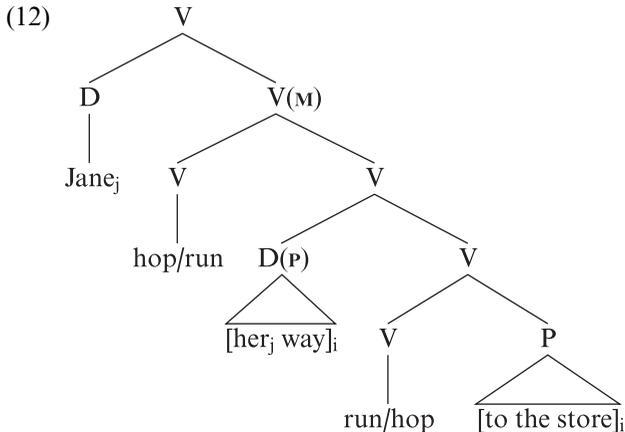


The V-P structure is necessarily interpreted as a change of location. With structure (11), (10a) can mean only ‘Jane got to the store’. The manner of Jane’s getting there, that is, by a running activity, has been argued to be subordinate to this basic interpretation. For example, Levin and Rapoport (1988) and Levin and Rappaport Hovav (1995) have argued that (10a) means ‘Jane got to the store by running’. In fact, we claim, this is not the interpretation of (10a); more than simple subordination of the running activity is involved.

Run's **MP** is ‘rapid manner of progression along a path’.⁷ In (11), **M**'s enforced interpretation as a modifier of the change structure (in which no agent is present) means that an agentive manner of producing a rapid path (yielding the action of ‘running’ for *run*) or a brief path (yielding the action of ‘hopping’ for *hop*) is impossible. All that we get with the modifier interpretations of **M** in this structure are

‘rapidly’ and ‘briefly’ for *run* and *hop*, respectively, yielding the sentence interpretations ‘Jane got to the store rapidly’ and ‘Jane got to the store briefly’, in which the subject *Jane* is the theme of the change. These quasi-idiomatic interpretations are a necessary result of the projection and interpretation of the change achievement structure. (Whether such a quasi-idiomatic interpretation is possible depends on the particular *m. Walk*’s *m*, for instance (‘stepping’, which implicates an agent), does not allow this interpretation.)

We thus can explain the thematic ambiguity noted (e.g., by Jackendoff (1990, 127–128)) for sentences like (10c): the subject can be interpreted either as an agent or as a theme. In the former case, Jane is deliberately rolling her way down the hill; in the latter, Jane is moving down the hill in a rolling manner (if someone has pushed her, for example). As shown above, the nonagentive interpretation under our analysis results from the projection of the change structure (11). The agentive interpretation results from the projection of the accomplishment structure, as shown in (12).



This sentence is interpreted as ‘Jane made her way, with a running/hopping (= rapid/brief) motion, to the store’. (This is an approximation of the analysis in Erteschik-Shir and Rapoport, in preparation, which is influenced by Goldberg’s (1997) and Marantz’s (1992) analysis of the *one’s way* construction.) Jane is interpreted as an agent of the running/hopping action via identification with the path, the nonovert *her way*. This path in turn is identified with its overt goal *to the store* because they are in the same verb projection.

8.3 Aspectual Classification

The analysis of motion verbs, relying on component projection and the interpretation of the resulting structures, leads us in turn to a revised aspectual classification. This

classification differs in significant ways from that in Vendler 1967 and Dowty 1979. In those models, eventive predicates are divided into three classes: nontelic activities, telic accomplishments, and achievements. Achievements, according to Vendler, have no duration but rather “occur at a single moment.” But Dowty extends this class to include verbs of change of state, such as *cool* and *sink*, that are not instantaneous in this way, as shown in (13) (using the *for*-adverbial as a diagnostic of duration).

- (13) a. The soup cooled for ten minutes.
 b. The ship sank for an hour.

Dowty claims (p. 90) that a sentence like (13a) should be analyzed as saying that

for each time *t* within an interval of ten minutes’ duration, there is some resolution of the vagueness of the predicate *cool* by which *the soup is cool* is true at *t* but not true at *t* – 1. Conditions on the acceptable resolutions of the predicate *cool* will in effect require that a different, higher threshold of coolness . . . be chosen for each successive time in the interval. . .

We adopt this view of a series of successive changes: each increment of a change is itself a change of state. And we therefore assume Dowty’s classification of change-of-state verbs like *cool*, *sink*, *melt*, and *freeze* as achievements. Achievements may describe not only a single, final change of state, but also the increments of that change. This means that achievements can be telic or atelic.⁸ This is shown in (14), in the compatibility of the same achievement sentences with both the perfective *in*- and the durative *for*-adverbials.

- (14) The sauce cooled/froze/melted in/for ten minutes.

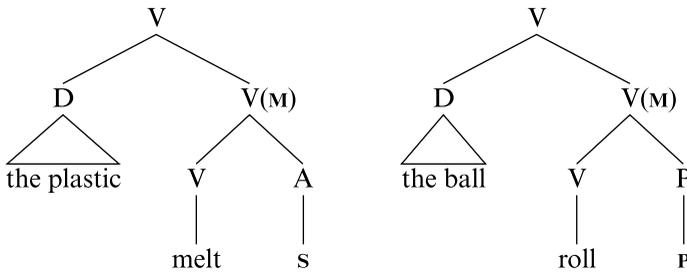
Since an accomplishment includes an achievement, we extend the analysis of incremental change to this class. Telicity, then, is no more a necessary condition on the causative accomplishment than it is on the achievement contained within it.⁹ This predicts the two adverbial possibilities in (15).

- (15) Jane cooled/froze/melted the sauce in/for ten minutes.

In sum, then, the same verb, the same sentence, and even the same aspectual class can be telic or atelic.

Incremental change extended. Given this, we take the natural step of further extending Dowty’s analysis of incremental changes of state as achievements and accomplishments to incremental changes of location (progression along a path). Thus, as already demonstrated by (11), **MP** verbs like *roll* can project the change achievement structure just as *melt* can, resulting in the unified analysis of change predicates shown in (16).

(16)



With **MP** verbs, the incremental changes are changes of location along an implicit path, rather than changes of state.¹⁰ (16b), then, is simply another case of an atelic achievement. Its V-P structure is identical to that projected by the analytic *laugh off the stage* of (5b) and *roll down the hill* of (10c), both of which are telic achievements (given the specification of the endpoint of a path). All three of these structures yield the progression-along-a-path interpretation.¹¹

The “natural” extension that allows our unified change analysis is not made by either Vendler or Dowty. Sentences like *The ball rolled* or *Jane rolled down the hill* are not achievements according to Vendler (1967, 102), for whom achievement verbs are “predicated only for single moments in time.” And Dowty classifies *The ball rolled* as an activity, thus being forced to posit two activity types, agentive and non-agentive. In our framework, such an analysis is impossible, since the subject of the V-N activity predicate is necessarily agentive. Classification as an achievement is therefore the only option, one allowed by the projection of the **P** part of the **MP** component of such verbs, and one that allows us to account for *hop/run* and *roll down the hill*’s ambiguity.

Taking our analysis one step further forces a reanalysis of even some classic examples, such as the activity ‘push a cart’.

- (17) a. Jane pushed a cart.
 b. Jane pushed a cart to the wall.

(17a) has been analyzed (e.g., Vendler 1967; Dowty 1979; Tenny 1987) as an activity and (17b), with the addition of the goal prepositional phrase, as an accomplishment. Under our analysis, both of these sentences are accomplishments: in both, a succession of changes of location is measured out by the movement of the cart along some (implicit) path. It is the noun *cart* that, in combination with the verb *push*, describes a path and so allows this interpretation. *Push* itself does not necessarily describe a change of location. Consider (18).

- (18) Jane pushed a boy.

In (18), *a boy* cannot be understood as necessarily undergoing a change of state or location. *Push* here is simply a contact verb and (18) is interpreted as an activity.

Evidence for classifying the two predicates *push a cart* and *push a boy* differently is found in their different behavior in the middle construction. The middle construction is generally limited to accomplishment predicates (Fagan 1992; Erteschik-Shir and Rapoport 1997). Given our proposed classification, we expect that *push a cart*, describing a change, will allow the middle and that *push a boy*, involving no change, will not. And we indeed find this contrast, as shown in (19) (from Erteschik-Shir and Rapoport 1997).

- (19) a. Small carts sure push easily.
 b. *Small boys sure push easily.
 (cf. Small boys sure push down easily.)

We differ, then, from Dowty's (1991, 568) definition of an incremental theme as an object "entailed to undergo a definite change of state." Dowty notes that the verb *push* by itself implies only an indefinite change of position (and is atelic) and so its object, even when it changes location, does not meet the criterion for an incremental theme. Under our analysis, in contrast, incrementality is derived from the elements projecting the structure: the accomplishment structure must include the interpretation of a change of state/location and so it forces that interpretation where possible; with a cart, which naturally allows an incremental progression, it is possible.¹²

Our model thus imposes a revised, and simplified, aspectual classification, in which the relevant factors are change and causation.¹³

8.4 Aspectual Focus

In this section, we show that whether a structure is telic or atelic, and even whether it is stative or eventive, may be due, not to the use of a particular type of verb, but to a shift in aspectual focus.

Aspectual focus (termed "AS focus" in Erteschik-Shir and Rapoport 1997) contributes to structure interpretation: it is the foregrounding, or emphasis, of a particular part of a structure, with the consequent backgrounding, or de-emphasis, of any other parts of that structure.¹⁴ (Such aspectual focus is not the same as sentential focus, as expressed intonationally (see Erteschik-Shir 1997), although the two types of focus are related (see Erteschik-Shir and Rapoport 2000a).)

In principle, aspectual focus is freely assigned within a structure. In simple structures, focus possibilities are necessarily limited: in an activity structure, only the manner of the activity can be focused; in change achievements, only the change to the endpoint (or the endpoint itself) can be. (This is shown in (10a), *Jane ran to the store*, in which Jane's getting to the store is what is focused and not her manner of getting there.) The complex accomplishment structure, in contrast, allows focus on either of its two parts: the upper cause or the lower change.

The same time-adverbials used as diagnostics for atelic and telic change can be used, as argued in Erteschik-Shir and Rapoport 2000a and Rapoport 1999, to illustrate the accomplishment's two aspectual focus possibilities.

- (20) a. Jane painted a picture for an hour and then just sketched it in.
 b. Jane rolled the barrel to the store for five minutes and then kicked it the rest of the way.
- (21) a. Jane painted a picture in an hour.
 b. Jane rolled the barrel to the store in five minutes.

In (20), aspectual focus is on the upper, cause part of the structure; this is emphasized by the contrasted activity of the continuation of each sentence. Aspectual focus on the causing action is compatible with the *for*-adverbial, which modifies its duration. In (21), aspectual focus is on the lower part of the structure, on the change to the end result, the painted picture and the barrel's reaching the store; so the perfective *in*-adverbial is compatible.

8.4.1 Initiation

Aspectual focus assignment can also result in singling out the initial state for modification. This is possible in accomplishments because their structure contains the causer/initiator subject, which, adapting van Voorst 1988 and Ritter and Rosen 1998, identifies the beginning, or the initial state, of an event. This means that in accomplishments, the initial state of the participants in the event is available for modification. This can be demonstrated by depictive predication. Depictives modify an argument of a verb at the time of the action denoted by that verb; this modification can be restricted to the initiation of that action, as shown in (22).

- (22) Jane boiled [the lobster]_i alive_i.

The depictive *alive* modifies the theme *the lobster* at the beginning of the action only: a lobster that is alive at the beginning of a boiling event does not, normally, remain so throughout. Compare this accomplishment with the change achievement of (23).

- (23) *The lobster boiled alive.

In our model, change achievements represent only the change of state of a theme: as opposed to accomplishments, they have no initiator to bring the initial state into the picture. The initial state is not available for modification and (23) is unacceptable.

In this way, the structures themselves, together with aspectual focus, constrain modification possibilities. Aspectual focus in (22) must be on the part of the structure that includes the initiation, that is, the upper part, in order to be compatible with the depictive. Since aspectual focus cannot be simultaneously on both the upper and

lower structural parts, we expect that focus cannot also be on the endpoint in a depictive sentence like (22). The conflicting foci are shown in the incompatibility of the depictive and perfective modifiers in the sentences of (24).

- (24) a. *Jane boiled [the lobster]_i alive_i in three minutes.
 b. *Jane wrote all of her books drunk in ten years.

Two modifiers cannot co-occur when compatible with contrasting focus assignments. However, the simultaneous presence of the durative adverb and the depictive predicate *is* allowed, as the sentences of (25) indicate.

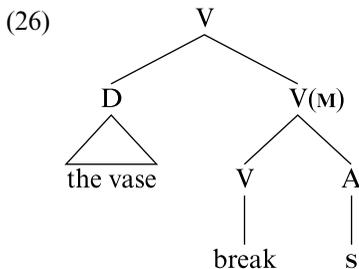
- (25) a. Jane boiled [the lobster]_i alive_i for the first seconds, and after that . . .
 b. Jane wrote all of her books drunk for ten years and then wrote the rest sober.

Both modifiers are compatible with upper aspectual focus assignment, and so the two can co-occur.

8.4.2 The Middle Construction

Aspectual focus plays a larger role in interpretation than that of restricting modification. Aspectual focus is also vital in constraining certain construction types. We illustrate this with the inchoative and middle constructions and the contrast between them.

We have shown that the inchoative has the change achievement structure, repeated in (26), and that such a structure can have the inchoative interpretation, for example, ‘The vase went to a broken state (forcefully)’.



The sentences of (9), repeated in (27), show that certain verbs cannot be intransitive.

- (27) a. *Rye bread cut.
 b. *This wood sawed.
 c. *The lawn mowed.

However, the ban on intransitivity for these verbs is not absolute, as the well-formed middles of (28) show.

- (28) a. Rye bread never cuts.
 b. This kind of wood saws easily.
 c. Urban lawns mow with difficulty.

In fact, we claim, the sentences of both (27) and (28), both the inchoatives and the middles, are based on the same structure, the V-A change-of-state structure in (26). The difference between them is simply a difference in aspectual focus. Focus on the V-A predicate in (26) is focus on the change of state and yields an eventive interpretation: the inchoative; focus on the A is focus on the state and yields a stative interpretation: the middle. The middle structure includes the aspectually defocused change event, so although it is a stative construction, the middle still includes an event description. But whereas the inchoative describes a particular, referential event, the middle, in contrast, does not describe an actual occurring event, but a set of potential events that the subject has the capacity to undergo.¹⁵ The sentences of (28) thus describe a characteristic property of their subjects with respect to this set of potential events: the interpretation of the middle of (28b), for example, is roughly ‘This kind of wood has the capacity to go to a sawed state easily’.

As argued above, the causer implicated by a modifying instrument manner (M_I) must be referential in a particular change event; it is because no such causer is present that inchoatives with M_I verbs are unacceptable. But since the middle involves not an actual, referential event but a set of potential events, the modifying M_I does not implicate a particular causer; rather, it implicates a generic one. The resulting interpretation is ‘This kind of wood has the capacity to go to a sawed state (with a sawing instrument) easily (for anyone who might apply a saw to it)’. Just as (non-subject) arguments under generic quantification can be suppressed, so can this generic causer.¹⁶ It follows that the requirement of an overt causer that rules out M_I inchoatives does not apply in the middle and so middles with M_I verbs are fine.

Whether the inchoative or the middle construction is licensed for $M-S$ verbs is thus due to the interpretability of the M component. When M is a means, both inchoatives and middles are fully interpreted; when M is an instrument, only the middle is. This difference is due to the difference in interpretation that follows from the different aspectual focus assignments.¹⁷

8.5 Conclusion

Our model allows an explanation of verbal syntactic behavior and verbal interpretation that requires no multiple lexical entries or lexical operations, no functional light verbs or aspectual categories, and no rules that add or delete arguments. This strictly minimalist approach relies on current theories of projection together with an analysis of meaning components, which are necessary in any case for interpretation.

We have addressed two basic questions: what are the properties of verbs that determine syntactic structure? and what are the properties of verbs that determine thematic and aspectual interpretation? Our model's meaning components give the same answer to both.

Notes

We gratefully acknowledge our debt to the work of Ken Hale and Jay Keyser, our original inspiration.

1. See Rappaport Hovav and Levin 1999 for a discussion of these and other resultative types, and the constraints on the different event structures associated with them.
2. The view that a subject receives its interpretation from the predicate is found often in the literature (e.g., Chomsky 1981; Marantz 1984). In the cases we discuss here, the verb-complement constituting the predicate is not the verb and surface object, but the V-A, V-P, V-N, and V-V projected by the verb and its components.
3. Unlike Tenny (1987), we do not require affected themes to delimit.
4. This is one of the two clauses of FI in Erteschik-Shir and Rapoport, in preparation. The second clause is this:
 - (i) The interpretation of each merged *v* requires the interpretation of a distinct meaning component.
5. The presence of an overt causer, as in **This wood sawed by Jane* or **The bread cut with a knife*, does not solve the problem because the passive *by*-phrase is not licensed in the former and the instrumental phrase is not licensed in the latter. (See Erteschik-Shir and Rapoport, in preparation.)
6. The overt prepositional phrase is identified with the verb's **P** component via modification. See Erteschik-Shir and Rapoport, in preparation, for details.
7. See Ritter and Rosen 1996 for a discussion of just how accurate, and necessarily flexible, this definition of *run*'s **MP** is.
8. See Levin 2000 for a view in which the telicity/atelicity distinction is also irrelevant to classification.
9. See Rothstein, in preparation, for a complex-event structure analysis of atelic as well as telic accomplishments.
10. But see Erteschik-Shir and Rapoport, in preparation, in which *melt*'s change of state is also analyzed as a series of incremental changes along a path.
11. In this, our model of component projection differs significantly from many structural approaches (e.g., Ritter and Rosen 2000), in which achievements and accomplishments are defined as terminally bound.
12. Dowty (1979) defines indefinite change of state in terms of interval semantics. Our classification therefore does not conform with his definitions of accomplishments and achievements.

In Verkuyl 1993, atelic transitive verbs like *push* are analyzed differently than telic transitives, because of Verkuyl's structural treatment of the opposition between terminative and durative aspect.

13. See Levin 2000 and Rappaport Hovav and Levin 1999, for the view that the simple/complex event distinction, rather than aspectual notions, is what determines argument realization.

14. Aspectual focus is structural foregrounding and is therefore to be distinguished completely from the foregrounding involved in Croft's (e.g., 1998) profiling of an event by a particular verb, from Goldberg's (1995) profiling of a verb's semantic role or a construction's argument role, and from Smith's (1997) "lexical focus" whereby superlexical morphemes focus on parts of situations.

15. This description is an abstraction from a detailed analysis in terms of focus structure in Erteschik-Shir 1997 and in Erteschik-Shir and Rapoport, in preparation.

16. The suppression in generics is illustrated in the following contrasts:

(i) a. Jane draws (pictures).

b. Jane has drawn *(pictures).

(ii) a. In this progressive nursery, children punch a lot.

b. In this progressive nursery, the children punched *(each other) a lot.

17. For a detailed analysis of the properties of the two construction types, see Erteschik-Shir and Rapoport, in preparation.

References

- Chierchia, Gennaro. 1989. A semantics for unaccusatives and its syntactic consequences. Manuscript, Cornell University.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin, and use*. New York: Praeger.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays in minimalist syntax in honor of Howard Lasnik*, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 89–155. Cambridge, Mass.: MIT Press.
- Croft, William. 1998. Event structure in argument linking. In *The projection of arguments: Lexical and compositional factors*, ed. by Miriam Butt and Wilhelm Geuder, 21–63. Stanford, Calif.: CSLI Publications.
- Dowty, David R. 1979. *Word meaning and Montague Grammar*. Dordrecht: Reidel.
- Dowty, David R. 1991. Thematic proto-roles and argument selection. *Language* 67, 547–619.
- Erteschik-Shir, Nomi. 1997. *The dynamics of focus structure*. Cambridge: Cambridge University Press.
- Erteschik-Shir, Nomi, and Tova Rapoport. 1997. A theory of verbal projection. In *Interfaces in linguistic theory*, ed. by Gabriela Matos, Matilde Miguel, Ines Duarte, and Isabel Faria, 129–148. Lisbon: Edicones Colibri/APL.
- Erteschik-Shir, Nomi, and Tova Rapoport. 2000a. Aspectual focus. Paper presented at The Focus Workshop, GLOW, Bilbao.
- Erteschik-Shir, Nomi, and Tova Rapoport. 2000b. From lexical-aspectual components to syntax. Paper presented at the International Natural Language Generation Conference, Mitzpe Ramon, Israel.

- Erteschik-Shir, Nomi, and Tova Rapoport. In preparation. The atoms of meaning: Interpreting verb projections. Manuscript, Ben Gurion University.
- Fagan, Sarah M. B. 1992. *The syntax and semantics of middle constructions*. Cambridge: Cambridge University Press.
- Goldberg, Adele. 1995. *Constructions: A Construction Grammar approach to argument structure*. Chicago: University of Chicago Press.
- Goldberg, Adele. 1997. Making one's way through the data. In *Complex predicates*, ed. by Peter Sells, 151–174. Stanford, Calif.: CSLI Publications.
- Hale, Kenneth, and Samuel Jay Keyser. 1991. On the syntax of argument structure. Lexicon Project Working Paper 34. Cambridge, Mass.: MIT, Center for Cognitive Science.
- Hale, Kenneth, and Samuel Jay Keyser. 1993. On argument structure and the lexical expression of syntactic relations. In *The view from Building 20: Essays in linguistics in honor of Sylvain Bromberger*, ed. by Kenneth Hale and Samuel Jay Keyser, 53–109. Cambridge, Mass.: MIT Press.
- Hale, Kenneth, and Samuel Jay Keyser. 1995. The limits of argument structure. Manuscript, MIT.
- Jackendoff, Ray. 1990. *Semantic structures*. Cambridge, Mass.: MIT Press.
- Levin, Beth. 2000. Aspect, lexical semantic representation, and argument expression. In *BLS 26: General Session and Parasession on Aspect*, ed. by Lisa J. Conathan, Jeff Good, Darya Kavitskaya, Alyssa B. Wulf, and Alan C. L. Yu, 413–429. Berkeley: University of California at Berkeley, Berkeley Linguistics Society.
- Levin, Beth, and Tova Rapoport. 1988. Lexical subordination. In *CLS 24*, vol. 1, ed. by Lynn MacLeod, Gary Larson, and Diane Brentari, 275–289. Chicago: University of Chicago, Chicago Linguistic Society.
- Levin, Beth, and Malka Rappaport Hovav. 1995. *Unaccusativity: At the syntax–lexical semantics interface*. Cambridge, Mass.: MIT Press.
- Marantz, Alec. 1984. *On the nature of grammatical relations*. Cambridge, Mass.: MIT Press.
- Marantz, Alec. 1992. The way-construction and the semantics of direct arguments in English: A reply to Jackendoff. In *Syntax and the lexicon*, ed. by Eric Wehrli, 179–188. San Diego, Calif.: Academic Press.
- Pesetsky, David. 1995. *Zero syntax: Experiencers and cascades*. Cambridge, Mass.: MIT Press.
- Rapoport, Tova. 1999. Structure, aspect, and the predicate. *Language* 75, 653–677.
- Rappaport Hovav, Malka, and Beth Levin. 1999. A reevaluation of the direct object restriction on English resultatives. Manuscript, Bar-Ilan University and Stanford University.
- Reinhart, Tanya. 2000. The theta system: Syntactic realization of verbal concepts. Utrecht: Utrecht University, Utrecht Institute of Linguistics OTS.
- Ritter, Elizabeth, and Sara Thomas Rosen. 1996. Strong and weak predicates: Reducing the lexical burden. *Linguistic Analysis* 26, 29–62.
- Ritter, Elizabeth, and Sara Thomas Rosen. 1998. Delimiting events in syntax. In *The projection of arguments: Lexical and compositional factors*, ed. by Miriam Butt and Wilhelm Geuder, 135–164. Stanford, Calif.: CSLI Publications.

- Ritter, Elizabeth, and Sara Thomas Rosen. 2000. Event structure and ergativity. In *Events as grammatical objects*, ed. by James Pustejovsky and Carol Tenny, 187–238. Stanford, Calif.: CSLI Publications.
- Rothstein, Susan. In preparation. Incrementality, telicity and the measuring of events. Manuscript, Bar-Ilan University.
- Smith, Carlota S. 1997. *The parameter of aspect*. Dordrecht: Kluwer.
- Tenny, Carol. 1987. Grammaticalizing aspect and affectedness. Doctoral dissertation, MIT.
- Vendler, Zeno. 1967. *Linguistics in philosophy*. Ithaca, N.Y.: Cornell University Press.
- Verkuyl, Henk J. 1993. *A theory of aspectuality: The interaction between temporal and atemporal structure*. Cambridge: Cambridge University Press.
- Voorst, Jan van. 1988. *Event structure*. Amsterdam: John Benjamins.