Both of these books are highly technical treatises of the relation of time to the meaning of clauses in English. Ludlow (1999) uses formal philosophical reasoning, and Fernald (2000) uses formal linguistic reasoning. Both make liberal use of terse mathematical notation to make their arguments precise, but this also makes them obscure even to a linguistically sophisticated reader like me who has taken several graduate-level courses in both mathematics and formal linguistics. Thus the significance of their involved argumentation and their resulting conclusions is not easily discernable, except perhaps to those in their narrowly specialized fields of inquiry.

Because of this, the majority of the contents of these books is of little value to the average field linguist. However, several significant facts can be gleaned from their pages that bear on the everyday issues of how time relations are encoded in natural language. Therefore, rather than attempt to retrace all the claims and reasoning used in these books, I have compiled a list of observations about time relations taken from them which may be of benefit to those analyzing languages other than English. They are organized by topic and referenced by the first letter of the author’s last name and the page number; for example, “(F.13)” means “Fernald (1999:13).” Some of these observations are direct quotes; others are my paraphrases.

It is noteworthy that although these theorists use primarily formal argumentation, they both make frequent reference to semantic and pragmatic phenomena which are, by definition, outside the realm of their theoretical frameworks. This may reflect the beginning of a trend toward a more holistic approach to linguistic analysis than has been the norm in formal models in the past. Such a trend would be of great benefit to field linguists, who regularly deal with clausal relations in varied speech situations involving multiple discourse genres and culturally conditioned contextual clues to meaning, much of which may be partially or completely implicit.
Time

Certain problems posed by the pre-Socratic philosophers are still debated, and the number of metaphysical puzzles surrounding the nature of time continues to multiply. (L.1)

Temporal relations are psychological, not ontological; thus they are analyzable in terms of relative earlier-than or later-than references, rather than fixed past, present or future references. (L.2)

“Intuitively, then, times are derivative of our primitive notion of when.” (L.128)

Tense

“[E]vents are not intrinsically past, present, or future; rather they simply exist (out there, somewhere), and ‘past’ and ‘future’ are merely ways of talking about where those events lie relative to the utterance events in which we speak about them.” (L.xv)

An optimal tense system recapitulates the structures made available by the system of explicit temporal conjunctions, and it inherits the constraints on that system. (L.124)

“All tensed sentences have implicit when-clauses which serve to do the work of temporal anaphora.” (L.134)

“There is a real grammatical phenomenon (or class of phenomena) that we sloppily call tense and which we suppose to be connected to temporal reference. What we really have on our hands in most likely not a single phenomenon but a mixture of modality and evidentiality.” (L.163)

Tense is an implicit anaphor. (F.85)

When tense occurs with a nontemporal predicate, it serves to locate the evaluation time for the propositional content of the sentences in the event such a predicate occurs. (F.124)

Predicates

Many languages display grammatical effects due to the two basic kinds of predicates (those that involve spatio-temporal reference versus those that do not), suggesting that this distinction is fundamental to the way humans think about the universe. (F.3)

Discourse

Grice revisited: “Consider a speaker S, who wishes to ascribe an attitude to an agent A for the benefit of hearer H. In order for S to succeed, S and H must share a theory of what beliefs are, for it is the shared ontology of beliefs that will guide the way in which beliefs are ascribed. S must also have tacit knowledge of the goals of belief ascription. That is, S must have a theory
that allows him or her to determine what features of A’s belief will assist H in the relevant way. Finally, S must have a tacit theory that allows him or her to deliver the kind of ascription that will be helpful to H.” (L.55)

The content of a relative clause can often be extracted from previous discourse or from shared background information in a manner analogous to pronouns, which stand proxy for definite descriptions. (L.116,131)

“I take it to be a common assumption of semantics and pragmatics that hearers are very resourceful in their efforts to interpret whatever is said to them when they assume that someone is trying to communicate with them. So, when there is a violation of one the rules of semantics, hearers try to make what sense they can of the utterance they perceive. When possible, a minor adjustment will be made in the interpretation of the offending portion of the utterance to bring it in line with the requirements of the grammar. This kind of coercion [*qualification*] allows some sense to be made of what was said. When the violation is serious, the hearer is also led to...a conclusion that the speaker intends to be humorous or poetic.” (F.65)

Evidential qualification is a pragmatic effect. (F.69)

Theories of dynamic semantics interpret utterances as “context change potential” rather than as propositions. This allows information to be tracked through a discourse in a way that is not possible with classical logic. These approaches provide a way to enter discourse referents into a discourse and keep track of them. In particular, utterances containing indefinite descriptions introduce discourse referents along with information about them. Utterances containing definite descriptions of pronouns change the context by adding information about previously identified referents. (F.83)

**Theory**

“This sort of divide-and-wall-off strategy is almost never successful in the natural sciences, and it is hard to see why it should be successful here (where we are at least knee deep in natural science). Artificial disciplinary boundaries simply do not solve problems.” (L.64)

Metaphysics, semantics, and psychology are not easily separated. (L.95)

“That something is not accounted for by current theory is the norm in empirical inquiry. It is something to investigate, not to despair over.” (L.72)

“It is altogether too easy to construct theories that overgenerate the set of possible sentences. What we would like to have is a theory that is constrained enough to generate the sentences of our language and only those sentences.” (L.103)

“Perhaps somewhere (maybe it was Aristotle’s fault) bad philosophy infected linguistic theorizing.” (L.157)
“It would be nice to nail down hard and fast rules [on coercion], but we are discussing phenomena that are outside the grammar which is the domain of hard and fast rules.” (F.69)

“Many syntacticians today take binary branching as an assumption; that is, they assume a theory that requires every mother node to have exactly two daughters.” (F.75)

Notes

1 For those who might wish to pursue the formal arguments presented in these books, the basic theses are as follows.

Ludlow takes as his starting premise Chomsky’s understanding of language as biologically determined, not socially determined, including the corollaries that the goal of linguistic inquiry is language competence not language performance, and that language is primarily useful for expressing thoughts, not necessarily for communicating those thoughts. Thus his semantic theory takes the form of a truth-conditional theory which characterizes the speaker’s knowledge about the connections between language and the world. Based on this understanding of language, he uses semantic arguments to support an A-theory conception of time (as opposed to a B-theory conception), and to propose a corresponding theory of linguistic tense in which indexicality is part of the semantics and pronominal anaphora stand proxy for definite descriptions rather than refer directly to times. Consequently, tense as a linguistic notion is irrelevant and unnecessary.

Fernald also assumes a Chomskian view of language to argue that state-level predicates describe characteristics of individuals that hold in space and time, whereas individual-level predicates are independent of space and time. Thus the SLP/ILP distinction cannot be reduced to any kind of aspectual distinction, and the stative versus nonstative distinction is not relevant at the predicate level. In the process he shows that both ILPs and SLPs have a conglomerate of dichotomistic properties that different diagnostics pick out, and that several of these dichotomies are subject to significant pragmatic influence. Nevertheless, there is still a substantial core of the SLP/ILP distinction that is purely grammatical, i.e., there is a type-theoretical distinction between them because only SLPs can have a spatio-temporal argument. Thus SLPs have an implicit temporal argument, and tense, when filling this argument, is potentially anaphoric, which accounts for the so-called donkey anaphora cases, including the ability of a SLP to restrict a quantifier or modal operator.