8 Typology and Discourse Analysis

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0 Introduction

The relationship between typology and discourse analysis has been characterized by, on the one hand, a general ideological compatibility and, on the other, inherent practical difficulties in combining the interests of the two subdisciplines. The general ideological compatibility is the result of the subdisciplines sharing the view that the study of language should be based upon analysis of empirical data rather than thought experiments. In syntax, semantics, and even pragmatics, intuitions have played a central role in gathering data, and interaction with discourse analysis has tended to be controversial from the outset because of the emphasis in discourse analysis upon the empirical analysis of linguistic data. A discourse analyst interested in the subdiscipline's relationship with, for example, syntax must immediately discuss performance data and phenomena that mainstream syntacticians simply reject as irrelevant; thus any syntax combined with discourse analysis can only be nonmainstream syntax. No such ideological problem arises in the case of typology: intuitions play essentially no role in the data analyzed by typologists, and typologists are only too happy, in principle, to consider the possible relevance of discourse phenomena to the problems they investigate.

In practice, however, it has been difficult to integrate work in these two disciplines, because of various empirical difficulties. There has, therefore, been relatively little research which can be said to have been the product of the interaction between these subdisciplines. Much of what I write here will therefore be programatic, although I will also discuss findings in this area to exemplify what can be done.

Before proceeding, it will be necessary to describe what I am taking to be "typology." The prototypical typological study has data from a wide variety of genetically unrelated languages, analyzed within a common descriptive paradigm which makes it possible to directly, systematically, and (relatively) simply compare data from these various languages and propose hypotheses regarding human language in general. This type of study was pioneered by Joseph Greenberg (1966a, 1966b), who categorized a large number of languages according to, e.g., most common order of subject,

verb, and direct object, order of adposition and noun, etc., and, on the basis of this categorization, determined correlations which could be hypothesized as characteristic of human language in general (e.g. verb-object languages are very likely to have prepositions rather than postpositions). It is the use of a systematic common descriptive paradigm, allowing for direct comparison between a wide variety of languages, which distinguishes the methodology of typology from that of other approaches.

Within the field of discourse analysis, there have been many studies which have compared different languages but which would not, on this understanding, be considered to be specifically typological, because they are not focused upon developing a system for direct, systematic, and universal comparison of a wide variety of languages as Greenberg's studies were (e.g. Tannen 1981; Brown and Levinson 1987; Blum-Kulka 1991). Such works are discursive in nature, typically comparing English with one (or very rarely two) other language(s) and selecting examples which show how the languages differ in certain respects, or, alternatively, how they can fulfill similar discourse functions using constructions which may superficially appear to be different. Typically, there is no systematic, exhaustive, and quantitative analysis of a database, the examples are selected anecdotally depending upon which point the author wishes to make in a particular article without systematic demonstration that they represent a general pattern, comparison between actual usage in the languages is unsystematic, and it is not clear how additional languages would fit into the comparative framework of the study. Thus, although such studies are comparative, they are not really directed toward establishing a systematic universal framework for categorizing discourse phenomena in the way that Greenberg's studies established a systematic universal framework for categorizing syntactic phenomena. Because I am discussing the relationship of typology and discourse analysis, then, I will in the present chapter discuss those approaches which have been more similar to Greenberg's in this respect.

Section 1 of this chapter will describe general problems associated with methodology combining typology and discourse analysis. Sections 2 and 3 then discuss two approaches to these problems, the use of universal conceptual systems of classification and the use of translation data.

1 Problems of Typological Discourse Analysis

The study of discourse phenomena in a typological framework presents some inherent difficulties which are not found in other areas of typology. Traditional typological studies (Greenberg 1966a; Bybee 1985; Croft 1990) use as their main source of data reference grammars from a wide variety of languages, and the linguistic phenomena they consider are those which are likely to be found in a reference grammar, e.g. typical word order (of subject/object/verb, adposition/noun, etc.), structural characteristics of voice alternations, phonological inventory, etc. Unfortunately, this is not possible with the sort of phenomena typically of interest to discourse analysts. Existing reference grammars of less-known languages generally have very little in the way of discourse analysis, and what limited analyses they do have are not written in a way to allow for cross-linguistic comparison by someone who does not know the

language very well. For example, if I were to attempt to do a typological study of the functions of contrastive connectives similar to English *but*, I could probably gather a list of words in a wide variety of languages with some type of generally similar function, but it would be impossible on the basis of the descriptions of these particles in reference grammars to understand and then compare the functions of these different words.

Another problem for typological discourse analysis as compared with more traditional discourse analysis is the degree of familiarity of the researcher with the languages to be analyzed; in a typological study the linguist is not going to know all the languages under investigation very well, while in a traditional discourse study the investigator is likely to be a native speaker of or very proficient in the language(s) under investigation. While there are recorded cases of individuals knowing a large number of languages, these are typically closely related or at least related languages; in typological studies, on the other hand, it is typical to have data from languages from 15–20 different language families. Although this problem can be alleviated to some extent through reliance on texts with interlinear glosses, this still does not entirely make up for the researcher's lack of in-depth knowledge of the language; additionally, the languages in which there are a large enough number of such texts of reasonable length which can be the basis for a discourse study are concentrated in just a few language families (Austronesian, Australian, and Semitic in particular), while the great majority of language families have no languages at all with a large number of texts with interlinear glosses.

Because such studies are not really feasible, linguists interested in discourse analysis and typology have instead focused upon using a narrower range of languages with which they themselves have some expertise. Even in this case there has to be much more dependence upon observations of textual patterns (so that longer texts must be used) and much less upon introspective judgments than would be the case for linguists working in their native languages. In such a situation, we cannot expect the relatively quick and impressive types of language-universal generalizations which individual typological studies of, e.g., word order patterns have been able to produce; in fact, it is unlikely that any single researcher will be able to conduct studies of a genetically diverse enough group of languages to allow for the degree of confidence in universality which typologists are accustomed to. Rather, in order to achieve an extensive genetic spread, it is necessary for a variety of discourse analysts, each working in a number of languages, to develop a uniform means of systematically comparing their results from these different languages.

1.1 Cross-linguistic comparison of discourse function and categories

Aside from the question of which data to analyze, it is also necessary for typological discourse analysts to consider the nature of the discourse categories to be used. It is very common for linguists describing discourse categories in different languages to use the same words to describe something in the language they are investigating, e.g. "topic," "focus," "contrast," etc., but this does not mean that they are referring to the same discourse phenomena. For example, although the term "topic" has been used to

refer to a supposedly discourse-based category in a wide variety of languages, there is no cross-linguistic agreement about what a "topic" is. In each language, "topic" actually refers to whatever discourse properties result in a certain language-specific structure being used, so that the definition is a result of the language-specific pattern, and these structures in different languages actually serve clearly distinct functions. Thus in Japanese, anything marked with the postposition *wa* is called a "topic" (Kuno 1973), while in English, the term "topic" might be used for a clause-initial constituent whose syntactic role would call for some other position (e.g. **That book** *I don't like*), though usage differs (see Firbas 1966 and various articles in Li 1976 and Givón 1983a).[1]

Though linguists specializing in each of these languages may develop some sort of ostensibly discourse-based "definition" of a "topic" in this language (e.g. "What a sentence is about" or something which "sets a spatial, temporal, or individual framework within which the main predication holds" (Chafe 1976: 50)), these definitions are invariably quite vague. Thus, in practice, the only objective way to determine whether a constituent is actually a "topic" has been to apply some language-specific structural test (e.g. to see if it is marked with *wa* in Japanese). As a result, the "topics" in the different languages do not have the same discourse function at all, e.g. the translation of *I like Mary* into Japanese would have "I" as a "topic" (marked with *wa*), the translation of *I read the book* into Tagalog would have "the book" as a "focus" (marked with *ang*), etc. There is, then, no cross-linguistic idea of a "topic," and so such a category cannot serve as a basis for cross-linguistic comparison.

In order to deal with this problem of cross-linguistic comparison of function, linguists working in typological discourse analysis have focused upon developing a set of criteria which make it possible to give an objective, cross-linguistic definition of the discourse function of a particular form or construction. Using these criteria, a linguist can go through a text in a given language, note all the occurrences of a given form or construction in that language, determine numerical scores for that form or construction according to various parameters (e.g. for an NP, how recently its referent has been mentioned, whether it refers to a human being, etc.), and then compare these scores with those of other constructions in other languages. The question, of course, is exactly which scores should be used in which cases, and this is a matter of ongoing research. A second approach to the problem of comparison is to use translation data; we can get some idea of the functional similarity of and difference between constructions in different languages by seeing how often and in what circumstances they translate as each other. In section 2, I will discuss parameters used in classification of discourse function; in section 3, I will discuss the use of translation data.

2 Universal Systems of Classification of Discourse Function

I will describe here various text-count methods which have been developed to give an objective, cross-linguistically applicable description of the discourse function of a given construction. The use of such text counts does not suggest that speakers themselves go through any calculations similar to those of the linguist, nor does it imply

that a given text-count score will predict with 100 percent accuracy which construction will be used on each occasion. Rather, such counts are purely descriptive tools to allow for cross-linguistic comparison.

2.1 Referential distance and topic persistence

The most widely used text-counts, associated particularly with Talmy Givón and students of his, are called Referential Distance (RD) and Topic Persistence (TP). For each NP in a text, RD counts the last time its referent was referred to (including zero anaphora) in the preceding text (e.g. RD = 2 if it was referred to two clauses before), while TP counts how many times it is referred to in the following text (e.g. TP = 1 if it is referred to again in the following clause but not in the clause after that). We can say that an NP is generally more topical if its RD is low and its TP is high, but of course we are really measuring two types of topicality here, anaphoric (RD) and cataphoric (TP).

RD and TP counts make it possible to give a functional profile of a given construction or NP type. For example, suppose that we are trying to give a general characterization of the function of the active–passive alternation in English, e.g. *Bill wrote that book* vs. *That book was written by Bill*. We go through a text, collecting all active transitive and passive constructions, and then count the average RDs for the Agents of actives (*Bill* in *Bill wrote that book*), the Agents of passives (*Bill* in *That book was written by Bill*), the Patients of actives (*that book* in *Bill wrote that book*), and the Patients of passives (*That book* in *That book was written by Bill*). We then calculate the mean and median RD and TP scores for active Agents, passive Agents, active Patients, and passive Patients, or list the populations in a table. By doing similar studies in a variety of languages, we can systematically compare the discourse functions of active and passive constructions in different languages. This approach has been useful in providing a typological perspective on functional alternations, clarifying the discourse motivations underlying these alternations, and also sharpening the descriptive tools for typological descriptions; it does not suggest that speakers make such calculations in deciding which construction to use (although RD can be interpreted as being generally correlated with cognitive accessibility). In the remainder of this section, I will discuss a number of studies which have been done using these measures.

2.1.1 RD and TP in analysis of voice systems

Voice alternations in different languages have been characterized in various descriptive grammars in a variety of ways, in particular *Active* vs. *Passive*, *Direct* vs. *Inverse*, *Ergative* vs. *Antipassive*, and (for Philippine languages) *Agent Focus* vs. *Goal Focus*. However, the basis for such characterizations has often been unclear. Consider, for example, the following constructions in Tagalog:

(1) Bumasa ang lalaki ng diyaryo.
read man newspaper
"The man read a newspaper."

(2) Binasa ng lalaki ang diyaryo.
read man newspaper
"The man read the newspaper."

Case functions in Tagalog are marked by prepositions, here *ang* and *ng*. It is clear that *ang* marks intransitive subjects (e.g. *matalino ang lalaki* "intelligent *ang* man" = "The man is intelligent"). The question here is what general function to ascribe to *ang* and *ng*. One possibility is to say that *ang* marks subjects (both intransitive and transitive) and *ng* marks direct objects and oblique NPs. Then (1) would be an active construction, with *lalaki* as the subject and *diyaryo* as the direct object, while (2) would be a passive construction, with *diyaryo* as the subject and *lalaki* as the oblique Agent. Alternatively, we might say that *ang* is an absolutive case marker (marking intransitive subjects and direct objects), while *ng* is an ergative (transitive subject) and oblique case marker. Then (1) would be an antipassive construction (grammatically intransitive), with *lalaki* as the intransitive subject marked with the absolutive preposition *ang*, and *diyaryo* (which is in this case an oblique rather than direct object) marked with the oblique preposition *ng*, and (2) would be an ergative construction, with *lalaki* as the transitive subject, marked with the ergative preposition *ng*, and *diyaryo* as the direct object, marked with the absolutive preposition *ang*. In fact, earlier studies of Philippine languages (e.g. Schachter and Otanes 1972) used yet another type of terminology, referring to *ang* as marking "focused" constituents (which causes confusion of another type in terms of cross-linguistic comparison, since the term "focus" is usually used with some sort of entirely different meaning) and *ng* as marking certain nonfocused constituents, so that (1) is an "Actor Focus" construction while (2) is a "Goal Focus" construction. Similar labeling problems arise in many other languages (see Givón 1994).

The result of all of this has been that grammars of different languages have used a bewildering variety of labels for different constructions and it is unclear how to compare these. In response to this problem, linguists interested in functional factors such as discourse role began to develop discourse criteria for distinguishing these different types (see Givón 1994). The general criteria which have come out of these studies are:

1 The functionally unmarked type, which I will refer to by the general name **direct** (including constructions which have been called "Active" and "Ergative"), typically has an Agent (A) which is somewhat more topical (e.g. lower RD, higher TP) than its Patient (P).
2 If a construction is particularly used when the Patient is very high in topicality, this construction is referred to as an **inverse**. Such constructions can be used even when the Agent is relatively topical as well, in situations where the relatively high topicality of the Agent would prevent the use of a Passive.
3 If a construction is particularly used when the Agent is very low in topicality, this construction is referred to as a **passive**.
4 If a construction is particularly used when the Patient is very low in topicality, this construction is referred to as an **antipassive**.

Let us now see more specifically how text counts can be used as diagnostics for categorization of particular constructions in particular languages (table 8.1).

Table 8.1 Voice alternations in Koyukon and Dyirbal

		N	*A RD*	*A TP*	*P RD*	*P TP*
Koyukon	(a)	100	2.22	5.45	2.91	3.76
	(b)	110	4.99	3.90	1.51	6.83
	(c)	50	–	–	8.45	1.86
Dyirbal	(a)	225	3.42	2.00	5.19	1.16
	(b)	44	1.45	2.20	10.57	0.86

Data sources: Thompson (1994) (Koyukon); Cooreman (1988) (Dyirbal)

Each of the labels (a), (b), and (c) in table 8.1 refers to a particular construction in these languages, and the data in these tables can be used in combination with the characterizations of the different voice types given above to label these constructions in a cross-linguistically comparable and consistent manner. For both of these languages, the (a) construction is **direct/active**, having an Agent which is somewhat higher in topicality than its Patient (but the difference is not as great as would be characteristic of an antipassive construction). The Koyukon (b) construction has a P which is very high in topicality (the lowest RD and highest TP of any of the constructions here), and its A is not particularly high or low in topicality; this is therefore an **inverse** construction. The A in the Koyukon (c) construction, on the other hand, is very low in topicality (in fact obligatorily absent), and so this is a **passive** construction. The Dyirbal (b) construction is particularly characterized by having a very nontopical P (high RD, low TP), and so we can call this an **antipassive** construction (see Givón 1994 for similar discussion of a number of other languages).

2.1.2 RD and word order

Linguists have also applied RD to investigating word order variation. Studies from a variety of languages have found that preverbal arguments have on average a higher RD than postverbal arguments (there does not seem to be any corresponding clear pattern relating TP and word order). Table 8.2 shows data in this regard from a number of languages.

Table 8.2 RD and word order in four languages

	Ute (s)	*Ute (o)*	*Biblical Hebrew*	*Spanish*	*Chamorro*
Postverbal	1.81 (86)	4.21 (14)	6.52 (357)	3.54 (41)	7.45 (200)
Preverbal	5.49 (114)	7.78 (46)	10.64 (112)	8.55 (170)	10.90 (96)

Notes: Numbers are RD (N-size). All data are for subjects, except Ute (o), which is for direct objects.
Data sources: Givón (1983b) (Ute); Fox (1983) (Biblical Hebrew); Bentivoglio (1983) (Spanish); Cooreman (1983) (Chamorro)

These data have been taken from languages which are generally verb-initial (Biblical Hebrew and Chamorro), SVO (Spanish), and where the verb most often follows both the subject and the object (Ute) (see other studies in Givón 1983a showing a similar pattern); thus there is reason to suppose this may be a universal pattern. At first this appears surprising, because an often-repeated theme of functional linguistics is that "old information precedes new information" (e.g. Contreras 1978), whereas the data in table 8.2 suggest the reverse, that arguments are more likely to precede the verb if their RD is higher, so that they represent *newer* information. However, it is possible to suggest a resolution to this apparent contradiction (although this is speculative and should be checked against more data). Claims that old information generally precedes new information have been made on the basis of data from European languages which are generally SVO, using an existential-presentative construction like *On the roof stood a chimney*, where the preverbal roof is old information and the postverbal chimney is new information. It is possible that the distinctive use of VS order in this existential-presentative construction is specific to SVO languages, that such constructions constitute the only basis for the general claim that "old information precedes new information," and that if these constructions in these SVO languages are excluded, the reverse is generally true, and "new information precedes old information," as suggested by the data in table 8.2. Supporting this idea is the fact that in the data from the only SVO language here, Spanish, the researcher specifically excluded existential-presentative constructions from the counts (see Bentivoglio 1983); if these constructions are included, the picture changes, as the postverbal subjects have a *higher* RD (11.99, N = 141) than the preverbal ones (8.22, N = 180).[2]

2.2 *Temporal sequencing*

Another criterion for categorizing discourse function in different languages is **temporal sequencing** or **foregrounding**. Introduced in Labov (1972) (as the concept "narrative clause"), this was first extended to data in a variety of languages in Hopper (1979). According to this criterion, a clause is temporally sequenced if it has past time reference and refers to the next event in a story line (e.g. the second clause, but not the first, in *I was reading in the library and this guy came up to me . . .*). The sequencing function has been related to alternations in word order, voice, and verb form. For example, Schiffrin (1981) shows that the English historical present is associated with temporally sequenced clauses, while Hopper (1979) shows that temporal sequencing is associated with the use of the verbal forms with a *di*-prefix in Malay. Myhill (1992) argues that, in languages with a relatively high frequency of VS order, sequencing is particularly associated with VS word order, while SV order is associated with unsequenced clauses. On the other hand, in languages with a lower frequency of VS order, this correlation is not found. This is shown by the data in table 8.3 (see also data from Old English in Hopper 1979).

The Biblical Hebrew data here are particularly striking, in that they show that when the language changed to a lower frequency of VS order, the association between temporal sequencing and VS order disappeared. The concept of temporal sequencing therefore makes it possible to make a typological generalization regarding word order type.

Table 8.3 Word order and temporal sequencing

	Tzotzil	*EBH*	*Chorti*	*Spanish*	*LBH*	*Romanian*
All	80 (899)	65 (1099)	51 (184)	44 (2000)	40 (420)	31 (554)
Sequenced	92 (244)	80 (546)	72 (320)	58 (316)	20 (85)	22 (113)
Unsequenced	76 (655)	49 (553)	47 (152)	41 (1684)	46 (335)	33 (441)

Notes: Numbers are VS% (N-size). EBH = Early Biblical Hebrew, LBH = Late Biblical Hebrew.
Data sources: Givón (1977) (Hebrew); Myhill (1984) (others)

2.3 Other types of text-counts

Linguists have proposed other types of text-counts which can be useful in giving a profile of the discourse function of a construction. Myhill and Xing (1996) propose a definition of the term "contrast" which can be objectively applied to naturally occurring usages so as to categorize individual clauses as contrastive or not (and also to distinguish between different subtypes of contrast), so that one or another contrastive function can be shown to be statistically associated with the use of a certain word order, intonation pattern, or particle (e.g. Japanese *wa*, Korean *-(n)ɯn*). In Forrest's (1994) study of voice alternations in Bella Coola, in addition to counts associated with NP information status such as RD and TP, she also uses a text-count distinguishing between NPs which refer to major characters in a story and those which do not, and shows that variation on this parameter correlates with the use of one or other voice construction. A related and more objective and universally applicable (though also more time-consuming) type of measure is Topicality Quotient, described in Thompson (1989). To determine this, one counts the number of clauses in which a referent is referred to in an entire text, divides this by the number of total clauses in the text, and then assigns this score to every mention of this referent. Other possible counts categorize referents according to their humanness, animacy, number, referentiality, function in previous clause, form (e.g. pronoun, unmodified noun, modified noun, common noun, proper noun, etc.), or, for that matter, anything else the linguist thinks is important which can be coded objectively.

3 Translation Data

Translation provides another means of comparing discourse functions in different languages. It is useful in that it gives some idea of the functional similarity or difference between constructions in different languages. For example, in Dryer's (1994) study of voice in Kutenai, he asked a bilingual Kutenai–English speaker to translate a Kutenai text into English. He found that, out of 70 clauses using a certain Kutenai construction clearly associated with highly topical Patients, only nine were translated into English as passives, the rest being translated as actives, suggesting that this Kutenai construction is functionally like an inverse rather than a passive.

Sometimes, translation data show that text-counts such as RD and TP do not give a true picture of the functional similarity or difference between different constructions in different languages. For example, Sun and Givón (1985) use data such as RD and TP to argue that object-fronting constructions in Chinese and Biblical Hebrew serve basically the same function. However, Myhill and Xing (1993) show that, if we look at translation data, we see that the object-fronting constructions in these languages are frequently not translated as each other; for example, of 82 OV constructions in a Biblical Hebrew database, 48 (59%) do *not* use an OV construction in the Chinese translation, while of 193 OV constructions in the Chinese translation, 159 (82%) do *not* use an OV construction in the Hebrew original. In other words, in the majority of cases, an OV construction in one language would not be used where an OV construction would be used in the other language. This shows that the Hebrew and Chinese OV constructions clearly differ significantly in discourse function, in spite of their RD and TP scores.

In such a situation, where established criteria for cross-linguistic comparison suggest functional similarity which is demonstrated to be incorrect by translation data, linguists interested in cross-linguistic comparison must develop other criteria which will capture these differences. In the case of the comparison of Biblical Hebrew and Chinese object-verb constructions, Myhill and Xing (1996) develop a text-count for contrast (see section 2.3 above), distinguishing between several subtypes of contrast, in order to describe exactly how these constructions are similar in function and how they are different; they find that certain types of contrastive functions result in OV order in both languages, but for other contrastive functions, only Biblical Hebrew fronts objects, while for still others, only Chinese does.

Another use of translation data can be to make it possible to distinguish between different functions which a particular construction can serve in a manner which is objective and uses parameters which languages themselves treat as significant; the studies described in section 2.1 make no such functional distinctions but simply lump all structurally similar constructions together. Myhill and Xing (1994) is a contrastive study of voice in Chinese, English, and Biblical Hebrew of this type, using Chinese and English translations of Genesis. Myhill and Xing divide up the database into one of a number of types of clauses, where all of the clauses in each type use a particular Hebrew construction translated as a particular Chinese construction and a particular English construction, and give a functional characterization of the type in general. Thus, for example, the combination of an English passive, a Chinese Patient–verb construction (suppressing the Agent), and a Hebrew niphal (an intransitive form often like a passive) occurs 12 times in the translation database, characteristically having an obscure Agent and an inanimate Patient (e.g. *The fountains of the deep and the floodgates of the sky were stopped up* (Genesis 8:2)), while the combination of an English passive, a Chinese active, and a Hebrew niphal occurs 19 times, characteristically with future time reference and a first or second person Agent (implied in the English and Hebrew, e.g. *By this you will be put to the test*, but Chinese *wo yao shiyishi nimen*, lit. "I will test you" (Genesis 42:15)), so that Chinese is the only one of the three languages which does not use an agent-suppressing construction to avoid mentioning first or second person Agents in such a potentially sensitive situation; similar patterns were found with other combinations of translations. Translation data of this type make it possible to divide up the functions of each of the constructions involved

into subtypes and make the functional differences between the constructions in the different languages explicit.

Although translations are helpful in comparing functions across language, they have limitations. The most basic problem is the fact that, for many pairs of languages (e.g. Luganda and Zuni), it is hard to get direct translation data. One possibility is to use material from a third language which has been translated into both (the Bible is the most likely source here); another is for the linguist to get native speakers to make translations, although this will often be problematic as it will likely have to be done through a third language. Another problem with translations is that there is some tendency to translate according to certain conventions, with certain constructions translating as certain constructions and certain words translating as certain words even in cases where this might not result in the most idiomatic translations; for this reason, translation data are most significant when the translator does *not* follow the usual translating conventions, as this identifies cases where the functional differences between the constructions or words in question are great enough to overcome fixed translation practices.

A good source of cross-linguistic data is *The Pear Stories* (Chafe 1980a). A silent film was shown to people with a variety of first languages (more than 50 of English, at least 20 of Chinese, Japanese, Malay, Thai, Persian, Greek, German, Haitian Creole, and Sacapultec (Mayan)), and they were asked to retell the story in their own language. In this case there is no actual language-to-language translation, although the texts in the different languages are to some extent parallel. The linguistic studies which have been done of these stories, however, have thus far not been typological in nature, either focusing upon the question of how people report the plot of the movie in a single language (e.g. Chafe 1980b) or comparing English with a single other language without any attempt to integrate this into a general cross-linguistic framework for typological analysis (e.g. Tannen 1980).

4 Conclusion

Typology and discourse analysis are fields which have much to offer each other. Typological studies can provide a basis for discourse studies by offering a point of reference for discourse phenomena other than comparison with individual "other languages," which almost always turn out to be English. Discourse analysis offers typology a way of comparing different constructions in different languages and sorting through the enormous terminological confusion and inconsistency found in reference grammars which have plagued typological studies. There has thus far been relatively little work integrating these approaches, because of the inherent problems I have discussed, but some progress has been made in this regard. The most likely source of a breakthrough in this area is the development of a megacorpus of translation materials from a single text into a wide variety of genetically unrelated languages, with interlinear glosses, using perhaps the Bible, some other widely translated work, or *The Pear Stories*; a large enough corpus would to some extent mitigate the problems inherent in translation data. It will also be necessary to undertake further studies along the lines of Givón (1983a, 1994), where a number of researchers apply similar

text-count methodology to study similar structural phenomena in texts from a variety of genetically diverse languages, but the methodology should be expanded to include not just RD and TP (useful though these have shown themselves to be) but other text-count methods as well. Another welcome move would be the development and application of similar text-count methods to the cross-linguistic analysis of other phenomena of concern to discourse analysts, e.g. politeness, definiteness, discourse particles, etc. Because typological discourse analysis has developed out of traditional typology, it has focused more upon issues such as word order and voice, which can be more directly related to syntax, but there is no reason why this has to continue to be the case in the future.

NOTES

1 A similar problem arises for "focus," which means a completely different thing when referring to Somali, Tagalog, Hungarian, or other languages.

2 Herring (1990) suggests a different type of universal account of word order patterns, one based upon categories which she refers to as "continuous topic," "shifted topic," "contrastive focus," and "presentative focus," and relating the position of these in a given language to the unmarked order of subject and verb in that language. Although Herring's proposals are interesting, she does not give quantitative data or an objective definition of exactly what she means by e.g. "continuous topic," nor does she attempt to integrate her findings with those of the papers in Givón (1983a); this should be addressed in future research.

Payne (1992) has a number of papers discussing factors affecting word order in a variety of languages from a functional perspective. I am not focusing on the papers in that volume because of space limitations and because they are not intended to provide a systematic comparative typological framework as are the papers in, e.g., Givón (1983a, 1994).

REFERENCES

Bentivoglio, Paola. 1983. Topic continuity and discontinuity in discourse: a study of spoken Latin-American Spanish. In Givón 1983a, pp. 255–312.

Blum-Kulka, Shoshana. 1991. Interlanguage pragmatics: the case of requests. In R. Phillipson, ed., *Foreign/Second Language Pedagogy Research*, pp. 255–72. Clevedon: Multilingual Matters.

Brown, Penelope and Stephen C. Levinson. 1987. *Politeness: Some Universals in Language Usage*. Cambridge: Cambridge University Press.

Bybee, Joan L. 1985. *Morphology*. Amsterdam: John Benjamins.

Chafe, Wallace L. 1976. Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In Li 1976, pp. 25–56.

Chafe, Wallace L., ed. 1980a. *The Pear Stories*. Norwood, NJ: Ablex.

Chafe, Wallace L. 1980b. The deployment of consciousness in the production

of a narrative. In Chafe 1990a, pp. 9–50.
Contreras, Heles. 1978. *El orden de palabras en español*. Madrid: Catedra.
Cooreman, Ann. 1983. Topic continuity and the voicing system of an ergative language: Chamorro. In Givón 1983a, pp. 425–90.
Cooreman, Ann. 1988. Ergativity in Dyirbal discourse. *Linguistics* 26:717–46.
Croft, William. 1990. *Typology and Universals*. Cambridge: Cambridge University Press.
Dryer, Matthew. 1994. The discourse function of the Kutenai inverse. In Givón 1994, pp. 65–100.
Firbas, J. 1966. Non-thematic subjects in contemporary English. *Traveaux Linguistiques de Prague 2.*
Forrest, Linda B. 1994. The de-transitive clause in Bella Coola: passive vs. inverse. In Givón 1994, pp. 147–68.
Fox, Andrew. 1983. Topic continuity in Biblical Hebrew narrative. In Givón 1983a, pp. 215–54.
Givón, Talmy. 1977. The drift from VSO to SVO in Biblical Hebrew: the pragmatics of tense-aspect. In C. N. Li, ed., *Mechanisms of Syntactic Change*, pp. 181–254. Austin: University of Texas Press.
Givón, Talmy, ed. 1983a. Topic continuity in discourse. Amsterdam: John Benjamins.
Givón, Talmy. 1983b. Topic continuity and word-order pragmatics in Ute. In Givón 1983a, pp. 141–214.
Givón, Talmy, ed. 1994. *Voice and Inversion*. Amsterdam: John Benjamins.
Greenberg, Joseph. 1966a. Some universals of grammar with particular reference to the order of meaningful elements. In J. H. Greenberg, ed., *Universals of Grammar*, 2nd edn, pp. 73–113. Cambridge, Mass.: MIT Press.
Greenberg, Joseph. 1966b. Language universals, with special reference to feature hierarchies. *Janua Linguarum, Series Minor, 59*. The Hague: Mouton de Gryter.
Herring, Susan C. 1990. Information structure as a consequence of word order type. *Berkeley Linguistics Society* 16:163–74.
Hopper, Paul J. 1979. Aspect and foregrounding in discourse. In T. Givón, ed., *Discourse and Syntax*, pp. 213–41. New York: Academic Press.
Kuno, Susumu. 1973. *The Structure of the Japanese Language*. Cambridge, Mass.: MIT Press.
Labov, William. 1972. The transformation of experience in narrative syntax. In W. Labov, *Language in the Inner City*, pp. 354–96. Philadelphia: University of Pennsylvania Press.
Li, Charles, ed. 1976. *Subject and Topic*. New York: Academic Press.
Myhill, John. 1984. A study of aspect, word order, and voice. University of Pennsylvania, PhD dissertation.
Myhill, John. 1992. Word order and temporal sequencing. In Payne 1992, pp. 265–78.
Myhill, John and Zhiqun Xing. 1993. The discourse functions of patient fronting: a comparative study of Biblical Hebrew and Chinese. *Linguistics* 31.1:25–57.
Myhill, John and Zhiqun Xing. 1994. A comparison of the function of voice in Biblical Hebrew, Chinese, and English. *Language Sciences* 16.2:253–83.
Myhill, John and Zhiqun Xing. 1996. Towards an operational definition of discourse contrast. *Studies in Language* 20.2:313–70.
Payne, Doris, ed. 1992. *The Pragmatics of Word Order Flexibility*. Amsterdam: John Benjamins.
Schachter, Paul and Fe T. Otanes. 1972. *Tagalog Reference Grammar*. Berkeley: University of California Press.
Schiffrin, Deborah. 1981. Tense variation in narrative. *Language* 57:45–62.

Sun, Chaofen and Talmy Givón. 1985. On the SOV word order in Mandarin Chinese. *Language* 61:2.

Tannen, Deborah. 1980. A comparative analysis of oral narrative strategies: Athenian Greek and American English. In Chafe 1980a, pp. 51–88.

Tannen, Deborah. 1981. Indirectness in discourse: ethnicity as conversational style. *Discourse Processes* 4:221–38.

Thompson, Chad. 1989. Voice and obviation in Navajo. In *Proceedings of the Fourth Annual Meeting of the Pacific Linguistics Conference*, pp. 466–88. Eugene: University of Oregon Department of Linguistics.

Thompson, Chad. 1994. Passive and inverse constructions. In Givón 1994, pp. 47–64.