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SEMANTIC TYPE, FACTIVITY AND THE EXPRESSION OF ADVERBIAL CLAUSES¹

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0. Introduction

This paper is an attempt to define a set of hierarchies which together predict the potential expression formats used within adverbial clauses representing several semantic types. Two parameters will be shown to be relevant for the selection of expression formats: one will be defined in terms of the type of entity referred to by the adverbial clause, the second concerns its degree of factivity. These parameters are discussed in sections 1 and 2 respectively. Section 3 then presents the correlations between semantic type, factivity, and the division of labour between finite and non-finite expression formats. More specific subdistinctions within the class of finite expression formats are studied in section 4.

1. Semantic types

1.1. Entity types

In Hengeveld (1989, 1992) I argue, extending the analysis proposed in Lyons (1977:442-7), that linguistic units may refer to entities of five different types, as listed in table 1.

1. The material treated in this paper, particularly the part on semantic types and factivity, is presented from a theoretical perspective in Hengeveld (f.c.), in which a formalization of the distinctions proposed is given within the framework of Functional Grammar (see Dik 1989). This paper is based on materials collected with the help of a questionnaire by a large number of linguists and native speaker informants. So far data have been received for 33 European languages. The native speakers and/or mediating linguists which contributed data for this project included Demetrio Arru (Sardinian), Maria Barmich (Nenets), Walter Bisang (Abkhaz, Avar, Georgian), Oda Buchholz (Albanian, Bulgarian, Modern Greek), Emma Geniushene (Lithuanian), Hartmut Haberland (Danish), Martin Haspelmath (Lezgian, Udmurt), Kees Hengeveld (Chuvash, Turkish), Olga Kapeliuk (Assyrian), Evangelos Karagiannis (Modern Greek), Azret-Ali Khasanov (Karachay-Balkar), Amalia Khatchatzian (Armenian), Bernd Kortmann (German, Latin), Leonid Kulikov (Tsez), Nina Lyskova (Mansi), Francesco Masala (Sardinian), Juan Carlos Moreno Cabrera (Basque, Catalan, Spanish), Thomas Müller-Bardey (Finnish), Igor Nedyalkov (Karachay-Balkar, Lithuanian, Mansi, Nenets), Dónall P. Ó Baoill (Irish, Welsh), Jon Ortiz de Urbina (Basque), Vasilka Radeva (Bulgarian), R. Radzhabov (Tsez), Paolo Ramat (Italian, Sardinian), Davide Ricca (Italian, Sardinian), Willem Soeteman (Dutch, Gothic, Rumanian), Maria Teresa Solias i Aris (Catalan), Johan van der Auwera (Kalmyk), and Ewa Zakrzewska (Polish). Not all of the data received had been processed at the moment at which this paper was finished.

Entity type	Description	Evaluation
Zero order	Property or Relation	Applicability
First order	Individual	Existence
Second order	State of affairs	Reality
Third order	Propositional Content	Truth
Fourth order	Speech Act	Felicity

Table 1 *Entity types*

An individual is a first order entity. It can be located in space and can be evaluated in terms of its existence. A state of affairs, or event, is a second order entity. It can be located in space and time and can be evaluated in terms of its reality. A propositional content is a third order entity. It can be located neither in space nor in time and can be evaluated in terms of its truth. A speech act is a fourth order entity. It locates itself in space and time and can be evaluated in terms of its felicity. The definition of first and fourth order entities is relatively unproblematic. A more complicated distinction is the one between states of affairs, or events, and propositional contents. Unlike states of affairs, propositional contents can be asserted, known, denied or questioned, i.e. "... they are entities of the kind that may function as the objects of such so-called propositional attitudes as belief, expectation and judgement" (Lyons 1977:445). Other pairs of terms which have been used to capture the same distinction between states of affairs and propositional contents include *event* and *fact* (Vendler 1967), *situation* and *attitude* (Barwise & Perry 1983), and *circumstance* and *thought* (Aronszajn 1988).

Zero order entities deserve special attention here. These are properties or relations that do not exist independently of other types of entity, but have to be predicated of those other types of entity, and can thus only be evaluated in terms of the appropriateness of their application to those other entities. Thus, properties such as color, size, and weight can only be appropriately predicated of first order entities; properties such as truth values can only be appropriately predicated of third order entities, etc.

1.2. Second, third, and fourth order adverbials

Within the context of adverbial subordination first order entities do not play a part, since they can only be expressed by means of noun phrases, not by means of clauses. The other four types do show up, however, in the form of adverbial clauses. First consider examples (1)-(3):

- (1) The fuse blew *because we had overloaded the circuit* (Cause - second order)
- (2) Jenny went home *because her sister would visit her* (Reason - third order)
- (3) Jenny isn't here, *for I don't see her* (Explanation - fourth order)

All of these examples are of a causal nature, yet they are all of a different type. The differences between them can be understood in terms of the entity types that these constructions designate.

The difference between Cause and Reason is in fact one that Lyons (1977) adduces to substantiate the distinction he makes between second and third order entities, that is, between states of affairs and propositional contents. In (1) the subordinate clause describes the event causing the main clause event, without there being any intentional involvement on the part

of an agent. In fact, there is no agent in (1). In (2) the reason adverbial does not cause the main clause event in any literal sense, but represents the consideration, idea, i.e. the propositional content that led a participant in the main clause event to engage in the main clause event.

There are several differences between Reason and Explanation as well. Several of these are discussed in Bolkestein (1991). Whereas the source of the reason in (2) is the main clause participant *John*, the source of the explanation in (3) is the speaker. Consequently, the adverbial clause cannot be interpreted as the reason for which the main clause event took place. Rather, it presents the considerations that led the speaker to arrive at the conclusion contained in the main clause, and can thus be seen as constituting a separate speech act.

There are a number of differences in the syntactic behaviour of these sentences that reflect the differences between the entity types they designate. Two of these are presented here. First, Reason clauses being propositional, they admit the expression of a propositional attitude, whereas Cause clauses do not:

- (4) Jenny went home because her sister might visit her
- (5) *The fuse blew because we might have overloaded the circuit

Second, Explanation clauses having an illocutionary component, illocutionary modifications may be expressed within them, whereas this is not the case with Reason clauses:

- (6) Jenny isn't here, for, honestly, I don't see her
- (7) *Jenny went home because, frankly, her sister would visit her

1.3. Zero order adverbials

The difference between zero order and second order adverbials is illustrated in (8)-(9):

- (8) Jenny left *crying* (Manner - zero order)
- (9) He cut himself *while shaving* (Simultaneity - second order)

The difference between these sentences is that in (8) the adverbial clause describes a secondary property (*crying*) of a participant (*Jenny*) in the main clause event, whereas in (9) the adverbial clause describes a secondary event (*shaving*) in which a participant (*he*) in the main clause event is engaged. This difference is reflected in the fact that in the case of Manner adverbials there is obligatory sharing of participants in main and subordinate clause, whereas in the case of Simultaneity there is not, as is illustrated in (10)-(11):

- (10) *Jenny left John crying
- (11) He cut himself while I was shaving

Note that (10) is ungrammatical under the intended reading only, i.e. under the interpretation in which *John* is the subject of *crying*.

1.4. Time dependency

Within the class of second order adverbials a further subdistinction can be made as to their time dependency. Consider the following examples:

- (12) The streets are wet *because it is raining* (Cause - second order)
 (13) He cut himself *while shaving* (Simultaneity - second order)

The adverbials in (12) and (13) both describe events taking place simultaneously with the main clause event. They differ in the fact that this simultaneity of main and subordinate event is obligatory in (13) whereas it is not in (12), witness the following examples:

- (14) The streets are wet because it has been raining
 (15) *He cut himself while having shaved

Thus, Simultaneity clauses have dependent time reference (DTR), whereas Cause clauses have independent time reference (ITR).²

1.5. Summary

The semantic types distinguished in sections 1.1.-1.4. are listed in table 2.

Semantic type	Adverbial illustrating	Example illustrating
Zero order	Manner	(8)
Second order DTR	Simultaneity	(9)
Second order ITR	Cause	(1)
Third order	Reason	(2)
Fourth order	Explanation	(3)

Table 2 *Semantic types of adverbials.*

2. Degree of factivity

2.1. Non-factive clauses

A second parameter along which adverbial clauses may be compared concerns their degree of factivity. Those that have been presented so far are all non-factive, i.e. they present pieces of information that are neither presupposed nor doubted. They rather describe relations presented by the speaker as applicable (zero order), events presented by the speaker as real (second order), propositions presented by the speaker as true (third order), or speech acts presented by the speaker as assertions (fourth order).

2. See Noonan (1985:92f) for an application of the notion of time reference dependency within the domain of complementation.

2.2. Factive adverbial clauses

Non-factive adverbial clauses should be distinguished carefully from factive adverbial clauses. Within non-factive clauses the speaker asserts certain pieces of information, within factive clauses he presupposes certain pieces of information. Factive adverbial clauses describe either events that are presupposed by the speaker to be real (second order - true factive) or propositional contents presupposed by the speaker to be true (third order - semi-factive).³

The examples in (16) and (17) contain factive adverbial clauses:

- (16) *Apart from doing the cooking* I look after the garden (Second order - Addition)
 (17) He got the job *although he had no qualifications* (Third order - Concession)

An Addition clause describes an event taking place in addition to the main clause event. A concessive adverbial clause describes a piece of information in view of which the information contained in the main clause would not be expected. Both adverbials are factive. The first is true factive, since it describes an event presupposed to take place or to have taken place. The second is semi-factive, since it contains a piece of information the speaker presupposes to be true.

The difference between these two sentences as regards the nature of their factivity is demonstrated in (18) and (19):

- (18) Does he look after the garden *apart from doing the cooking*?
 (19) *Did he get the job *although he had no qualifications*?

Whereas (18) is a perfectly acceptable question, (19) is acceptable only as an echo question, paraphrasable as 'Do you really want to say/imply: "He got the job *although he had no qualifications*"'. This is due to the fact that through the semi-factive *although* the speaker commits himself to the truth of the adverbial clause, which makes it unsuitable to occur as part of an open question.

2.3. Open adverbial clauses

Apart from the non-factive and factive adverbial clauses discussed so far, there is a class of adverbials which may be characterized as *open*, a term which is intended to cover both dubitative and potential adverbial clauses. Dubitative adverbial clauses contain propositional contents, i.e. third order entities, to which the speaker does not commit himself, whereas potential adverbial clauses describe non-realized but realizable events, i.e. second order entities. The following examples illustrate:

- (20) He won't get the job *if he has no qualifications* (Condition - third order)
 (21) I'll come tomorrow *in case Ann wants me* (Potential Circumstance - second order)

The difference between these two sentences is that, whereas in (20) the adverbial clause describes a condition on the validity of the main clause, the one in (21) describes an event potentially accompanying the main clause event. One of the effects of this difference is that

3. Note that the difference between true factivity and semi-factivity is linked up here directly with the distinction between second and third order entity.

the event described in the main clause in (21) occurs independently of whether or not the potential circumstance occurs, whereas in (20) the main clause is only valid if the condition is valid as well. A further phenomenon which shows that there is a fundamental difference between these is that within conditions reference can be made to potential and irrealis events, whereas with potential circumstances, being inherently potential, this is not the case:

(22) He wouldn't get the job if he had no qualifications

(23) *I wouldn't come tomorrow in case Ann wanted me

Within the class of open adverbial clauses designating second order entities a further subdistinction can again be made between those with independent time reference, such as Potential Circumstance adverbial clauses, illustrated in (24) and (25), and those with dependent time reference, such as Purpose adverbial clauses, illustrated in (26) and (27):

(24) I'm wearing my boots *in case it rains* (Potential Circumstance - second order ITR)

(25) I'm wearing my boots in case it has rained

(26) I left early *to catch the train* (Purpose - second order DTR)

(27) *I left early to have caught the train

2.4. Summary

The three classes of adverbials distinguished along the factivity parameter may now be crossclassified with the five classes classes of adverbials distinguished along the parameter of semantic types, as in figure 1.

	Zero order	Second order DTR	Second order ITR	Third order	Fourth order
Non-factive	Manner	Simultaneity	Cause	Reason	Explanation
Factive			Addition	Concession	
Open		Purpose	Potential Circumstance	Condition	

Figure 1 *Semantic types and degrees of factivity*

Note that within the grid in figure 1 not all cells are filled. This is due to the fact that not all degrees of factivity are relevant to all semantic types.

3. Finiteness and non-finiteness

The various types of adverbial clause listed in figure 1 may now be compared both horizontally and vertically along the two parameters that have been defined in sections 1 and 2. This comparison shows that in both cases there is a systematic correlation between the types of adverbial on the one hand and the expression format(s) used for those types of adverbial on the other. In this section I will concentrate on the use of finite and non-finite

verbforms within adverbial constructions. These turn out to have a remarkably systematic distribution across types of adverbial, which can be described by means of two hierarchies. The first is given in (28):

(28) *Finiteness and semantic type*

Zero order > Second order DTR > Second order ITR > Third order > Fourth order

This hierarchy should be read as follows: adverbial clauses are more likely to be expressed by finite means the more their semantic type is to the right on this hierarchy.

This hierarchy is by itself insufficient to account for all variation, since it interacts with a second hierarchy, given in (29):

(29) *Finiteness and degree of factivity*

Non-factive > Factive > Open

This hierarchy should be read as follows: adverbial clauses are more likely to be expressed by finite means the more their factivity type is to the right on this hierarchy.⁴

These hierarchies may now be combined into the two-dimensional grid given in figure 2.

		-finite > +finite				
		zero order	second order DTR	second order ITR	third order	fourth order
-finite V	non-factive	means	simul	cause	reas	expl
	factive	xxxx	xxxx	addit	conc	xxxx
+finite	open	xxxx	purp	p.circ	cond	xxxx

Figure 2 *Adverbial subordination and finiteness*

This grid shows (i) that the semantic type hierarchy in (28) should be applied to each of the factivity classes and is not necessarily valid across factivity classes, and (ii) that the factivity hierarchy in (29) should likewise be applied to each of the semantic types taken individually.

In tables 1-3 the result of the application of the semantic type hierarchy is given for each of the factivity classes. A + in these tables indicates that a clause is expressed by finite means, a - that it is expressed by non-finite means.

4. It is very probable that a fourth class could be added to the right of this hierarchy: contra-factive clauses have an even higher probability of being expressed by finite means than open ones. The available data do not permit a full assessment of this claim at this point, however. For this reason within the class of conditions only open ones are taken into consideration.

	Zero order	Second order DTR	Second order ITR	Third order	Fourth order
Language	Means	Simultaneity	Cause	Reason	Explanation
Tsez	-	-	-	-	parataxis
Georgian	-	-/+	-/+	-/+	+
Armenian	-	-/+	-/+	+	+
Greek, M	-	-/+	+	+	+

Table 1 *Semantic type hierarchy: non-factive adverbial clauses*

	Second order DTR	Third order ITR
Language	Addition	Concession
Tsez	-	-
Dutch	-/+	-/+
Georgian	-/+	+
Armenian	+	+

Table 2 *Semantic type hierarchy: factive adverbial clauses*

	Second order DTR	Second order ITR	Third order
Language	Purpose	Pot.Circ.	Condition
Tsez	-	-	-
Lithuanian	-	+	+
Armenian	-/+	+	+
Greek, M	+	+	+

Table 3 *Semantic type hierarchy: open adverbial clauses*

These three tables confirm the semantic type hierarchy (28) for each of the factivity domains. For reasons of space only some examples are given here, but there are hardly any counterexamples to this generalization in my data. Table 1 in particular is illustrative of the relevance of the semantic type hierarchy, since in the domain of non-factive adverbial clauses all semantic types can be tested. At the same time the table shows that all semantic types distinguished are relevant, since for each cut-off point in the hierarchy there is a language showing different (combinations of) expression formats for the semantic types bordering this cut-off point.

The factivity hierarchy in (29) may now also be applied to all the semantic types for which

such an application is relevant. The result is shown in tables 4-6.

	Non-factive	Open
Language	Simultaneity	Purpose
Tsez	-	-
Karachay	-	-/+
Dutch	-/+	-/+
Lithuanian	-/+	+

Table 4 *Factivity hierarchy: second order DTR*

	Non-factive	Factive	Open
Language	Cause	Addit	P.Circ
Tsez	-	-	-
Karachay	-	-	+
Dutch	-/+	-/+	+
Armenian	-/+	+	+
Greek, M	+	+	+

Table 5 *Factivity hierarchy: second order ITR*

	Non-factive	Factive	Open
Language	Reason	Conc	Cond
Tsez	-	-	-
Karachay	-	-/+	+
Nenets	-	+	+
Georgian	-/+	+	+
Armenian	+	+	+

Table 6 *Factivity hierarchy: third order*

These tables confirm the hierarchy given in (29) and again show that each of the categories distinguished within the hierarchy is relevant to the description the expression of adverbial clauses.

Combining the results of both hierarchies, one may say that non-finiteness is at its full strength in the top left corner of figure 2, closest to Manner, whereas finiteness is at its full strength in the right bottom corner of this figure, closest to Condition. Depending on the strength of each of the parameters, the resulting pictures for individual languages may differ considerably, as shown in figures 4-7, in which the expression formats for adverbial clauses of the types presented in figure 2 and repeated in figure 3 are given.

manner	simul	cause	reason	explanation
xxxxxx	xxxxxx	addition	concession	xxxxxx
xxxxxx	purpose	pot.circ	condition	xxxxxx

Figure 3 *Adverbial relations under investigation*

non-finite

-	-	-	-	parataxis
xxxxxx	xxxxxx	-	-	xxxxxx
xxxxxx	-	-	-	xxxxxx

finite

Figure 4 *Finiteness in Tsez*

non-finite

-	-	-	-	parataxis
xxxxxx	xxxxxx	-	+	xxxxxx
xxxxxx	-/+	+	+	xxxxxx

finite

Figure 5 *Finiteness in Nenets*

non-finite

-	-/+	+	+	+
xxxxxx	xxxxxx	+	+	xxxxxx
xxxxxx	+	+	+	xxxxxx

finite

Figure 6 *Finiteness in Modern Greek*

non-finite

-	-/+	-/+	-/+	+
xxxxxx	xxxxxx	-/+	-/+	xxxxxx
xxxxxx	-/+	-/+	-/+	xxxxxx

finite

Figure 7 *Finiteness in Dutch*

As these figures show, Tsez is a predominantly non-finite language, Modern Greek a predominantly finite language. Nenets occupies an intermediate position. The picture for Dutch shows that it is of a mixed type. All kinds of variants in between can be found, and can all be explained in terms of the two hierarchies proposed.

4. Finite forms

Within the class of finite forms further subdistinctions may be made with respect to mood-forms. Here I will pay attention to indicative, subjunctive, and conditional forms. Note that I use the term 'conditional mood' here to refer to finite verbforms which, without being accompanied by a conjunction, can be used to signal that the clauses in which they occur are conditions. Thus the term is not intended to cover the 'future in the past'. The uses of indicative, subjunctive, and conditional moodforms may, from a typological perspective, be described using the same parameters that were used to describe the use of finite and non-finite forms in general.

4.1. Subjunctive and Indicative mood

Figures 8 and 9 show how subjunctive and indicative forms are distributed.

		+ subjunctive		>			-subjunctive	
		zero order	second order DTR	second order ITR	third order	fourth order		
-subj. V +subj.	non-factive	means	simul	cause	reas	expl		
	factive	xxxx	xxxx	addit	conc	xxxx		
	open	xxxx	purp	p.circ	cond	xxxx		

Figure 8 *Adverbial subordination and subjunctive mood*

		-indicative		>			+indicative	
		zero order	second order DTR	second order ITR	third order	fourth order		
+indic. V -indic.	non-factive	means	simul	cause	reas	expl		
	factive	xxxx	xxxx	addit	conc	xxxx		
	open	xxxx	purp	p.circ	cond	xxxx		

Figure 9 *Adverbial subordination and indicative mood*

Since subjunctive and indicative present exactly the opposite picture and are most often in complementary distribution, the data illustrating the combined effect of the hierarchies in figures 8 and 9 may be presented simultaneously as in figures 10-12. (In these figures I = indicative, S = subjunctive, and 'irrelevant' indicates that the language does not use finite forms to express the adverbial relation concerned.)

irrelevant	I	I	I	I
xxxxx	xxxxx	I	I	xxxxx
xxxxx	S	I	I	xxxxx

Figure 10 *Subjunctive and Indicative in Bulgarian*

irrelevant	I	I	I	I
xxxxx	xxxxx	I	I	xxxxx
xxxxx	S	S	S	xxxxx

Figure 11 *Subjunctive and Indicative in Modern Greek*

irrelevant	S/I	I	I	I
xxxxx	xxxxx	I	I	xxxxx
xxxxx	S	S/I	I	xxxxx

Figure 12 *Subjunctive and Indicative in Spanish*

4.2. Conditional mood

With respect to the use of the conditional mood the distribution is as in figure 13.

		-conditional		>			+conditional	
		zero order	second order DTR	second order ITR	third order	fourth order		
-cond.	non-factive	means	simul	cause	reas	expl		
	factive	xxxx	xxxx	addit	conc	xxxx		
+ cond.	open	xxxx	purp	p.circ	cond	xxxx		

Figure 13 *Adverbial subordination and conditional mood*

Some data illustrating the combined effect of the two hierarchies in figure 13 are given in figures 14-16. Here a + indicates that the conditional mood is used, a - that it is not.

-	-	-	-	-
xxxxx	xxxxx	-	+	xxxxx
xxxxx	-		+	xxxxx

Figure 14 *Conditional mood in Lezgian*

-	-	-	-	-
xxxxx	xxxxx	-	+	xxxxx
xxxxx	-	+	+	xxxxx

Figure 15 *Conditional mood in Dutch*

-	-	-	-	-
xxxxx	xxxxx	-	+	xxxxx
xxxxx	+	+	+	xxxxx

Figure 16 *Conditional mood in Nenets*

4.3. Summary

The distribution of moodforms across the field of adverbial subordination may now be summarized as in figure 17.

				indicative
manner	simul	cause	reason	explanation
xxxxx	xxxxx	addition	concession	xxxxx
xxxxx	purpose	pot.circ	condition	xxxxx
subjunctive				conditional

Figure 17 *Subjunctive, conditional, and indicative mood*

For each moodform it can be claimed that, due to the combined strength of two parameters, it is most typical of one particular corner of the grid that has been used in this paper to

represent the area of adverbial subordination. The indicative is at its full strength at the top right corner, the subjunctive at the bottom left corner, and the conditional at the bottom right corner. The absence of a finite form typical of the top left corner is due to the fact that it is at this point that non-finiteness is at its full strength.

5. Conclusion

In this paper I have tried to show that from a typological perspective the expression of adverbial clauses is to a large extent determined by two hierarchies. The first can be defined in terms of the semantic types of adverbial clauses, that is, the entity types these clauses refer to. The second can be defined in terms of the degrees of factivity of adverbial clauses. Together these parameters determine the use of finite and non-finite forms and the use of specific moodforms. The two hierarchies which played a central part in this paper thus provide a powerful tool to describe and analyze systems of subordination. The data furthermore suggest that the two hierarchies determine the use of specific non-finite forms, and that the hierarchies are relevant to the field of complementation as well. The latter two claims have not been investigated in this paper, however.

References

- Aronszajn, Mark (1988) 'Thought and Circumstance'. *Journal of Semantics* 6.3/4:271-307.
- Barwise, J. and J. Perry (1983) *Situations and attitudes*. MIT Press, Cambridge (Mass.).
- Bolkestein, A. Machtelt (1991) 'Causally related predications and the choice between parataxis and hypotaxis in Latin', in R. Coleman (ed.), *New studies in Latin linguistics*. Benjamins, Amsterdam, 427-451.
- Dik, Simon C. (1989) *The theory of Functional Grammar. Part 1: The structure of the clause*. Foris, Dordrecht.
- Hengeveld, Kees (1989) 'Layers and operators in Functional Grammar', *Journal of Linguistics* 25.1:127-157.
- (1992) 'Parts of speech', in Michael Fortescue, Peter Harder & Lars Kristoffersen (eds.), *Layered structure and reference in a functional perspective*. Benjamins, Amsterdam, 29-55.
- (fc.) 'The internal structure of adverbial clauses', to appear in the Proceedings of the Vth International Conference on Functional Grammar, Antwerp, august 1992.
- Lyons, John (1977) *Semantics*. 2 vols. Cambridge: Cambridge University Press.
- Noonan, Michael (1985) 'Complementation', in Timothy Shopen (ed.), *Language typology and syntactic description*, Vol. II. Cambridge University Press, Cambridge, 42-140.
- Vendler, Zeno (1967) *Linguistics in philosophy*. Cornell University Press, Ithaca (NY).