## Anaphores temporelles et (in-)cohérence

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This paperback, consisting of eleven essays, all but three in French, on temporal anaphora and coherence, initiates the series *Cahiers Chronos*, with a Franco-Belgian-Dutch editorial board directed by Carl Vetters. Lacking an editorial policy statement outlining the strategic directions for future volumes in the series, the book must be taken at face value, as an apparently unrefereed collection of papers of rather disparate quality, probably read at a meeting by the authors. The editors provide a short summary as introduction and outline two conclusions as uniting themes (p. iv, my translation):

- Deixis and anaphora should not be employed to characterize time, but to characterize certain types of discourse and as strategies that allow the assignment of coherence to discourses.
- Coherence is not only established at a global level, it is also constructed at a local level where the types of NPs, selected by the predicates and their aspectual-temporal values, must be compatible.

The editors emphasize the following analogy between NPs and tenses. The simple past is analogous to the indefinite NP, as it may shift the reference time. But it is also anaphoric, as this time may be temporally dependent upon a prior one. **Anadeictic** is the proposed neologism for this combination of dependent indefinite behavior of the simple past. The perfect tense describes the resulting state, and is considered to be like a demonstrative NP in being dependent directly on the speech time. Lastly, the French *imparfait* is considered analogous to the definite NP, as it does not shift the reference time, but depends on a given one. Although this analogy has proven its use in the current dynamic theories of meaning and interpretation, not all the authors adhere to this logical toolkit. Disparate terminologies and eclectic use of representational systems, ranging from Langacker's pictorial cognitive models to Structured Discourse Representation Theory, make the book hard reading for even the patient reader of *Computational Linguistics* who is open to a healthy diversification of explanatory accounts in linguistics.

I will briefly summarize the eleven chapters and conclude with an overall assessment of what contribution the book makes to the state of the art in linguistic theories of tense and aspect.

Chapter 1, by Michel Charolles, studies the constraints induced by the notoriously difficult intensional verb to change for discourse NP anaphora. Explicitly stated is the core issue of how coreference should be expressed in a given context, using

either a simple pronoun, a demonstrative or indexical, or a descriptive referring NP. A present-perfect clause does not provide enough information by itself to determine the referent of the pronoun, but the VP of the second clause must be used in its resolution. Consider:

- (1) The waiter has changed the tablecloth. It {was | \*is} dirty.
- (2) The waiter has changed the tablecloth. It {is | \*was} clean.
- (3) The waiter has changed the tablecloth. It is in the laundry.
- (4) The waiter has changed the tablecloth. ?It was less nice.
- (5) The waiter has changed the tablecloth. \*The next one was in the closet.
- (6) The waiter is changing the tablecloth. It {\*is | was} clean.

The pronoun *it* refers to either the old tablecloth or the new tablecloth, depending on tense and lexical relations (examples 1–3). Comparative elliptical VPs are questionable in such contexts (example 4) and indexical coreferring expressions are unacceptable (example 5). A present-progressive first clause does not provide an antecedent for the clean table cloth, but does provide one for the old one (example 6). The account attempts to use indexing as an explanatory mechanism for coreference or disjoint reference. It remains unresolved as to how the pronoun resolution strategy must be modeled in syntax. Rather than delving more deeply into these interesting issues, the paper reviews a number of intensional contexts created by *change* as an intransitive or transitive verb, concluding that tense may also determine the nature of modality. Langacker's iconic representations are then presented as dynamic sequences of states with a trajectory, without any clarification of what the author's boldface typography means or how two Venn-like diagrams in such a sequence are related.

Chapter 2 is by Ilse Depraetere, who is proud to use corpus data but adjusting them to suit her own case. She discusses the sequence of tense in present-perfect main clauses that have either present or past-perfect subordinate clauses. The present-perfect is bad with definite adverbials referring to the past.

(7) She has made good progress ..., since she took the medicine I {had | \*have} prescribed at her last visit.

The facts could well be accounted for satisfactorily in Discourse Representation Theory (Kamp and Reyle 1993), but no use is made of such semantic tools. An intriguing remark about the role of stress in providing a link to the speech time (pp. 36–7) is buried deeply in the rather unstructured discussion in the remainder of the paper.

Chapter 3, by Danièle Godard and Jacques Jayez, distinguishes between weak and strong event-denoting NPs, where only the latter can be said to take place, even though the weak events form a subset of the strong ones.

- (8) Weak event: \*the symphony took place
- (9) *Strong event*: the *concert* took place

The second distinction is a dichotomy between material and informational objects, where the latter are located somewhere or contain something, and the former have weight or exist. The paper discusses how these four types may affect anaphora, arguing that a certain looseness is often acceptable.

- (10) I slept during the entire symphony, but I promise to study *it* tomorrow.
- (11) The evaluation took three months. *It* is on your desk.

The resulting observations are formulated in a constraint:

When the type of pronoun is incompatible with that of the antecedent, the structure is marginally acceptable if the semantic representation of the antecedent or the VP applied to the antecedent provides a compatible type that serves as antecedent of the pronoun. (p. 57, my translation)

No further suggestions are offered of how a semantic representation would accomplish this.

Chapter 4, by Jacqueline Guéron, is the most tightly argued paper in the collection, with a solid generative rooting in binding theory. Compositionality is espoused: every morpheme and syntactic relation between morphemes contributes to the interpretation. The paper addresses the question of why French differs from English (12) and Arabic in not admitting a simple past perception verb in (13):

- (12) I saw Mary this morning.
- (13) \*Je vis Marie ce matin.

What parameter explains the difference between the English and the French? And how can a complex temporal structure convey the same sense as a simple temporal structure, given the compositionality principle needed for the coherence of the grammar? Binding theory with temporal chains is presented, with parameters for the reference time and the speech time in Comp, an event argument in the verbal argument structure, and T, the head of a Tense Phrase, "satisfying" this event argument. Movement of indexed T with a Perf (perfect) feature accounts for the observed difference between English and French. English and Arabic are said to lack any visible imperfective morphology, whereas French alternates between visible and invisible imperfective forms but lacks perfective verbal morphology, as its perfective morphology is considered to be nominal. Compositionality is argued to be preserved as the simple past in English, and the situation in Arabic is analyzed as complex, constructed as a conjunction of the present and perfective aspect, whereas French accomplishes this conjunction overtly with an auxiliary verb (p. 76). This is good generative syntax, but it still requires spelling out a clear compositional semantics in terms of satisfaction conditions in temporal models, interval- or event-based.

Chapter 5, by Theo A. J. M. Janssen, shows an unfortunate misunderstanding of the analogy in Partee (1973) between pronouns and tenses, first considering tenses on a par with demonstratives and then equating these with definite descriptions. Their "definiteness" is subsequently explicated by appealing to the Deictic Construal (p. 85), consisting of seven conditions in which such notions as mental field of vision, vantage point, region, salience of entities in regions, uniqueness of such entities in regions, and focal or disfocal referential concern all play a role. The elaboration of the analogy between pronouns and tenses with adverbials in Partee (1984) is equally misrepresented as advocating a time-based approach to tenses, where past tense is optional with overt indexical temporal adverbials. The misunderstandings must, however, be superficial, as Janssen's account of Partee's classic example (14) strikes me as a perfectly compatible informal rendition—in terms of extralinguistic context or situation of context,

assumed to be common conversational ground—of Partee's logical analysis of past tense as introducing a contextually determined event.

## (14) I did not turn off the stove. (Partee 1973, p. 602)

The sentence hence cannot be interpreted as negating the existence of some past event of stove-turning-off by the speaker. In a more useful section of the paper, the short-comings of Reichenbach's (1947) well-known temporal reference system in application to Dutch are discussed, proposing to improve over it with the Deictic Construal system. This positive proposal needs much more elaboration and proper definition of the explanatory concepts before it can be properly assessed.

Chapter 6, by Arie Molendijk, takes a rather more careful look at the issue of when, if at all, verbal lexical presuppositions induce antecedents for nominal or temporal anaphora, supported by mostly French data. The view that textual relations must license such dependencies is defended. Five such relations are given: (1) explication, relating simple past to *imparfait*; (2) manner or elaboration, relating two *imparfaits*; (3) backgrounding, relating simple past and *imparfait*; (4) consequent or result, relating simple past and *imparfait*; and (5) incidence, relating *imparfait* to simple past. The conclusion is reached that the temporal antecedent of a clause must be a fact to which the clause is related by means of a textual relation. The temporal relation characterized by this textual relation must correspond to the one provided by the grammatical tense of the clause (p. 115). This leaves wide open the "hot potato" of whether the temporal relations determine the textual ones or vice versa, which is currently the target of much discussion and disagreement in the literature.

Chapter 7, by two of the editors, Liliane Tasmowski–De Ryck and Carl Vetters, assumes as its central point of departure the parallel mentioned above between indefinite NPs and simple past (here called anadeictic), demonstratives and perfect tense, and definite NPs and the French *imparfait*. Certain observations with such tenses in discourse are accounted for, assuming, however puzzling, that the order of presentation of clauses is most often indicative of the order in which the described events occurred. The definite character of the *imparfait* is not explained as lacking dynamic force, but rather by appealing to the fact that events may be described in many possible ways.

Chapter 8, by Co Vet, makes good use of Structured Discourse Representation Theory and the two narrative strategies of Levelt (1982) for guiding someone through a maze, arguing that discourse types may be defined by notions of temporal deixis, pseudodeixis, and anaphora, which determine the choice of tense. This paper presents detailed and useful examples of SDRT representations of texts along with careful discussion.

The three remaining papers are of lesser quality, with Tuija Virtanen analyzing *then* as helping to segment textual boundaries, creating coherence or "to create a peak-salience profile of a narrative" (p. 177); Svetlana Vogeleer arguing that perceptual points of view are constructed as anchoring points for the interpretation of the *imparfait*; and Marc Wilmet distinguishing the logical *imparfait* from stylistic usage, claiming that reduction of the latter to the former would create incoherence.

Editorial work is rather thankless, as anyone who undertakes it must soon realize. A job well done is invisible by necessity, but a bad editorial job is often painfully obvious. This book would have profited considerably from much tighter editorial control of the often disparate and diverse terminology, with much more substantial cross-referencing of the themes, tools, and topics addressed. Some of the most valuable papers (Chapters 3, 4, and 8, especially) are excellent contributions to the current linguistic debates on tense and aspect. But collecting these with some papers that

barely exceed the level of a first-year graduate student in linguistics does them a disservice. A collection need not be united in tools or explanatory theoretical terms, but standards of clarity and rigor should apply across the board. Yet this book may prove useful to the ever-growing community of linguists working on tense and aspect in discourse. It contains authentic French texts, fresh data, also from Dutch and Arabic, and a plethora of interesting informal discussions of issues that lend themselves easily to logical formalization and computational analysis. A clear and concise statement of the issues for further research could have helped the reader, along with a positive assessment of the points of agreement and consensus. Lay-out is at times careless, with placement of trees at times forcing large white sections on some pages (for example, page 73), and an index would have been helpful.

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