

John Goldsmith,
Erich Woisetschlaeger

The Logic of the English Progressive

The English progressive marker (*be-ing*) expresses two semantic domains, one that is aspectual in a strict sense, and one that deals with a more abstract notion of "meta-physical" status. In this article we will primarily investigate this second use of the progressive, hoping to show that good sense can be made of a semantic distinction which is by its nature abstract and at times fleeting. In fact, it is the fairly abstract nature of this particular semantic distinction that makes it of interest to us, for if the analysis proposed here is correct, then we have learned something directly about the conceptual distinctions a speaker of English uses in every sentence uttered.

We will begin with a brief discussion of the more or less straightforward aspectual use of the progressive marker, in order to define by way of contrast the uses of the English progressive which are not, in a strict sense, aspectual.

As is well known, some sentences (though not all) describe individual events or episodes, and, under a given description, an event will have a well-defined endpoint. Thus, for example, *John ran to the wall* becomes true just in case the goal is reached—in this case, John's being at the wall. Similarly, *John destroyed the city* is true only if whatever counts as destruction for the speaker actually occurred. By contrast, *John was destroying the city* (in the progressive, now) could well be true even if John was stopped before true destruction was accomplished. This is the well-known perfective (completive)/nonperfective (noncompletive) aspectual distinction.

The endpoint for other episodes is not as clear, and is more evidently imposed by the way the speaker conceptualizes the situation. For example, *John ran along the beach this morning* may well be spoken (and true) whether or not John's run had an endpoint defined in advance. This becomes clearer when one notices that whenever we say *John was running along the beach*, we are implicitly assuming that at the point we speak of, John had not reached the natural endpoint of his run.

This strictly aspectual use of the progressive is by no means its only use in English, however, and we wish to turn our attention in this article to a nonaspectual one.¹ This

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¹ Much of the recent literature on the progressive, and on aspect more generally, uses a distinction between predicates describing states and those describing activities, a distinction often taken uncritically. In the few works that attempt to develop the notion that is presumed to lie behind this contrast, such as Comrie (1976) and Lyons (1977), the difficulties inherent in clarifying this notion do emerge (and see fn. 3 below). In

other, "metaphysical" use of the progressive marks a distinction which we shall call the "structural/phenomenal" distinction, and which corresponds to two rather different types of knowledge about the world.²

We may note that one may describe the world in either of two ways: by describing what things happen in the world, or by describing how the world is made that such things may happen in it. This is not a generally accepted distinction. It is frequently proposed—or worse, presumed—that the logical form of generic sentences such as (1) is a statement quantifying over individual occurrences.

(1) Bill walks to school.

For example, (1) has on occasion been analyzed as, "If any event is an occasion of Bill's going to school, then it is an occasion of his walking." The philosophical position which underlies any such approach—and with which we disagree—takes events or occurrences to be more basic than generalization, both in the sense that occurrences determine the *truth* of a generalization that rests on them and, more profoundly, in the sense that the very meaning of a generalization is defined in terms of occurrence meanings. Our approach is to say that they are equally basic; their relationship is roughly as evidence and knowledge.

Our knowledge of the world consists in large measure of the functions, occupations, and responsibilities of people and things.³ We know, for example, that the President appoints the members of the Supreme Court, that Paul Newman is an actor, or that the

any event, the familiarity of the active/stative distinction is not in itself an argument for its correctness. On its conflicting criterial properties, see Sag (1973); more seriously, the active/stative distinction has been appealed to uncritically when (in our view) its application makes no sense. For example, one anonymous reviewer of this article has suggested that

Verbs (verb phrases) such as "smoke", "walk to school", "work perfectly", "be polite", "stand at ..." are ambiguous between a process or event reading and a stative reading (the latter being the gnomic, e.g. habitual, reading).

But the very notion of a process reading for the predicates we discuss in this article verges on the incoherent.

² The connection between "structural" descriptions and perfective descriptions is not an accidental one, to be sure. The metaphysical use of the progressive that we discuss in this article is the automatic result, we believe, of the extension of the use of the imperfective marker to an "axis of being", in Whorf's (1956) terminology. Propositions, the objects of our knowledge, are viewed as relatively closer to or farther from the "essence" or "heart" (again, in Whorf's terminology) of the aspect of the universe which they describe. The ultimate object of human knowledge being understanding, rather than mere description, a proposition which has reached the endpoint on the metaphysical axis—which is therefore expressed through a perfective aspect—will be one which specifies the structure of the universe, not merely its observed constituents.

It is our view that the kind of unabashed mixture of philosophical reflection, ethnographic description, and linguistic analysis which we have found in Whorf (1956) is necessary to do serious linguistic semantics. In this article, we restrict our attention to the metaphysical domain; we hope that we can achieve a further degree of conceptual clarity by distinguishing between the more familiar aspectual and the less familiar metaphysical domains. No purpose would be served, however, by *identifying* the two.

³ An anonymous reviewer has suggested to us that the progressive could be viewed as predicating properties not of individuals, but of stages of individuals, that is, "temporary manifestations of individuals". We admit that we have each tried to imagine what temporary manifestations of Erich Woiseschlaeger would actually look like, but without success. Ironically, W. V. O. Quine had the same problem when approaching the famous but anonymous Hungarian who pointed to a *gavagai*; Quine could never explain to his own satisfaction why he was incapable of taking the Hungarian to be pointing to time-slices of rabbit. We concur. See chapter 1 of Quine (1960).

choke of a car controls the air/fuel mixture. This knowledge of the "structure of the world" relates to particular events in many and various ways. In some limiting cases, there seems to be no direct connection at all. So, for example, we may say (2) on the basis of having designed the car this way.

(2) This car runs on kerosene.

Indirectly, of course, this assumes considerable experience in the design of car engines which has equipped the designer with the necessary competence. Neither understanding nor substantiating the claim of (2) requires any reference to particular events. The justification for (2) may consist merely in explaining the principles of the combustion engine in question.

This knowledge of the structure of the world contrasts with a "phenomenal" description of the world. Consider (3).

(3) *Guys and Dolls* is playing at the Roxy.

A sentence like (3) simply describes what is happening, what we might see if we simply opened our eyes.

Or consider the pair of sentences (4) and (5).

(4) The engine isn't smoking anymore.

(5) The engine doesn't smoke anymore.

Our semantic analysis of this pair of sentences is that (4) describes a situation phenomenally (progressive aspect), and (5) structurally.

Let us consider a scenario that will make this point clearly. Imagine that your car has been smoking a lot recently and, knowing about automobiles, you decide to repair it yourself. You pinpoint the source of the trouble in a defective hose, and replace it. You can now confidently assert that *The engine doesn't smoke anymore*, with—or without—letting it run smokeless. To say *The engine isn't smoking anymore*, you would certainly have to start the engine first, and your comment would be just an observation, rather than a claim about its being repaired, as (5) is.

On the other hand, imagine that you are driving down the highway with the engine smoking. You and your passenger comment on this—*Look, the engine is smoking*—and your passenger dozes off to sleep. He wakes up and, noticing no more smoke, may well say (4), *The engine isn't smoking anymore*. It would be distinctly odd to utter in this context the nonprogressive (5).

What makes these two cases different is the presence or absence of *repair*, which is an example of the more general notion of *change*. This sense of change, we shall see, is central to a deeper understanding of the structural/phenomenal distinction, a principal semantic contrast in our system.

We start with the basic assumption that there are objects in the world. These objects may be either material or nonmaterial; we shall return to examples of the second sort

below. Our second premise seems incontestable when stated directly, but it has quite a few consequences: that in the course of events in the world, objects may change, and objects may not change. Let us see what these possibilities say to us.

For purposes of discussion now, let us call a *property* anything whatever that one might say about some particular object. These properties presumably are different at different points in time—the engine in the car we were just discussing, for example, is in a different location, has a different age, and so forth, with each highway exit sign it passes.

Yet for all that, we would not, we claim, consider that the engine has changed at every moment. Even whether the engine is running or still, hot or cold, does not suggest to us that the engine itself has changed. What is crucial is that the engine continue to function in much the same way—no new parts, no new complaints. We see that *some* properties (temperature, for example) may come and go without our thinking that the engine has changed; others—here, those relating to the functioning of the engine—may come or go, and we will conceive of the engine as having changed, either in that it has broken down somehow, or that it has been repaired. In short, those properties whose going or coming mark a change are precisely those which describe the constitution of the engine.

Nonmaterial objects show both phenomenal and structural properties, too, quite parallel to the case of the engine that we have just considered, a material object. Here we do not *discover* the properties that constitute the object; rather, we invest it with them. Let us consider a pair of sentences suggested to us by Susan Martin:

- (6) This law raises the price of oil by 10¢ a gallon.
- (7) This law is raising the price of oil by 10¢ a gallon.

Here as above the nonprogressive, (6), describes the structural properties of the law; (7), the progressive, describes its phenomenal properties. The structural properties of the law are those which, if altered, would lead us to say that the law itself had changed, as we have just explained. The phenomenal properties will be all others.

Sentence (6) is an observation about what was written into the law by the legislator who drafted it; we could as well say of a bill—not yet passed—that it *raises the price of oil by 10¢ a gallon*, just under the condition that this is indeed a provision of the law. On the other hand, (7) refers to the observable consequences of the law, leaving quite open whether the price hike was its original intended result. On this analysis, then, the progressive should make little sense in connection with a bill, which rarely has observable effects:

- (8) This bill is raising the price of oil by 10¢ a gallon.

And in fact (8) is anomalous; it is very hard to conceive of a situation where it is appropriate. Perhaps the only such case would arise if rumors of the bill circulating in the legislators' cloakroom were having certain effects on the oil market; but again, it is the observable effects which are reported by the progressive form in (8).

We see again the close connection between structural properties or structural description, and change. We say of a law that *it* has changed just in case it has been amended; what its effects are, and how they may change, affect neither its contents nor, therefore, its structural properties.

It has not been an oversight that we have made no reference to time in analyzing these sentences. One of our central assumptions is that aspect in language never deals with a mental representation having the structure of a line, and consequently the attempts made by many linguists and philosophers to map the simple present and the progressive aspect in terms of events or states marked on the real time line, extending into the past and future, are necessarily inadequate to account for natural language semantics.

Let us turn to one of the best analyses of the progressive in the literature, a careful analysis that is nonetheless bound to the time line, that of Leech (1970). Using the time line as the basis for his analysis, Leech arrives at the conclusion that among the meanings of the progressive there are two that are mutually contradictory: the *limited time extension* meaning and the *continuous* meaning. To illustrate the first of these, Leech gives, among other examples, the pair (9a,b).

- (9) a. The engine works perfectly.
- b. The engine is working perfectly.

For the second, the continuous meaning, he gives examples (10) and (11):

- (10) The Earth is turning on its axis.
- (11) Death is getting nearer every day.

Leech proposes that the progressive as used in (9) "signifies . . . limited duration" and later that it "suggests" that the state of affairs described in the sentence is temporary. The notion of temporariness he employs seems, at first blush, to refer simply to time, but in fact it does not. It is a modal statement about the probability of a given state's continuing, which is claimed to be low. It is, of course, our point that it is precisely in modal notions (which must here be brought in, perhaps reluctantly) that the key to an analysis of aspect lies.

Leech proposes that the effect of the progressive as used in (10) and (11) is "to throw emphasis on the ceaseless persistence of the process." Leech recognizes that this meaning is contradictory to the limited duration meaning mentioned above. He tries to overcome this difficulty by suggesting that one of the contradictory meanings can "be strong enough to cancel out" the other; but this metaphor gives one little understanding of how sentence forms and meanings are associated. More seriously, this analysis makes it hard to understand how the meaning of the progressive form could be learnable. The task facing the language learner on Leech's approach is that of assigning two contradictory meanings to a single grammatical form along a single semantic dimension.

On our own analysis, (9a,b) are entirely parallel to (4) and (5); the distinction is that of structural/phenomenal. For (10) and (11), however, the straightforward aspectual interpretation (which apparently always has at least psychological priority) is available,

just as in *John is running on the beach*. This interpretation says that the (here, implicit) endpoint has not been reached; hence, the activity will go on. The "inexorability" of (10) and (11) that Leech notes surely derives only from the massive and grim subject matter, respectively, that Leech deals with.

Returning to our own analysis, consider the following two sentences:

- (12) The statue of Tom Paine stands at the corner of Kirkland and College.
- (13) The statue of Tom Paine is standing at the corner of Kirkland and College.

From our point of view, (12) should be appropriate just in case the City Council or, in any event, the appropriate authority has passed legislation that assigns Tom Paine to the location mentioned. (13) should be the appropriate form if it is meant as an eyewitness account. In terms of the conventional analysis, (12) is appropriate if the location of the statue is permanent, and (13) if we expect it to change. In the normal course of affairs, our analysis entails this also; all other things being equal, the place to which the City Council assigns a statue is where it is going to stay. Contrariwise, an eyewitness account of where the statue was last seen would be normal or appropriate if the statue were being moved around.

Nonetheless, we can construct situations where the two theories make different predictions concerning appropriateness.

- (14) The statue of Tom Paine now stands at the corner of Kirkland and College, but everybody expects the new Administration to move it.
- (15) The statue of Tom Paine is standing at the corner of Kirkland and College, and nobody thinks the deadlocked City Council will ever find a proper place for it.

These examples are appropriate as they stand on our account.

The standard analyses in terms of temporal duration, on the other hand, predict that both (14) and (15) should be anomalous. In (14) the second conjunct implies that change is imminent, while the first is claimed to signal "duration not limited"; this ought to be incongruous. (15) is just the opposite case: the second conjunct expresses a prognosis of permanence, while the first is claimed to express "limited duration". Again, the sentence as a whole ought to be strikingly incongruous.

Our analysis squares well with the well-formedness of both (14) and (15). The main difference between the two cases is that the first conjunct of (14) describes the current location of the statue as the properly designated one, while the first conjunct of (15) describes the current location pure and simple; the speaker, by choosing to use the weaker form in (15), strongly suggests that the location has *not* been determined by the proper procedures. The second conjuncts are entirely compatible with the first conjuncts in both cases; the duration of either state of affairs is independent of what we might call its administrative status.

Having argued that the meaning of the progressive does not involve any temporal notions, we may confront the traditional analyses in terms of temporariness from a

different perspective. We may ask what there is about the relevant data that makes the limited duration analysis such an attractive one, to the point of seemingly unanimous agreement on some version of it. At the root of an answer to this question lies the observation that it is simply quite natural to think of structure as relatively enduring, and of phenomena as relatively transitory. But this is a matter of statistical tendencies, not of entailment. A structure that was fixed one way at one time can change or be changed, and so become fixed a different way. On the other hand, phenomena that just happen to be a certain way at one time may happen to persist that way through time indefinitely. We have just given examples illustrating the fact that structure can be subject to change. An example of a persisting phenomenon would be *A photograph of Grandma and Grandpa is sitting on the mantelpiece, as it has been for 30 years*, describing a family's living room.

A similar point, suggested to us by Lila Gleitman, is made by the pair (16)–(17).

- (16) A voice on the telephone at the police station: "Help! Police! The statue of Tom Paine stands at the corner of Kirkland and College streets!"
- (17) A caller to some other police station: "Help! Police! The statue of Tom Paine is standing at the corner of Kirkland and College streets!"

(16) is bizarre under any circumstance; (17) is perfectly appropriate and suggests, of course, that the statue was stolen and is not in its rightful place.

Up to this point, we have considered examples dealing with objects, material and nonmaterial, but not with people. The same structural/phenomenal distinction holds here, too, though. The nonprogressive characterizes a person; the progressive reports on behavior. This bears out Jespersen's observation that in the progressive "very often a transitory condition or behavior is meant in contrast to the person's habitual or real character" (1909, IV, 226).

Imagine, for example, that two friends are talking about a third person whom both of them know well. The third person is considered by both to be an impolite and inconsiderate fellow. If they should see him giving up his seat to an elderly lady on the subway one day, then the only appropriate way for them to comment on their observation would be to say *Alvin is being polite*; to say *Alvin is polite* would be inappropriate, despite the evidence in front of their eyes.

This leads to a straightforward account of the fact that there is often an implication of insincerity when adjectives are used in the progressive. The point is a Gricean one: you say as much as you know, and if you know the person well enough to be able to judge him polite, then you wouldn't normally weaken your statement by using the progressive. Therefore, if you do use the progressive, there is an implication that you may know enough about the fellow to contradict the evidence.

Consider a similar situation on the subway, except that now the two friends do not know the person they observe giving up his seat. Then it seems that either *He is being polite* or *He is polite* can be used felicitously, though not interchangeably. When one says *He is being polite* in such a situation, then the suggestion of insincerity disappears,

again for the obvious Gricean reason. What use of the progressive here suggests is simply that the speaker is not prepared to extrapolate beyond the evidence available to him or her. Exactly the opposite is true in the case where one says *He is polite*. This is not understood simply as a comment on observed behavior, but makes a claim beyond observation, to the character of the person.

It is therefore important to maintain the distinction between the "core" semantic contrast—phenomenal vs. structural—and any pragmatic inferences that may be drawn from it. In the case of Alvin's courtesy, an inference of insincerity could be drawn, using Gricean pragmatic principles.

By maintaining this distinction, and holding the "evidence/knowledge" contrast as the basic semantic distinction, we arrive at an explanation of a rather different use of the progressive. For example, we might say of someone,

(18) Old Lilly is always feeding the pigeons in the park.

The progressive is used in (18) even though the nonprogressive is possible, as in (19).

(19) Old Lilly always feeds the pigeons in the park.

There is a sense in (18) of mild reproof, which is absent in (19). Why should this be? On any account of evidence and knowledge, if we know enough to say (18), we would be warranted to say (19). Yet the speaker of (18) has chosen the weaker, noncharacterizing form (18) with the progressive. The speaker cannot be *compelled* to draw the more general conclusion (19), and yet failure to draw this conclusion in the face of sufficient knowledge suggests that the speaker is more or less deliberately avoiding such a characterization of Old Lilly. A natural reason for this avoidance would be that the speaker finds such behavior distasteful, and hence we may reasonably infer that a sense of mild reproof (perhaps unconscious) is involved.

The same explanation holds for more complex examples like Jespersen's *I am always saying what I shouldn't say; in fact, I usually say what I think*. But there is no special "sense" of the progressive, as Jespersen suggests, of "emotional coloring"; rather, what emotional colors there be follow pragmatically from our basic semantic contrast.

Speaking of his "frame-time" theory of the progressive, Jespersen remarks that "it is not always easy to apply the rule of 'frame-time' to them". It is equally difficult to fit contrasts like (18)/(19) onto the Procrustean bed of a time-line analysis. If *always*, which appears in (18) and (19), acts like a universal (or quasi-universal) quantifier on the time line, then the two sentences must be synonymous. Indeed, on a strict reading of the time-line analysis, it is hard to see why sentences like (18) are possible at all. We cannot pursue the formal inadequacies of the time-line analysis here, however, simply because to our knowledge no such analysis has been worked out in sufficient detail to be rigorously tested, or to speak to any but the simplest of examples.

Yet another class of "exotic" uses of the nonprogressive falls under this analysis of the progressive/nonprogressive distinction. A stage magician, or the scientist of

"Watch Mr. Wizard", can perform a magic trick, or an experiment, and use the nonprogressive to describe what he is doing. This use of the nonprogressive is generally held to be exceptional, and at first sight contradicts our analysis of the nonprogressive, an inappropriate form to describe observations.

However, it is in fact not a counterexample. Although Mr. Wizard can say (20),

- (20) And now I take the flask of sodium nitrate and pour the contents into this beaker; now I light the Bunsen burner and heat it to a boil. . . .

he cannot continue with (21):

- (21) And now I—whoops—sneeze; and now I reach into my pocket and take out my handkerchief. . . .

And why not? Because Mr. Wizard's description is not in fact a description of what he observes himself doing; rather, it is a description of the structure of the experiment that he is performing.

We can see this from simply observing that, if Mr. Wizard's words in (21) are to be taken at face value, then the sneeze, the reaching for the handkerchief, etc., have to be interpreted as a part of the experiment. The example is odd because it is hard to imagine that an involuntary act like sneezing could be a necessary part of an experiment.

Our observations have led us to the conclusion that the logical system of English includes such abstract objects as experiments, which exist over and above any particular instances or performances. This category includes not only experiments but also schedules, among many other things. Thus, we use the nonprogressive to describe train schedules, for example.

- (22) Look! Our itinerary says that we fly to London tomorrow, and then fly on to Paris Saturday.

Once again, a supposedly different, and exotic, meaning of the nonprogressive—the "programmed future" sense—is seen to be an artifact arising from a superficial description; in fact, it is not a separate meaning of the present nonprogressive.

Let us look back over these last two examples and see how the progressive form could be used. If we observe Mr. Wizard and narrate his performance, we could report,

- (23) Now he's picking up a glass flask, and pouring its contents into a beaker. Now he's lighting the Bunsen burner and—wait! He's reaching into his pocket for what seems to be his handkerchief!

This, of course, is the expected phenomenal description. Notice that there is no incongruity in mixing descriptions of moving flasks and sneezes now—it is all neutral description, phenomenally on a par.

Although the narrator here was speaking in the third person, there is no strict reason why Mr. Wizard couldn't narrate his own activity, although it would be rather pointless

in this case. One can, though, always watch one's own activities and describe them, using the progressive form.

The perspective in the two cases shifts significantly, and we do not minimize the difference, although it may be minor in some cases. It is true that the observation is "extrospective" in the one case and introspective in the other; but they both count as observation and not as reflecting structure.

English differs from other languages with a grammatical progressive such as Spanish in that the English present progressive as well as the simple present has a futurate use. The use of the simple *present* as a structural description follows from what we have said above. It is not obvious, however, that the futurate use of the progressive should likewise follow automatically from general principles. Spanish, for example, does not permit sentence (24), otherwise parallel to (25).

(24) *Me estoy yendo in cinco minutos.

(25) I'm leaving in five minutes.

Which exhibits the unmarked state, then, English or Spanish? Which should follow naturally from our theory? Perhaps surprisingly, the analysis presented so far suggests that Spanish, not English, is the unmarked case. The decision reported by (25) has, strictly speaking, no observable counterpart, and a phenomenal description of it should therefore be unavailable.

What language-specific characteristic of English makes it possible to use the present progressive in a futurate sense as in (25)? We would like to suggest that English contains a rule that makes decisions, that is, objects of introspection, accessible to phenomenal description. On this view, the function of the rule is not purely formal, but in effect says that it will be a language-particular fact that certain situations will be analyzed *as if* they were different in one specific respect from their actual status. In this case, certain mental objects of introspection will be grammatically (in a broad sense) treated as if they were phenomenally described.

In summary, there is a general coherence to the "structural" mode of description in all the cases we have considered here. A general exclusion of capriciousness ties together all the examples we have seen. With the engine that smokes no more, we assert that the capriciousness of nature has been eliminated by our having competently fixed the engine; in the case of the statue, the dependable location of Tom Paine's likeness is fixed, by legal decree. The sneeze that interrupted Mr. Wizard's demonstration was an accidental intruder in the course of his experiment, and so had no role in the structural description of the affair.

In this article, we have described in some detail the nonaspectual semantic character of the English progressive construction. We believe that some of the questions we have left unanswered are posed here in suggestive ways; we have suggested, for example, that one of the uses of the English progressive (the "futurate" use) is not the necessary partner of the other uses described here. More generally, a theory of the progressive

in English should be embedded within a more general theory of semantic contrasts that predicts which semantic domains a language may choose to incorporate under a single syntactic umbrella. We hope that further work of this sort will be forthcoming.

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(Goldsmith)
Lindley 401
Indiana University
Bloomington, Indiana 47401

(Woisetschlaeger)
223 Prospect Avenue
Trenton, New Jersey 08620