Pragmatic Aspects of Grammatical Constructions

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1. Introduction. Constructions and Pragmatics

What do constructional approaches to grammar have to contribute to linguistic pragmatics? A careful answer to this question would require prior specification of which approaches should properly be called "constructional" and also what exactly is intended by "linguistic pragmatics". Conscientiously discharging these preparatory obligations could require a text longer than this chapter, as well as competence exceeding its author's. But a rough and ready answer might go something like this: Constructional approaches to grammar have shown that the interpretation of linguistic utterances can involve an interaction of grammar and context which vastly exceeds in complexity, formal structure and wealth of interpretive content the data discussed in the standard linguistic and philosophical literature on indexicals (pronouns, tenses, and other deictic elements). There are admirable exceptions. For example, Nunberg (1993) cites (1) (from a biology text) to illustrate the point that a referential use of a first person plural pronoun in English normally picks out some set of people, containing the speaker, whose further identity is left to the addressee to infer on the basis of the common conversational background and the rest of the utterance.

(1) *We* do not know much about this part of the brain, which plays such an important role in *our* lives, but *we* will see in the next chapter...

The first italicized pronoun refers to the set comprised of the writer and other scientists, the second the writer and other humans, and the third the writer and the reader. Nunberg notes that indexicality includes deixis but goes beyond it in two respects. The first of these he calls classification; this includes information like number and gender. While the classificatory aspect of indexicals is generally recognized, little attention has been paid to how the classificatory information is used in identifying the referent. The second and subtler aspect of indexicals treated by Nunberg is the fact that often the entity pointed to by use of an indexical is distinct from the referent of the indexical. In each of the three cases of a first person plural pronoun in (1), the deictic target is the writer but the referent of the pronoun is a distinct set of people (each containing the writer). In general, the item pointed to by an indexical is not necessarily identical to the intended referent. Referential *we* means, roughly, 'I and you-know-who else'.[1]

A number of grammatical constructions have been described in which part or all of the meaning of the construction is analogous to the 'you-know-who' part of the meaning of *we*, a virtual instruction to the addressee to examine the common ground of the conversation (along with the other interpretive content of the sentence) to fill in some partially specified part of the intended interpretation. An example involving the construction employing the expression *let alone* is given in (2).

(2) Fred won't order shrimp, let alone Louise, squid.

The addressee of an utterance of (2) can only interpret it successfully if he can find in, or construct from, the conversational common ground a set of assumptions according to which Louise's willingness to order squid unilaterally entails Fred's willingness to order shrimp. This kind of background, comprising a matrix of propositions partially ordered by the relation of unilateral entailment, which we call a SCALAR MODEL (Fillmore *et al.* 1988), is discussed further below. Scalar models illustrate, first, the fact that the notional structures presupposed or imposed by constructions may be unrestricted or partially restricted in content and yet subject to precise formal conditions. For an utterance of (2) to succeed, it may be presupposed that squid is more exotic than shrimp and Louise is less adventurous than Fred, or that squid is less nutritious than shrimp and Louise is more health-conscious than Fred, or that squid is more expensive than shrimp and Louise is stingier than Fred, or... Successful interpretation of (2) requires only a presuppositional background in which anyone who will order squid will order shrimp and in which Fred will order anything Louise will order within some contextually determined set of possibilities; further substantive detail is not specified by the construction but it is presupposed to be available to the addressee in context. A distinct but closely related point is that presupposed material may come, not in the form simply of an unstructured set of propositions, but rather a highly structured set. In (2) a third interpretational phenomenon is illustrated as well: the fact that in addition to presupposition[2] the distinct matter of a proposition's being “on the floor” may be a pragmatic requirement of a construction. Felicitous utterance of (2) requires the proposition that Louise order squid to be – not necessarily taken for granted by speaker and addressee – but mutually accepted as having been posed in the conversation, as being on the floor. For example, someone may have just asked if Louise has ordered squid or suggested that she do so. Fillmore *et al.* call such a proposition a CONTEXT PROPOSITION (CP).

A different kind of contribution of constructional approaches to linguistic pragmatics is the recognition that a wide, perhaps unlimited, variety of illocutionary forces can attach to distinct constructions. A familiar chestnut (3) is discussed by Akmajian (1984) and (Lambrecht 1990).

(3) Him be a doctor!?

The special morphosyntax of accusative subject and bare stem verb phrase, paired with a particular intonational contour[3], is dedicated in this construction to the expression by the speaker of incredulity – or something like that – with regard to some proposition that has just been asserted (or otherwise posed).

Some constructions are devoted to metalinguistic comments, for example metalinguistic negation (Horn 1985) and metalinguistic comparatives, illustrated in (4a) and (4c), respectively.

(4) a It's not good, but superb.
b #It's not good, but it is superb.
c He's more negligent than vicious.
d He's more negligent than he is vicious
e His negligence exceeds his viciousness.

The metalinguistic negation in (4a) conveys that *superb* would have been a more apt descriptor than *good* in the context of utterance. The oddness of (4b), under the standard assumption that SUPERB(x) implies GOOD(x), highlights the fact that the metalinguistic understanding of (4a) is tied directly to its morphosyntactic form; the metalinguistic interpretation does not represent a conversational implicature. Similarly, the fact that (4d) is not a paraphrase of (4c), the former meaning something more like (4e), again points to the conventional relation between the morphosyntactic form of (4c) and its metalinguistic interpretation (that in the context of utterance *negligent* is a more apt predicator than *vicious)*.

The final general point to be made about the contributions to pragmatics of constructional approaches to grammar is that a single construction can weave together a number of strands of the distinct interpretational types just listed in complex ways. Our discussion of (2) hinted at this point, which will be developed further below.[4]

This chaper is concerned with exemplifying some of the notional detail regarding all the matters touched on above, but also with displaying how such complex interpretational phenomena can be conventionally associated with a particular morphosyntax – that is, encoded in grammatical constructions, which, by conventionally associating formal and interpretational information, serve as the minimal building blocks of a grammar.[5] Sections 2-5 will take up constructions involving scalar models, non-scalar contextual operators, metalinguistic phenomena, and idiosyncratic illocutionary forces, respectively. Several of the constructions discussed exemplify more than one of these phenomena and some present additional interpretational[6] properties not fitting well into this classfication. Section 6 sums up.

2. Scalar Models

Scalar models represent one formal approach to the general phenomenon of interpretational scales. Seminal research on scalar phenomena within modern linguistics appears in the work of Horn (1972, 1973), Ducrot (1973, 1980) and Fauconnier(1975a, 1975b, 1976). Those early studies have led to a number of approaches to scalar phenomena which will not be covered in this section (e.g., Hirschberg 1985, Horn 1989, Koenig 1991, Lee and Horn 1995). The data to be discussed first involve the *let alone* construction, introduced in example (2); constructions similarly analyzed in terms of scalar models are discussed in Michaelis (1994) for Latin, Israel (1996, 1997, 1998), Kay (1991) and Michaelis (1993) for English, Schwenter (1999, 2000) for Spanish, and Schwenter and Vasishth (2001) for Spanish and Hindi.

2.1 *let alone*

A simple *let alone* sentence, e.g., one like (2), repeated below, in which there is a single token of *let alone,* expresses two propositions.

(2) Fred won't order shrimp, let alone Louise, squid.

In (2) the two propositions are that Fred won't order shrimp and that Louise won't order squid. The initial clause, which I will call the host, contains an overt negative element (*not, nobody,...*) or a covert negative element (*doubt, forbid...*). The host is followed by a fragment introduced by *let alone*, whose full meaning is restored by semantic copying from the host. In (2) the host is *Fred won't order shrimp*, the fragment is *let alone Louise, squid*, and the restored fragment proposition is that Louise won't order squid. The fragment contains one or more semantic (and prosodic) foci that are contrasted with corresponding foci in the host. Here the fragment foci are *Louise* and *squid*, which contrast with the host foci *Fred* and *shrimp*, respectively. A *let alone* sentence can be analyzed semantically as the conjuction of two negative propositions[7], each consisting of the application of a single propositional function (here WON'T ORDER) to distinct, contrasting lists of arguments, possibly singleton (here <Fred, shrimp>, <Louise, squid>).[8] So far, we have as an approximate semantic translation of (2)

(3) WON'T ORDER(Fred, shrimp) and WON'T ORDER(Louise, squid)

There are two things missing in (3). First is the idea that Fred's not ordering shrimp unilaterally entails (in the context of utterance) Louise's not ordering squid. Translation (3) can thus be improved as

(4) WON'T ORDER(Fred, shrimp) *a fortiori* WON'T ORDER(Louise, squid)

The second thing left out of (3), and (4), does not concern the semantic translation of (2) but rather its discourse status. Specifically, for an utterance of (2) to be felicitous, the fragment proposition, modulo negation and modality, *viz*. ORDER(Louise, squid), must be a CP.[9]

The combination of the unilateral entailment of the CP by the host or TEXT PROPOSITION (TP) and the fact that the fragment evokes a CP, invites a futher interpretation of the discourse function of the *let alone* construction in Gricean terms. A typical conversational situation calling for the *let alone* construction might be something like (5).

(5) A: Did Louise order squid?
B: Are you kidding? Fred didn't (even) order shrimp, let alone Louise, squid.

Consider B's situation after A has posed her question. Relevance demands that B answer the question (and Quality that he answer it in the negative): Louise didn't order squid. But this response would not be maximally cooperative because B knows something relevant and equally succinctly expressible that is more informative, namely that Fred didn't order shrimp. Quantity enjoins B to express the more informative proposition. The *let alone* construction functions to reconcile the conflicting demands in situations like this of Relevance and Quantity. It enables the speaker economically to expresses both propositions in a form that indicates his awareness of the greater informativeness of the proposition answering to Quantity, the TP.

As noted, a scalar model is taken empirically to consist in a presuppposed set of interrelated propositions. On the formal side, the nature of a scalar model SM can be sketched as follows.[10] One assumes the set of truth values T = {0,1} and a set of states of affairs S. The set F of functions from S to T is interpreted in the standard way as a set of propositions. What is special to a scalar model is the imposition of a particular structure on the set of propositions F. To form F in the desired way, we posit a finite set $D = \{D_1,...,D_n\}$ $(n \geq 1)$[11], each member D_i of which is a set (not necessarily finite) on which a simple order exists. The members D_i of D are interpreted as semantic dimensions. Suppose one dimension is composed of a set of reindeer whose relative jumping abilities are established and another dimension is a set of obstacles whose relative heights are known. Since all our information is relative, we don't know whether any particular reindeer can jump any particular obstacle. We do know, however, a host of conditional facts. For example, we know that for any obstacle b, if *Rudolph*, a poor jumper, can jump b, *Prancer*, a good jumper, can jump b, and we also know that for any reindeer r, if r can clear a challenging obstacle like the *fence*, then r can clear a less challenging obstacle like the *bush*.

We are interested next in the Cartesian product of the members of D, i.e., the set of n-tuples the i_{th} member of which is a member of the i_{th} semantic dimension. We call this Cartesian product an ARGUMENT SPACE and represent it

D_x. In the jumping reindeer example, D_x represents the set of all ordered pairs of which the first member is a reindeer and the second member is an obstacle.

Without loss of generality, we may think of the ordering of each semantic dimension D_i as being assigned so that the n-tuple consisting of the lowest numbered member of each semantic dimension is that point **o** in D_x such that for any state of affairs if the proposition corresponding to any point in D_x is true then the proposition corresponding to **o** is true. This unique point of the argument space is called the ORIGIN of D_x. In our example, the origin is the point that pairs the most athletic reindeer with the least challenging obstacle. We now define a propositional function P whose domain is D_x and whose range is F. In our example, P is a function from <reindeer, obstacle> pairs, e.g., <Prancer, fence>, to propositions, e.g., CAN-JUMP(Prancer, fence), taking the propositional function P to be CAN-JUMP(x, y).

To capture the scalar property, we need now to constrain P appropriately. It is convenient first to define a binary relation on members of D_x. Given two members d_i, d_j of D_x, d_i is LOWER or equivalently CLOSER TO THE ORIGIN than d_j iff d_i has a lower value than d_j on at least one semantic dimension and a higher value than d_j on no semantic dimension. P is then constrained as follows:

(6) For distinct d_i, d_j in D_x, $P(d_i)$ entails $P(_j)$ iff d_j is lower than d_i.[12]

We now define SCALAR MODEL as follows:

(7) A four-tuple SM = $<S,T,D_x,P>$ is a scalar model iff SM satisfies (6).

Further empirical justification for the full scalar model formulation comes from the observation that simple unilateral entailment of the CP by the TP does not justify use of *let alone*. The use of *let alone* in a sentence like (8) is distinctly odd, even though not having an odd number of books unilaterally entails not having seventy-five books.

(8) #She doesn't have an odd number of books, let alone seventy-five.

Consider now the context of a raffle in which every odd-numbered ticket wins at least a token prize and number seventy-five wins the grand prize.

(9) She didn't get an odd-numbered ticket, let alone seventy-five.

In the context of (9), since the foci 'odd number' and 'seventy-five' can be interpreted as points on the dimension size of prize in a scalar model, the oddness of (8) disappears. This example also exemplifies further the degree to which successful employment of scalar model constructions depends on the contextual inferencing abilities of the addressee. The size of prize dimension is not given by English grammar and lexicon; it is dependent on the particular raffle context.

A final observation on the *let alone* construction concerns a syntactic property that appears unique to this particular form of syntactic coordination (or subordination?). All the sentences in (10) are paraphrases of each other.

(10) a. You couldn't get a poor man to wash your car for $10 let alone a rich man to wax your truck for $5.

b. You couldn't get a poor man to wash your car, let alone a rich man to wax your truck, for $10, let alone for $5.

c. You couldn't get a poor man, let alone a rich man, to wash your car for $10, let alone wax your truck for $5.

d. You couldn't get a poor man, let alone a rich man, to wash, let alone (to) wax, your car, let alone (your) truck, for $10, let alone (for) $5.

These four sentences are but a proper subset of the set of paraphrases of (10a) that can be constructed roughly as follows:

(1) Starting from the left place a token of *let alone* after any number of foci.
(2) Move over from the fragment the stretch containing the corresponding foci (allowing certain 'deletions' of otherwise repeated material).
(3) Starting from the right end of what you have moved over, repeat step (1) if any of the fragment remains.

The combination of this extraordinary syntactic property[13] of the *let alone* conjunction and its pragmatics-intensive, scalar-model character of the interpretation of *let alone* sentences illustrate how much pragmatics can be built into the atomic elements of the grammar, i.e., the maximal grammatical constructions.

2.2 *at least*

The English expression *at least* corresponds to at least three distinct scalar modifiers. The first of these, simple scalar *at least* is illustrated in the preceding sentence, as well as in (11):

(11) a. She has invited at least Sarah and James [if not others].

b. At least five students passed [if not more than five].

c. He'll be at least irritated [if not outraged].

d. He's at least slightly depressed [if not seriously so].

e. That will at least damage it [if not ruin it altogether].

In each case, *at least* modifies the focus of a sentence to be interpreted in a scalar model. In examples (11a-e), that focus is expressed as an NP, a QP, an AP, an ADVP and a VP, respectively. We can think of simple scalar *at least* in all these cases as canceling the upper bounding conversational implicature of a scalar predicate.[14] Another way to think about simple scalar *least* is to say that *at least* XP denotes the interval lower-bounded by the (possibly pragmatically inferred) intension of XP in a scalar model.[15]

Another *at least* construction, with different syntactic as well as interpretive properties, is illustrated in (12c,d).

(12) a. In that big trainwreck at least several people were saved.

b. In that big trainwreck at least several people were killed.

c. At least in that big trainwreck several people were saved.

d. At least in that big trainwreck several people were killed.

Example (12d) requires an unusual presupposition, roughly that both speaker and addressee think it's good for people to be killed. Evaluative *at least*, which occurs unambiguously in (12c) and (12d), can occur initially and at a distance from the phrase in its scope, while simple scalar *at least* can not.[16] Example (12d) can not have the interpretation of (12b), even though normal background assumptions would conduce strongly to such an interpretation. Similarly (12c) does not share a reading with (12b). Again we see distinct peculiarities of interpretation – which would ordinarily be called pragmatic – conventionally attached to specific syntactic patterns.

From a scalar-model perspective, evaluative *at least* is interesting because it requires two context propositions, one denoting an event less desirable than the event denoted by the TP and one denoting a more desirable event. Often these will be furnished by accommodation. Example (13b) might be used to evoke the full interpretation of (13a).

(13) a. Well, I didn't get an A, but I didn't do too badly either. At least I got an A–.
b. At least I got an A–.

The examples in (14) illustrate a third use of *at least*, which has been christened "rhetorical retreat" *at least* .[17]

(14) a. Mary is at home – at least John's car is in the driveway.
b. Mary is at home – at least I think so.
c. Mary is at home – at least that's what Sue said.
d. Mary will help me – at least {on the first draft, if it doesn't rain, when I've finished the outline,...} (examples from Kay 1992)

It is difficult to characterize with precision the illocutionary force, or other interpretive function, of rhetorical retreat *at least*. One wants to say that a sentence employing an adjunct introduced by this *at least* is somehow weaker or less forceful than the sentence would be without the adjunct, but it is difficult to specify just what one means here by "weaker" or "less forceful"[18].

Rhetorical retreat *at least* does not appear to be scalar in any straightforward way, but perhaps that observation reflects nothing more than our ignorance regarding the interpretational function of this expression. Simple scalar and evaluative *at least* are both scalar. There are, however, several differences, as we have seen. While simple scalar *at least* denotes an open interval on a dimension of a scalar model, evaluative *at least* appears to denote a point (or closed interval) between the two CPs. Simple scalar *at least* does not seem to carry with it any context proposition requirement; evaluative *at least* requires two CPs. The scale evoked by evaluative *at least* is, of course, one of assumed speaker and addressee attitude toward the events denoted, not one constituted by these events themselves, as is the case with simple scalar *at least* and most constructions evoking scalar models.

3. Non-Scalar Contextual Operators (NSCOs)

Expressions such as *let alone, even*, and *at least* constitute contextual operators of a specific type, namely scalar contextual operators. They require that any sentence in which they occur be interpreted in a contextually situated scalar model. Moreover, they specify the structural position that the interpretation of the sentence in which they occur will occupy in that scalar model. Characteristically, if not necessarily, much of the substantive material of the scalar model will be furnished by the common ground of the conversation. There are also contextual operators that place contextually analogous but non-scalar formal requirements on the common ground. Three examples are *respective, respectively and vice versa*.[19]

In addition to the scalar/non-scalar difference, the two types of contextual operator provide a further contrast. While the scalar model requirement of the former operators pertains to the presuppositional aspect of the interpretation of a sentence, the NSCOs we will consider here affect a sentence's truth conditions. An utterance of (14) will be true just in case Mary collects neither Norwegian pottery nor Austrian prints and it is possible for speaker and addressee to agree in addition on a background scalar model in which anyone who collects Austrian prints collects Norwegian pottery.

(14) Mary doesn't collect Norwegian pottery, let alone Austrian prints.

If the scalar model background is not available, an utterance of (14) will suffer presupposition failure no matter what Mary does or doesn't collect. On the other hand, *respective* and *respectively* directly affect the truth conditions of the sentences in which they occur.

(16) a. Mr. Smith and Mr. Jones love Mrs. Jones and Mrs. Smith, respectively.
b. Mr. Smith loves Mrs. Jones and Mr. Jones loves Mrs. Smith.
c. Mr. Smith and Mr. Jones love their respective wives.
d. Mr. Smith loves Mrs. Smith and Mr. Jones loves Mrs. Jones.

Sentence (16a) has the truth conditions of (16b), not those of (16d). Sentence (16c) has the truth conditions of (16d), not (16b).

Although the difference between *respective* and *respectively* may at first appear to be only a matter of morphology and syntax, there are interpretational difference as well. What these NSCOs have in common is that both can evoke a

1-1 mapping between two sets and distribute some predicate over the members of that mapping. In both (16a) and (16c), the sets are {Mr. Jones, Mr. Smith} and {Mrs. Jones, Mrs. Smith}. In both (16a) and (16c) the predicate is LOVE. In (16a) the mapping is {<Mr. Jones, Mrs. Smith>, <Mr. Smith, Mrs. Jones>}; in (16c) the mapping is {<Mr. Jones, Mrs. Jones>, <Mr. Smith, Mrs. Smith>}. So much for the common interpretational properties of *respective* and *respectively*. The difference is that in the case of *respectively* the mapping must be based on an independent linear ranking of the two sets. In (16a) the ranking principle is a metalinguistic one: order of mention. Mr. Jones is mentioned before Mr. Smith and Mrs. Smith is mentioned before Mrs. Jones. But this need not be the case, the ordering principle may be either metalinguistic, *viz*., order of mention, or purely conceptual, as in (17)

(17) a. The three brightest students scored 95, 99 and 96, respectively.
b. Clarence, Florence and Terrence got the three highest grades, respectively.
c. The three brightest students got the three highest grades, respectively.

In (17a) the subject NP is ordered conceptually, not metalinguistically, while the complement NP is ordered metalinguistically – and in a way that violates an available conceptual ordering. In (17b) the subject NP is ordered metalinguistically and the complement NP is ordered conceptually. In (17c) both orderings are conceptual. The fact that *respectively* requires independent linear orderings but accepts either metalinguistic (order of mention) or conceptual orderings – even in the same sentence – illustrates the potential of grammatical constructions to mix and match pragmatic and semantic properties in quite idiosyncratic ways.[20]

When *respective* distributes a predicate it does not require any independent linear ordering of the sets constituting the mapping over which the predicate is distributed.

(18) a. Many senators represent their respective states well.

b. *Many senators represent their states well, respectively.

c. Senators Jones and Smith represent their respective states well.

d. *Senators Jones and Smith represent their states well, respectively.

Unacceptable examples (18b) and (18d) show that *respectively* requires linear ordering, and does not merely permit it.[21] This ordering, however, may rely heavily on mutual background knowledge. If one knows that in horse racing the expression *finish in the money* means to come in either first, second or third, winning a decreasing amount of money with lateness of finish, a sentence like (19a) is readily interpretable. We know that Augustus won, and so on.

(19) a. The horses finishing in the money were Augustus, Brutus and Cassius, respectively.

b. *The horses finishing out of the money were Xerxes, Yerkes and Zippo, respectively.

Sentence (19b) is acceptable to no one, including those to whom the expression *finish out of the money* is familiar, since the finishing order of the horses who finish out of the money is not accorded any conventional significance.[22]

Respective often occurs in a noun phrase determined by a possessive pronoun, and, curiously, is often otiose in that context. Thus (20a) and (20b) are substitutable for (18a) and (18c), respectively, *salva veritate*.

(20) a. Many senators represent their states well.
b. Senators Jones and Smith represent their states well.

The contextual character of the possessive construction (Kay and Zimmer 1976) seems to render the contextual job done by *respective* unnecessary in such cases.

It appears that when independent linear orderings of the sets constituting the mapping over which a predicate is to be distributed are available, *respective* is dispreferred, and perhaps for some speakers ungrammatical.

(21) ??Clarence, Florence and Terrence got the respective scores of 95, 99 and 96.

However, there appear to be some cases illustrating crucial linear rankings where *respective* is relatively acceptable, as in (22b).

(22) a. Billy Martin and Tony La Russa are known for their volatility and charm, respectively.
b. ?Billy Martin and Tony La Russa are known for their respective volatility and charm.[23]

For speakers for whom (22)b is unexceptionable, one cannot say that *respective* requires that the mapping over which it distributes a predicate must not be based on a linear ranking of the sets being matched.

Respective, as indicated above, also has a non-distributive use. An attested example of this usage is

(23) Twelve generals and admirals from the United States, the Soviet Union and their respective allies... met for two days of discussions. (N.Y. Times)

No predicate is distributed over the set of ordered pairs {<U.S., U.S. allies>, <U.S.S.R., U.S.S.R. allies>}. Similarly in (24), no predicate is distributed over a relation pairing rock stars with entourages.

(24) Two rock stars and their respective entourages can fill a small stadium.

In cases like (23) and (24) it appears that *respective* simply functions to denote a set of sets by naming, for each member set, an individual who stands in a certain constant, contextually determined relation to that set.

Vice versa has been said to interchange a pair of noun phrases (Fraser 1970) or, 'elements of [a] clause' (McCawley 1970). Presumably it was the denotata of these expressions that those authors had in mind as being interchanged. This emendation does not go far enough, however, because the items interchanged by *vice versa* are elements of a contextually determined interpretation, not necessarily denotata of linguistic expressions. The evidence for this claim lies in the observation that *vice versa* can be parasitic on a number of contextually determined disambiguations of potential ambiguities. One of these is the mapping induced by *respective*.

(25) The secretaries emailed their respective mayors.

For (25), the mayors in question could be either the mayors of the towns where the secretaries live or the employers of the secretaries (or they might bear less obvious relations to the secretaries in other contexts). The interpetation of *vice versa* in a sentence like (26) will depend on the contextual diambiguation of (25).

(26) The secretaries emailed their respective mayors, and vice versa.

In an utterance of (26), each secretary who sent email to a mayor is asserted to have received email from that mayor, whether the secretary for each mayor was picked out as an employee, a constituent, or by some other criterion.

Similarly, the interpretation of *vice versa* can depend on the prior, contextually determined decision whether a pronoun is given a bound variable or an anaphoric interpretation. In (27) *his* may be bound by *every boy* or it may refer anaphorically to a particular boy mentioned earlier.

(27) [Every boy]$_i$ loves his$_{i,j}$ mother.

In (28) the interpretation of *vice versa* depends on the decision made with respect to the ambiguity of (27):

(28) Every boy loves his mother, and *vice versa*.

On the bound variable reading each mother-son pair enjoys mutual love. On the anaphoric reading, there is one lucky mother and she shares mutual love with every boy.

Resolution of *vice versa* can also depend on an ambiguity based on anaphora of sense versus anaphora of reference.

(29) The Jones's don't like their next door neighbors, but we do, and *vice versa*.

Depending on anaphora of sense or reference, an utterance of (29) says either that we like our neighbors or that we like the Jones's neighbors. Depending on whose neighbors it is determined contextually that we like, those people are claimed, by *vice versa*, to like us. Again the interpretation of *vice versa* is dependent on contextual disambiguation of a sentential ambiguity.

Neither *respective*, *respectively* nor *vice versa* is indexical *sensu strictu*. None of these contextual operators point deictically to a participant or aspect of the utterance situation, as pronouns and tenses do. However, the processes that take indexicality beyond deixis, particularly the you-know-who-else kind of process operating in Nunberg's analysis of *we*, seem to be evoked by these operators. Whereas *we* is a true indexical, in which deixis gives the initial clue to the addressee for finding the referent, in these contextual operators there is no deixis, but instead other kinds of virtual instructions are given to the addressee regarding how to interrogate the common ground to find underspecified referents. We might call this kind of contextuality 'indexicality without deixis', or, if that seems oxymoronic, we can call it more longwindedly a kind of grammatical pragmatics closely akin to indexicality but in which the constant character of the operator is not based on deixis but rather specifies some formal aspect of the relation between the context and the interpretation of an utterance.

4. Metalinguistic Constructions

Probably the best known work on metalinguistic constructions deals with metalinguistic negation. Horn (1985) showed that the family of problems posed by the so-called "external negation" of a sentence like (29) can not be dealt with satisfactorily either by defining natural language negation as a single propositional operator of great generality or by positing two distinct propositional negations for English (and for many other languages that operate in the relevant respects just like English).[24] The basic empirical

(29) The King of France is not bald... because there is no King of France.

evidence presented by Horn for the thesis that the negation in (29) is metalinguistic, not descriptive (i.e., propositional), comes from facts like those in (30), which show that the same metalinguistic negation that answers to presupposition failure in (29) answers to Quantity implicature cancellation, faulty pronunciation, disagreement regarding inflectional morphology, and register conflicts in (30a-d), respectively – more generally, to rejection and correction of a previous utterance for virtually any reason.

(30) a. This is not tasty, it's delicious.
b. Her name's not [Q ndrij«], it's [andre j«].
c. We're not dealing with a rare phenomena here, we're dealing with a rare phenomenon.
d. Your Aunt May is not taking a pee, she's going to the bathroom.

Metalinguistic negation is interesting from a constructional point of view because it has both the interpretational properties just mentioned and also idiosyncratic morphosyntactic properties. Horn points out that metalinguistic negation does not act as a negative polarity trigger, as illustrated in (31a). Not surprisingly positive polarity items can occur in the scope of a metalinguistic negation (Cf. 31b).

(31) a. John didn't manage to solve *ANY/SOME of the problems, he managed to solve ALL of them (Horn 1985: 135).

b. I wouldn't RATHER walk, but I'm WILLING to.

It may reasonably be objected that polarity sensitivity is fundamentally a semantic property and only derivatively a syntactic one. There are, however, indisputably non-interpretational properties of metalinguistic negation. Horn observes that metalinguistic negation is not possible with incorporated negation, offering examples similar to (32):

(32) a. That's *IMPOSSIBLE/NOT POSSIBLE, it's CERTAIN.

b. She's *UNLIKELY/NOT LIKELY to help you, she's BOUND to.

All of the metalinguistic negation examples Horn presents consist of two clauses or a clause and a fragment, the second clause (or fragment) providing a correction to the objectionable aspect of what is metalinguistically negated in the first clause. Horn does not say that such an overt rectification clause or fragment is required and in fact it may not to be strictly required in cases where the rectification can be readily be inferred.

(33) a. ?He didn't break A FEW bottles. [intended inference: He broke many.]

b. He didn't break only/just A FEW bottles. [entailment: He broke many.]

Greater intonational support is required for (33a) to pass muster than (33b), but to the extent that (33a) is acceptable to express a metalinguistic negation, the construction imposes no requirement for an overt rectification clause or phrase. Sentence (33b) entails the rectification of (33a) and does not express a metalinguistic negation. So far as can be determined from examples like these, it is not possible to say with assurance whether or not an overt rectification clause or fragment is a morphosyntactic requirement of metalinguistic negation. What we can say with assurance is that a rectification or correction is a necessary part of the interpretation of the metalinguistic negation construction and that the rectification is usually, if not always, realized in an overt phrase or clause.

Horn observes a further morphosyntactic restriction on overt rectifications. The rectification can be introduced by *but*, and it can consist of a full finite clause, but it cannot both be introduced by *but* and consist of a full finite clause.

(34) a. It isn't hot, but scalding

b. It isn't hot – it's scalding.

c. #It isn't hot, but it's scalding.[25]

We made an analogous observation with respect to the metalinguistic comparative in connection with the examples in (4)[26].

Horn discusses related metalinguistic use of logical operators, specifically disjunction, conditionals and echo questions. As with negation, these metalinguistic constructions impose their own morphosyntactic signatures. Metalinguistic *or* rejects *either* (35); metalinguistic *if* rejects *then* (36); and echo questions, which exhibit a metalinguistic use of *wh*-words, neither front nor trigger inversion in main clauses (37) – they just show up in all clauses where the XP being queried would, and did.

(35) a. It may be hot, or scalding.
b. #It may be either hot or scalding.

(36) a. If you're looking for a gas station, there's one around that corner.
b. #If you're looking for a gas station, then there's one around that corner.

(37) You spilled WHAT in my laptop?

A different kind of metalinguistic construction involves the grammar and interpretation of elements of the type originally termed *hedges* by Lakoff (1972), such as *strictly speaking, loosely speaking, technically*, and *kinda* (equivalently *kind of, sort of, sorta*).

> A hedged sentence, when uttered, often contains a comment on itself or on its utterance or on some part thereof. For example, when someone says, *Loosely speaking France is hexagonal*, part of what they have uttered is a certain kind of comment on the locution *France is hexagonal*. In this sort of metalinguistic comment, the words that are the subject of the comment occur both in their familiar role as part of the linguistic stream and in a

theoretically unfamiliar role as part of the world the utterance is about (Kay 1983: 129).

That paper argues further that certain metalinguistic operators tend to blur the boundary between knowledge of language and world knowledge. The point is not that we have folk knowledge (or beliefs) about language – no news there. The observation of interest is that when knowledge or belief about language is part of the interpretational potential of hedging constructions, it can happen that that conceptual material:

> becomes part of the combinatorial semantics of the sentence and utterance in which it occurs. A familiar (if probably vacuous) combinatorial semantic rule is
>
> (SR) If adjective *a* denotes a class A and noun *n* denotes a class N, then the denotation of the expression *an* is the intersection of the classes A and N.
>
> ...the notion 'loose speech' is part of the combinatorial semantics of sentences containing the expression *loosely speaking* in the same way in which the notion of class intersection is ... part of the combinatorial semantics of an expression like *red chair* (Kay 1983: 134)[27].

Assume (38a) to be spoken by anthropologist A. A may have decided to hedge the bald statement (38b) with *loosely speaking* for strikingly diverse reasons.

(38) a. A: Loosely speaking, the first human beings lived in Kenya.
b. The first human beings lived in Kenya.

As a believer in gradual evolution, A may consider the expression *the first human beings* to be, strictly speaking, incoherent. Independently, A may consider that only a locution such as *the first human beings* ***known to science*** can be employed in this context by a careful speaker. Or it could be the approximate nature of Kenya as a location for the first humans that leads A to hedge. Or perhaps instead (or in addition) A is worried about using a modern political label to name a region that wasn't called Kenya, or probably anything else, at the time. What can the semantic value of *loosely speaking* be, which allows this expression to solicit absolution for such diverse locutional sins? It appears that *loosely speaking*, and its cousin, *strictly speaking*, are both based on a schematization or folk theory of language according to which words have inherent fit, because of their intensions or senses, to objects in the world and the meanings of words are combined according to rules of the language. When the words fit the facts and the rules are followed, one speaks strictly. Otherwise one speaks loosely. This view is, in shorthand, a folk version of the Fregian view, especially Frege's theory of reference, according to which a word refers via its intension or sense (*Sinn*).

A distinct, if not competing, philosophical theory of reference makes no use of the concept of intension or sense. This theory, associated primarily with the philosophers Kripke (1972) and Putnam (1975), holds that (some) words refer as a result of a two-stage process. There is an original act of baptism – the prototype is the naming of a person – and then through a series of causal events the association of the thing and the name is passed from speaker to speaker. When the process functions imperfectly – for example when we find ourselves unsure whether what we are holding in our hand really is gold – we can have recourse, according to Putnam, to a "linguistic division of labor", according to which certain individuals have become official keepers of the diagnostic flame, in this case, say, the proprietor of a jewelry store or an officer of the Federal Bureau of Standards. So *gold* means the stuff originally baptised *gold*, and which we can take a putative sample of to an accredited expert for authentication if necessary.

A folk theory that seems to correspond rather well to the Kripke-Putnam theory of reference is evoked by the locutions *technically* or *technically speaking*. When we say *Technically, a whale is a mammal*, we mean that whatever we ordinary folk may say, those scientists with a right to so stipulate have decreed that whales are mammals. Minimal pairs like those in (39) and (40) illustrate the point.

(39) a. Technically, that's a rodent. (order *Rodentia*)

b. *Technically, that's a varmint.

(40) a. Technically, that's an insect. (order *Insecta*)

b. *Technically, that's a bug.

Rodent and *insect* are technical terms, terms of art of socially recognized experts. *Varmint* and *bug* are not.[28]

The long stories about the notional values of *loosely speaking, strictly speaking* and *technically (speaking)* briefly sketched above show that complex substantive beliefs about language or speech can furnish the basis of a hedging, or other metalinguistic, construction. This fact is significant because metalinguistic constructions don't merely effect incidental comments on the passing linguistic show. Employment by a speaker of a metalinguistic construction also helps constitute the message being commented on. For example, hedges can affect truth conditions. Against a shared background in which Sacco and Vazetti were unjustly convicted (41a) is true and (41b) is false.[29]

(41) a. Technically, Sacco and Vanzetti were murderers.

b. Strictly speaking, Sacco and Vanzetti were murderers.

While the metalinguistic hedges we have considered so far, *loosely speaking, strictly speaking*, and *technically (speaking)* appear to behave syntactically like garden variety sentence adverbs, their cousins *kinda* and *sorta* have a syntax all their own. In particular, these items may appear as modifiers of any projection of any major lexical category. Examples with lexical nouns, adjectives and verbs are commonplace.

(41) a. It's got a sorta halo over it.

b. It was very kinda blustery that day. [Speaker's intent: The weather was extreme in a certain respect that day, but I'm somewhat hesitant to use the word *blustery* to decribe that respect, although I can't really think of a better word.]

c. He was kinda ELECTED the hereditary ruler.

Attested examples (42a,b,c) illustrate modifications of a maximal NP, AP and VP, respectively.[30]

(42) a. Crete is sort of an island.

b. All the papers were kinda really interesting.

c. I kinda have to get going now, because...

In (43) *sorta* modifies a non-maximal nominal phrase.

(43) Marvin's a [sorta [self-made straw man]].

Various possibilities with other categories and levels of projection are shown in examples (44).

(44) a. He distributed the grapes kinda amongst the mangoes.
b. while singing kinda in between the notes...
c. Sort of all over the world, reports kept cropping up.
d. She did it very kinda unfalteringly.
e. It began to shake kinda very jerkily.
f. I wonder sorta how many of the people he thinks he can fool how much of the time.
g. Kinda twist it over the flange and under the casing.
h. In trying kinda to outdo herself...

In (44a,b) the hedge forms a constituent with a preposition, in (44c) with a preposition phrase, in (d) with an adverb, in (e) with an adverb phrase, and in (f), (g), and (h) with a clause or sentence.[31]

5. Illocutionary Forces and Related Speaker Attitudes

According to a standard view – or perhaps a burlesque version of a standard view – there are three basic illocutionary forces, corresponding to the declarative, interrogative and imperative syntactic modes, plus, forces imposed by the semantics of the main verb in an explicitly performative sentence, and (45a,b).[32]

(45) a. I (hereby) appoint you Assistant Principal of George Walker Shrub Elementary School.

b. This court (hereby) finds in favor of the plaintiff.

Without trying to draw too fine a line between illocutionary force *sensu strictu* and closely related aspects of a speaker's attitude toward the content of his speech, we can recognize many cases in which a particular force or attitude is associated by grammatical convention with overt linguistic form. We have already considered the morphosyntax and force of the incredulity construction illustrated in (3), repeated below:

(3) Him be a doctor?!

Sometimes the special forces attached to a particular grammatical form are quite difficult to describe, although immediately recognizeable. A sentence like (46), said when picking up a tray laden with glasses and bottles, illustrates one such construction.

(46) Watch me drop this:

Such a sentence does not have imperative force, the speaker doesn't really ask the addressee to watch anything. The force has been described as "conjuring fate, among other things, although what that means exactly and whether it is correct are both open questions.[33] Appearances to the contrary notwithstanding, the construction illustrated by (46), whose syntax is sketched in (47), is not an imperative morphosyntactically, either.

(47) *Watch* NP[ACC] VP[BARE STEM]

The NP in this construction is not the object of the transitive verb *watch*. A second person object of a transitive imperative verb is realized with a reflexive pronoun, as illustrated in (48):

(48) [Look in the mirror.] Now, when I tell you this joke watch yourself/*you blush.

In the *Watch* NP VP construction, however, a second person postverbal NP is realized with a free pronoun.

(49} [I've finally taught you a proper backhand.] Now, watch *yourself/you beat me.[34]

Sometimes, straightforward syntactic process, which are normally associated with their own rules of semantic composition, are combined in a construction whose semantics is not that predicted from the separate syntaxes. In such a case, one must posit a new construction. Negative questions provide an example of this phenomenon. Thus, (50)b does not provide a paraphrase for (50)a.

(50) a. Didn't Fido eat the pizza?
b. Did Fido fail to eat the pizza?

Tagged question constructions can be classified into four types[35], each, seemingly with its particular force.[36] We can first distinguish same (semantic) polarity tags from opposite polarity tags. There are two subtypes of same polarity tags: positive same polarity tags and “fake negative” tags. Positive same polarity tags have positive semantic and syntactic polarity in both host and tag[37] and are pronounced with rising intonation[38].

(51) a. Fido ate the pizza, did he?

b. *Fido didn't eat the pizza, didn't he?

With regard to illocutionary force. “Same polarity tags] are attached to sentences that the speaker is not putting forward as his own but is 'citing in order to ask the listener if it is his'“ (McCawley 1988: 480, citing Cattell 1973). They can appear in utterances conveying either beligerence or docility.

(52) a. So John has washed dishes, has he? Well I know for a fact that he hasn't. (McCawley 1988:480)

b. Lucy can play the viola, can she? I didn't know that. (McCawley 1988:480)

McCawley also describes what he calls “fake negative” tags. These superficially have negation in the host (and not in the tag), but the host is nontheless a positive polarity environment. Fake negative tagged sentences have a characteristic intonational contour with a falling tone at the end of the host (indicated by ‘\’) and rising tone on the tag (indicated by ‘/’).

(53) a. You wouldn't rather go to the \movies, /would you?

b. *I wouldn't rather go to the movies.

c. *You wouldn't prefer to give me \a red cent, /would you?

d. You wouldn't prefer to give me \a penny, /would you?

Sentence (53a) represents a successful fake negative tag construct, containing the positive polarity item *rather*, whose positive polarity property is demonstrated in (53b). We might say that the force of sentences like (53)a is that of a timid suggestion: 'Would you consider going to movies, instead?' Examples (53c) and (53d) show that the negative polarity item *a red cent* is not permissible in this construction, while the polarity neutral expression *a penny* is.

Opposite polarity tags are more straightforward in that morphosyntactic polarity always matches semantic polarity. The polarity of the host is part of the semantics of the proposition being asserted (or otherwise conveyed). Intonation on the tag, rising (/) or falling (\) affects illocutionary force.

(53)	a.	They got caught, didn't they.	pol +	tone \
	b.	They got caught, didn't they?	pol +	tone /
	c.	They didn't get caught, did they.	pol –	tone \
	d,	They didn't get caught, did they?	pol –	tone /

Falling intonation polarity reversal tags (53a,c) seem to contribute a force akin to that of negative questions, perhaps expressing even greater confidence: 'I think p is the case, but please confirm.' Rising intonation polarity reversal tags (53b,d) sound less assertive. Thus, falling intonation tags are more fluently followed by 'I told you so!', rising intonation tags by 'I've been wondering'.[39]

There are many constructions, like the one illustrated in (55), which combine a special force with a rich presuppositional background:

(55) a. Sing away!

b. Talk away!

c. Eat away!

The morphosyntax of the construction illustrated in (55) is schematized in (56).

(56) V[BARE STEM, – DIRECTIONAL] *away!*

The presuppositional background includes the idea that the addressee wishes to perform the action denoted by the verb but requires the speaker's permission to do so and the illocutionary force is that of granting this permission.

We have been considering examples where force is tied directly to morphosyntax. There are also cases, originally noted in Morgan (1978), where the illocutionary force, or other interpretational information, is conventionally associated with making a statment or asking a question of a very broadly defined type. For example, "it is more or less conventional to challenge the wisdom of a suggested course of action by questioning the mental health of the suggestor, by any appropriate linguistic means" (Morgan 1978: 277).

(57) a. Are you crazy? Morgan (1978:277)

b. Have you lost your mind? Morgan (1978:278)

c. Are you out of your gourd? Morgan (1978:278)

d. Is he out of his gourd?

e. Is that woman out of her gourd?

Morgan develops the useful concept of short circuited implicature (SCI). Sometimes expressions of a certain form (e.g., [*Can you* VP?] in (58a)) that start out by conversationally implicating a certain kind of proposition (e.g., 58b) come over time to convey directly their erstwhile implicatum.

(58) a. Can you pass the salt?

b. [Please] pass the salt.

In such cases, the association has become a construction. The construction can remain exclusively interpretational, lacking idiosyncratic pecularities of morphosyntax, as is the case with the construction exemplified in (57). Morgan (1978:269ff) termed that kind of strictly interpretational construction a *convention of usage*, following Searle (1975). Morgan makes the further point that over time interpretational constructions (conventions of usage) often become grammaticalized. Such is the case with the construction illustrated in (58). This construction allows preverbal *please*, a characteristic of direct, but not indirect, requests.

(59) a. Can you please pass the salt?

b. *Are you able to please pass the salt.

The SCI of (58) and (59a) has become fully grammaticalized, having acquired its own morphosyntactic signature.

6. Conclusion

The purpose of this chapter has been to illustrate the remarkable diversity of ways in which pragmatic information of various types can be directly associated with linguistic form in irreducible grammatical constructions – that is, constructions whose form cannot be produced by combining smaller units of the grammar according to general principles.[40] I have presented these examples in terms of a rough, heuristic classification of types of pragmatic information: scalar models, non-scalar contextual operators, metalinguistic phenomena and illocutionary forces. The classification was created exclusively for the practical purpose of organizing this chapter.

If the reader were to go away with a single observation from this highly selective survey, perhaps the most characteristic one would be that made in connection with (17), repeated below for convenience:

(17) a. The three brightest students scored 95, 99 and 96, respectively.
b. Clarence, Florence and Terrence got the three highest grades, respectively.
c. The three brightest students got the three highest grades, respectively.

We saw in these examples that within a single sentence the linear ordering of argument sets required by *respectively* can be both metalinguistic (order of mention, *e.g., Clarence, Florence and Terrence*) or conceptual (*e.g., the three highest grades*). That a single construction can mix diverse types of pragmatic information under a single formal constraint in this way suggests that we have almost everything to learn about the ways pragmatic information is incorporated into grammatical constructions.

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Notes

[1] There is also a bound variable use of *we*. Nunberg (1993) adapts an example from Partee (1989):

(i) Whenever a pianist comes to visit, we play duets.

In this case, the 'I ' part of the reference is constant, and the remainder of the set containing the speaker is specified by the language of the sentence to be, on each occasion, the visiting pianist.

[2] "An utterance U presupposes P... iff one can reasonably infer from U that the speaker ... accepts P and regards it as uncontroversial..." Soames 1982: 486.

[3] Roughly, the same as that of a yes-no question with subject focus, like

(i) Did yóu catch that fish?

[4] An important pragmatic aspect of grammatical constructions, namely information flow (involving notions like topic, focus, availability, activation, etc.), will not be discussed in this chapter, since that subject is treated fully in 000.

[5] The full picture of a construction-based grammar is a bit more complex than this. Such a grammar takes the form of a multiple inheritance hierarchy of constructions, the leaves of which – the maximal constructions – form the atomic elements of what we might call the fully compiled grammar. Only the maximal constructions are the "minimal building blocks" referred to above. The maximal constructions represent the smallest set of conventional stipulations associating form and meaning a speaker-hearer must control to produce and understand the sentences of the language. Non-maximal constructions represent generalizations across maximal constructions that are extracted by the linguist. Linguistic data in themselves cannot tell us whether non-maximal constructions represent psychologically real entities. The relevant obligation of the grammarian, under this view, is to abstract from the data of the language all the generalizations, in the form of non-maximal constructions, that a speaker-hearer *might* extract.

[6] Here and elsewhere I use the term "interpretational" to avoid a theoretically fraught choice between "semantic" and "pragmatic".

[7] This discussion is oversimplified in several respects, one of which is the generalization just offered asserting the unproblematically negative nature of *let alone* sentences. See Fillmore *et al.* (1988: 518-519).

[8] We have not gone into the rather intricate detail of exactly which non-focused elements of the host can and cannot be absent in the fragment; these have a lot

to do with the syntactic idiosyncracies of *let alone* as a coordinating conjunction and the consequent justification of treating it as the mark of an independent grammatical construction.

[9]See Kay (1990: 70-81) for discussion regarding the role of accomodation in fulfilling the CP requirement in the related case of *even*. Note that *even* always goes naturally in the host clause of a *let alone* sentence.

(i) Fred won't even order shrimp, let alone Louise, squid.

[10]The following semiformal characterization of scalar model is adapted from Kay (1990:64-67).

[11]Fillmore et al. (1988) and Kay (1990) argue that scalar models necessarily have at least two dimensions (n>1). In thinking about a scale we often have to think also about a set of objects being scaled, yielding a minmum of two dimensions, but the weaker position adopted here admits of one-dimensional scalar models (n≥1).

[12]It follows from the fact that we have defined a simple order on each D_i ε D that entailment between two distinct propositions in F is unilateral.

[13]Among others; see Fillmore et al. (1988) for further discussion.

[14]In some cases, notably (11a), we are talking about a predicate, *invite Sarah and James*, which is interpreted as scalar only in context.

[15]The first way of putting it reflects the traditional view (see, e.g., Horn 1984) that the literal meaning of (i) is (ii) and that the ordinary interpretation of (i) as meaning (iii) is due to an upper bounding Quantity implicature acting on (ii).

(i) Sam has three children.

(ii) Sam has at least three children.

(iii) Sam has exactly three children.

The second way of putting it agrees with the analysis of Koenig (1991), for whom number names, and perhaps other scalar predicates, are literally punctual and it is the interval readings of scalar predications, e.g., (ii) as a reading of (i), that are derived by conversational implicature. (See also Carston (000) for yet another view of cardinals and scalars in general.)

[16]See Kay (1992) for a more careful characterization of the syntactic differences between simple scalar and evaluative *at least*.

[17] Rather lamely, I fear, in Kay (1992).

[18]For further, but equally inconclusive, discussion, see Kay (1992: 319-323).

[19]Many other such examples could be cited, such as Clark and Clark (1979) on English denominal verbs, Downing (1977) and Kay and Zimmer (1976) on English nominal compounds and possessive constructions, and Clark (1983) on a wide variety of phenomena of English.

[20]I'll have nothing to say here about the highly idiosyncratic syntax of *respectively*, for which see McCawley (1976), also Fillmore et al. (1988: fn. 14).

[21]*Respectively* also requires distribution of a predicate. We will see below that distribution of a predicate is not a requirement of *respective*, although *respective* does frequently function in this way.

[22]To obviate an irrelevant objection, we assume, a six horse race, in which, necessarily, exactly three horses finish out of the money.

[23]Example (22b) is due to George Lakoff pc. Seemingly, opinions differ on the acceptability of sentences like (21) and (22b).

[24]Horn (1985: 121) cites as precursors Ducrot (1972, 1973), Grice (1967, 1975), and Wilson (1975). Ducrot was the first to my knowledge both to employ the term metalinguistic negation (*négation métalinquistique*) and to extensively examine some of its properties, especially the implicature cancelling property illustrated by (30a).

[25](Horn 1985: 166). Interestingly, the same is true in French.

(i) a. Il n'est pas intelligent, il est très intelligent.
He isn't intelligent, he's very intelligent.
b. Il n'est pas intelligent, mais très intelligent.
He isn't intelligent, but very intelligent.
c. #Il n'est pas intelligent, mais il est très intelligent.
#He isn't intelligent, but he's very intelligent.

See Horn (1985: 167f) and Anscombre and Ducrot (1977) for further discussion. See also the latter source for comparison of the two uses of French negation+*mais*, with the 'but' doublets of Spanish (*pero/sino*) and German (*aber/sondern*).

[26]McCawley (1993) points out that the same *not...but* syntax can be used simply contrastively, not metalinguistically.

(i) John has drunk a quart not of beer but of whiskey. (McCawley 1991:193)

From observations such as these, McCawley concludes 'Not X but Y ... is not inherently metalinguistic, even if it is often used metalinguistically...' (1991:189).

To the extent that McCawley demonstrates a syntactic equivalence between metalinguistic and contrastive uses of *not X...but Y*, we should perhaps say instead that two distinct grammatical constructions share the same syntax. The impossibility of sentences like (34c) establishes the correlation of *not X...but Y* syntax with metalinguisitic interpretation as a matter of grammar, not merely of usage.

[27]The present discussion of the hedges loosely *speaking, strictly speaking*, and *technically* is condensed from Kay (1983 and 1996).

[28]At least not to my knowledge. One sometimes discovers that words one thought were only members of a colloquial register have in fact been given a technical meaning. I once offered *weed* as an example of a botanical term with no technical denotation and was duly chastened.

[29] Judgments vary on this example. Although most people I have questioned agree with the judgments expressed in the text, a minority hear *technically* and *strictly speaking* as synonymous in this context. For such speakers (41b) is true even under the assumption of factual innocence despite legal guilt. (Or perhaps the conflict in judgments is really about the word *murderer*, some taking it to require performance of an act satisfying the (legal) definition of murder and others taking it to require performance of an act judged to be a murder by a court.)

[30] Attested examples of *kinda* and *sorta* are from Kay (1984) unless otherwise noted.

[31]Kay (1984) discusses the syntax of *kinda/sorta* further. In particular it is argued that *kinda/sorta* does not behave like an ordinary deintensifying adverb, such as *slightly*.

(i) a. a very slightly but unevenly worn tire
    b. *a very sorta but surprisingly classical theory

(ii) a. That tire is worn very slightly.
     b. *That tire is worn very sorta.

(iii) a. That tire is worn, but only very slightly.
      b. *That tire is worn, but only very sorta.

(iv) a. That [very slightly]$_i$ worn tire is proportionately$_i$ discounted.
     b. *That [very sorta]$_i$ classical theory is correspondingly$_i$ admired.

The same paper also discusses the metalinguistic function of the *kinda/sorta* construction, usually indicating that the speaker is unsure of the aptness of the word or phrase focused by *kinda/sorta.* This usage is illustrated in the following attested examples:

(v) Chomsky has a very... sorta CLASSICAL theory of syntax. (David Justice, p.c.)

(vi) Those of us who grew up in the extremely sort of COMFORTING days of linguistics...

[32]Levinson (1983: 263-65, 274-76, *et passim*). Levinson rejects this view, but not for the reasons we will reject it below. Levinson argues that there are no literal illocutionary forces, that is illocutionary forces conventionally associated with a particular morphosyntax. I will suggest, contrariwise, that such associations are legion.

[33]The example is due to Charles Fillmore, p.c.

[34]This observation, incidentally, shows that the grammar of English contains an independent *Watch* NP VP construction, that is, that the "fate conjuring" force of a sentence like (46) is not derived by some form of conversational reasoning from the imperative sentence realized by the same string of words. Of course, this is not to say that imperative sentences of the form in question played no role in the historical origin of the construction.

[35]This discussion is based on Kay (ms.).

[36]As in the examples considered so far, I won't be able to gloss these forces with precision. I can only hope to indicate enough of their substance to persuade the reader that they are in fact distinct.

[37]In a sentence like (51a), I will call *Fido ate the pizza* the **host** and *did he?* the **tag**.

[38] Cf. Hirschberg (this volume).

[39]I have benefited from discussions regarding the different forces of various species of tag with Charles Fillmore, who is not responsible for any errors made here.

[40]This notion of the ultimate contents of a grammar leads constructionally oriented grammatical research in a direction distinct from that advocated by Chomsky:

> A look at the earliest work from the mid-1950s will show that many phenomena that fell within the rich descriptive apparatus then postulated, often with accounts of no little interest and insight, lack any serious analysis within the much narrower theories motivated by the search for explanatory adequacy and remain among the huge mass of

constructions for which no principled explanation exists – again, not an unusual concomitant of progress (1995: 435).