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Dealing out meaning: Fundamentals of syntactic constructions

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1. Introduction. Any framework for syntactic description that intends both to cover the syntactic details of a language and to associate meanings with syntactic forms systematically must posit some locus of association between those details and those meanings. This is the pretheoretical notion of a syntactic construction, versions of which appear in virtually every syntactic framework I've read about, though often in very non-obvious ways.

A few frameworks take the notion as central. I have in mind, of course, primarily the Construction Grammar of Fillmore and his associates (among them Kay, O'Connor, and Lambrecht; see their items in the list of references) and my own work on the foundations of syntax and morphology, much of it animated by the Berkeley research (see my items in the list of references, and for applications to the description of some languages other than English, the dissertations by Kuh and Välimaa-Blum).

I start with the proposition that a syntactic construction picks out a set of syntactic objects (the instances of the construction) by stipulating some formal conditions that these objects must satisfy and a procedure for determining the semantics for these objects. I then explore seven fundamental questions about constructions, focusing on the last:

(1) What types of syntactic objects do constructions pick out?
(2) What is the inventory of formal conditions that can figure in a construction?
(3) What is the relationship between the formal conditions and the semantics they "express"?
(4) How is a construction connected with the set of lexical items that are eligible to occur in some slot within it?
(5) What is the relationship between constructions and idioms?
(6) How are constructions related to the extragrammatical - stylistic, registral, discourse, and sociolinguistic - values of expressions?
(7) How do constructions interact with one another?

2. Types of syntactic objects. Question (1) I answer immediately: there are at least four distinct types of syntactic objects, inventoried in (8), and therefore four separate, but related, types of constructions, each with its own subtheory. Sentences are associated with (conventionalized) speech acts and are composed of constituents, which are assembled from the elements of valence sets. Substitutes are special types of constituents, devoted to anaphoric, deictic, indefinite, or generic uses; I have little to say about them here, beyond referring to Kay's paper in this volume.

(8.1) Sentences [sentence-type constructions]
(8.2) Constituents: clauses, phrases, words [constituency constructions]
(8.3) Valence sets: head plus set of dependents [valency constructions]
(8.4) Substitutes: pro-forms, zeros [substitution constructions]
3. Assortments. Before I turn to the seven questions in more detail, I take up a pretheoretical task, that of making plausible the idea that there is an inventory of formal conditions that can occur in various assortments, and that (in general) it is these assortments, rather than the individual conditions, that are associated with semantic interpretation. In somewhat more vivid imagery, syntactic theory supplies a large (but universal) pack of cards, each card bearing a single formal condition on some type of syntactic object (so that there are separate suits for sentences, constituents, valence sets, and substitutes), and each language deals out hands of one or more cards and assigns meaning to each such hand. To this end, I will briefly consider the syntax of WH items in English, including those in the constructions in (9).

(9.1) Main WH questions: What penguin will we see?
(9.2) Reclamatory WH questions: We will see WHAT penguin?
(9.3) Main WH exclamations: What a marvelous penguin we saw!
(9.4) Embedded questions: I know what penguin we will see.
(9.5) Infinitival questions: I didn’t know what to look for.
(9.6) WH clefts: What we saw was a flying pig.
(9.7) Inverted WH clefts: A flying pig was what we saw.
(9.8) Exclamatory clefts: What did we see but a flying pig!
(9.9) WH relatives: The penguin which we saw was gigantic.
(9.10) Appositive relatives: We saw the penguin, which croaked loudly.
(9.11) Free relatives: What we had in our hands croaked loudly.
(9.12) WH-ever relatives: Whatever we had in our hands croaked loudly.
(9.13) WH-ever concessives: Whatever the pig did, I was happy.
(9.14) No matter concessives: No matter what the pig did, I was happy.
(9.15) It-clefts: It was a flying pig which we saw.

3.1. Involvement of other constructions. Most constructions do not place only elementary conditions on expressions; instead, they involve, use, call, or invoke other constructions. I will illustrate this observation by working up to the Inverted WH Cleft construction, (9.7). What I have to say here is an elaboration of parts of Zwicky (1989b), and as in that article my focus is on what has to be captured in an adequate framework, not on providing the necessary formalisms for such a framework.

3.1.1. SVP. We begin with the constituency construction Subject + Verb Phrase, or SVP for short. SVP licenses a C (clause) with two constituents, in order: a SU (subject); and a VP with V head and non-SU arguments, all these arguments licensed as occurring with the head in some valency construction. The C we will see a flying pig is licensed (ultimately) as an instance of SVP.

3.1.2. SAI. Next there is the constituency construction Subject-Auxiliary Inversion, or SAI for short. SAI licenses a finite C with three constituents, in order: a head V of a VP licensed by SVP; a SU that SVP licenses as combining with this VP; and the remainder of this VP. The C will we see a flying pig is licensed (ultimately) as an instance of SAI.
3.1.3. SAI versus SVP. SAI and SVP place incompatible requirements on a C; a construction that calls for a C will get one or the other. SAI is an ingredient in (9.1) and (9.8) and also in a few other constructions, among them Yes-No Question (Will you eat sushi?), Main Exclamation (Boy, will you ever eat sushi!), Focused Negation (not only would I eat sushi...), Focused Intensification (so happy was I that...), Additive Tag (I can swim, and so can you), and Inverted Counterfactual (had I seen more people...). SVP is used in the remaining constructions in (9) and in many others.

3.1.4. FF. Focus Fronting, FF for short, is a constituency construction licensing a C with two constituents, in order: an XP containing a pro-form (note that this condition is itself a substitution construction); and a C missing an XP (i.e., containing a zero XP - yet another substitution construction). The Cs what penguin we will see and what penguin will we see are licensed as instances of FF.

3.1.5. FF versus SVP/SAI. FF is an ingredient in all the constructions in (9) except (9.2), as well as in Focused Negation, Focused Intensification, and Additive Tag. Plain SVP (or SAI) is used elsewhere.

3.1.6. IC. Interrogative Clause, IC for short, is a constituency construction calling for FF with an indefinite pro-form in its first constituent. The Cs what/which we will see and what/which will we see are licensed as instances of IC.

3.1.7. WH Relative. Illustrated in (9.9), this is a constituency construction calling for FF with a definite pro-form in its first constituent and SVP in its second. Note the contrast with IC.

3.1.8. Main WH Question. Illustrated in (9.1), this is a sentence-type construction calling for IC with SAI in its second constituent and with (default) falling final intonation.

3.1.9. Embedded Question. Illustrated in (9.4), this is a constituency construction calling for IC with SVP in its second constituent. Note the contrast with Main WH Question.

3.1.10. WH Cleft. Illustrated in (9.6), this is a valency construction calling for a head V with two arguments: an Embedded Question SU and a PD, that is, Predicative. (Semantically, the PD expression is an answer to the question posed by the SU expression.) The participants in such a valency set can be assembled into a C by SVP (what we saw was a flying pig) or SAI (was what we saw a flying pig), which is then usable in the sentence-type construction Main Declarative (What we saw was a flying pig) or Yes-No Question (Was what we saw a flying pig?) or in any of various constituency constructions licensing embedded Cs, thus licensing sentences like I know that what we saw was a flying pig and Were what we saw to have been a flying pig. I would be astonished.
3.1.11. Inverted WH Cleft. Finally, our goal, which is also a valency construction, calling for a head and two arguments as licensed by WH Cleft, but with SU and PD interchanged. The participants in such a valency set can be assembled into a C by SVF (a flying pig was what we saw) or SAI (was a flying pig what we saw), which is then usable in the sentence-type construction Main Declarative (A flying pig was what we saw) or Yes-No Question (Was a flying pig what we saw?) or in any of various constituency constructions licensing embedded Cs, thus licensing sentences like I know that a flying pig was what we saw and Were a flying pig to have been what we saw, I would be astonished.

3.2. Licensing conditions versus well-formedness constraints. Throughout this discussion of the Inverted WH Cleft construction, I have taken a licensing view of the way the syntactic component of a grammar picks out the set of expressions in a language: An expression is syntactically well-formed if its phonological form is paired with its semantics as an instance of some syntactic construction. It follows that an expression is ungrammatical only because there is no combination of constructions that license it, not because there is some cross-constructional filter that rules it out. This is my reading of Bloomfield's view of constructions. It certainly is the position of classical transformational grammar, unadorned by surface structure constraints and the like – a position defended more recently by Pullum & Zwicky (1991).

This positive licensing view of the workings of the syntactic component is opposed to a view of syntax as a set of well-formedness constraints: An expression is syntactically well-formed only if it satisfies all the applicable conditions on well-formedness. In one version of a constraints approach, at least some of the constraints are parochial. In another (an extension of work on Optimality Theory in phonology by John McCarthy, Alan Prince, and Paul Smolensky, in various combinations in still-unpublished manuscripts), the constraints are universal but their rankings are parochial.

It is hard to see how the effect of syntactic constructions could be achieved via a set of universal constraints, however ranked. A universal constraint approach is certainly plausible in phonology, but the fact that syntactic form is associated with semantic interpretation (and, as we shall see, extragrammatical values) in decidedly language- and dialect-particular ways stands in the way of a universal constraint approach in syntax.

Consider (with Sadock & Zwicky 1985) how yes-no questions can be marked in the world's languages: by prosody (of several different sorts), by a special marker word (adjacent to the main verb, in initial position, in second position, in final position), by inflection on the main verb, by a special word order (again, of several different sorts), by a loosely connected adverbial expression (perhaps fixed in form, perhaps varying with properties of the clause it is attached to), or by various combinations of these. (This is essentially an inventory of all the ways in which any property of a sentence can be marked formally.) A single language can have several distinct yes-no question constructions, differing subtly but significantly in their semantics, pragmatics, or
stylistic values as well as in the details of their form. There is nothing imaginably universal in these conditions on form.

One virtue of Optimality Theory is that it provides (via the ranking of constraints) an account of the fact that expressions violating a constraint do sometimes occur - when they avoid a violation of a higher-ranked constraint. On the licensing view, there are no 'violations' per se, but rather failures to be licensed via one construction, which of course leaves the way open to licensing by another.

To see how such an account works, consider the well-known facts (a) that English allows NPs (and in special circumstances PPs) as SUs, but not other phrasal categories, in particular not VPs, as in (10), and (b) that English allows finite Cs marked by that to serve as SUs, but not unmarked Cs, as in (11). There is, however, no absolute constraint against VPs or unmarked Cs as SUs, as (12) and (13) show. Although there are no valency constructions specifically licensing such expressions as SUs, they are (along with a variety of other types of phrases and clauses) licensed as PDs in the WH Cleft construction in (12a) and (13a), hence are licensed as SUs in the Inverted WH Cleft construction in (12b) and (13b).

(10) a. NP: Pigs with wings do not fly well.
    b. PP: Under the porch makes a poor hiding place for an alligator.
    c. VP: *Build an igloo tires me out quickly.

(11) a. marked C: That we built an igloo astonished Terry.
    b. unmarked C: *We built an igloo astonished Terry.

(12) a. What we did was build an igloo.
    b. Build an igloo was what we did.

(13) a. What we did was we built an igloo.
    b. We built an igloo was what we did.

3.3. Where do the details of a construction come from? The details of the internal and external syntax of a construction have at least three sources: the associated semantics; other conditions on the construction; and stipulation.

3.3.1. Semantics. Some details follow from the semantics associated with the construction. Consider the fact that the various interrogative WH constructions allow multiple WH pro-forms (Which people from which cities did you meet?, When did you see which species of penguins?) but the relative WH constructions do not (*At noon we saw penguins which were there when). The no-multiple-WH condition on WH relatives presumably follows from the function of these constructions in restricting the reference of, or adding information about the referent of, some single expression.

3.3.2. Other conditions. Some details follow from other conditions on the construction. Consider the fact that postposed else is allowed in interrogative constructions (Who else did you notice?) but not in relative ones (*the people who else we noticed). The no-else condition on WH relatives follows from two facts: (a) that else combines only with one-word pro-forms that are indefinite
(someone else, *those else); and (b) that the pro-forms in interrogatives are indefinite and those in relatives are definite (as we should expect from the semantics of interrogatives and relatives).

3.3.3. Stipulations. Some details follow from nothing, but are simply stipulated for the construction (and hence may be subject to variation among speakers). I give four examples here, the first three of which I know, from many years of experience in teaching introductory syntax classes, do not hold for all English speakers (the third seems to be completely inapplicable for younger Americans, although usage manuals sometimes insist on it), and the fourth of which is known to be lifted in speech in certain pragmatic circumstances.

(a) WH Cleft (and therefore also Inverted WH Cleft) is subject to the condition that the WH-containing phrase be a single word; contrast *Which bird we saw was the penguin and *From where they came was (from) Antarctica with Where they came from was (from) Antarctica. Note that Exclamatory Cleft is not subject to this condition: Which bird did we see but the penguin!.

(b) Free Relative is subject to the condition that the WH pro-form be non-human; contrast *Who I saw snubbed me (Free Relative, human pro-form) with Whoever I saw snubbed me (WH-ever Relative, human pro-form), Who I saw amazed me (Embedded Question, human pro-form), and What I saw bit me (Free Relative, but non-human pro-form).

(c) That-Relative is (at least for some older speakers) subject to the condition if a SU is relativized on it must be non-human; contrast *the people that admire me (human SU relativized on) with the people that I admire (human non-SU relativized on), the ideas that impress me (non-human SU relativized on), and the people who admire me (human SU relativized on, but via WH Relative rather than That-Relative).

(d) Zero Relative is subject to the condition that the constituent relativized on be a non-SU; contrast *the ideas ever impress me (Zero Relative on SU) with the ideas Mel ever impressed me with (Zero Relative on non-SU), the ideas that ever impress me (That-Relative on SU), and the ideas which ever impress me (WH Relative on SU). Zero Relatives are, however, known to appear in unstudied speech, where they have a presentational function (Lambrecht 1988): We got a cop gave a waitress two million dollars, Dr. Stein is a therapist treats athletes.

3.3.4. The inventory of properties. In any case, the syntactic properties involved in constructions are not idiosyncratic, but are (it is plausible to hypothesize) drawn from a universal inventory. In the examples above, the conditions constructions place on expressions all involve properties we can suppose are provided in general syntactic theory: SU vs. non-SU, definite vs. indefinite, one-word phrase vs. multi-word phrase, pro-form vs. full form.
4. The seven questions. Now I turn to issues (1)-(7) above, giving (in this section) brief, tentative, and partial answers to the first six; this discussion builds on Zwicky (1987a, 1989a, 1989b).

4.1. Syntactic objects. To (1), I have already said, in section 2, that there are at least four types of objects picked out by syntactic constructions: sentence types, constituents, valence sets, and substitutes; different sorts of principles are appropriate in each of the four domains, although each domain interacts with the others.

The separation of valence sets from sentence types and constituents allows, among other things, for an account of ‘amnestied’ syntactic conditions (along the lines suggested by Pullum & Zwicky 1991 for the English doubling constraint), which apply only when the concerned items are actually in construction with one another: the conditions in question apply only to constituency constructions, like the one that combines a P with its object to make a PP (and is subject to the condition that the object be non-clausal: *I will assent to that pigs can’t fly), not to the valency constructions that the constituency constructions build on (That pigs can’t fly I will assent to). Similarly for the doubling ‘constraint’, which is operable in *Kim was stopping singing but not in Kim neither was stopping, nor ever intended to stop, singing.

4.2. The inventory of formal conditions. To (2), I proposed above that the inventory of formal conditions comprises a finite, universal subinventory of elementary conditions, plus the possibility of ‘calls on’, or invocations of, other constructions in the language, as when Main WH Question calls on SAI (rather than SVP).

4.3. Formal conditions and semantics. To (3), I suggest that although certain formal conditions might be especially good signs of particular meanings (as explored, for instance, in Lakoff 1987), there is no necessary connection between the two. There is a very great latitude in the way in which formal conditions can be associated with semantics.

In particular, different constructions, with different formal conditions, can be associated with the same semantics (as in the case of WH Relative, That-Relative, and Zero Relative); and different constructions, with different semantics, can have the same formal conditions (as I claimed in Zwicky 1987a for the ‘raisings to object’ in I expected Terry to be a spy and I believed Terry to be a spy). Like a morpheme or a lexical item or an expression, a construction is neither pure form nor pure meaning, but a Saussurean sign, a pairing of the two. As slogans, or rules of thumb:

(14) Different formal conditions, different constructions.
(15) Different semantics, different constructions.

4.4. Constructions and the lexicon. To (4), I propose that for each formal condition that mentions a slot filled by a word, there is a special set of lexical items eligible to occur in that slot.
Some of these slots are head slots, some aren’t. A head slot gives rise to a
head subcategory for its construction. For example, WH Cleft, Inverted WH
Cleft, and if-cleft are all as choosy as could be in the set of head Vs they allow;
the head subcategory is the singleton set \{be\}. A non-head slot gives rise to
what I will call a foot subcategory. For example, Appositive Relative permits,
for many speakers, only the set of WH pro-forms \{who, which, where, when\},
while Free Relative has the even more restricted foot subcategory \{what, where,
when\} and Main WH Question has a much larger set. Since head and foot
subcategories differ in different constructions, we have another slogan:

(16) Different subcategories, different constructions.

4.5. Constructions and idioms. To (5) I say, as in Zwicky (1986), that
each idiom is an instance of particular constructions (with at least partially
idiosyncratic semantics and possibly with lexical stipulations beyond those of the
participating constructions).

4.6. Constructions and extragrammatical values. And to (6), I
hypothesize that constructions are (along with lexical items and idioms) one of
the elements to which extragrammatical values can be attached; this possibility is
especially notable when there are alternative constructions expressing the same
semantics, as in (17a-c), for argument clauses, relative clauses, and
counterfactual conditional clauses, respectively. These constructions differ on
several dimensions, among them whether they have an initial marker (Zero
Argument C, Zero Relative, and Inverted Counterfactual do not), whether they
use SAI (Inverted Counterfactual) or SVP (all the others), and what constraints
there are on their head Vs (the argument and relative clauses are quite open in
this regard, allowing a full range of auxiliary and non-auxiliary Vs, in either
present or past tense, while two of the counterfactual constructions use a special
‘counterfactual’ verb form, one uses the past tense, and one uses a marker lexical
item, the auxiliary V would, rather than an inflection).

(17) a. that we saw the creatures (That-Argument C)
we saw the creatures (Zero Argument C)
b. the idea which I had (WH Relative)
the idea that I had (That-Relative)
the idea I had (Zero Relative)
c. were I in charge (Inverted Counterfactual)
    [no marker; SAI; VFORM:Counterfactual]
if I were in charge (If-Counterfactual)
    [marker if; SVP; VFORM:Counterfactual]
if I was in charge (Past Counterfactual)
    [marker if; SVP; VFORM:Past]
if I would be in charge (Would-Counterfactual)
    [marker if; SVP; marker verb would]

The alternatives in each of (17a-c) do not differ truth-functionally, but
instead exhibit differences in formality, appropriate modality (oral vs. written),
register, social dialect, and the like; they count as different with respect to their
contexts of use. For instance, the unmarked clause types in (17a) and (17b), Zero Argument C and Zero Relative, are a bit more informal and conversational than their more explicit alternatives, and the four constructions in (17c) range from the extremely formal, now primarily written, Inverted Counterfactual (which most speakers these days do not use at all) to the colloquial Would-Counterfactual (which appears to be the wave of the future in the U.S., given its widespread use by many young Americans). In any case we have another slogan, the final one:

(18) Different extragrammatical values, different constructions.

5. Interactions. As to (7), I now survey some issues in the logic of construction interactions, beginning with constructions that are in competition both semantically (they express the same semantics) and formally (they place incompatible conditions on the same sort of object). Sets of such etic constructions fall roughly into two groups, a division reminiscent of that between phonological free variation (inclusively alternative, or I-etic, constructions, like those in (17a-c), with essentially the same external distribution) and phonological complementary distribution (exclusively alternative, or E-etic, constructions, like SAI and SVP, with clearly different external distributions).

Whatever the situation in phonology, in syntax and morphology both sorts of alternation seem frequently to be imperfect. I-etic constructions are sometimes exclusive (because of differences in their internal composition or external distribution or both), as illustrated in section 5.1 below, and E-etic constructions sometimes overlap, as illustrated in section 5.2. Note that my purpose, here as elsewhere in this paper, is to point out the phenomena (in fact, with reasonably well-known examples, though their import has not always been fully appreciated), not to provide a formalized account of them.

5.1. Exclusive I-etic constructions. The two finite argument clause constructions in (17a), for example, are not always interchangeable. In particular, many speakers find Zero Argument Cs much less acceptable than That-Argument Cs as direct objects of manner-of-speaking verbs (19a), as arguments of abstract nouns (19b), or when extrapoled (19c).

(19) a. ??Pat whimpered the pigs were flying. [Zero Argument C]  
   Pat whimpered that the pigs were flying. [That-Argument C]

b. ??the idea those pigs can fly [Zero Argument C]  
   the idea that those pigs can fly [That-Argument C]

c. ??I hate it some snakes bite. [Zero Argument C]  
   I hate it that some snakes bite. [That-Argument C]

5.2. Overlapping E-etic constructions. SAI and SVP, for instance, are sometimes both possible. SAI is available in some subordinate clauses introduced by as (20a) and than (20b) and some main clauses with fronted phrases containing deictics, like thus and such (20c). SAI in such examples is often associated with formal style, but it can also serve to allow the postponement of heavy constituents to the end of a clause.
(20) a. We will see more birds than will our friends. [SAI]
   We will see more birds that our friends will. [SVP]
b. I can swim, as can all my friends. [SAI]
   I can swim, as all my friends can. [SVP]
c. Thus / By such means will we succeed. [SAI]
   Thus / By such means we will succeed. [SVP]

6. Privileged constructions. Within a set of etic constructions it is quite
often the case that one or more of the constructions will have a special status in
the grammar of the language. In the next five subsections I survey different ways
in which a construction can be so privileged.

6.1. Unmarked cases. Characteristically, in a set of etic constructions
there is one that is ‘unmarked’ – that is, un-special – by virtue of having (a) the
fewest extragrammatical values, (b) the fewest semantic implicatures, (c) the
fewest constraints on internal composition, and/or (d) the fewest constraints on
external distribution.

Among the four counterfactual constructions in (17c), the one that is least
marked extragrammatically would seem to be the Past Counterfactual, for most
current speakers at any rate. And for the two argument clause constructions in
(17a), the one that is least marked with respect to external distribution would
seem to be That-Argument C, given facts like those in (19). As for SAI and
SVP, the least marked construction with respect to internal composition is
certainly SVP, given that SAI is available only for finite clauses, while SVP is
used for non-finite clauses, as in the exclamatory construction of Them having no
hats on! and the infinitival subject in For them to have no hats on would astonish
us.

Nothing that I know of would require the various characteristics of
(un)markedness always to run together, though it is certainly common for them
to do so. In fact, though, there are at least four different types of unmarkedness
here. This is not necessarily troublesome, since so far as I know no
generalization about syntax, parochial or universal, is properly stated so as to
refer to any one of these four types of unmarkedness. The remaining types of
rule privilege do, however, play an explicit role in grammar. These first types
are of interest primarily in that they tend to be correlated with the types that
follow.

6.2. Elsewhere cases. For E-etic constructions realizing the same
syntactic properties, the un-special construction is the ‘elsewhere’ or ‘otherwise’

case, used whenever another construction calls for an object with these properties

(unless, of course, the invoking construction specifically requires otherwise). For
the E-etic set comprising SAI and SVP, this is certainly SVP, even when we
restrict ourselves to finite clauses, where both are possible; in particular, SVP is
used in almost (but not quite) all of the many subordinate finite clause
constructions: all three types of finite relative clauses, free relatives, cleft
sentences of all types, finite argument clauses in all of their uses (as, inter alia,
subject, direct object, argument of an adjective or abstract noun, or degree
complement as in *so big it obscured my vision*, most types of adverbial subordinate clauses, and so on.

Being an elsewhere case is certainly a grammatically relevant property of a construction. Virtually everyone who has thought about the matter has wanted to get the elsewhere case 'for free' or 'as a default', though what the appropriate formalism is is far from clear.

6.3. Fall-back constructions. The next two kinds of grammatical privilege arise when there are purely formal conflicts between different requirements on an expression.

I will say that a construction is the fall-back construction in an E-tic set if it is used when its alternatives are unavailable for purely formal reasons. This is what happens when SVP is used instead of SAI when the conditions for SAI, which requires that the SU follow the head V of its C, are in conflict with those for Focus Fronting, which requires that the XP containing the focus pro-form precede the remaining material of the C, including its head V. As I pointed out in Zwicky (1989b), these two requirements come into conflict in subject WH questions, since the first requires that the SU follow the head V and the second requires that the SU (which is in fact the XP at issue) precede the head V.

In this example, FF is satisfied, and SAI is suppressed. We still need a finite clause, however, and SVP comes to the rescue: *Who will see the penguins?*, an instance of SVP, rather than *Will who see the penguins?, with FF suppressed in favor of SVP. That is, SVP is the fall-back with respect to SAI.

6.4. Firm constructions. I will call the construction that 'wins' in such a purely formal competition the firm construction of the two. Since FF wins over SAI, FF is the firm member of the pair (and SAI the 'soft' construction).

Similarly, firm Subject-Verb Agreement wins over soft Predicative-Verb Agreement in examples like *It was the penguins that we saw. It*-clefts require as SU the specific lexical item it, which is intrinsically singular, but they allow PDs that are plural NPs (of the sort that can be seen to trigger Predicative-Verb Agreement in examples like *There were penguins on the porch and The sheep are spies*). When the two requirements come into conflict, only the Subject-Verb Agreement condition is satisfied.

Conflicts like these are rarer than one - or this one, at any rate - might have thought, but they do occur, and it seems to be quite generally the case that such a conflict does not result in ungrammaticality; instead, one of the conditions is satisfied and the other is suppressed, that is to say, violated without ungrammaticality.

We would hope of course that if one construction is the firmer of two in one situation it is the firmer in all others, in other words, that competitive interactions between two conditions are always resolved in the same way within a single grammar, or in still other words, that the interaction is a relation between
two conditions, not between two conditions and a circumstance in which they are in conflict.

I would hope for better than this, however. Rather than having the victor stipulated for each pair of potentially conflicting conditions (as in derivational theories, which use parochial rule orderings for this purpose, or in Optimality Theory, where universally supplied constraints are parochially ranked), the most attractive theory would be one in which softness is a property of individual constructions: a condition that yields to one competitor will yield to all. Nothing that I know of would predict, from other theoretical hypotheses, that softness is a property of individual constructions, so that I am not wed to this proposal. But it would be very nice if it was so.

6.5. Basic-level constructions. Finally, some constructions are privileged by virtue of not invoking other constructions of the same type. They are basic-level constructions.

There are at least two sorts, illustrated by (a) the ordinary TrV (Transitive V) valency construction with respect to, say, SOR (Subject-to-Object Raising), and (b) the SVP constituency construction with respect to, say, FF (or to SAI).

The valency construction TrV licenses a head V as compatible with two arguments, SU and DO; it imposes no further valency requirements. SOR, on the other hand, licenses a head V as compatible with three arguments, SU and DO and CP (that is, Complement), but the DO and CP cannot be just any old expressions otherwise licensed as DO and CP. SOR also imposes a 'secondary' stipulation of syntactic functions, namely that some valency rule license the DO as SU of the CP. (Or, as we have learned to say in other theoretical contexts, the DO in SOR is a 'derived grammatical relation'.)

The constituency construction SVP licenses a C composed of a SU followed by a compatible VP; it imposes no further constituency requirements. FF, on the other hand, licenses a C composed of an XP followed by a C missing an XP, but the daughter C cannot be just any old type of clause. The daughter C must be an instance of SVP or SAI. In other words, FF imposes a 'secondary' stipulation of constituency. (Or, as we have learned the say in other theoretical contexts, the sequencing of daughter constituents in FF illustrates 'displacement' or 'movement'.)

I now suggest that these distinctions do sometimes play a role in grammar, that there are syntactic conditions that refer specifically to basic-level constructions. These would be the analogue of phonological rules that apply only to 'underived' material; cf. the way Donegan & Stampe (1979) treat automatic phonological rules that are countered by other automatic rules as being subject to the condition that they apply only to underlying representations.

I offer here, not a demonstration, but only a plausibility argument. There is a rich literature on the facts I will mention, which begins with Ross (1986[1967]:sec. 3.1.1.3.1), who treats them as involving a (presumably
universal) constraint on acceptability, rather than grammaticality, that rejects instances of sentence-internal NP-over-S. There is no space here for me to compare my proposal below to the many imaginable alternatives, though I do attempt to cast some passing doubt on several of them.

Consider first the distribution of That-Argument Cs serving as SUs in English, as in That pigs can't fly was astonishing to you and That pigs can't fly finally came to Marty (both with SVP). Such clausal SUs seem to be possible only in the basic-level constituent construction SVP, and not in any non-basic-level constituency constructions, for instance SAI as in (21a), or the inversion in (22a). I offer (21b) and (22b) to suggest that the condition is unlikely to be a semantic one, or one that refers either to syntactic complexity or to length; and I offer (22a) – and also (23b) below – to suggest that sentence-internal position is also not the crucial factor. In any case, the rule licensing That-Argument C as SU seems to be counterfaced by all non-basic-level constituency constructions.

(21) a. *Was that pigs can't fly astonishing to you?
   b. Was the fact that pigs can't fly astonishing to you?

(22) a. *To Marty finally came that pigs can't fly.
   b. To Marty finally came the idea that pigs can't fly.

Next consider finite clauses (That-Argument Cs or Zero Argument Cs) serving as DOs in English, as in We believe (that) pigs can't fly. Such clausal DOs seem to be possible only in the basic-level valency constructions like TrV, and not in non-basic-level valency constructions like SOR, as (23a) illustrates. In (23b) we see that the ungrammaticality of (23a) is not amnestied by a displacement (Heavy NP Shift) that moves the clausal DO out of sentence-internal position. Finally, contrast the ungrammatical (23b) with the grammatical (23c), which has a similarly displaced DO but is an instance of a basic-level valency construction (licensing a head V as compatible with three arguments: SU, DO, and P-marked IO). In any case, the rule licensing finite clauses as DOs seems to be counterfaced by all non-basic-level valency constructions.

(23) a. *We believe (that) pigs can't fly to be astonishing.
   b. *We believe to be astonishing (that) pigs can't fly.
   c. They explained to us (that) pigs can't fly.

6.5. Summary. I have detailed quite a number of ways in which a construction can be said to be privileged: it is the unmarked case, in any one of at least four senses; it is the elsewhere case; it is the fall-back; it is firm; and it is basic-level, with respect to valency or constituency or both.

We can ask both how these different ways are related, and of course how such facts about interactions are to be incorporated into an otherwise plausible formalized theory of syntax. My purpose here has been to try to state these questions clearly. I never promised you a rose garden, but I can offer some interesting thorns.
Footnotes

1. The two notions of containment are part of a universal framework for syntax. \textit{Contain}_2 incorporates the ‘constraints on extraction’ that apply in English, while \textit{contain}_1 is a bit more restricted, in that the pro-form cannot be within any subordinate clause; contrast the zero within a complex NP object in \textit{Which award do you have some hope that you will get?} with the ungrammatical pro-form within the fronted complex NP object in \textit{*How much hope that you will win which award do you have?}. On the other hand, \textit{contain}_1 allows pro-forms on a left branch, as in \textit{which people} and \textit{how tall}, while \textit{contain}_2 disallows zero there; this is the Left Branch Condition of Ross (1986). In any case, a universal framework for syntax must supply several notions of containment, including some less restrictive than \textit{contain}_2 (in some languages the LBC does not apply) and some more restrictive (some languages do not allow objects of prepositions to be extracted, some allow only single-word phrases to be extracted, some allow only subjects to be extracted, and so on).

2. I am inclined to attribute to the Zellig Harris of [\textit{Methods in}] \textit{Structural Linguistics} the view that a component - phonological, morphological, or syntactic - of a grammar is a set of (parochial) constraints on the set of all possible strings of elementary units for that component, and this interpretation is encouraged by his use of templates for describing linguistic structure, but I haven’t yet found a place where he says this clearly.

3. At least in automatic phonology, where a framework of this sort was proposed some time ago by the Natural Phonologists; see Donegan & Stampe (1979).

4. Some of these details are explored further in Zwicky (1986).

5. Thanks to the fact that ‘marked’ has been used in linguistics in so many different senses (each with some justification, to be sure, but nevertheless the senses are distinct), it turns out that I am claiming here that the construction that is marked in the sense of having an overt mark, here the special lexical item \textit{that}, is unmarked in the sense of being the ordinary, un-special, construction.

6. Note that I am \textit{not} saying that this is the only way to analyze the facts about subject WH questions in English - the literature on generative syntax contains an array of alternatives - only that once constructions are taken as central and once they are treated as assemblages of conditions on expressions, the problem of subject WH questions in English becomes one of conflict between two such conditions (FF and SAI) and of the (normally) complementary relationship between two of them (SAI and SVP).

7. The echo here of 1970s-style efforts on behalf of Universally Determined Rule Application (see the extended discussion of the issues for syntax, with bibliography, in Pullum 1979, and for phonology in Zwicky 1987b) is intentional.
References


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