7. The lexical-constructional debate

In lexical (or lexicalist) approaches:

- Words are phonological forms paired with valence structures (also called predicate argument structures).

- *Lexical rules* grammatically encode the systematic relations between cognate forms and diathesis alternations.

- The syntactic combinatorial rules are usually assumed to be very general and few in number.

- Predicate argument structure is an autonomous, reified grammatical representation.

In phrasal (or constructional) approaches:

- Lexical rules are avoided.

- different morphological cognates and diathesis alternants are captured by plugging a single word (or root) into different phrasal constructions.

- The construction carries a meaning that combines with the word’s meaning.

- In some versions the constructions are phrasal structures, while in others, they are non-phrasal grammatical constructs called *argument structure constructions* that resemble the lexicalist’s predicate argument structure, minus the specific verb or other predicator.

- A phrasal construction or argument structure construction is ‘grounded’ in actual sentences.

- Some of the phrasal approaches would replace standard phrase structure rules or syntactic valence frames with meaningful constructions.

- Sometimes affiliated with *usage-based* theories of human language that deny the existence, or downplay the importance, of ‘meaningless’ algebraic syntactic rules such as phrase structure rules defined purely on syntactic categories like V and NP.

**SLIDES: Day1-Part1-LFG-intro-slides.pdf**
7.1. The pendulum of lexical and phrasal approaches

7.1.1. GPSG as construction grammar


7.1.2. Coercion

Coercion is claimed to show the usefulness of phrasal constructions.

(1) und ihr ... träumt ihnen ein Tor.
and you.PL dream them.DAT a.ACC gate
‘and you dream a gate for them’ (from Anatol Stefanowitsch)

The word träumen ‘dream’ is normally intransitive, but in the fantasy context of this quote it is forced into the ditransitive construction and therefore gets a certain meaning. This forcing of a verb corresponds to overwriting the properties of the verb by the phrasal construction.

Coercion is a very general pragmatic process, occurring in many contexts where no construction seems to be responsible (Nunberg 1995). Nunberg (1995, 115) cites many cases of reference transfer, such as the restaurant waiter asking

(2) Who is the ham sandwich?

Count-mass coercion can occur without any syntactic context: one can answer the question What’s that stuff on the road? or What are you eating? or What are you wearing? with the one-word utterance Rabbit.

7.2. Abstract light verbs

7.2.1. Neo-davidsonianism

There are radical proposals that the construction adds all agent arguments, or even all arguments.

The notion that the agent argument should be severed from its verbs is put forth by Marantz (1984; 1997), Kratzer (1996), Embick (2004) and others. Others suggest that no arguments are selected by the verb. Borer (2003) calls such proposals exoskeletal since the structure of the clause is not determined by the predicate, that is, the verb does not project an inner ‘skeleton’ of the clause. Counter to such proposals are endoskeletal approaches, in which the structure of the clause is determined by the predicate, that is, lexical proposals. The radical exoskeletal proposals are mainly proposed in Mainstream Generative Grammar (Borer 1994; Borer 2003; Borer 2005a; Schein 1993; Hale and Keyser 1993; Lohndal 2012) but can also be found in HPSG (Haugereid 2009).
• Davidson (1967) argued for an event variable in the logical form of action sentences. The verb selects an event variable along with arguments corresponding to the participants, as in (3a).

• Dowty (1989) coined the term neo-Davidsonian for the variant in (3b), in which the verb translates to a property of events, and the subject and complement dependents are translated as arguments of secondary predicates such as agent and theme.

• Kratzer (1996) further noted the possibility of mixed accounts such as (3c), in which the agent (subject) argument is severed from the kill relation, but the theme (object) remains an argument of the kill relation.

\[
\begin{align*}
(3) & \quad a. \text{kill: } \lambda y \lambda x \exists e [\text{kill}(e, x, y)] \quad \text{(Davidsonian)} \\
& \quad b. \text{kill: } \lambda y \lambda x \exists e [\text{kill}(e) \land \text{agent}(e, x) \land \text{theme}(e, y)] \quad \text{(neo-Davidsonian)} \\
& \quad c. \text{kill: } \lambda y \lambda x \exists e [\text{kill}(e, y) \land \text{agent}(e, x)] \quad \text{(mixed)}
\end{align*}
\]

Kratzer (1996) observed that a distinction between Davidsonian, neo-Davidsonian and mixed models can be made either ‘in the syntax’ or ‘in the conceptual structure’ (Kratzer 1996, 110–111). For example, on a lexicalist approach any of the three alternatives in (3) could be posited as the semantic content of the verb kill. A lexical entry for kill on the mixed model appears in (4).

\[
\begin{align*}
(4) & \quad [\text{PHON} \{ \text{kill} \}] \\
& \quad [\text{ARG-ST} \{ \text{NP}_x, \text{NP}_y \}] \\
& \quad [\text{CONTENT} \text{kill}(e, y) \land \text{agent}(e, x)]
\end{align*}
\]

In other words, the lexical approach is neutral on this question of the ‘conceptual structure’ of eventualities.

But Kratzer (1996), among others, has gone further and argued for an account that is neo-Davidsonian (or rather, mixed) ‘in the syntax’. Kratzer’s claim is that the verb specifies only the internal argument(s), as in (5a) or (5b), while the agent (external argument) role is assigned by the phrasal structure. On the ‘neoDavidsonian in the syntax’ view, the lexical representation of the verb has no arguments at all, except the event variable, as shown in (5c).

\[
\begin{align*}
(5) & \quad a. \text{kill: } \lambda y \lambda e [\text{kill}(e, y)] \quad \text{(agent is severed)} \\
& \quad b. \text{kill: } \lambda y \lambda e [\text{kill}(e) \land \text{theme}(e, y)] \quad \text{(agent is severed)} \\
& \quad c. \text{kill: } \lambda e [\text{kill}(e)] \quad \text{(all arguments severed)}
\end{align*}
\]

On such accounts, the remaining dependents of the verb receive their semantic roles from silent secondary predicates, which are usually assumed to occupy the positions of functional heads in the phrase structure. A standard term for the agent-assigning silent predicate is ‘little v’. These extra-lexical dependents are the analogues of the ones contributed by the constructions in Construction Grammar.

Note that the existential quantifier that was binding the event variable in (3) has been replaced by a lambda operator in (5). This is crucial for Kratzer’s account since it allows that event variable to be unified with the event variable contributed by little v.
This unifying of event variables is needed in order to account for the clear intuition that if Mary killed a houseplant, then the event that Mary is the agent of is the same event as the killing event.

The following subsections address arguments that have been put forth in favor of the ‘little v’ hypothesis, from idiom asymmetries (Section 7.2.2) and deverbal nominals (Section 7.2.3).

7.2.2. Little v and idiom asymmetries

Marantz (1984) and Kratzer (1996) argued for severing the agent from the argument structure as in (5a), on the basis of putative idiom asymmetries. Marantz (1984) observed that while English has many idioms and specialized meanings for verbs in which the internal argument is the fixed part of the idiom and the external argument is free, the reverse situation is considerably rarer. To put it differently, the nature of the role played by the subject argument often depends on the filler of the object position, but not vice versa. To take Kratzer’s examples:

(6) a. kill a cockroach
    b. kill a conversation
    c. kill an evening watching TV
    d. kill a bottle (i.e. empty it)
    e. kill an audience (i.e., wow them)
   (Kratzer 1996, 114)

On the other hand, one does not often find special meanings of a verb associated with the choice of subject, leaving the object position open (although this is only a tendency; see below):

(7) a. Harry killed NP.
    b. Everyone is always killing NP.
    c. The drunk refused to kill NP.
    d. Silence certainly can kill NP.
   (Marantz 1984, 26)

Kratzer observes that a mixed representation of kill as in (5a) allows us to specify varying meanings that depend upon its sole NP argument.

(8) a. kill:  \lambda y \lambda e[\text{kill}(e, y)]
    b. If a is a time interval, then \text{kill}(e, a) = \text{truth} if e is an event of wasting a
       If a is animate, then \text{kill}(e, a) = \text{truth} if e is an event in which a dies
    ...etc.

On the polyadic (Davidsonian) theory, the meaning could similarly be made to depend upon the filler of the agent role. On the polyadic view, ‘there is no technical obstacle’ (Kratzer 1996, 116) to conditions like those in (8b), except reversed, so that it is the filler of the agent role instead of the theme role that affects the meaning. But, she writes, this
could not be done if the agent is not an argument of the verb. According to Kratzer, the agent-severed representation (such as (5a)) disallows similar constraints on the meaning that depend upon the agent, thereby capturing the idiom asymmetry.

But as noted by Wechsler (2005a) (and independently by Amy Rose Deal), ‘there is no technical obstacle’ to specifying agent-dependent meanings even if the Agent has been severed from the verb as Kratzer proposes. It is true that there is no variable for the agent in (5a). But there is an event variable \( e \), and the language user must be able to identify the agent of \( e \) in order to interpret the sentence. This is why the event variable cannot be existentially bound, as discussed in the previous section. So one could replace the variable \( a \) with ‘the agent of \( e \’) in the expressions in (8b), and thereby create verbs that violate the idiom asymmetry.

While this may seem to be a narrow technical or even pedantic point, it is nonetheless crucial. For Kratzer’s argument to go through, it requires an additional assumption: that modulations in the meaning of a polysemous verb can only depend upon arguments of the relation denoted by that verb, and not on other participants in the event. But under that additional assumption, it makes no difference whether the agent is severed from the lexical entry or not. For example, consider the following (mixed) neo-Davidsonian representation of the semantic content in the lexical entry of \( \text{kill} \):

\[
\text{kill} : \lambda y \lambda x \exists e [\text{kill}(e, y) \land \text{agent}(e, x)]
\]

Assuming that modulations in the sense of the verb \( \text{kill} \) can only be affected by arguments of the \( \text{kill} \) relation, we derive the idiom asymmetry. In the lexical entry for \( \text{kill} \) in (9), \( y \) is an argument of \( \text{kill} \) but \( x \) is not.

Moreover, recasting Kratzer’s account in lexicalist terms allows for verbs to vary. This is an important advantage, because the putative asymmetry is only a tendency. Following are examples in which the subject is a fixed part of the idiom and there are open slots for non-subjects:

\[
\text{(10)} \quad \begin{align*}
\text{a.} & \quad \text{A little bird told } X \text{ that } S. \\
& \quad \text{‘X heard the rumor that } S\text{’ (Nunberg, Sag, and Wasow 1994, 526)} \\
\text{b.} & \quad \text{The cat’s got } x\text{’s tongue.} \\
& \quad \text{‘X cannot speak.’ (Bresnan 1982a, 349–350)} \\
\text{c.} & \quad \text{What’s eating } x? \\
& \quad \text{‘Why is } X \text{ so galled?’ (Bresnan 1982a, 349–350)}
\end{align*}
\]

Further data and discussion of subject idioms in English and German can be found in Müller (2007b, Section 3.2.1).

The tendency towards a subject-object asymmetry plausibly has an independent explanation. Nunberg, Sag, and Wasow (1994) argue that the subject-object asymmetry is a side-effect of an animacy asymmetry. The open positions of idioms tend to be animate while the fixed positions tend to be inanimate. Nunberg, Sag, and Wasow derive these animacy generalizations from the figurative and proverbial nature of the metaphorical transfers that give rise to idioms. Whatever the explanation for this asymmetry tendency, a lexicalist grammar can encode that tendency, perhaps with a mixed neo-Davidsonian lexical decomposition, as explained above (see Wechsler (2005a).
for such a lexical account of the verbs *buy* and *sell*. But the ‘little v’ hypothesis rigidly predicts this asymmetry for all agentive verbs, and that prediction is not borne out.

### 7.2.3. Deverbal nominals

**See slides at WCCFL-handout-6up.pdf**

An influential argument against lexical argument structure involves English deverbal nominals and the causative alternation. It originates from a mention in Chomsky (1970), and is developed in detail by Marantz (1997); see also Pesetsky (1995) and Harley and Noyer (2000).

The empirical basis of the argument is rather murky at best, and the actual facts point in the opposite direction, in favor of lexical argument structure (Wechsler 2008a; 2008c).

Certain English causative alternation verbs allow optional omission of the agent argument (11), while the cognate nominal disallows expression of the agent (12):

(11) a. that John grows tomatoes
    b. that tomatoes grow

(12) a. *John’s growth of tomatoes
    b. the tomatoes’ growth, the growth of the tomatoes

In contrast, nominals derived from obligatorily transitive verbs such as *destroy* allow expression of the agent, as shown in (14a):

(13) a. that the army destroyed the city
    b. *that the city destroyed

(14) a. the army’s destruction of the city
    b. the city’s destruction

Following a suggestion by Chomsky (1970), Marantz (1997) argued on the basis of these data that the agent role is lacking from lexical entries. In verbal projections (11) and (13) the agent role is assigned in the syntax by little v. Nominal projections like (12) and (14) lack little v. Instead, pragmatics takes over to determine which agents can be expressed by the possessive phrase: the possessive can express ‘the sort of agent implied by an event with an external rather than an internal cause’ because only such an agent can ‘easily be reconstructed’ (quoted from Marantz (1997, 218)). The destruction of a city has a cause external to the city, while the growth of tomatoes is internally caused by the tomatoes themselves (C. S. Smith 1970). Marantz points out that this explanation is unavailable if the noun is derived from a verb with an argument structure specifying its agent, since the deverbal nominal would be expected to inherit the agent of a causative alternation verb.
The empirical basis for this argument is the putative mismatch between the allowability of agent arguments, across some verb-noun cognate pairs: e.g. *grow* allows the agent but *growth* does not. But it turns out that the *grow/growth* pattern is rare. Most deverbal nominals precisely parallel the cognate verb: if the verb has an agent, so does the noun. Moreover, there is a ready explanation for the exceptional cases that exhibit the *grow/growth* pattern (Wechsler 2008a).

First consider **non-alternating theme-only intransitives** (‘unaccusatives’), as in (15) and **non-alternating transitives** as in (16). The pattern is clear: if the verb is agentless, then so is the noun:

(15) *arrival, disappearance, fall*, etc.:
   a. A letter arrived.
   b. the arrival of the letter
   c. *The mailman arrived a letter.
   d. *the mailman’s arrival of the letter

(16) *destroy/destruction, construct(ion), creat(ion), assign(ment)* etc.:
   a. The army is destroying the city.
   b. the army’s destruction of the city

This parallelism favors the view that the noun inherits the lexical argument structure of the verb. For the anti-lexicalist, the unacceptability of (15c) and (15d), respectively, would have to receive independent explanations. For example, on Harley and Noyer’s (2000) proposal, (15c) is disallowed because a feature of the root ARRIVE prevents it from appearing in the context of v, while (15d) is instead ruled out because the cause of an event of arrival cannot be easily reconstructed from world knowledge. This exact duplication in two separate components of the linguistic system would have to be replicated across all non-alternating intransitive and transitive verbs, a situation that is highly implausible.

Turning to causative alternation verbs, Marantz’s argument is based on the implicit generalization that noun cognates of causative alternation verbs (typically) lack the agent argument. But apart from the one example of *grow/growth*, there do not seem to be any clear cases of this pattern. Besides *grow(th)*, Chomsky (1970 examples 7c and 8c) cited two experiencer predicates, *amuse* and *interest*:

(17) a. John amused (interested) the children with his stories.
    b. *John’s amusement (interest) of the children with his stories.

But this was later shown by Rappaport (1983) and Dowty (1989) to have an independent aspectual explanation. Deverbal experiencer nouns like *amusement* and *interest* typically denote a mental state, where the corresponding verb denotes an event in which such a mental state comes about or is caused. These result nominals lack not only the agent but all the eventive arguments of the cognate verb, because the nouns, unlike the verbs, do not refer to events. Moreover, the possessor is the experiencer of the state, not the cause (cp. *John’s amusement*). Exactly to the extent that such nouns can be construed as
representing events, expression of the agent becomes acceptable; for example, some speakers accept (17b) (with amusement) on an event reading.

(18) a. Today, the Bronx Zoo -- now run by the Wildlife Conservation Society -- is renowned as much for its aggressive approach to animal breeding and preservation as for its amusement of visitors. https://www.amazon.com/Pelican-Swallowed-My-Head-Stories/dp/0689825323

b. I think it's just comical, so I wouldn't consider myself to be over-sensitive about it and it's usually the over-sensitive that get riled by my amusement by it. http://www.soberrecovery.com/forums/alcoholism-12-step-support/44005-page-449-3rd-edition-acceptance.html

c. This led to amusement by atheists and believers alike that a statement pro or con about that which has been known through the ages as Creator, First Cause, Deity, divine Love, the laws and powers of the universe, the " Christ consciousness " of Teilhard de Chardin, the Great Shepherd, that which answered Job out of the whirlwind and guided " Arcturus with his sons " - could be adjudicated by mid-level British civil servants. (COCA)

In a response to Chomsky (1970), Carlota Smith (1972) surveyed Webster’s dictionary and found no support for Chomsky’s claim that deverbal nominals do not inherit agent arguments from causative alternation verbs. She listed many counter-examples, including ‘explode, divide, accelerate, expand, repeat, neutralize, conclude, unify, and so on at length.’ (C. S. Smith 1972, 137). Harley and Noyer (2000) also noted many so-called ‘exceptions’: explode, accumulate, separate, unify, disperse, transform, dissolve/dissolution, detach(ment), disengage-(ment), and so on. The simple fact is that these are not exceptions because there is no generalization to which they can be exceptions. These long lists of verbs represent the norm, especially for suffix-derived nominals (in -tion, -ment, etc.). Many zero-derived nominals from alternating verbs also allow the agent, such as change, release, and use:

   b. The frequent release of the prisoners by the governor.
   c. The frequent use of sharp tools by underage children.
      (examples from Borer 2003, fn. 13)

Pesetsky (1995, 79, example 231) assigns a star to the thief’s return of the money, but it is acceptable to many speakers, the Oxford English Dictionary lists a transitive sense for the noun return (definition 11a), and corpus examples like her return of the spoils are not hard to find.

Like the experiencer nouns mentioned above, many zero-derived nominals lack event readings. Some reject all the arguments of the corresponding eventive verb, not just the agent: *the freeze of the water, *the break of the window. In my judgment his drop of the ball is odd, but the drop of the ball has exactly the same degree of oddness. The
locution *a drop in temperature* matches the verbal one *The temperature dropped*, and both verbal and nominal forms disallow the agent: *The storm dropped the temperature. *the storm’s drop of/in the temperature.* In short, the cognate nouns and verbs are parallel. The facts seem to point in exactly the opposite direction from what has been assumed in this oft-repeated argument against lexical valence. Apart from the one isolated case of *grow/growth*, event-denoting deverbal nominals match their cognate verbs in their argument patterns.

Turning to *grow/growth* itself, we find a simple explanation for its unusual behavior (Wechsler 2008c). When the noun *growth* entered the English language, causative (transitive) *grow* did not exist. The OED provides these dates of the earliest attestations of *grow* and *growth*:

(20)  

<table>
<thead>
<tr>
<th>Type</th>
<th>Date</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. intransitive <em>grow</em></td>
<td>c725</td>
<td>‘be verdant’. . . ‘increase’ (intransitive)</td>
</tr>
<tr>
<td>b. the noun <em>growth</em></td>
<td>1587</td>
<td>‘increase’ (intransitive)</td>
</tr>
<tr>
<td>c. transitive <em>grow</em></td>
<td>1774</td>
<td>‘cultivate (crops)’</td>
</tr>
</tbody>
</table>

Thus *growth* entered the English language at a time when transitive *grow* did not exist. The argument structure and meaning were inherited by the noun from its source verb, and then preserved into present-day English. This makes perfect sense if, as we claim, words have predicate argument structures. Nominalization by -th suffixation is not productive in English, so *growth* is listed in the lexicon. To explain why *growth* lacks the agent we need only assume that a lexical entry’s predicate argument structure dictates whether it takes an agent argument or not. So even this one word provides evidence for lexical argument structure.

### 7.2.4. Idiosyncratic syntactic selections

As discussed in the first chapter of this book, the assumption of lexical valence structure immediately explains why the argument realization patterns are strongly correlated with the particular lexical heads selecting those arguments. It is not sufficient to have general lexical items without valency information and let the syntax and world knowledge decide about argument realizations, because not all realizational patterns are determined by the meaning. The form of the preposition of a PP complement is sometimes loosely semantically motivated but in other cases arbitrary. For example, the valence structure of the English verb *depend* captures the fact that it selects an *on*-PP to express one of its semantic arguments:

(21)  

<table>
<thead>
<tr>
<th>Type</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. John depends on Mary. <em>(counts, relies, etc.)</em></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>[PHON 〈depend〉]</td>
</tr>
<tr>
<td></td>
<td>[ARG-ST 〈NP_x, PP[on]_y〉]</td>
</tr>
<tr>
<td></td>
<td>[CONTENT 〈depend(x,y)〉]</td>
</tr>
</tbody>
</table>

Such idiosyncratic lexical selection is utterly pervasive in human language. The verb or other predicator often determines the choice between direct and oblique morphology, and for obliques, it determines the choice of adposition or oblique case. In some languages
such as Icelandic the subject case can also be selected by the verb (Zaenen, Maling, and Thráinsson 1985). Selection is language-specific. English *wait* selects *for* or *on* while German *warten* selects *auf* (‘on’), but not *für* (‘for’), with an accusative object:

(22)  
  a. I am waiting for / on my man.  
  b. Ich warte auf / *für meinen Mann.  
      I wait on / for my man.ACC

The synonyms *treffen* and *begegnen* (‘to meet’) govern different cases (examples from Pollard and Sag 1987, 126):

(23)  
  a. Er traf den Mann.  
      he.NOM met the man.ACC
  b. Er begegnete dem Mann.  
      he.NOM met the man.DAT
      ‘He met the man.’

One has to specify the case that the respective verbs require in the lexical items of the verbs. This may be simplified, for example by marking only that *begegnen* takes a dative object and treating the accusative on the object of *treffen* as the default case for objects in German (see Haider 1985; Heinz and Matiasek 1994, and; S. Müller 2001 on structural and lexical case in German). But the difference must be lexically encoded somehow.

A radical variant of the plugging approach is suggested by Haugereid (2009). Haugereid (2009, 12–13) assumes that the syntax combines a verb with an arbitrary subset of five different argument roles. Which arguments can be combined with a verb is not restricted by the lexical item of the verb. One specific problem for such views is that the meaning of an ambiguous verb sometimes depends on which of its arguments are expressed. The German verb *borgen* has the two translations ‘borrow’ and ‘lend’, corresponding to whether the subject is interpreted as the source or the recipient in the transaction (see Kunze (1991; 1993) for discussion of German verbs of change of possession). Interestingly, the dative object is obligatory only with the ‘lend’ reading:

(24)  
  a. Ich borge ihm das Eichhörnchen.  
      I lend him.DAT the squirrel
      ‘I lend the squirrel to him.’
  b. Ich borge (mir) das Eichhörnchen.  
      I borrow me.DAT the squirrel
      ‘I borrow the squirrel.’

If we omit the dative argument, we get only the ‘borrow’ reading. So the grammar must specify for specific verbs that certain arguments are necessary for a certain verb meaning or a certain perspective on an event (see S. Müller 2010, 403).

Synonyms with differing valence specifications include the minimal triplet mentioned earlier: *dine* is obligatorily intransitive (or takes an *on-PP*), *devour* is transitive, and *eat* can be used either intransitively or transitively (Dowty 1989, 89–90). Many other examples are given in Levin (1993) and Levin and Rappaport Hovav (2005).
In a phrasal constructionist approach one would have to assume phrasal patterns with the preposition or case, into which the verb is inserted. For (22b), the pattern includes a prepositional object with *auf* and an accusative NP, plus an entry for *warten* ‘wait’ specifying that it can be inserted into such a structure (see Kroch and Joshi (1985, Section 5.2) for such a proposal in the framework of TAG). There are many generalizations regarding verbs with such valence representations (see Chapter 3). If such generalizations are to be captured only with inheritance hierarchies then two inheritance hierarchies would be needed: one for lexical entries with their valency properties and another one for specific phrasal patterns that are needed for the specific constructions in which these lexical items can be used.

A final illustration of the irreducibility of valence to semantics are verbs that select for expletives and inherently reflexive verbs in German:

(25) a. weil es regnet
   because it rains
   ‘because it is raining’

b. weil (es) mir (vor der Prüfung) graut
   because EXPL me before the exam dreads
   ‘because I am terrified (before the exam)’

c. weil er es bis zum Professor bringt
   because he EXPL until to the professor brings
   ‘because he made it to professor’

d. weil es sich um den Montag handelt
   because EXPL REFL around the Monday trades
   ‘It is about Monday.’

e. weil ich mich (jetzt) erhole
   because I myself now relax
   ‘because I am relaxing’

The lexical heads need to contain information about dependents that do not fill semantic roles: expletive subjects (25a,b), expletive objects (25c), and ‘inherent’ reflexive pronouns (25d,e). Note that German allows for subjectless predicates and hence the presence of expletive subjects does not merely follow from general principles of German syntax. (In any case explanations referring to the obligatory presence of a subject would fail for expletive objects as in (25c).) For (25e) the *erholen* (‘relax’) relation is a one-place predicate and hence *erholen* is semantically compatible with the [Sbj IntrVerb] construction but instead this verb requires a semantically null reflexive object. Semantic compatibility or plausibility does not fully determine complement selection.
7.2.5. Is there an alternative to lexical valence structure?

The question for theories denying the existence of valence structure is what replaces it to explain idiosyncratic lexical selection. In her exoskeletal approach, Borer (2005a; 2005b) explicitly rejects lexical valence structures. But she posits postsyntactic interpretive rules that are difficult to distinguish from them. To explain the correlation of *depend* with an *on*-PP, she posits the following interpretive rule Borer (2005b, 29):

\[(26) \text{MEANING} \Leftrightarrow \pi_9 + ([e^{on}])\]

Borer refers to all such cases of idiosyncratic selection as ‘idioms’. In rules such as this one, ‘MEANING is whatever the relevant idiom means’ (Borer 2005b, 27). In this rule, \(\pi_9\) is the ‘phonological index’ of the verb *depend* and \(e^{on}\) ‘corresponds to an open value that must be assigned range by the f-morph *on*’ (Borer 2005b, 27), where f-morphs are function words or morphemes. Hence this rule brings together much the same information as the lexical valence structure in (21c). Borer notes that such ‘idiom’ rules could play the same role as subcategorization in other theories, including indicating the intransitivity of verbs like *arrive*, obligatory transitivity of other verbs, the obligatory locative argument of *put*, selection of sentential complements, and so on. Borer concludes that introducing them into her theory therefore ‘may represent somewhat of a concession’ to the lexicalist position (Borer 2005b, 354–5).

The question of which arguments must be realized in a sentence, and how those arguments are formally marked, cannot be reduced to semantics and world knowledge or to general facts about subjects. The consequence is that valence information must be connected to lexical items. One therefore must either assume a connection between a lexical item and a certain phrasal configuration as in Croft’s (2003) approach and in LTAG or assume a lexicalist argument structure. In a Minimalist setting the right set of features must be specified lexically to ensure the presence of the right case assigning functional heads. This is basically similar to the lexical valence structures. However, there are still differences related to the problem of coordination, to be discussed next.

7.3. Evidence for lexical approaches

7.3.1. Valence and coordination

An essential difference between the lexical and contructional approaches can be illustrated with benefactive ditransitives such as (27a).

\[(27) \begin{align*}
\text{a. Mary painted Lee a picture.} \\
\text{b. Mary painted a picture.}
\end{align*}\]

The verb *paint* is lexically a 2-argument verb, as shown by its ordinary use in (27b). The question is how the benefactive ‘intended recipient’ argument gets added in (27a). On the lexicalist approach there are different formulations of lexical rules that add an argument, and they all have in common that in the analysis of a sentence like (27a) a 3-argument valence is associated with the phonological string *paint*. For concreteness take the view of lexical rules as licensing unary branching trees. The 2-argument root
PAINT\textsuperscript{2} is inserted into the structure in (28). The lexical rule licenses a unary structure with that root as the sole daughter and a node immediately dominating it that effectively represents a 3-argument root PAINT\textsuperscript{3}. A separate rule is responsible for deriving the inflected verb, as shown in (29).

(28) Benefactive applicative as unary branching lexical rule

\[
\begin{align*}
\text{(28)} & \quad \text{Benefactive applicative as unary branching lexical rule} \\
& \quad \text{PAINT}\textsuperscript{2} \text{ is inserted into the structure in (28). The lexical rule licenses a unary structure} \\
& \quad \text{with that root as the sole daughter and a node immediately dominating it that effectively} \\
& \quad \text{represents a 3-argument root PAINT}\textsuperscript{3}. A separate rule is responsible for deriving the} \\
& \quad \text{inflected verb, as shown in (29).}
\end{align*}
\]

(29) a. PAINT\textsuperscript{2} = \[\begin{array}{l}
\text{PHON} \quad \langle \text{paint} \rangle \\
\text{ARG-ST} \quad \langle \text{NP}_x, \text{NP}_y \rangle \\
\text{CONTENT} \quad \text{paint}(x,y)
\end{array}\]

b. PAINT\textsuperscript{3} = \[\begin{array}{l}
\text{PHON} \quad \langle \text{paint} \rangle \\
\text{ARG-ST} \quad \langle \text{NP}_x, \text{NP}_z, \text{NP}_y \rangle \\
\text{CONTENT} \quad \text{paint}(x, y) \land \text{intend}(x, \text{receive}(z, y))
\end{array}\]

So on the lexicalist view a 3-argument predicate meaning ‘x painted y with the intention that z receive y’ is associated with the phonological string paint. On the constructional view there is no such predicate seeking three arguments that dominates only the verb.

Verb coordination provides evidence for the lexical account. A generalization about word coordination is that two constituents that select the same number and type of dependents can be coordinated. The result of coordination is an object that has the selectional properties of each conjunct. The German examples in (30) show that the case requirement of the involved verbs have to be observed. In (30b,c) the coordinated verbs require accusative and dative respectively and since the case requirements are incompatible with unambiguously case marked nouns both of these examples are out.

(30) a. Ich kenne und unterstütze diesen Mann.
    I know and support this man.ACC

b. *Ich kenne und helfe diesen Mann.
    I know and help this man.ACC
Interestingly, it is possible to coordinate basic ditransitive verbs with verbs that have additional arguments licensed by the lexical rule. Following are naturally-occurring English (31a) and the German (31b) examples, the latter quoted from Müller (2013b, 420):

(31)  a. She then [offered and made] me a wonderful espresso — nice.
     b. ich hab ihr jetzt diese Ladung Muffins mit den Herzchen drauf [gebacken und gegeben].

These sentences show that both verbs are 3-argument verbs at the V₀ level, since they are involved in V₀ coordination:

(32)  [v₀ [v₀ offered] and [v₀ made] ] [np me] [np a wonderful espresso]

This is expected under the lexical rule analysis but not the non-lexical constructional one. One might wonder whether the English sentences could be instances of Right Node Raising out of coordinated VPs (Bresnan 1974; Abbott 1976):

(33)  She [ offered ____ ] and [ made me ____ ] a wonderful espresso.

But this view is problematic. Under such an analysis the first verb has been used without a benefactive or recipient object, while me is interpreted as the recipient of both the offering and making. (Right node raising of two constituents is difficult.) Also Right Node Raising is not possible for the German case where the verbs follow the shared objects. Another possibility is to analyze such examples as elliptical, as proposed in the HPSG framework and applied to different sorts of coordination examples by Beavers and Sag (2004). On such an analysis, the grammatical content of the words me a wonderful espresso appears twice, but the phonological content appears only once, as shown schematically in (34a). However, some challenges for such an approach were noted already by Beavers and Sag (2004, Sections 5 and 8). Further problems for the ellipsis analysis were recently raised by Kubota and Levine (2013). For example, sentence (34b) naturally receives an interpretation where she offered me one thing and made me a different one, but that interpretation is absent from the putative unelided sentence in (34c).

(34)  a. She offered me a wonderful espresso and made me a wonderful espresso.
     b. She offered and made me two different things.
     c. ≠ ‘She offered me two different things and made me two different things.’
If the problems for the ellipsis or right node raising accounts can be solved, and if a successful account can be incorporated into construction grammar, then this could provide an alternative. Otherwise we must assume these are cases of $V^0$ coordination.

Summarizing the coordination argument: Coordinated verbs generally must have compatible valence properties. This means that in (31b), for example, *gebacken* (‘baked’) and *gegeben* (‘given’) have the same valence properties. In the lexical approach the creation verb *gebacken*, together with a lexical rule, licenses a ditransitive valence structure. So it can be coordinated with *gegeben*. In the phrasal approach however, the verb *gebacken* has two argument roles and should not be compatible with the verb *gegeben*, which has three argument roles. In the phrasal model, *gebacken* can only realize three arguments when it enters the ditransitive phrasal construction or argument structure construction. But in sentences like (31b) it is not *gebacken* alone that enters the phrasal syntax, but rather the coordinated combination of *gebacken* and *gegeben*. On that view the verbs should be incompatible as far as the semantic roles are concerned.

The $X^0$ coordination facts illustrate a more general point. The output of a lexical rule such as the one that would apply in the analysis of *gebacken* in (31b) is just a word (an $X^0$), so it has the same syntactic distribution as an underived word with the same category and valence feature. This important generalization follows from the lexical account while on the phrasal view it is at best mysterious. The point can be shown with any of the lexical rules that the anti-lexicalists are so keen to eliminate in favor of phrasal constructions. For example, the active and passive verbs can be coordinated, as long as they have the same valence properties:

\[(35) \quad \text{She [requested and was granted] two different things.}\]

The passive of the ditransitive verb *grant* retains one object, so it is effectively transitive and can be coordinated with the active transitive *request*.

Moreover, the English passive verb form, being a participle, can feed a second lexical rule deriving adjectives from verbs. All categories of English participles can be converted to adjectives (Bresnan 1982b; Bresnan 2001, Chapter 3):

\[(36) \quad \text{a. active present participles (cp. The leaf is falling): the } \textit{falling} \text{ leaf} \]
\[
\text{b. active past participles (cp. The leaf has fallen): the } \textit{fallen} \text{ leaf} \]
\[
\text{c. passive participles (cp. The toy is being broken.): the } \textit{broken} \text{ toy} \]

That the derived forms are adjectives, not verbs, is shown by a host of properties, including negative *un*- prefixation: *unbroken* means ‘not broken’, just as *unkind* means ‘not kind’, while the *un*- appearing on verbs indicates, not negation, but action reversal, as in *untie* (Bresnan 1982b, 21; Bresnan 2001, Chapter 3). Predicate adjectives preserve the subject of predication of the verb and for prenominal (attributive) adjectives the rule is simply that the role that would be assigned to the subject goes to the modified noun instead (*The toy remained (un-)broken*: *the (un-)broken toy*). Being an $A^0$, such a form can be coordinated with another $A^0$, as in the following:
In (37b), three adjectives are coordinated, one underived (old), one derived from a present participle (rotting), and one from a passive participle (broken). Such coordination is completely mundane on a lexical theory. Each A⁰ conjunct has an argument selection feature: in HPSG it would be the SPR valence feature for predicate adjectives or the MOD feature for the prenominal modifiers. But the point of the phrasal (or ASC) theory is to deny that words have such valence features.

The claim that lexical derivation of valence structure is distinct from phrasal combination is further supported with evidence from deverbal nominalization (Wechsler 2008c). To derive English nouns from verbs, -ing suffixation productively applies to all declinable verbs (the shooting of the prisoner), while morphological productivity is severely limited for various other suffixes such as -(a)tion (*the shootation of the prisoner). So forms such as destruction and distribution must be retrieved from memory while -ing nouns such as looting or growing could be (and in the case of rare verbs or neologisms, must be) derived from the verb or the root through the application of a rule of -ing suffixation (Zucchi 1993). This difference explains why ing-nominals always retain the argument structure of the cognate verb, while other forms show some variation. A famous example, discussed in Section 7.2.3 above, is the lack of the agent argument for the noun growth versus its retention by the noun growing: *John’s growth of tomatoes versus John’s growing of tomatoes (Chomsky 1970).

But what sort of rule derives the -ing nouns, a lexical rule or a phrasal one? On Marantz’s (1997) phrasal analysis, a phrasal construction (notated as vP) is responsible for assigning the agent role of -ing nouns such as growing. For him, none of the words directly selects an agent via its argument structure. The -ing forms are permitted to appear in the vP construction, which licenses the possessive agent. Non- ing nouns such as destruction and growth do not appear in vP. According to Marantz (1997), whether those non- ing nouns allow expression of the agent depends on semantic and pragmatic properties of the word: destruction involves external causation so it does allow an agent, while growth involves internal causation so it does not allow an agent.

However, a problem for Marantz’s ‘little v’ analysis is that these two types of nouns can coordinate and share dependents (example 38a is from Wechsler (2008c, Section 7)):

(38) a. With nothing left after the soldier’s [destruction and looting] of their home, they reboarded their coach and set out for the port of Calais.

b. The [cultivation, growing or distribution] of medical marijuana within the County shall at all times occur within a secure, locked, and fully enclosed structure, including a ceiling, roof or top, and shall meet the following requirements.

On the phrasal analysis, the nouns looting and growing occur in one type of syntactic environment (heading a phrase with the vP shell over it), while forms destruction, cultivation, and distribution occur in a different syntactic environment (heading a phrase
lacking the vP shell). This places contradictory demands on the structure of sentences like (38).

A last example involves an influential phrasal analysis. Hale and Keyser (1993) derived denominal verbs like to saddle through noun incorporation out of a structure akin to [PUT a saddle ON x]. Again, verbs with this putative derivation routinely coordinate and share dependents with verbs of other types:

(39) Realizing the dire results of such a capture and that he was the only one to prevent it, he quickly [saddled and mounted] his trusted horse and with a grim determination began a journey that would become legendary.

(40) Derivation of saddled (his trusted) horse (based on Hale and Keyser 1993)

As in the other X<sup>0</sup> coordination cases, under the phrasal analysis the two verbs place contradictory demands on a single phrase structure. The verb saddled occurs in the structure shown in (40), while the verb mounted is not a locatum verb so it requires a different structure.

A lexical valence structure is an abstraction or generalization over various occurrences of the verb in syntactic contexts. To be sure, one key use of that valence structure is simply to indicate what sort of phrases the verb must (or can) combine with, and the result of semantic composition; if that were the whole story then the phrasal theory would be viable. But it is not. As it turns out, this lexical valence structure, once abstracted, can alternatively be used in other ways: among other possibilities, the verb (crucially including its valence structure) can be coordinated with other verbs that have a similar valence structure; or it can serve as the input to lexical rules specifying a new word bearing a systematic relation to the input word. The coordination and lexical derivation facts follow from the lexical view, while the phrasal theory at best leaves these facts as mysterious and at worst leads to irreconcilable contradictions for the phrase structure.

7.3.2. Valence and derivational morphology
Goldberg and Jackendoff (2004) and Alsina (1996) suggest analyzing resultative constructions and/or caused motion constructions as phrasal constructions. Müller (2006) argued that this is incompatible with the assumption of Lexical Integrity, that is, that
word formation happens before syntax (Bresnan and Mchombo 1995). Let us consider a concrete example, such as (41):

\[(41)\]
\[
\begin{align*}
\text{a. } & \text{Er tanzt die Schuhe blutig / in Stücke.} \\
& \text{he dances the shoes bloody / into pieces} \\
\text{b. } & \text{die blutig / in Stücke getanzten Schuhe} \\
& \text{the bloody / into pieces danced shoes} \\
\text{c. } & \text{*die getanzten Schuhe} \\
& \text{the danced shoes}
\end{align*}
\]

The shoes are not a semantic argument of the verb *tanzt*. Nevertheless the argument that is realized as accusative NP in (41a) is the element the adjectival participle in (41b) predicates over. An adjectival participle like the one in (41b) is derived from a passive participle of a verb that governs an accusative object. On the lexical account a lexical rule gives the verb that object-governing specification. But if instead the accusative object is licensed phrasally by configurations like the one in (41a) then the formation of the participle *getanzte* becomes mysterious. In other words, it is the potential for combination with an accusative object, and not actual combination with an object, that makes the verb an appropriate base for adjective-formation. See Müller (2006, Section 5) for further examples of the interaction of resultatives and morphology.

The conclusion, which was drawn in the late 1970s and early 1980s by Dowty (1978, 412) and Bresnan (1982b, 21), is that phenomena that feed morphological processes should be treated lexically. The natural analysis in non-transformational frameworks is therefore one that assumes a lexical rule for the licensing of resultative constructions. See (Verspoor 1997; Wechsler 1997b; 2005c; 2012; Wechsler and Noh 2001; Wunderlich 1997b, 120–126; S. Müller 2002, chapter 5; Kay 2005; Simpson 1983) for lexical analyses of resultatives in some of these frameworks.

This argument is similar to the one that was discussed in connection with the GPSG representation of valence: a morphological process must be able to see the valence of the stem it applies to. This is not possible if arguments are introduced by phrasal configurations after the morphology level.

7.4. Arguments based on (the lack of) interactions with syntax

7.4.1. Introduction

An important theoretical question about the lexicon-syntax interface is whether there is true lexical decomposition, that is, sub-lexical semantic structure. The alternative is that apparent sublexical semantic structure is actually built within the syntax, by the combination of verb roots with abstract (silent) light verbs. In this section we review some key arguments in the history of that debate.

In the classic paper ‘Remarks on Nominalization’, Chomsky (1970) argued that derived nominals (such as 42c) are not syntactically related to clauses (such as 42a) via transformations. Instead Chomsky argued for the lexicalist hypothesis, according to which the verb *contract* and the noun *construction* are related within the lexicon.
(42)  
(a) John constructed a house.

(b) John’s constructing a house  (Gerundive nominal)

(c) John’s construction of a house  (Derived nominal)

One influential argument took a form that that has been updated and repeated many times in different theoretical and empirical contexts. Chomsky noted that certain clausal constructions such as the tough-movement construction in (43a) lack a corresponding derived nominal:

(43)  
(a) John is easy to please.

(b) John’s being easy to please  (Gerundive nominal)

(c) *John’s easiness to please  (Derived nominal)

Chomsky used the lexicalist hypothesis to explain such gaps. Within the framework of the time, the construction in (43a) was derived through application of two transformations (Chomsky 1970, 23):

(44)  
(a) [to please John]S  is easy  =extraposition⇒

(b) it is easy [to please John]S  =raising⇒

(c) John is easy [to please]S

(The raising transformation is a case of tough-movement.) In this derivation the adjective easy lexically selects a clausal subject as shown in (44a). As long as the extraposition and raising transformations apply in the clausal domain but not the nominal domain, then there is no way to derive the unacceptable nominal in (43c). But if derived nominals were generated transformationally from structures like (43a) then there would be no principled way to block the derivation of (43c). The essence of Chomsky’s argument is that the systematic relationship between the syntactic properties of cognate forms such as easy and easiness should not be directly captured in the syntax because that relationship, if formulated as a syntactic rule, would then need to be blocked from interacting with known syntactic processes. Capturing that relationship within the lexicon explains the lack of interaction with syntactic processes.

Arguments taking the same general form have been put forth for the view that apparent sublexical semantic structure really is sublexical, just as it appears, and not assembled in the syntax—even though some syntactic processes are sensitive to that structure (Aissen 1974; Dowty 1979; Wechsler 2008a, among others). This reasoning informed the early discussion between the Generative Semantics camp (Lakoff 1965), other transformationalists (Newmeyer 1976), and proponents of the lexical decomposition alternative (Dowty 1979). In Generative Semantics the semantic primes are assembled to compose words by predicate raising transformations. For example predicate raising moves CAUSE, BECOME, and dead together, in order to license the insertion of kill. But Newmeyer (1976) argued that the putative ‘predicate raising’ transformations do not interact with any other syntactic processes. For example,
(45)  a. John CAUSE [a furor to exist] =Predicate Raising⇒
b. John CAUSE-exist furor =lexical insertion⇒
c. John created a furor.

A transformation of ‘there insertion’ derived the existential construction *There is a furor* from a structure like *A furor exists*. If applied within the complement clause of CAUSE, the result is a deviant derivation:

(46)  a. John CAUSE [a furor exists] =*there*-insertion⇒
b. John CAUSE [there be a furor] =Predicate Raising⇒
c. John CAUSE-be [there __ a furor] =lexical insertion ⇒
d. *John created there a furor.

Significantly, no transformations feed the putative operation of predicate raising. This led Newmeyer to classify predicate raising as a ‘pre-cyclic’ transformation, meaning that it applies before others. Similar proposals to place sublexical semantic structure within the ‘syntax’ while insulating it from syntactic processes have recurred in many forms. A recent one is ‘first phase syntax’, which Ramchand (2008, 16) describes as the ‘event-building portion of a proposition’ which she assumes to be ‘prior to case marking/checking, agreement, tense and modification’.

Such proposals involve a special component of ‘syntax’ that must be blocked from interaction with the rest of the syntax. On the lexicalist view the lack of interaction is simply a consequence of the fact that the information in question is not part of the combinatorial syntax: in the competence grammar such information is associated with lexemes, in the form of lexical valence structures and some lexico-semantic decomposition, and not with sentences.

Like some of the other earlier arguments, the specific argument in Remarks on Nominalization cannot be directly applied within the context of contemporary lexicalist theories that reject the transformations Chomsky assumed. But the form of the argument continues to have relevance. The next two subsections looks at further arguments of the same form.

7.4.2. *want* + HAVE and other verbs of possession

See DualistSyntaxSlides-HPSG08-4-1.pdf, slide 27ff.

The debate over lexical versus syntactic decomposition has been revived and repeated, often involving some of the same phenomena as the earlier debate. In this section we review some arguments on the two sides of this debate, as they apply to certain verbs that incorporate the notion of possession (McCawley 1974; Ross 1976; Dowty 1979; Fodor and Lepore 1998; Harley 2004; Beavers, Ponvert, and Wechsler 2008; Wechsler 2008a, inter alia).

Verbs like *get*, *give*, and transitive *want* incorporate a possession component:
Durative adverbials can modify the implicit ‘have’ state (McCawley 1974; Ross 1976; Dowty 1979):

(48) a. John wanted the car (for two days). (want or have for two days)
    b. John got the car (for two days). (have for two days)
    c. John gave me the car (for two days). (have for two days)

This suggests these sentences have an underlying semantic ‘have’ formative. If so then the question is how this formative enters the semantic representation of the sentence.

On the lexical view ‘have’ is in the lexical decomposition of the verb, as in (49b) for want (a simplified version of the analysis in Dowty 1979). The verb want₁ in (49a) takes a clausal (or controlled) complement, as in John wants very much [for it to rain]. The verb want₂ in (49b) is the transitive variant in (47a). Using an underspecification semantics such as Minimal Recursion Semantics (Copestake et al. 2005), we need to do little more than merely introduce the ‘have’ state as an elementary predication, as in (49c). This alone makes it available for durative adverbials to scope over.

(49) a. want₁ = λPλx[want(x,P)]
    b. want₂ = λyλx[want(x, have(x, y))]
    c. want₂ = [SUBJ < DP₁ > ][COMPS < DP₂ > ][CONTENT s₁: {want(s₁, i, s₂) & have(s₂, i, j)}]

See Egg (1999) and Beavers et al. (2008) for detailed formal accounts of sublexical scope within underspecification semantics.

The syntactic approach posits a silent syntactic formative meaning ‘have’ (McCawley 1974). In the version of the analysis by Harley (2004) the possessive formative is a preposition:
Durative adverbials can adjoin to the putative PP, thus explaining the scope facts. Harley (2004) motivated the PP on the basis of controlled PP complements of want:

(51) John wants [PRO off the team].

Harley argued that since want allows this type of complement anyway, we need only posit the silent preposition HAVE.

Different phrase structures are posited under the lexicalist analysis (52a) and the syntactic analysis (52b):

(52) a. Lexicalist analysis: John wants [DP a lollipop].
    b. Syntactic analysis: John wants [PP PRO P\textsc{have} a lollipop].

Syntactic analyses posit a phrasal shell around the DP. The details vary across different versions; (52b) presents Harley’s (2004) version in which the shell is of category PP (see (50) and (51)). Wechsler (2008a) argues for the lexicalist structure. For example, in contrast to a PP complement (53a), a direct object resists separation from its governing verb by an adverb (53b). A complement of want that sounds like a DP also behaves like a DP, and not like a PP (53c,d):

(53) a. He nibbled quietly [on the carrot].
    b. He nibbled (??quietly) [the carrot].
    c. He wants desperately [out of his job].
    d. He wants (??desperately) [a better job].

On the syntactic view, the bracketed constituents in both (53c) and (53d) are PPs, making this contrast mysterious. Wechsler (2008a) gives further evidence of this kind from coordination, passivization, relativization, and various other syntactic phenomena. All of the evidence supports the view that the complement of want is simply a nominal and not some larger structure such as a PP.

The historical development of complementation options could provide evidence for one or the other view. In contemporary English the verb want allows DP, infinitival, and PP complements. On the lexicalist view this is a fact about the lexical entry for the
verb and not a consequence of a general syntactic rule or structure such as (52b). The history of want is interesting in this regard. The earliest attestations of want took a DP object, with the meaning to ‘not have’, that is, to ‘lack’ (c1200). From ‘lack’ it subjectivized, drifting to a meaning of ‘desire’. It also started taking infinitive complements (1706), and eventually also motion PP’s and particles, as in the (1836) OED example I want in, I want in. On the lexical view these represent innovations in the complement structure of a particular verb. If a change in the syntax is responsible instead then we would expect to find that all verbs with the same relevant grammatical features would simultaneously undergo the same changes.

Idioms and contextual polysemy (sense modulation conditioned by the local syntactic environment of a word) have been cited as evidence on both sides of the debate between lexical and syntactic analyses. McCawley (1974), Richards (2001) and Harley (2004) argued that the ‘have’ formative is syntactic. They note the parallel verb+DP idioms across have, want, get, and give, such as give/get the creeps and give/take/get flak:

(54) a. John gave everyone flak.
    b. You get flak (when you take a stand)

They explain the parallelism by positing a single underlying idiom, HAVE flak, which then combines with causal or inchoative semantic formatives:

(55) a. John CAUSE everyone [ HAVE flak ].
    b. You BECOME [ HAVE flak ].

According to their account, the verb have is the spell-out of BE+HAVE, get is BECOME+HAVE, and give is CAUSE+HAVE. So the idiom parallels are argued to follow from the syntactic approach to sub-lexical scope.

McCawley (1974) made the same argument regarding want+DP, an argument later revived by Harley (2004, 258–259): ‘significantly, the various “readings” that any have DP expression can have are all available with a want DP expression.’ The idea was that on the lexical decomposition view, the ‘have’ formative is embedded in a lexical decomposition and hence unavailable to form idioms. So the idiomatic interpretations would have to be stipulated separately for each have DP and want DP.

On the other hand, the lexicalist need not assume different have’s. When have is followed by a relational DP like a sister, the main predicate comes from the noun, not the verb. Simplifying somewhat, analyses along the following lines have long been proposed (Partee 1999, citing a 1987 Landman and Partee unpublished abstract; Tham 2006; Wechsler 2008a; Beavers, Ponvert, and Wechsler 2008):

(56) a. have = λPλx∃y[P(x, y)]
    b. a sister = sister’
    c. a headache = headache’
    d. John has a sister = ∃y[sister’(John, y)]
    e. John has a headache = ∃y[headache’(John, y)]

On this analysis the same verb have appears with all relational nouns, whether sister,
headache, etc. The verb have does not denote a two-place relation between John and his sister. Rather, the noun sister denotes a two-place relation; in this example the two relata are John and an existentially bound variable. This analysis is extended to the other verbs in (57):

\[(57)\]

a. \(\text{want} = \lambda P \lambda x [\text{want}'(x, \exists y [P(x,y)])]\)

b. \(\text{get} = \lambda P \lambda x [\text{BECOME}(\exists y [P(x,y)])]\)

c. \(\text{give} = \lambda y \lambda P \lambda x [\text{CAUSE}(x, \text{BECOME}(\exists y [P(x,y)]))]\)

d. \(\text{John wants a sister} = \text{want}'(\text{John}, \exists y [\text{sister}'(\text{John}, y)])]\)

e. \(\text{Eliza got a headache} = \text{BECOME}(\exists y [\text{headache}'(\text{Eliza}, y)])]\)

f. \(\text{The music gave me a headache. } = \text{CAUSE}(\text{music}, \text{BECOME}(\exists y [\text{headache}'(\text{me}, y)])]\)

On this view there is just one of each support verb, for use with all relational nouns: one have, one want, one get, and so on.vi Collocations like get flak, give flak, and take flak, are not really idioms. They are compositional phrases involving a figurative word sense. The word flak refers to ‘a barrage of abuse or adverse criticism’ (OED), and frequently appears without any of the support verbs get, take, or give ((58a-c) are cited in the OED; (58d,e) are from the British National Corpus):

\[(58)\]

a. In spite of the current flak between Mayor Lindsay and… the… administrator of Boston and New Haven…, the potential for the city is unlimited. (1968 N.Y. Times 20 May, 46.)

b. Well, all right. So why all the flak? (1969 A. LURIE Real People, 163.)

c. Isn’t that going to cause rather a lot of flak in the… P.L.P.? (1976 T. STOPPARD Dirty Linen, 25.)

d. Just imagine the flak flying about if we have bad results.

e. I expect the flak. If we get beat, it’s my fault.

As long as the relational noun belongs to the right semantic type it can combine with a range of support verbs. This accounts for the patterns observed above, without assuming a syntactic HAVE formative.

Some idiomatic collocations behave differently. The collocation have X can have the special sense of ‘give birth to X’, but this special meaning does not transfer to the other verbs, as shown in (59) (from Wechsler 2008a).

\[(59)\]

a. Natalie doesn’t want to have a baby, so she’s going to adopt one.

b. #Natalie doesn’t want a baby, so she’s going to adopt one.

The phrase have a baby is ambiguous, so it is possible to negate it on just the ‘birth’ sense, as in (59a). But the phrase want a baby is general, and not ambiguous between ‘want to give birth to a baby’ and other possibilities such as adoption. So negating it as in (59b) negates all those possibilities.

Both the lexical and syntactic analyses of possession verbs allow for an account of both the give/get flak type and the have a baby type, so these idiom facts do not force a choice between theories. The lexical theory does make some predictions that are not
made by the syntactic theory. On the lexical theory, parallelism across support verbs is expected only for relational DPs, including event nominals (flak, criticism, a kiss, a headache) and other relational nominals (a sister, a black eye). Parallelism is not expected for entity-denoting DPs like a baby or other objects of have when the verb is used in the ‘give birth’ sense. Similarly, parallelism is unexpected for expressions that lack such DPs, like have it out with or have at it, and this seems to be a correct prediction:

(60)  a. I had it out with Fred. (‘argued angrily’) (McCawley 1974)
    *I want it out with Fred.
    b. The okra is ready. Go ahead, have at it! (‘do something heartily’)
    *But I don’t want at it! Yuck!

A more systematic study would be needed to see whether this prediction is borne out.

In conclusion, the facts of contextual polysemy do not weigh heavily in favor of either the lexical or syntactic account. However, earlier we saw evidence against any syntactic analysis of want a car that depends on assigning a special phrasal category to a car, reflecting the meaning ‘have a car’, that differs from the category a car otherwise has (such as DP).

7.5. Conclusion

The essence of the lexical view is that a verb is stored with a valence structure indicating how it combines semantically and syntactically with its dependents. Crucially, that structure is abstracted from the actual syntactic contexts of past tokens of the verb. Once abstracted, that valence structure can meet other fates besides licensing the phrasal structure that it most directly encodes: it can undergo lexical rules that manipulate that structure in systematic ways (voice, applicativization, category conversion); it can be composed with the valence structure of another predicate (complex predicate formation); it can be coordinated with similar verbs; and so on. Such an abstraction allows for simple explanations of a wide range of robust, complex linguistic phenomena. We have surveyed the arguments against the lexical valence approach, and in favor of a phrasal representation instead. We find the case for a phrasal representation of argument structure to be unconvincing: there are no compelling arguments in favor of such approaches, and they introduce a number of problems. Assuming a lexical valence structure allows us to solve all the problems that arise for phrasal approaches.

Notes
As the term is used here, two words qualify as synonyms if their meanings are similar. The meanings need not be identical.

Beavers et al (2008) further propose a unified analysis of relational DP complements with true possessional uses. They cite non-zeugmatic coordination:

(i) John has a nice car and an even nicer sister who bought it for him.
(ii) I would rather have a bottle in front of me than a frontal lobotomy.

Both variants are treated as the light verb have, roughly (56a). In John has a nice car, the possession relation comes from car. This extends Barker’s analysis of genitives like John’s car, in which the noun car is type-shifted to select a possessor argument.